

VArchive

The Immanuel
Velikovsky Archive

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Im. Velikovsky

This archive is being maintained by a team of historians to ensure the integrity and preservation of Immanuel Velikovsky's unpublished writings; it is strictly non-profit and its sole purpose is the advancement of education and scholarship.

Days and Years, an autobiography giving an account of Velikovsky's life from the earliest years until 1958.

Before the Day Breaks, the story of Velikovsky's discussions with Einstein on the role of electromagnetism in the universe.

In the Beginning, the story of the catastrophes that preceded those described in *Worlds in Collision*.

The Dark Age of Greece, a critical examination of the mysterious gap of close to five centuries thought to follow the Mycenaean civilization.

The Assyrian Conquest, a volume in the *Ages in Chaos* series, covering the period from the end of the Amarna Period to the time of Ramses II.

Collected Essays, comprising articles and fragmentary manuscripts such as *Shamir*, *The Secret of Baalbek*, *Sinai and Olympus*, *Test of Time*, *The Orbit* and the 'Observer' editorials.

The Psychoanalytic Papers from the years between the two world wars when Velikovsky was a practicing psychoanalyst.

Correspondence selections from Velikovsky's scholarly correspondence spanning more than fifty years.

More Federn correspondence from 1957-58

Lectures including an [audio recording](#) of Velikovsky's talk at Eastern Baptist College in Wayne, Pennsylvania and [transcripts](#) from the 1974 AAAS Symposium.



DAYS AND YEARS

by

Immanuel Velikovsky

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BEFORE THE DAY BREAKS

by

Immanuel Velikovsky

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IN THE BEGINNING

by

Immanuel Velikovsky

*Come, weigh me the weight of the fire
or measure me the measure of the wind
or recall me the day that is past.*

IV Ezra

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by

Immanuel Velikovsky

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Immanuel Velikovsky

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Immanuel Velikovsky

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THE PSYCHOANALYTIC PAPERS

by

Immanuel Velikovsky

*The limits of soul you could not discover
though you journeyed the whole world,
so deep a measure it has.*

Heraclitus, *On the Universe*, lxxi

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THE VELIKOVSKY CORRESPONDENCE

If you have corresponded with Immanuel Velikovsky on any topic of historical or scientific significance and would like this correspondence to be included in this archive, please [send to the editors](#) complete, unedited texts as an e-mail attachment in html or standard word-processor format. Or simply fax the letters to our Idaho number: (208) 730-3332.

[A - D](#)

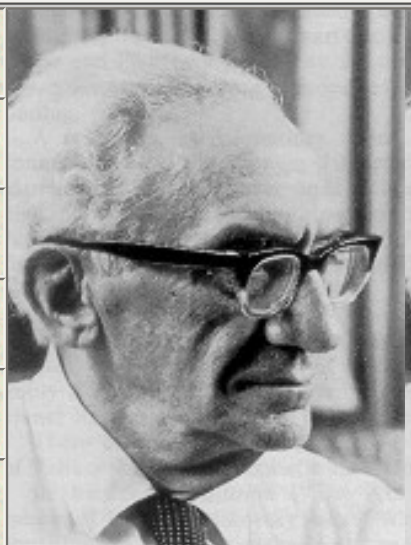
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The Federn - Velikovsky Correspondence

[Walter Federn](#)

| | |
|---|---|
| Walter Federn to Immanuel Velikovsky | * |
| <u>Immanuel Velikovsky to Walter Federn</u> | <u>September 1942</u> , (draft) |
| <u>Walter Federn to Immanuel Velikovsky</u> | <u>April 20/21, 1946</u> |
| <u>Immanuel Velikovsky to Walter Federn</u> | <u>May 22, 1946</u> |
| <u>Immanuel Velikovsky to Walter Federn</u> | <u>May 30, 1946</u> |
| <u>Immanuel Velikovsky to Walter Federn</u> | <u>June 13th, 1946</u> |
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| Walter Federn to Immanuel Velikovsky | August 8, 1947 |
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| Immanuel Velikovsky to Walter Federn | January 8, 1948 |
| Walter Federn to Immanuel Velikovsky | September 28, 1953 |
| Immanuel Velikovsky to Walter Federn | September 30, 1953 |
| Walter Federn to Immanuel Velikovsky | October 6, 1953 |
| Immanuel Velikovsky to Walter Federn | October 13th, 1953 |
| Walter Federn to Immanuel Velikovsky | November 30, 1953 |
| Immanuel Velikovsky to Walter Federn | December 13, 1953 |
| Immanuel Velikovsky to Walter Federn's brother | April 29, 1954 |
| Walter Federn to Immanuel Velikovsky | June 8, 1955 |
| Immanuel Velikovsky to Walter Federn | April 20, 1956 |
| Immanuel Velikovsky to Walter Federn | May 29, 1956 |
| Immanuel Velikovsky to Walter Federn | September 16, 1956 |
| Immanuel Velikovsky to Walter Federn | September 28, 1956 |
| Immanuel Velikovsky to Walter Federn | October 29, 1956 |
| Immanuel Velikovsky to Walter Federn | November 6, 1956 |

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| <u>Walter Federn to Immanuel Velikovsky</u> | <u>April 16, 1957</u> |
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| <u>Immanuel Velikovsky to Walter Federn</u> | <u>August 5, 1957</u> |
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| <u>Immanuel Velikovsky to Walter Federn</u> | <u>December 5, 1965</u> |





THE VELIKOVSKY LECTURES

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Eastern Baptist College

“From Book to Book and Land to Land”

May 5, 1966



(click on the photo to play the audio)

This is an audio file, compressed using the standard MP3 format, of Velikovsky’s lecture “From Book To Book And Land To Land,” at Eastern Baptist College in Wayne, Pennsylvania. It lasts just over 51 minutes.



Transcripts of the Morning and Evening Sessions
of the A.A.A.S. Symposium on
“Velikovsky’s Challenge to Science”
held on February 25, 1974

Transcribed and Edited
by Lynn E. Rose

INTRODUCTION

Full, verbatim transcripts were prepared by me between 1977 and 1979, covering both the Mornig Session and the Evening Session of the A.A.A.S. Symposium in San Franscisco; these were based not only upon my own tapes but also upon other tapes kindly provided by Warner B. Sizemore and by Frederic B. Jueneman. A few spots that have remained inaudible are marked with “[?],” “[inaudible],” or the like.

*The prepared papers themselves are simply mentioned at the points where they were delivered; they are not included as part of the transcripts. All six of the speakers eventually published papers elsewhere anyway, either in *Pensée IVR VII* or in *Scientists Confront Velikovsky*, or in *Velikovsky and Establishment Science (Kronos III:2)*. Velikovsky’s paper was ready to be printed on the very day of the Symposium, and three of the other papers were also published more or less as delivered. In various noteworthy respects Huber’s paper was established altered prior to publication (See *Kronos IV:2*, especially pages 33-34 and 53-54). Sagan’s own paper, as many now realize, was radically revised and greatly expanded, virtually into a new paper. Much of that new paper, including all of the much-touted Appendices, was not seen by Velikovsky or by any of his supporters until nearly two years after the Symposium. Meanwhile, Velikovsky was being required to answer in 30 days a paper that Sagan had taken nearly two years to produce! But that is another story.*

The editing of the transcripts themselves has in nearly all cases been by way of deletion. If a speaker repeated the same word, or the same string of words, I have deleted the repetitious material. If a speaker made an error, and immediately corrected that error, I have deleted the incorrect version. If a speaker began a sentence, abandoned it, and started a new sentence, I have deleted the incomplete sentence. (All “uhs” and the like have also been deleted.)

If a speaker made an error, and did not correct it himself, I have not amended his actual remarks. In such situations, and in other situations as well, I have sometimes inserted editorial notes in square brackets. But I emphasize that everything not in

square brackets was actually spoken.

For the sake of readability, I have sometimes deleted a superfluous word, or even an inappropriate s. In other cases, an ungrammatical form has been deleted in its entirety, but then replaced by the correct form in square brackets.

Let me illustrate some of these editorial procedures. When Velikovsky referred to his New York Times article of the “twenty-first of July, nineteen thirty-sixty-nine,” I simply deleted the “thirty.” But when Velikovsky referred to Hatshepsut of the “Nineteenth Dynasty,” and did not catch himself, I let that stand, and added a correction in square brackets. At one point Storer’s actual remarks were: “No, I don’t, I don’t think that the, the panel has been set up. It’s not rigged. and as far—It’s, It’s an occason for the public to watch a scientific debate.” After deletion of the repetitions and the false start, this became: “No, I don’t think that the panel has been set up. It’s not rigged. It’s an occasion fro the public to watch a scientific debate.”

Two of the participants (Velikovsky and Huber) were not native speakers of English, but I think it should be pointed out that the remarks of all of those who spoke (myself as well, when I rasied a question from the audience) seemed to cry out for the kind of vetting by deletion that I have just illustrated in the case of Storer. All of the participants have benefitted about equally from this. In no case have any of the editing procedures affected matters of substance.

Lynn E. Rose

THE MORNING SESSION

KING:

Good morning. I would like to welcome you to this first session of the American Association for the Advancement of Science, and to apologize, first of all, for our delay in getting started. One of our speakers has not yet arrived.

One of the funcitons of the A.A.A.S. is to act as a bridge between scientists and the public, and, as science becomes more specialized, this responsibility becomes more important.

Today we are going to consider a set of ideas that have at their core a completely unconventional picture of planetary motion. Most scientists would say that this picture is totally impossible, because it violates many of the most firmly established principles of physics.

To this Dr. Velikovsky would reply that there is overwhelming evidence that these events really did occur, and that, if they cause difficulties for the scientists, it is up to the scientists to resolve their own problems.

No one who is involved with the organization of this symposium believes that Dr. Velikovsky's ideas are correct. Yet millions of people have read his books, and, after more than twenty years of condemnation by the scientific establishment, he still has a large and often devoted following.

It is for this reason that we believe that discussion of his ideas at a meeting of the A.S. A.S. is a public service. It's in this spirit that we present this morning's symposium.

The program includes six speakers. Since early on the first morning of the meeting some of you will have been unable to visit the registration desk to pick up your programs, I'll outline it briefly.

The first speaker is going to be Professor Norman Storer, of the City University of New York, who will give a sociological talk devoted to "The Sociological Context of the Velikovsky Controversy."

Then we'll have Professor Peter Huber, of the Eidgenössische Technische [sic] Hochschule of Zürich, who will talk about "Ancient Historical Records."

The third speaker will be Dr. Velikovsky, whose talk is entitled "The Challenge to Accepted Ideas."

Fourth will be Professor J. Derral Mulholland, of the University of Texas, who will talk on "Considerations of Dynamics."

We will then have Professor Carl Sagan, of Cornell University, speaking on "Venus and Dr. Velikovsky."

And the sixth speaker will be Professor Irving Michelson, of the Illinois Institute of Technology, who will give a talk entitled "Mechanics Bear Witness."

And, finally, as we have it scheduled, there will be an opportunity for Dr. Velikovsky to give an answer at the end of the program.

I would like to remind you also that our schedule goes on just this morning. We must vacate the room by one o'clock, and I do hope that if [only for the sake<] of the weariness of the audience, that we don't go on that long. [laughter]. But we will resume our meeting again at seven-thirty this evening, where we will have all the panelists at that time seated on the platform, and we will have an open discussion, without any formal program, with the opportunity for everyone who wishes to participate.

We will have an opportunity after each speaker talks this morning for questions from the audience. I would like to ask that the questions be framed in the form of questions, and that members of the audience not use the occasion to make speeches [laughter]; I am sure you will bear with us on that. The time is somewhat limited, and we'll do our best.

Each speaker will have twenty minutes, and after each speaker we'll have about ten minutes available for the discussion. There will be one exception to this rule. When the program was originally put together, Dr. Velikovsky insisted that he should have at least thirty minutes for the presentation of his ideas. I only learned last night that Dr. Velikovsky intends to overrun even this time limit. I can only deplore this, and hope that Dr. Velikovsky will return our courtesy in inviting him here by keeping the length of his talk within reasonable bounds. [laughter].

Well, you haven't come here to hear me talk, [laughter] so let's move on now to our program. [laughter] The first speaker is Professor Norman Storer, of Baruch College in the City University of New York, where he is Chairman of the Sociology Department. Professor Storer has made a speciality within sociology of studying the sociology of the scientific community, and he is going to give us a talk entitled "The Sociological Context of the Velikovsky Controversy."

And may I mention that I have, courtesy of my wife, a little timer, and I'll ring a bell at eighteen minutes and set it again for two minutes.

STORER [to King]:

Do you want me to field questions ... [inaudible]...?

KING [to Storer]:

I will come up again and help you take questions.

STORER [to King]:

Great.

STORER:

[Storer's paper, entitled "The Sociological Context of the Velikovsky Controversy" was presented at this point.]

That's the end! [applause]

KING:

We have some time now for questions from the other participants or the audience. Yes.

QUESTIONER:

Yes, Dr. Storer?

STORER:

Right.

QUESTIONER:

Yes, I would like to comment on the introduction that Dr. King gave, which, to me, put this symposium in the context of the recognized scientists' setting the layment straight on what's really going on, with no mention of the validation of some of Dr. Velikovsky's assertions, not that that makes his conclusions correct.

STORER:

All right. The question is, would I comment [delayed applause], would I comment on Professor King's introduction, which the questioner *construed* as saying, "Here is the real science, and we're gonna show you people what's wrong with Dr. Velikovsky." I don't think it needs to be read that way. [laughter] As a matter of fact, my stance, anyway, is, is determined, dogged neutrality on this. [laughter] Nobody would believe me if I said, sure, comets do this or that.

No, I don't think that the panel has been set up. It's not rigged. It's an occasion for the public to watch a scientific debate.

STORER and KING [briefly conferring]:

... [inaudible]...

STORER:

Next, the lady over there.

QUESTIONER:

As a sociologist, I would seriously like to challenge a great many of the things that Professor Storer has been telling us about the sociology of science. I can't begin to go into some of the reasons why I feel it's very much open to question. I would like to recommend that some of you look at Stuart Blume's *Toward a Political Sociology of Science*. And he also ... [inaudible]...the power of lobbying.

STORER:

Could you give the second reference again?

QUESTIONER:

The separate table of the power of lobbying... [?]

STORER:

Oh, I see. Yeah, I happen to be reading that book right now. It's a good book.

QUESTIONER:

Stuart Blume, *Toward a Political Sociology of Science*.

STORER:

Toward a Political Sociology of Science, by Stuart Blume, published by Free Press in this year.

KING:

Back there.

QUESTIONER:

I wonder if Dr. Storer, offhand, could give me just two examples in which a brilliant new idea now accepted as fact was welcomed by the scientific community. [laughter, applause]

STORER:

I am tempted to defer this to some of the historians of science here. [laughter] It's my understanding that Albert Einstein's ideas met very little resistance among the top physicists of that day. You disagree with that statement.

QUESTIONER:

...[inaudible]... the mathematicians.

STORER:

I'm sorry, What?

QUESTIONER:

He was attacked by the mathematicians. The second rank took him off.

STORER:

Oh. [laughter]

KING:

Dr. Mulholland.

MULHOLLAND:

I would like to reply to the last question. I think, [laughter] I think two examples that can be brought to answer that question are the discovery of mass concentrations on the Moon and the internal heat in the Moon, which have both thrown the discussion of the history, the evolution of the Moon, into a state of extreme excitement, and has totally rejuvenated the entire subject. [applause]

KING:

I should mention that, with the lights shining in our faces here, it's a little bit hard for me to see people's hands, so raise them high.

QUESTIONER:

May I ask—

KING:

Yes.

QUESTIONER:

I would have thought the normal way of dealing with a crackpot is to ignore him. Is it the usual practice in scientific publications to review books by proclaiming that you have not read them before you review them? [laughter]

STORER:

It's frequently charged by the injured authors of those books, [laughter] and denied just as often by the men who did review them.

KING:

One more question.

VOICE:

Mr. Velikovsky had his hand up.

KING:

Oh, I'm sorry. Did you wish to say something? [laughter]

VELIKOVSKY:

I wish to ask Professor Mulholland whether he knows who was the first to claim, in time, a steep thermal gradient under the surface of the Moon?

I wish to also ask whether there is an explanation for the mascons on the Moon, beside the explanation that the Moon was close to some heavy, gravitating body that pull out some mass towards the surface? [applause]

And besides, would you consider these two observations as fundamental theories?

VOICES:

No, no.

KING:

Can you answer that briefly?

MULHOLLAND:

Yes. [delayed applause] I regret to say I do not, in fact, know who might have first suggested the Moon was hot inside. I will acknowledge definitely that Dr. Velikovsky did so, many years ago. And I must blushinglly admit that he has put a finger on a weak point in my statement, because what I have as the response a few moments ago were observational determinations rather than theoretical structures. [applause]

VOICE:

I think we refuted it ...[remainder inaudible]...

KING:

I am sorry we have not been provided with a second microphone. What I will ask, since it's understood that people are asking questions rather than making speeches, I'll ask that, if a question is not easily audible, that the person who is up here at the microphone repeat the question, as Dr. Storer did with at least the first question that was asked of him.

We'll move on to our second speaker now. Professor Peter Huber, of the Eigenössische Technical [sic] Hochschule in Zürich, has made a study of the ancient archaeological records relating to astronomy. He also, incidentally, has a second specialty in statistics, and we're very pleased to have him speaking to us today on "Ancient Historical Records" Professor Huber. [Huber, of the Eidgenössische Technische Hochschule in Zürich, has statistics as his first and only professional specialty. He also, incidentally, has repeatedly described himself as a "hobby-assyriologist." Thus King has conferred upon Huber a profession status that Huber does not have. The A.A.A.S. Program misrepresented Huber in the same sort of way, describing him as a "Prof. of Ancient History" }page 23].]

HUBER:

[Huber's paper, entitled "Early Cuneiform Evidence for the Planet Venus," was presented at this point.]

That's the end! [appluase]

VOICE:

Question?

KING:

Dr. Velikovsky says he has several questions, and would like to use the microphone for them.

VELIKOVSKY:

Understand, I had not chance to have your paper before this morning, so I did not know the phenomena that you would record.

We had yesterday a short chat. You mentioned that the most important statement is an eclipse that was calculated for something like—what would it be?

HUBER:

Perhaps I get the document. [pause] What is most important eclipse is a total eclipse of -708 [astronomical; 709 B.C. would be historical], July—which, I've forgotten—July 17, which—

VELIKOVSKY:

It is from China?

HUBER:

It's from China, from these Spring-Autumn Annals.

VELIKOVSKY:

What is from Ras Shamra? You spoke of Ras Shamra.

HUBER:

No, I didn't mention Ras Shamra.

VELIKOVSKY:

But you mentioned to me yesterday—

HUBER:

No.

VELIKOVSKY:

—that most important—

HUBER:

No, not Ras Shamra.

VELIKOVSKY:

Fine.

HUBER:

I'm sorry.

VELIKOVSKY:

Well, Chinese date, was in this document mentioned also the place?

HUBER:

For this particular eclipse the place is not mentioned, but—[laughter]

VELIKOVSKY:

As long as—

HUBER:

But there is something else. For some other eclipses it is mentioned that the eclipse happened in the province. The inference is that this particular eclipse happened at the capital. And to make it precise, what I mean is, if you take the probably most reliable eclipse we have now from antiquity, it's the Babylonian eclipse of -135 [astronomical; 136 B.C. historical], and use this to determine the—

VELIKOVSKY:

Which eclipse?

HUBER:

Babylonian eclipse, -135. We only learned about it last December. [laughter] It's very definite, description of a total eclipse, with all the details. If you take this eclipse, which is absolutely certain, and—

VELIKOVSKY:

That's 135?

HUBER:

Ja. And if you use this eclipse to determine the values for the secular accelerations, and calculate back to -709 [historical], you obtain the eclipse as total right at the capital of where this dynasty was reigning.

VELIKOVSKY:

Let me ask you, Professor Huber, are you familiar with the same discussion that I had with Princeton astronomer Stewart, printed in June, 1951 issue of *Harper's*?

HUBER:

Ja.

VELIKOVSKY:

You are. He brought at that time, on the basis of a lecture of Fotheringham, three ancient eclipses: one from China, one from Assyria, one from Babylonia. I replied. Stewart claimed that three only existing established dates of full solar eclipses. I replied. I have the reply with me. Do you agree with Fotheringham and my opponent, or do you agree with me today?

HUBER:

I agree you were quite right in rejecting these three Fotheringham eclipses as right evidence.

VELIKOVSKY:

Yes.

HUBER:

[They are] not well-dated.

VELIKOVSKY:

So—

HUBER:

The date is established astronomically in these cases.

VELIKOVSKY:

So in that case we will say so, that the argument that was brought by astronomers in 1951 in the debate on the pages of *Harper's*, three eclipses as if established, were,

well, answered by me, and I showed that none of them was really an eclipse, neither the date could be a date of eclipse, because an eclipse doesn't happen on the twenty-sixth of a lunar month, neither the places were indicated, and neither they fit into chronology. Place is very important. If the total eclipse is in Brazil, you cannot look into records of North America.

Now, next question. Do you believe that, as you have written to me, there is some very strong argument, for one specific eclipse that is beyond any doubt, established by Stephenson, I believe?

HUBER:

Stephenson and Muller, yes.

VELIKOVSKY:

Did they publish their work?

HUBER:

It's not yet published. I learned about this last January.

VELIKOVSKY:

Yes.

HUBER:

It's going to be published in the proceedings of a conference on changes in the rate of rotation of the Earth—

VELIKOVSKY:

Do you know the year of the eclipse?

HUBER:

Which eclipse do you mean?

VELIKOVSKY:

Of Stephenson, the one he claimed [as] the one, and you believe it is the most strong evidence?

HUBER:

The most strong evidence against these catastrophes, in minus sixteen [presumably meaning the eighth century]—?

VELIKOVSKY:

Yes.

HUBER:

That is the one of minus seven hundred and eight, July 17.

VELIKOVSKY:

No, I asked you about the work of Stephenson.

HUBER:

Yes, that's the work of Stephenson.

VELIKOVSKY:

Did not Stephenson wrote about the eclipse discovered in the library of Ugarit?

HUBER:

I am not aware of—

VELIKOVSKY:

Are you aware of his publication in *Nature*?

HUBER:

Which publication in *Nature*? We had a discussion—

VELIKOVSKY:

About the eclipse yesterday.

HUBER:

We had a discussion—

VELIKOVSKY:

Yes.

HUBER:

—yesterday—

VELIKOVSKY:

About the eclipse.

HUBER:

—and we couldn't agree on which publication it was.

VELIKOVSKY:

He published only one papaer in *Nature* on one eclipse, that he believes this is the only one [that early] that he established with complete, absolute, so to say, firmness, and he referred to the library of El-Amarna [meaning Ras Shamra].

HUBER:

I am not aware of that.

VELIKOVSKY:

You were not aware. It was published in *Nature*. It was published by Stephenson in *Nature*. This issue is of November 14, 1970. He speaks about the eclipse of 1375. He believes that this is the only one [that early] that is established beyond doubt, and let me say, if you have read my *Ages in Chaos*, you know, of course, that Ugarit is no more, in reconstruction, related to the fourteenth century, the library of Ugarit, but to the ninth century. So in that case of course, all the calculation would not fit.

Interestingly, also, it is said that Rashap, which is Mars—correct?—was in attendance. Interestingly, this eclipse is described in Greek sources; [it] is described, however, as something very different from regular eclipse. The Sun was disturbed in its motion, and Stephenson printed: “The Sun went down (in the daytime) with Rashap [or Mars] in attendance.” And we have exactly the same statement in Greek sources, referring to the date when Romulus supposedly was born, that Mars caused disturbance in movement of the Sun, and at the same time it occurred that Sun and Moon were in eclipse.

Well, let us come to the question of Sumerian materials that you claim that Venus was referred [to] in early ages. You refer to 3000 B.C., and to 1900 B.C., and to the time of Ammizaduga tablets.

Now, let me ask you, this Sumerian hymn, in your opinion, refers—and is the best proof that Venus was already observed earlier that it became a morning and evening star. That Venus was observed before it came into conflict with Earth is clear from what I wrote. It did not come from Jupiter just on the eve of that collision. [laughter] It came thousands of years before. It could be seen. However, you are right. In that hymn, Venus is referred [to] as connected with morning and evening. But what is else in that hymn? And I am very thankful to you for giving me the text of that hymn.

First, it is in Sumerian. Sumerian as a living language really extinguished rather early. But Sumerian was the Latin of the cuneiform-writing people, and it survived as long as Latin survived, past the Roman Empire, so the fact that it is written in Latin doesn't say much about the age.

Here is spoken about Inanna. Let us assume that Inanna referred to Venus. So we know that Ishtar—and I stressed this in my book—at some time in the past was the name for Jupiter, became later the name for Venus.

Now, “Inanna shines as bright as the Sun,” Is Venus shining as bright as the Sun today?

Now, in the same hymn, says, Inanna is a star foreign to use, *fremdartige Stern*, not from this family.

Now, it's again said, on daytime, on midday, it shines as bright as the Sun. Does it today?

HUBER:

I... [inaudible]...

VELIKOVSKY:

Also it says during the night as the Moon.

HUBER:

You are twisting the translation from German into English.

VELIKOVSKY:

“Zur Natchzeit sendet sie Licht aus wie der Mond, am Mittag sendet sie Licht aus wie die Sonne.”

HUBER:

Which means that—

VELIKOVSKY:

“shined as bright as the Moon in the night, shined as bright as the Sun—”

HUBER:

The “bright” is not there.

VELIKOVSKY:

Where is?

HUBER:

She sends out light like the Sun.

VELIKOVSKY:

Like the Sun?

HUBER:

And this passage—

SAGAN:

Dr. Huber, talk into the microphone, I can't hear.

HUBER:

Yeah. This passage, actually it was used by Schaumberger in the third *Ergänzungshefte* [to Kugler's *Sternkunde und Sterndienst in Babel*] as an argument that Venus was visible during the day, and you quote, in *Worlds in Collision*, that passage from Schaumberger, if I remember correctly. [See *Worlds in Collision*, page 164.]

VELIKOVSKY:

Yes, and I quoted many other passages from Babylonian sources that say that Venus is like a torch, like a torch in the sky, that Venus covers all the sky. And this is not only from Babylonian sources.

Now, also there is spoken about honey and cakes being given to Inanna. If it is Venus it would be exactly what was given later to Athena, and which is also observed in so many religious cults up to today. [laughter]

Now, let me ask you, [laughter] as to this Sumerian hymn, it would be good if you could discuss it on the basis of the original, because this is the German translation, again translated into English. do you read Sumerian? [laughter]

HUBER:

I read cuneiform, but I do not really speak the Sumerian language. [laughter]

VELIKOVSKY:

No, I didn't ask whether you speak Sumerian language. I asked you whether you read Sumerian language.

HUBER:

I'm not so familiar with Sumerian as a Sumerologist would be.

VELIKOVSKY:

Fine. So you are not familiar with Sumerian language. [laughter] Let us say, let us ask you, [as laughter finally dies away] let us ask you whether cuneiform in Akkadian language is, well, your main occupation. Do you teach cuneiform or ancient history in Zürich?

HUBER:

No, I don't.

VELIKOVSKY:

You don't. So you don't teach [them]. You teach, I understand, and you are very foremost in the field of statistic, and it is correct that Akkadian language, self-taught, is your hobby?

HUBER:

Yes.

VELIKOVSKY:

Correct?

HUBER:

Not quite self-taught.

VELIKOVSKY:

Well. Well. [laughter] Now let us say this. The Babylonian sources, by Weidner and by many others, show the fact that for long periods of time, as also in India, [there] was in Babylonia four-planet system. Later Venus was figured, as you have seen, together with the Sun and the Moon, in a triad, separately from the planets, and it was called the new planet that joined the other planets.

And then it of course was referred to as moving not in a perfect orbit. Here were the tablets of Ammizaduga. As to tablets of Ammizaduga—in the hard-cover edition of *Worlds in Collision*, pages 199-200 [the entire discussion being cited extends from page 198 to page 200], if my memory is right, are dedicated.

It is not as it was shown here [in Huber's slides], *if* Venus—this is a translation,

because otherwise it could not be understood. In the Akkadian text there is no such things as, *if* Venus appears on this day or on that day, Just it is said, it appears on this day or on that day. And there is a way to check on it. It is mentioned. It appears on that day. It disappears on that day. And in between are so many days. You have the way to check, because if from fifteen of Sivan to the seventeen of Tammuz, or whatever the dates are, you can calculate by the calendar, but, interestingly, by the calendar of thirty days in a month, and thirty days in the month without intercalary months is the prerequisite to understand what is going on there.

Those who try to understand those tablets and to translate them needed to correct the translators and ascribe to scribes great errors. West is changed into east. Evening is changed into morning. Nine months and five days are changed just into five days [the interval of nine months and five days is based on B.M. 36395; several otehr tablets suggest that the interval was nine months and four days], to make sense, because as today, Venus, when in inferior conjunction, which means between the Earth and the Sun, disappears from sight for approximately one single day, but when it is in superior conjunction, which means when the Sun is intervening between Venus and the Earth, today it is about—not always exactly so—two months and six days.

Now, in the tablets it is nine months and several days, and very different other figures which are not given to understanding. It is nothing of the “if.” It is just as it is.

Now, interesting again, as I say, it is a calendar of thirty days, without intercalary months, even if there are two references to Elul the second. Will you say that there is no refernec ein Langdon and Fortheringham to thirty-day calendar, without intercalary—

PANELIST:

Give him the microphone.

PANELIST:

Give him the mike!

KING:

Could you let Dr. Huber have the microphone?

VELIKOVSKY:

Yes.

KING:

He has a number of things to answer now.

VELIKOVSKY:

Yes.

HUBER:

One point is the question of the “if.” Now, that’s really a question pertaining to essentially all omina. Many of these omina begin with just a vertical bar at the

beginning. Now this vertical bar is either the stenographic notation for summa, “if” or it’s something like our horizontal bar, if you make a list. Usually it’s taken as the “if” nowadays, and I just joined the majority. It doesn’t really matter if you replace it by a horizontal bar. The factual meaning is the same.

But the question of the intercalary months is: we have intercalary months from documents which were written in the old Babylonian times, and I thought I made quite a fuss about the fact that seven intercalary months were recorded in contracts written in the time of Ammizaduga, and that these same intercalary months could be established from the Venus tablets. [Actually, there are eight or even nine attested intercalary months from the time of Ammizaduga, and only four of these clearly fit the months that would be required for a uniformitarian reading of the Ninsianna tablets; in addition, there are three months required for a uniformitarian reading of the Ninsianna tablets that are *not* attested from the time of Ammizaduga: Huber’s claimed seven-for-seven fit is a fabrication.] That was my main argument for establishing the date of the Ammizaduga tablets. And these intercalary months are discussed by Fortheringham in Langdon-Fortheringham-Schoch. That’s one comment.

The second comment, you said something about Venus joining the ranks of the great stars, if I am quoting correctly. Now, I followed that quote through. This is one of the quotes which I mentioned in the beginning, as they are based on a questionable translation. I took care to take along the cuneiform text of that. And I can tell you exactly what happened there. The cuneiform text has something—Now, “the great star which is beyond the great stars which in the certain part of the sky.” Now, “the great star which is beyond the great stars.” That is a literal translatoin. Somehow, this got into “the great star which joins the great stars.” But there’s a grammatical technicality involved. Akkadian doesn’t have the superlative. You have to express the superlative by syntactical means, and what this means is nothing more [than] “the great star which is the greatest of the great stars” which is, oh, that’s a grammatical question. And I didn’t want to go into these details, but since you started it, I have to do it.

VELIKOVSKY:

I wish to refer again to Ammizaduga tablets. Ammizaduga tablets were tablets describing twenty-one years of appearance and disappearance of Venus. These tablets were ascribed by [that is, “to”] Ammizaduga by Jesuit Father Kugler. Before this they were thought by astronomer and orientalist Schiaparelli, as referring to events of the seventh century B.C., not of the time of Ammizaduga., which would be fifteen, fourteen, or whatever century, or even earlier.

Now, again, what is the time of Ammizaduga? Ammizaduga was the last king of the First Babylonian Dynasty that started with Hammurabi. When I started my work, the research on it, Hammurabi was put in twenty-second century. Since then, the work of Albright and Sidney Smith reduced it more and more, until today it is 1680, approximately, the time till when Hammurabi ruled, and Ammizaduga would be at least a hundred years later. So Amizaduga would be in that case just before the time of the Exodus, or the end of the Middle Kingdom in Egypt.

But if Hommel and Schiaparelli are right—and there is reason to think that they are right—the reason is exactly the fact that the calendar used in these calculations of

the scribes is thirty-day months, and there is no mistake on this. This needed to be stressed. When in the tablets it is mentioned from this day to that day, immediately is given also the way of checking, by number of days inserted—not inserted later, inserted immediately in the text—they show that the months were thirty days long, and there were only twelve months, and there were no intercalary months, even if some occasion was Elul second.

Now, on this basis, I come now to the conclusion to which I had not yet come when I wrote *Worlds in Collision*, namely, that those tables were a little earlier than Schiaparelli thought, but not much earlier. Certainly they are not of the time from the First Babylonian Dynasty. It would make no difference for the thesis that the catastrophic events took place, that Venus did not move as it moves, but it is just for the purpose of establishing something of historical value.

Thirty-day months, twelve months, year of 360 days> as I put quite a long list, actually, from all ancient calendars, from Incan and from Mayas, from Peru—which [Mayas] means in Mexico—from all ancient European, like ancient Roman and Greek, and also Asian, near Eastern, and Far Eastern civilization. From each of them I put quotes from authority: twelve months of thirty days, strange as it is, without intercalary. Intercalary months were brought later in. And so later there were two Moon's calendars, Moon calendar of thirty days, and the new Moon calendar.

Well, in these circumstances, I come to the conclusion that Amizaduga tablets were created between the time of the catastrophic events of the middle second millennium and the catastrophic events that took place from the 776 on, from which the Greeks counted their Olympian Age, and more probably in the later part of it [that is, probably in the tenth, ninth, or eighth century], and then it will be very plainly what it is.

However, this disappearance to nine months and more, interestingly, is not a disappearance due to going of Venus beyond the Sun, as it would be in superior conjunction, because even then Venus was seen like a torch, and going behind the Sun would not hide it enough.

However, we have a series of data from many civilizations, also from China, like Soochow table, that Venus at that time was traveling to the south, was not traveling in ecliptic, which means in the plane of Earth's revolution. It was traveling to the south and reaching the star Sirius. Now, this is in various sources. Now, in that case, the disappearance of Venus would follow, not from going behind the Sun, but from disappearing as any southern star would disappear from the northern latitude where Babylonia or Egypt are located.

Thank you. [applause]

KING:

This is a discussion that clearly could go on for a long time. [laughter] I have put my head together with Dr. Huber, and have induced him not to reply to this until the evening session, in the interests of getting on with our morning program. During the evening we will have a free discussion, and I think I can freely predict that this particular vein will continue. [laughter]

Our next speaker on the program is Dr. Velikovsky. [laughter, applause] He has informed me that he has prepared a manuscript which he has gotten together in the

interests of speaking clearly, so that everyone will understand what he has to say. I have already said that I regret the length of it, but we'll allow him time to go through this manuscript. [applause]

VELIKOVSKY:

[Velikovsky's paper, entitled "[My Challenge to Conventional Views in Science](#)," was presented at this point.]

And thank you. [applause, lasting 35 seconds]

KING:

Thank you very much for your talk, Dr. Velikovsky, and also for your excellent and clear delivery.

I am getting very concerned about the hour of the day. We have three speakers remaining. We had planned a half hour per speaker, including the discussion, and we must be out of this room by one o'clock. Things are going to be very tight.

I will ask if there are any questions now that can be answered briefly, and I would like the answers to be brief, because we must get on to the other speakers. Yes.

QUESTIONER:

I was wondering if any of Dr. Velikovsky's predictions have turned out to be untrue so far, and if he would talk about those, if there are any, I don't know.

VOICE:

Repeat—

KING:

The question is, have any of Dr. Velikovsky's predictions turned out so far to be untrue, and would he discuss those?

VELIKOVSKY:

I do not know of any prediction proven to be disproven.

Professor Hess, the late Chairman of Geology at Princeton, who claimed that he knows at least one of my book by heart, *Earth in Upheaval*—it is a required reading in geology and paleontology at Princeton for over fifteen years—he was also Chairman of the Space Science Board of National Academy of Sciences that has supervision over NASA activities—he made a public statement in writing that my predictions were made long in advance of discoveries, that when they were made they were far away from what was commonly thought, and actually in contradiction, and that he does not know a single prediction that went wrong. If anybody knows, let me hear.

KING:

Dr. Sagan.

SAGAN:

Right. These microphones wired?

KING:

I think this is the only one that is connected yet.

SAGAN:

I think I know a large number of predictions which are incorrect, and I also think that I can show that the ones which are correct are not original with Dr. Velikovsky, but I will get to that when it's my talk.

What I would like to ask, just to ask a specific question. In Dr. Velikovsky's presentation to us now, he has said that the hydrocarbon clouds of Venus are consistent with all ultraviolet, visible, near infrared and far infrared observations, with the refractive index, and the volatility.

That is not my impression, so I'd like to ask, which organic compound has a refractive index of 1.44, as we know the Venus clouds do, from the polarization data, has a 3.1 micron and 11.2 micron absorption feature in the infrared, and is able to explain the discontinuity in the water abundance above and below the clouds?

I ask this because about a seventy-five percent solution of sulphuric acid explains all of these very well, and I know of no organic compound which does. And I've read the papers by Burghstahler and Velikovsky in the latest issue of *Pensée*.

VELIKOVSKY:

What Professor Sagan here said is in advance of what he will say, so I cannot judge what he would claim as wrong predictions. I had only the chance to read *Newsweek* magazine statement this week, in which Sagan was quoted, after his visiting *Newsweek* editorial staff, that Velikovsky predictions are either very vague, or they are in contradiction to physical laws, or that they are not original.

I believe that he will have a hard time to prove this. Maybe we will not be able to discuss it all in the morning session. We will have the evening session; then we'll discuss it at greater length.

But let us go to the question of the Venus clouds. I claimed about Venus number of things, and all of them went into fulfillment.

I claimed about Venus that it would be found incandescently hot when it was thought that it is not much above the terrestrial annual mean temperature.

I claimed that Venus was disturbed in its rotation.

I claimed that Venus has a very massive atmosphere at the time when my opponent and critic, the Royal Astronomer of England, Spencer Jones, claimed that Venus has less atmosphere than Earth, and as you know now, there are about ninety, maybe ninety-five atmospheric pressure close to the ground.

Now, as to the composition of the clouds, let us say the first thing this. The question of recentness of Venus is solved by the question of the origin of Venus' heat.

Professor Sagan clings to an unsupportable statement that this heat could have been a result of greenhouse effect. We will discuss this. already many authorities—

VOICE:

That's not the question.

VELIKOVSKY:

Already many authorities put it clear: it could not.

Now, in the last issue of *Pensée*—which, by the way, will be found at the door of this hall, where representative of that Student [Academic] Freedom Forum organization has a table—I was given the opportunity to answer Professor Burgstahler, chemist of University of Kansas—[aside to Lorraine Spiess] I wish number VI—as to the constituency of clouds..

I never put it that clouds must be composed of hydrocarbons. [Notice that this statement already makes the “specific” part of Sagan’s question irrelevant.] I have, however, claimed that Venus had hydrocarbons three and a half thousand years ago, and some of the deposits of petroleum on Earth came from Venus’ clouds, or trailing part of it.

But I also introduced this statement by words, “I assume.” I also said under what circumstances they can be found and where: in the deep infrared, and probably not at the top of the clouds, because, as heavy molecules, by physical law they will not be *there*.

But then again, Burgstahler came up, in this article of his, review of the literature, with the idea that more probable sulphuric acid diluted in twenty-five percent of water reflect the conditions in various parts of the spectra.

I answered, and the answer in here in *Pensée* instead of quoting my answer, which can be read, on page 31, is a table that answers Sagan.

SAGAN:

It does not.

VELIKOVSKY:

The table is not my words. The words are of Burgstahler. As to the refractive index, as to the volatility, as to the ultraviolet spectrum, as to the near infrared, as to infrared, and as to deep infrared. In no occasion is any word of mine.

And there is also a statement of Burgstahler, added to my article: he “appreciate ... Velikovsky lucid discussion... I appreciate...of my article,” of his article, “and especially the provocative tabular presentation of the spectral comments drawn from it.” [Burgstahler’s complete statement was: “I appreciate Dr. Velikovsky’s lucid discussion of my article, and especially the provocative tabular presentation of spectral comments drawn from it.” He then acknowledges Velikovsky’s priority in explaining the yellowish coloring of Venus, and mentions the possible “compatibility of sulfuric acid clouds with the sustained presence of appreciable amounts of hydrocarbons, especially in the lower regions of the atmosphere.”]

Now, the question was put to me, which of the organic molecules has the refractive index of 1.44. Let me say this, the entire problem started with an article by Professor Plummer, of University of Massachusetts, who published on the fourteenth of March, of 1969, in *Science* magazine, an article questioning the presence of hydrocarbons in the clouds of Venus. I answered this article; however, [I have] not reworked it to the desire of the reviewers for *Science*, and it was printed now here in

Pensée.

The question was of the refractive index, who claimed what. Plummer claimed water. Sagan claimed water. I claimed there is no water, because the refractive index is not of water.

Sagan was proven wrong, because 1.44 is not refractive index of water, which is 1.33, approximately, ice and water. And today exactly this statement of mine is repeated by a number of scientists: Plummer was wrong, Sagan was wrong, because of refractive index.

Now comes Sagan and asks me, where is the refractive index of organic molecules? Here is statement of organic chemist, who is Professor Burgstahler, and I have with me two or three statements more, of Professor Harris, organic chemist, whose speciality [it] is, of Furman University in South Carolina, and another statement, of Professor Bush, of the North Carolina University in Charlotte, both working on the spectrum of infrared of organic molecules, stating that *many organic molecules have infrared index of 1.44*. And I have another statement, from a resident of this area, Dr. Ballinger, who works as research chemist on organic material for the Exxon Company of California, and the statement is again the same.

And besides, what is the question? Plummer, for example, investigated—

MULHOLLAND:

We've forgotten by now.

VELIKOVSKY:

What is the question? Plummer investigated seventeen organic molecules, not on their refraction index. There are hundreds of thousand of organic molecules, either hydrocarbons or carbohydrates. They were not investigated. And there are many and many that have the refracting index of 1.44.

KING:

May I ask you to terminate your answer now?

VELIKOVSKY:

Well, this is the answer. I believe I answered completely.

KING:

It was a very complete answer. [laughter, applause]. We have on record your reference to page 31 of *Pensée*, and Dr. Sagan's remark that that does not satisfy his question. Let's leave it at that. We have two hours to discuss things in the evening. [Notice that King is still unaware that Sagan is leaving.]

Now, we have three more speakers on our program. The next two speakers are going to talk on different subject matter but in a similar vein, and the way I am going to organize the program is that I will ask Dr. Mulholland to give his talk, and hope very much that he will stick to the twenty-minute limit, and after that we will have Dr. Sagan immediately, and following that we'll have a chance for some more discussion, which I hope will be brief. Remember, we have two full hours for discussion this evening, and we have one more speaker after both Mulholland and Sagan.

So let me introduce the next speaker, Professor J. Derral Mulholland, of the University of Texas, in Austin, who is a celestial mechanic whose name is almost synonymous with high precision. [laughter]

MULHOLLAND:

[Mulholland's preliminary remarks, not included in this paper, were as follows:]

Before I am asked the question, I would like to point out that I first read Dr. Velikovsky's work in 1950 in *Collier's* magazine when I was sixteen years old, and I have read the same work [sic] three times since, the most recent yet this year. [What *Collier's* printed was the equivalent of six magazine-size pages that were "Excerpted and Adapted by John Lear from *Worlds in Collision* by Dr. Immanuel Velikovsky"; Velikovsky objected to the way *Collier's* treated his book, since he had agreed only to serialization, not to condensation, and the planned third installment of Lear's condensation was never printed. *Worlds in Collision* itself contains xii + 401 pages.]

I found it very entertaining when I was sixteen, incidentally, and I still do.

[Mulholland's paper entitled "Movements of Celestial Bodies—Velikovsky's Fatal Flaw," was presented at this point.]

Thank you. [applause]

KING:

As I announced previously, we'll move on immediately to the next speaker, and I wish to amend something that I said earlier.

Unfortunately, Dr. Sagan will not be allow-, will not be available, will not be with us this evening, on account of a previous commitment out of town.

I'll call on Professor Carl Sagan, of Cornell University, to talk on "Venus and Velikovsky."

SAGAN:

[Sagan's preliminary remarks, not included in his paper, were as follows:]

Thank you, Professor King.

I first started working on this paper, that I have here, on the invitation of Stephen Talbott, the editor of *Pensée*, who invited me to give a critique of Velikovsky's views about Venus, which I started to do, but then discovered that it's very difficult to keep one's focus only on Venus, because Velikovsky's perspective is extremely broad. And so what has come out is a manuscript called not "Venus and Dr. Velikovsky" but something called "An Analysis of 'Worlds in Collision,'" which is much too long to read here, and especially in the interests of time I'm going to just go through a fraction of it, something like a third of it. I don't know what Mr. Talbott will do when I talk about him about the manuscript.

Well—

[Sagan's paper, now retitled "An Analysis of 'Worlds in Collision,'" was presented at this point. The decision to put *Worlds in Collision* in quotation marks rather than italics was Sagan's.]

Thank you. [applause]

KING:

Thank you very much, Dr. Sagan.

Although I found your ten points immensely interesting, as chairman, trying to keep this meeting running, I feel as if I've been visited with the ten plagues. [laughter]

We are going to have to make a change in the schedule. It is obvious that discussion at this point is necessary. The time is already seventeen minutes to one. We are required to be out of the room at one o'clock or shortly afterwards.

And I must apologize to Professor Michelson, to be last speaker, that we must postpone his talk until the evening meeting. He has graciously agreed to do this, in order that we can have some discussion, which I imagine will be largely between Dr. Velikovsky and Dr. Sagan. [laughter]

I am sorry, Dr. Michelson, in my incompetence in manipulating people in the presence of ideas. [laughter, applause]

May I ask for one or two questions from the audience, in the hope that the questions will be brief, and the answers equally brief. Question.

BASS:

I have four brief questions that I wish to ask. [laughter]

KING:

You have been recognized to ask one question. Choose one of them, please.

BASS:

Where is Mulholland? Is Mulholland going to answer?

MULHOLLAND:

Yes.

BASS:

Yes. Yes, Mulholland. All right. Are you familiar with the published work of J.G. Hill's Yeale Ph.D. thesis, 1970, Michael We. Ovenden, *Nature*, 1972, and *Vistas in Astronomy*, in press, *Celestial Mechanics*, in press, and several other journals, in press, A. H. Wilson of the University of Chicago—by the way, Michael Ovenden is a fellow of the Royal Astronomical Society—A. H. Wilson—

MULHOLLAND(?):

And a friend of mine, I might add...

BASS:

—a dynamical astronomer, of—Also, are you familiar with the works—

MULHOLLAND(?):

We should say yes and just sit down.

BASS:

—of the three leading celestial mechanics in the world from the point of view

of rigorous mathematical proof, which exceeds that even of physical experiments—

MULHOLLAND:

Would you like to give you opinion as to who those three are before I say yes?

BASS:

[Bass has continued to speak, but was drowned out by Mulholland's question.] ... and I refer, of course, to V. I. Arnol'd of Moscow, [J. K. Moser of New York University, and Carl Ludwig Siegel of Göttingen, because these four gentlemen—I can give you the page referneces of their journal articles—have published explicit statments which show that almost everyting you said was superficial, and they diametrically refute many of your leading points. [applause]

VOICE:

Well.

KING:

... [inaudible] ... brief answer.

VOICE:

...[inaudible] ... controversy....

VOICE:

That's not the question.

KING:

This was a speech, not a question.

MULHOLLAND:

As I passed up here, somebody said that's a controversy, not a question. I will answer very briefly. Yes, am familiar with most of those works, and no, I do not agree with you that they confute anything that I said. [applause]

KING:

Thank you for your [brevity?].

SAGAN:

Alos, the represent an argument from authority. There was not a single substantive point in your question. It was all, "Have your read X, Y, X, or Q?"

KING:

One more question from the audience.

QUESTIONER:

I have a very brief question for Dr. Sagan. Following the recent Pioneer X

encounter with Jupiter, there was a wire services story in which there was a quotation attributed to you that there were hydrocarbons in the atmosphere of Jupiter that were precipitating "like manna in the wilderness." I wonder if— [laughter]

SAGAN:

This is another idea due to Rupert Wildt in 1940, about ten years before 1950. [laughter] Rupert Wildt, in fact, turns out to be the eminence grise of this subject matter, having thought of, but for the correct reasons, all of Velikovsky's principal arguments which are used to justify his thesis *post hoc*, almost all.

And it was Wildt who has correctly identified methane in the atmosphere of Jupiter, and Saturn, in the 1930's, and he proposed that other simple hydrocarbons were to be found there, which indeed turns out to be correct. In fact, just in the last few months, acetylene and ethane have been found in the atmosphere of Jupiter, in small quantities.

We have done laboratory experiments in which we duplicate the methane, ammonia, hydrogen, and probably water, which exist in the atmosphere of Jupiter, supply energy sources to it, and find that a large range of organic compounds are produced, including the precursors of amino acids. For this reason we think that Jupiter is of substantial interest for pre-biological organic chemistry, and I do think that organic matter is dropping from the skies of Jupiter like manna from heaven. It's on Earth where I have difficulty understanding manna from heaven. Jupiter makes perfect sense.

KING:

The two previous talks were directed largely to Dr. Velikovsky, and I think he should be the next one to comment on them.

VELIKOVSKY:

I think that Professor King made the right decision, and I thank Professor Michelson for agreeing to speak in the evening.

Actually, Professor Michelson was selected by the organizers of this Symposium to discuss the subject of celestial mechanics, requiring advanced knowledge in mathematics and physics. He is international authority in his field and I am pleased to say that I will yield to him to answer many things that I would have answered to Professor Mulholland.

However, one thing I wish to say. All what Professor Mulholland mentioned here was based again on the assumption that nothing had happened and could not have happened in the past, and therefore it must have begun as it goes. But this is not a law; this is a principle—

MULHOLLAND [overlapping]:

I'm sorry, that's not true, That was no assumption. These were observations.

VELIKOVSKY:

Yes.

MULHOLLAND:

Data, not assumptions.

VELIKOVSKY:

One of my data was that electromagnetic phenomena do participate, to whatever extent, in the celestial mechanics, and other catastrophic circumstances to much greater effect than, of course, a normal condition.

The discovery, for example of Professor Danjon, Director of Paris Observatory, that made sensation when he announced it, in the summer of 1960, at Helsinki, about the change in the rotation of the Earth, if only in milliseconds, following a flare, a regular flare on the Sun, was unbelievably by those who attended the International Geophysical Union session. But then it was confirmed, in Helsinki again.

So these electromagnetic phenomena were entirely not included [that is, calculated in, included in the calculations], but when now the celestial mechanics is presented in textbooks, the authors, like Clemence and others who are great authority in the field, have excused themselves, saying they knowingly omit phenomena that certainly do exist, but they do not include [that is, calculate them in]. They still go by pre-Faraday astronomy. Of course, Newton was not to blame. Even now I will read a sentence from Newton, because he was farsighted. He saw the phenomena which I—well—had long battle for with astronomical society. I was considered outcast exactly for, more than for anything else, for claiming that, besides inertia and gravitation, also electromagnetic forces and fields do participate, and on one of my letters, the late Einstein wrote, “Yes,” this was the main cause of the great agitation against you.

Now, as to Professor Sagan—[laughter, applause]

VOICE:

That's good. Right there.

VELIKOVSKY:

—let me quote one single sentence from his new book. In his new book he says, “Jokes are a way of dealing with anxiety.” [laughter, applause] And this is exactly what I said in my lecture. I wrote it before I read his book. I bought it only here, in San Francisco.

Well, you hear jokes. It is easy to put in a book something that is not there, and then make it a joke. I believe this is an action of a person who defends a position that is undefendable. [applause]

I would not have spoken on this subject now, but I heard that Professor Sagan will not attend the evening session, when we would have more time to discuss the matter, and since he is not prepared, or made advance—well—agreement on being somewhere else, though this Symposium already being prepared for more than half a year, so how advance could it have been? I would like to confront him in the evening, and I have with what to confront.

Nevertheless, to put into my book the story about Moses opening the sea, or Joshua asking the Sun to stop still, and then at the nick of a moment here coming the comet and do what Joshua or Moses asked, where I clearly said that these things are

entirely fabrication of folklore, that the story as it is need to be searched from one place to another place.

And though Professor Sagan claimed that he is not versed in mythology or folklore, but he went into that area, and had some ideas. But I already discussed these ideas, I think to satisfaction of those who deals with question of mythology, because mythology has a reason in fact, a basis in fact. It was not just carried from one population, from one island to another. The story were told differently, but the theme is always the same.

Now, again, to put into my book story that frogs were falling from the sky—not in his lecture here, but according to a tape recording of a lecture before tuition-fee paying students at Cornell—that frogs were falling from the sky, and this [was] what Velikovsky said, and I said exactly the opposite, that frogs were the brood of the Earth, because the quotes in the Bible is exactly to this.

He said also that mice were falling from the sky. Now, well, mice? Well—You need to know the Ten Plagues. There was no Mice Plague among the Ten Plagues. And certainly warm-blooded animals did not fall from there.

I even did not claim that flies came with Venus. I put in that way: It could be anybody's guess. So the idea of contamination of the Earth goes back to the beginning of the century, and you can find it in work of a Swedish geo-physicist of that age.

Now, again, as to the life on Venus, and the Venus clouds—

By the way, the story of the fogs falling from the sky was also a matter of discussion on the third of December when Jupiter probe, Pioneer X, passed by, and [there] was a press conference, and there was a confrontation between [Sagan and] Professor James Wavick, whom I never met, who demanded a fair treatment to me, claiming for me the advance claim of Jupiter noises. Now, well, this is one of the cases where Velikovsky made generalized statements. Jupiter noises, so clear as this, and who else said it?

So again Professor Sagan said, what is Jupiter noises? Frogs were falling from Jupiter clouds. But in the book, just I wrote it now, 1974, he claims that—well, some few things. One of the things is that on Mars there may be animals today, of the size of polar bears, they sleep thousand-year hibernation sleep, and they get their food by, well, eating or taking stores into their mouth and extracting water from the stones. Well, somebody who comes with those ideas should be very careful to criticize. [laughter] Well— Well-documented, from many civilization, idea of contamination of the Earth by some larvae coming with cometary tails, which I did not subscribe [to], but presented for discussion.

Now, again, let me ask about the correctness of prediction. In that new book I read that Professor Sagan claimed for himself such clear predictions in 1963 that Venus is very hot, and that Venus has many atmospheric pressures, and he claimed that he said it already in 1962.

Well, possibly he said it in 1962, but I have with me an article in Science from 1961, where he claimed that if the atmosphere is 600, and it was already stated by Professor Meyer in 1956. As soon as Jupiter noises were found, all planets were subjected to tests. Venus was found producing certain radiation, and this was not of the same length as from Jupiter, so it was not of the same kind. It was thermal signals. Now, these thermal signals would be like 600 degrees. It was not believed that 600

degree could be right. Sagan believed that it could be right, 600 degrees, but he said if the surface temperature is 600 degree, Venus would then be approximately four atmospheric pressures, and this is Science and this is twenty-fourth March, '61.

Now he claims in his new book, that in '62 he was such a great prophet that he claimed already fifty pressures. Well, from one year to another—

VOICE:

He's not perfect.

VELIKOVSKY:

No.

VOICE:

He's not perfect.

VELIKOVSKY:

He's not perfect. [applause]

Now he is opposing hydrocarbons on Venus. But I will quote some authorities concerning hydrocarbons on Venus. For example, here is an authority who says that about possible existence of some hydrocarbons in the lower atmosphere. Will you agree with this statement, Professor Sagan?

SAGAN:

Well, what was the statement? There is a possibility—

VELIKOVSKY:

Possible existence of hydrocarbons—

SAGAN:

How much?

VELIKOVSKY:

—in the lower atmosphere.

SAGAN:

How much?

VELIKOVSKY:

Not a question of how much.

SAGAN:

Yes, it is a question of how much. In fact, that's the *theme* which cause the most difficulty in this area. Remember [?]

VELIKOVSKY:

There are at the end of *Worlds in Collision* two sections dealing with physical conditions on Venus. In one I dealt with the constituency of the clouds and atmosphere, and I explained where, if there are hydrocarbons, to look for them; I said also how hydrocarbons could have been created from methane and ammonia. And this was confirmed ten years later by experiments, exactly this how it was done.

I claimed also later, in 1951, how hydrocarbons could be changed into carbohydrates, and this was in debate with Stewart that I mentioned before, in June '51, of Harper's.

Now, again, second section dealt with the thermal balance of Venus. And there I said if oxygen is still there, there must be hydrocarbon or petroleum fires. Now, you understand all right that if there is heat, as it is, and if there is oxygen, and if there are fires, hydrocarbon would not last. Actually if it is still there, it would only be a time clock to find out how long the process is going on. The other way of transforming would be into carbohydrates. But nevertheless, little or much, are hydrocarbons there? It is not the question of quantity; it is a question of quality.

Do you agree with this statement, that I claim, that hydrocarbons could be there?

SAGAN:

Do I answer?

VELIKOVSKY:

Yes.

KING:

Would you please answer into the micro—

VELIKOVSKY:

I would ask first this question, because immediately I will continue.

SAGAN:

You made a number of statements. Let me try to answer some of them.

VELIKOVSKY:

No, maybe I would continue, then you answer the others, but this I would ask.

SAGAN:

We are running out of time, and I am running out of remembering what your comments were. So how about letting me make some responses, and—

VELIKOVSKY:

Well, I wish to continue on this one question. [laughter]

SAGAN:

Well, why don't you let me answer, and then you can continue.

KING:

Please let him answer.

VELIKOVSKY:

No, because I am in the middle of an argument about hydrocarbons. [laughter]

SAGAN:

You're not in the middle of an argument if you don't let me answer.

VOICE [to Sagan]:

Say yes or no and sit down.

VELIKOVSKY [to Sagan]:

Well, if you wish.,

SAGAN:

I'll be glad to respond. No, you see, it is not just a yes or not question. Let me say why.

VOICE:

Why not?

SAGAN:

I'll explain.

VOICE:

Then qualify it first, sir.

SAGAN:

Many of the difficulties with the Velikovskian approach is the absence of quantitative thinking. So it's no enough to say, for example, that I said there were going to be large magnetic effects, and [it] turns out that Jupiter has a magnetic field of six gauss or whatever. There is bound to be some residual magnetism everywhere. There is bound to be, just as in the Earth's oxidizing atmosphere there are today hydrocarbons. Methane is one part per million of the Earth's atmosphere. That has nothing to do with manna. It has nothing to do with any of this. If you look closely enough you are going to find a large number of things.

Let me try to respond to a few of the remarks Dr. Velikovsky has made, and then I'll be glad to hear the resto fo this discussion and, if I can, try to respond to that.

In his response thus far, there has been very little substantive commentary on my remarks, but, on the other hand, he hasn't heard many of them befor enow, so I don't object to that. [Actually, Velikovsky had heard almost all of them before.]

The idea of oxygen burning fires on Venus is very bizarre, because Venus would come from Jupiter. Jupiter has an excess of hydrogne. There can be no oxygen on Jupiter. It would all have been reacted with hydrogen to form water. Therefore, there

should be no oxygen on Venus, and, indeed, there is none, as has been clearly shown by ground-based spectroscopic observations.

Dr. Velikovsky has criticized me for having changed my mind. I do not consider that to be a serious flaw. I think that it is precisely the ability to change one's mind which is the method by which science advances, and the unwillingness to change one's mind, the idea [an idea that Velikovsky has never presented!] that texts are canonical and need no revision in the light of twenty-five years of subsequent study, *that* I find more strange.

I do not consider this to be a debate between my theories and Dr. Velikovsky's theories. As I understood the function of this Symposium, it is merely to discuss Dr. Velikovsky's views in "Worlds in Collision."

To respond specifically to the remark he made, between 1961 and 1962 a significant change in our knowledge of Venus has occurred. It was the question of whether the atmosphere was mostly nitrogen or mostly carbon dioxide. Nitrogen had been deduced there by default. We then realized that the spectroscopic deductions were in error. The atmosphere was therefore mostly carbon dioxide. Therefore, the specific heat at constant pressure was different. Therefore, the adiabatic temperature gradient was different, and, therefore, to get down to 650 or 750 Kelvin you had to go much further down the adiabatic gradient, and therefore you got to much higher pressures. And it is precisely because we learned something new that we changed our views, and by 1962 the views that several of us had proposed turn out to be correct.

Now, on the question of frogs, mice, toads [no one mentioned toads before, not even Sagan], flies and other vermin from the skies, it is quite true that Velikovsky does not say that mice fell, nor in this lecture, have I. [The words "in this lecture" were spoken with such rapidity as to be unnoticed by most of those in the audience.] It is almost true that Velikovsky says that frogs have not fallen. I say "almost true," because he quotes an Iranian text, in apparent approval, which Iranian text seems to show frogs from the sky. [The Iranian text and other such texts are discussed in *Worlds in Collision*, pages 183-187, which Sagan is totally garbling.] But he does not say that. He says "probably" or words to that effect. [Actually, Velikovsky's words were "must be," which are hardly to the same effect as Sagan's "probably."] It was the heat produced by this cometary interaction which caused indigenous terrestrial frogs to proliferate.

That's fine, but notice that Velikovsky is now asking to have it both ways. Some of the plagues come from space, and others do not. Now, what is the decision as to which ones to accept and which ones not to accept based upon? A consistent view would be to say either "I have believed the accounts in Exodus" or "I don't" But to say "I will choose to accept some and not others" is very strange. [These questions are ones that are answered in Velikovsky's writings. Even if Sagan has never consulted the written answers, he should be able to recall how Velikovsky answered these questions no more than fifteen minutes earlier in the discussion. Velikovsky repeated once again that "mythology has a reason in fact, a basis in fact." Velikovsky accepts those elements of the mythological stories that have a plausible physical explanation and that are independently reported by different peoples. The stories "are told very differently, but the theme is always the same." Local embellishments that have no plausible physical explanation "are entirely fabrication of folklore," and each "story as it need[s] to be searched from one place to another place," if the common

theme is to be found. See also Velikovsky's "Afterword," where he explains that he rejects any local embellishments that do not have a plausible physical basis, is not testified to by other people, and is therefore to be regarded as an inaccurate elaboration by one person upon what actually transpired." Sagan's continuing need to describe his own garbled version of Velikovsky as "very strange" is itself "very strange.]

Let me give one specific example.

KING:

With all due respect,—

SAGAN [overlapping]:

OK. One second.

KING:

—I think you are introducing new material rather than responding.

SAGAN:

No, I am trying to respond to the question about frogs and mice. [applause]

Exodus states that manna fell every day for forty years, with the exception of the sabbath. It did not fall on Saturdays. Instead a double portion fell every Friday. [laughter] It didn't actually say fell. It said appeared. But, using the Velikovskian verb, let's say fell. [The verb is not Velikovskian, but biblical: Numbers 11:9 says, "the manna fell."]

Now it seems to me to pose serious problems with Velikovsky's hypothesis. How 10^{10} kilometers net path away from Earth, did the comet know to hold back on Saturdays but to give a double ration on Fridays? [Here, again, Sagan displays no understanding of what Velikovsky's views are. The 10^{10} kilometers is the approximate distance that Venus might have traveled during forty years. This, of course, has nothing to do with Velikovsky's theory, which is that various materials from Venus were transferred to Earth's atmosphere at the time of the Exodus. These materials were modified in Earth's atmosphere and over a period of time precipitated out of *Earth's atmosphere*. Sagan's idea of a dialy shipment from Venus to Earth, transported over the distance that Venus has covered since the Exodus (which was many times greater than the distance between Earth and Venus at any given moment), is entirely his own invention, and proves nothing, except that he is quite ignorant about the theory that he is attacking.]

So this is something that, of course, we see is absurd, so we do not invoke it. But why not? Why this preferential use of the fraction of *Exodus* which seems to match some preconceptions, and the avoidance of other things in *Exodus*?

If I had to choose—and we certainly don't have to choose, fortunately—but if we had to choose, is not the evidence almost as good as for the God of Moses as for the comet of Velikovsky? [This rhetorical question is essentially the last sentence of Sagan's paper, which he had omitted when he read the paper.]

KING:

The time is almost ten after one. I will hope that Dr. Velikovsky can give his present answers in five minutes and then postpone everything else until the evening.
... [inaudible] ...

VELIKOVSKY:

On the one hand I am accused of having gone into too many fields. On the other hand I am accused of having not gone far enough, and not calculated everything to last detail. I left something for Sagan to do. [laughter]

As to the question of the energy required for explosion from Jupiter, I discussed this subject in a special issue of *Yale Scientific Magazine*, dedicated completely to the question of my thesis of Venus being a young planet. It was April 1967, and there, with Professor Motz as my opponent, Lloyd Motz of Columbia University, I discussed and explained this subject.

It was not a kind of volcanic explosion. It was a fission of the planet being disturbed in a way how also British cosmologist, Lyttleton, describes in *Man's View of the Universe*—it's a popular work—1961, page 36, but also a year before in the *Monthly Notices of the Royal Astronomical Society*, in England, namely, how Jupiter had to come out of embarrassing situation by splitting in two unequal parts.

This of course Lyttleton put much farther in time, but the argument is even better if you know my arguments in the two volumes that precede *Earth in Upheaval* [meaning *Worlds in Collision*], describing the events concerning flood, universal flood, and other catastrophic events of the time. [Velikovsky is here referring to *Saturn and the Flood* and to *Jupiter of the Thunderbolt*, the two volumes that describe the earlier catastrophes, those that preceded “the last two acts of the cosmic drama” that are described in *Worlds in Collision*.]

As to the figures of mathematician and physicist, how they throw them! One less I had to give. Professor Straka, of Boston University, presented his piece, with calculation, with figures, to *Pensée*. It was printed in the second issue of *Pensée* dealing with Velikovsky. There are altogether ten, six already out, seventh to go to print soon, [it] will have all of these debates in it probably.

Now, in that occasion I took to give lesson to a mathematician. Read it. Read the figures, how they are put together, how [they] are brought before the lay public, and then read my answer.

I received a letter from Arthur Clarke in Ceylon. He says he would like to be present in the class of Straka, when students would bring that article into the class.

I don't claim to be a mathematician, and I leave this work to others, and I am happy that Professor Michelson, who started entirely uncommitted, not selected by me—not even asked I was whether I agree to selection of Professor Michelson. He will present to you in this evening—and I strongly advise you to be present—with complete answer to Professor Mulholland. Though he is not a philologist, not an historian. He will not go into this field. But he will come with two great calculations that will be something in science to remember, of his own.

Now, as to question of manna and Saturday, you see another joke. Of course I didn't say in my book, as if in my book is spoken about manna falling six days in the week and not on Saturday. Of course I did not say this. Of course I did not say that

the Israelites were much more fortunate than the Egyptians. At the Sea of Passage many of them perished. In the Plague of Darkness, despite the biblical statement, other rabbinical statements say that forty-nine of fifty Israelites perished during the Plague of Darkness.

So I stressed these points, this disagreement with the Bible. I am not a fundamentalist at all, and I oppose fundamentalism. So this brining story of manna as if it is my story is, of course, not serving the purpose of scientific debate.

Now, as to the oxygen on Venus, I think Professor Sagan is just wrong. The Russian probes found small quantities of oxygen below the clouds. Not did not find. They found it. And they found that it is a hot, oxidizing atmosphere, and so it is referred to numerous time in the recent literature in America, too. So how not to know this, if Sagan serves also as editor of a magazine on planetary sciences?

Now, as to prediction in general, on this I stand: Nobody yet brought a wrong prediction of mine. Some thing is not yet completely confirmed.

The question of clouds on Venus, what it consists, is a question still of debate. But I asked something [of] Professor Sagan. He interrupted me, and he did not go into that question. And the question was whether he agrees with the idea that hydrocarbons are in lower atmosphere of Venus. He did not answer, but this was quotation from his article. *[laughter]*.

Now, he also did not answer other questions, but let us say taht he prentends that he did not claim me writring in my book about frogs falling from the sky, and mice, too. Now he says he didn't say about mice, but this is on the tape. The tape exists. [Sagan made this and other outrageous statements on March 28, 1973, in a widely publicized lecture on "Venus and Velikovsky."]

And about frogs, we have here, in Pens0e number VI, also from a tape, discussion between Professor Warwick and Sagan on third of December, and Sagan say here, clearly: "Let me. Velikovsky explicitly predicts the presence of frogs and flies int he clouds of Jupiter," and here you heard that he says, no, he didn't say some things like this. But he said it only on third of December. So—

KING:

May I ask you, since it's a quarter after one, to stop?

VELIKOVSKY:

Yes, I am finishing with this. On this point I stop. I think that Professor Sagan, claiming water on the clouds, and there are none; claiming lower temperature, pressure, and it happened to be very high (of course subsequently he changed his view); and claiing now organic materials, and even life, in the clouds of Venus, and we heard here something contradictory to this, and this is another article of his. So if somebody has six days in the week for six opinions, he maybe sometimes be right, too. But with me, it happened so, that my claims were made long in advance of the findings.

And thank you. *[applause]*

KING:

May I thank Professor Michelson again for graciously allowing his talk to be

postponed till the evening.

[aside] Yes.

I would like to make one ... [inaudible]

... [inaudible] ...

QUESTIONER:

I would like to request that Professor Sagan be asked to continue his point of view.

VOICES:

... [inaudible]...

QUESTIONER:

I present it to the podium. If one man made the sacrifice of allowing him to continue, I think he should make the sacrifice to attempt to stay here.

KING:

When I was describing the genesis of this Symposium, I mentioned that A.A.A.S. put this Symposium together out of a feeling that the work of Dr. Velikovsky was worth presenting at a public forum. What I did not mention at that time was that Professor Sagan is not only a vigorous defender of science, he is also a vigorous defender of scientific freedom, and the suggestion that we hold this Symposium came directly from Professor Sagan. [This is false; the suggestion that A.A.A.S. should hold such a Symposium was first put forward by Walter Orr Roberts. Roberts' idea was later "supported" by Sagan and others.]

The meeting is now adjourned.

* * *

THE EVENING SESSION

GOLDSMITH:

How about now? Is this better?

My name's Donald Goldsmith. I'll be the chairman of tonight's session. We will have until ten o'clock, at which time, by the rules of the A.A.A.S. and the hotel, all the other things that have been worked out, to get the room ready for tomorrow, we'll have used up the time allotted to us, all too short—[filled -up] the morning. We'll have a full discussion of all the points people would like to discuss. So that I'd like to urge you to be short in your answers, short in your questions.. It would be nice if there were not enough people who had a lot to say, so that we could have a full, complete discussion. But I'm afraid that that will not be the case, and it'll be of extreme importance to use the time.

We'll start tonight with a talk by Professor Michelson, which he so kindly postponed until this evening: in order to allow for the extra time that was used up during the morning session. And after he speaks, we'll go into a panel format, with the members at the morning discussion here, who will answer questions, I hope never speaking more than one at a time, or perhaps two or three at a time. at a maximum. We have a microphone in the audience for those who wish to ask questions, make it easier, so that people won't have to get up and down here. And with luck we can have a reasonable exchange of views. With bad luck, we'll simply run out of time and all go home a little bit disgruntled. So we'll first have a talk by Professor Irving Michelson of the Illinois institute of Technology, who will speak to us on the topic of "Mechanics Bears Witness." Professor Michelson.

MICHELSON:

[Michelson's paper, entitled "Mechanics Bearn Witness," was presented at this point.]

That's all I have. [applause]

GOLDSMITH:

Thank you, Professor Michelson.

Before we go to the panel discussions, we will have a brief discussion period concerning the talk which Professor Mtchelson has just given. I will take questions from the audience for a brief while. Let me first call on—Professor Mulholland?

MULHOLLAND:

I would like to point out, with respect to this last calculation here, which produced such remarkable results, in a correspondence between the energy required to flip Lhe Earth over and the energy expended in a solar flare of great magnitude [Michelson had spoken of a geomagnetic storm, not a solar flare!], falls a little short when one realizes, that the Earth, as seen from the Sun, represents rather less than ten to the minus eighth power of the total space into which the energy of that flare is expelled.

Therefore, the 10^{23} ergs results in less than 10^{15} ergs at the Earth. Thank you.





Foreword

Days and Years is Immanuel Velikovsky's autobiography down to 1939, when he was forty-four years old. That was the year he and his family came to the United States. He was then just on the threshold of the far-reaching discoveries that were to change the course of his life.

Certainly there will be no shortage of biographical materials from the last forty years of Velikovsky's life, a period that was so rich in research, writing, correspondence, lecturing, and controversy. But Velikovsky did not continue his own life story past the year 1939. We have his working title—*Off the Mooring*—for the post-1939 portion of his autobiography, but this was never written. Velikovsky was always greatly interested in finding just the right titles for his books, and *Off the Mooring* would have been a particularly apt title for the story of his bold and unfettered voyages of discovery. Perhaps some future biographer of Velikovsky may still use that title.

Though *Days and Years* stops at 1939, the years that followed are covered in part by some of Velikovsky's other books and writings. Thus *Stargazers and Gravediggers* covers the period from 1939 to 1955. The emphasis is upon the story of Velikovsky's research and writing and of the criticisms and other reactions that his work provoked. Nevertheless, there is much personal detail in that story, as there is also in *Before the Day Breaks*, Velikovsky's account of his relationship with Albert Einstein. Both *Stargazers and Gravediggers* and *Before the Day Breaks* may be considered semi-autobiographical, though neither book was intended by Velikovsky as autobiography.

— Lynn E. Rose



Preface

In writing these autobiographical pages I am guided by two aims. Should my work and activity ever merit preoccupation with my person, I want to protect myself from guesses, inaccuracies and inventions, which all too frequently are the fate of biographies; and I wish to give to my children and to my fellow men an account of a life spent. I call it *kheshbon ha nefesh*, a Hebrew expression which has no exact translation, and at closest would be “searching of the soul” of a man who went ways all of his own.



Vitebsk

The ancient city of Vitebsk strides the Western Dvina. This large stream rises in the Valdai Hills, in that watershed from which also the Volga flows east, and the Dneper south. Not far from Vitebsk the Dvina makes a bend and majestically continues to the northwest. It empties its water into the Baltic Sea in the Gulf of Riga. In Tzarist times it used to carry barges and steamboats with the produce of the region to Riga and from there to the overseas markets.

Vitebsk was the capital of the Vitebsk Gubernia, one of the districts into which Tzarist Russia was divided. The town had about sixty or seventy thousand people, a substantial part of them being Jews: Vitebsk was in the “pale”—or inside the “line of permitted settlement.” It was not famous for its learning like a few smaller localities in Western Russia, renowned for their *yeshivot* or for the great authorities in Jewish studies residing in them and thus attracting the needle of the intellectual compass. But neither was Vitebsk among the cities in the “pale” which acquired an unsavory reputation. Not far away was the town of Liubavitchi, the seat of the famous dynasty of Hassidic *zadiks* (righteous men). Yet I believe the Jewry of Vitebsk was not Hassidic in the main. Its people were plain and kind, of a pleasant disposition, a little given to dreams and melodies. This quality is shown in the compositions of Marc Chagall, born in Vitebsk, who even in his old age, long away from his birthplace, continued to depict in many of his paintings Vitebsk and its Jews. Chagall and I never met, unless I chanced to come across him, a lad seven years older than myself, in the time we both resided in that city; but I left it much earlier than he, at the age of six and a half, never to visit it again; yet I could fill many pages with my memories of Vitebsk.

The city buildings were severe, rows of windows usually being the only ornament on their naked facades; the hamlet shacks of the neighboring villages carried heavy straw roofs over their log sidings. The hills, the little gardens, the green shutters, all had a pastel, dreamy quality; and clouds had golden rims, and cows in the countryside had bells, and birds were inquisitive and trusting, or so they appeared to me.

One thoroughfare, Smolenskaya, crossed a small confluent of the Dvina, the Viluika, and led to the main square with a *sobor* (cathedral) and court house; from the square the fashionable Zamkovaya Street turned past the city garden and crossed the bridge over the Western Dvina with a broad view in both directions. Should one pursue the route beyond the bridge, one would pass streets of single-story houses and arrive at the railroad station; and continuing farther one would come to a large field that once or twice a year served as a parade ground. Above were forested hills with narrow paths amid pine trees—the place is called Sosoniki and it is just outside the town

limits. From these hills one could count in the distance, between the town and the slopes, the number of freight cars in the train that occasionally and slowly crept along the plain.

There in Sosoniki on a late spring day, in a rented cottage, my mother gave birth to her third son. It was May 29, 1895 according to the Julian calendar; in Western Europe and the Americas it was June 10. The late spring of 1895 was unseasonably cool, and my parents-to-be contemplated a temporary return to town quarters, when the labor pains made my mother lie down. In those days birth-giving was a home affair, not a cause to go to a hospital. But there was progress in that not a midwife but a doctor would attend. I believe it was about two o'clock in the afternoon when I came into the world.

I was never shown that cottage, and on rare visits to the hills I do not remember having noticed any buildings there; neither was I, at these occasions, interested in such information. Sosoniki was for me the happy wide field, a few times filled with people and resounding with brass music; the forested hills had paths crossed by knotted roots of pine trees, to which the place owed its name (*sosna* = pine).

On the day I was born, or possibly on one of the following days, my father went on a walk in the forested hills and thought of a name for me. His first son was called Daniel, and Samuel in memory of one of his forefathers. The second son was called Alexander and Lev, the latter in memory of a great-grandfather. Daniel was two years older than Alexander and he, in his turn, was sixteen months older than myself; I, however, was not followed by a brother or sister, and remained the youngest.

My first name—I have no middle name—was chosen by my father, as he told me, on that solitary walk in the forested hills. He selected it from a verse of the seventh chapter of Isaiah; there was no Immanuel among our ancestors known to him. But he was visited by a thought, almost a wish cast before destiny, that I would be predestined to a great task in connection with the tragic history of our nation. One has to visualize the time, and also the personality of my father, a dedicated Jew with a vision of the national renaissance. It was a tragic time, of utter despair and of utter hope. When I was a child of six or seven my father would show me the chapter in the prophet Isaiah where the name Immanuel is found; more than once he spoke to me of the faith he put in me.

The events around the time of my birth were as if symbolic of the trends my life would take. In those days Theodor Herzl started his diary in a hotel room in Paris, having been assigned as a foreign correspondent to the trial of Dreyfuss. Until that spring Herzl, like so many of the Hungarian and Austrian Jews, felt alienated from the Jewish people. Then, while covering the Dreyfuss trial, Herzl experienced in the courtroom something akin to a transfiguration. He began to feel his bonds with his ancient nation, with its judges and prophets, and with the eighty generations of exiles, unbroken by persecution. It was then that he conceived his “mighty dream” and on June 10th, the day of my birth, he wrote in his diary: “I am taking up again the torn

thread of the tradition of our people. I am leading it to the Promised Land. Do not think this is a fantasy. I am not an architect of castles in the air. I am building a real house.” In Paris he also wrote the first pages of his political manifesto, *The Jewish State*.

In 1895 Freud, having two years earlier published with Breuer the first paper on psychoanalysis, began to write his *Interpretation of Dreams*.

In 1895 a new era in science was started by Roentgen with the discovery of X-rays, followed by the detection of radioactivity by Becquerel and of radium by the Curies. The old mechanistic philosophy of the world saw the daybreak of a new understanding of the universe.

Configurations of planets at the time of birth are claimed by astrologers as being decisive for the destiny of the newborn child. In astrology I never believed (I think I can explain its origin); I would rather assume that events on earth at the time of a person’s birth may in some way direct his life. One is under the influence of the spirit of the time. The dream of Herzl, the intuitions of Freud, and the rays of Roentgen in 1895 were the earthly constellations which marked the direction in which I was to wander—ideas, like men, need time to grow and to find their place in the world.

Long before the advent of Herzl, my father dedicated himself to the idea of a national renaissance for the Jewish people. Simon-Yehiel was the elder son of Jacob Meir and Sarah Velikovsky,¹

until their end residents of Mstislav, a small ancient town south of Vitebsk, renowned among the Jews. This town must have been founded in very early, possibly pagan, times. In the first half of the 19th century there occurred in Mstislav the so-called “rebellion of the Jews.” An interested reader will find details of it in the writings of Simon Dubnow, the renowned Jewish historian, himself a native of Mstislav.

My father was born in February on *shushan-Purim* of 1859. He had a sister older than himself, a brother Feivel younger by about five years, a younger sister, the mother of Moshe Halevi, and another brother, Israel. Their mother Sara, a little woman whom I remember on her visit one summer, probably in 1898, was a daughter of Jacob Hotimsker. Jacob Hotimsker was thought by the population of the region to be a holy man. He was the Dayan (religious judge) in Mstislav. He was all prayer and all humility. In the time when my father was a child the children of Mstislav believed that this holy man could make himself invisible, and other similar stories were told about him. I possess his portrait: a kind face, inquisitive eyes, light brown curly locks. On his deathbed this Rabbi Jacob blessed all his progeny that none of them would ever need to serve in the Tzarist army—and his blessing held good for almost forty years, until the Nazi invasion of Russia when a cousin of mine—a daughter of my elder brother—fell on the battlefield, and probably many more of the descendants of Rabbi Jacob served and fell. My great-grandfather, who died in about 1903 or 1904,

must have been born about 1820, and the terror of military service in the army of Nicholas I incited Rabbi Jacob to select this theme for his benediction. Jewish boys were abducted into the service by “catchers” at the age of 13 or 14 to stay in the service for 25 years and then on military settlements for the rest of their lives, without being able to study rabbinical law or give their children such an education, a main purpose in the life of traditional Jewry. I was about eight years old when Rabbi Jacob died; by then we were already living in Moscow. For days my father did not open the letter informing him of his grandfather’s death, and he wept when he read the news; never had I heard my father weep so bitterly. The whole town closed the stores and joined in the funeral procession.

I also possess pictures of my paternal grandparents. My grandfather Jacob Velikovsky looks handsome with an open face and regular features and a black beard into which the first silver strands had started to spin themselves. I never visited Mstislav, and do not know whether I ever saw him, unless he was one of the elderly men—all of whom could claim to be called “grandfather”—who visited us in Vitebsk, and who played with my hair, lovingly pulling it.

Of my grandfather, Jacob Velikovsky, my father told me that he never tore off a flower or a blade of grass, and never killed a fly. My cousin Moshe Halevi, who grew up in Mstislav, knew him well.²

He told me that our grandfather would go alone with his horse-driven cart to the forest, and there would sound the shofar, the ram’s horn, in different intonations and rhythms. I would not know whether he was practicing there the art of blowing the horn for the High Holidays, or whether he was spending his solitude in the forest in communion with God, as my cousin would insist. From my father I know that on the Sabbath Jacob Velikovsky would speak only in Hebrew; and since in those days Hebrew was not yet a spoken language, he experienced difficulties, but would not give up.

Jacob was a small merchant like his ancestors, many generations back. From the time of the Crusades, from the time of the Roman Empire many of the Jews were artisans, merchants, and rabbis; and often the rabbinical profession was exercised simultaneously with the manual or mercantile.

Jacob Velikovsky was also eager to do something for the poor of the town. In winter the needy used to suffer from the cold, being unable to buy firewood by the cart. He would buy several carts of wood and let the needy have the small quantities they could afford. My grandmother Sara would go outside in the dark of the pre-dawn winter mornings, on the knock of the “customers” at the door, to dispense the bundles of wood. She was small in stature, very tidy, and a kind person like her father, Jacob Hotimsker. But unselfish acts call for retribution—and to the great heartache of my grandparents, rumors reached them of allegations that they were profiting from this endeavor.

I never saw my maternal grandparents. They lived in Lodz. My mother was the eldest of ten children—four daughters and six sons. Nahum Grodenski came to Lodz from Grodno where my mother was born. A merchant with a Western European outlook, he traveled abroad and was highly respected. It was the pride of my mother that she was a daughter of Nahum Grodenski. I heard also from others that his word in business transactions was valued more than any written document. He liked my father as his own son and helped him in the beginning of his career.

As a boy my father studied in the *kheder* (preparatory school) together with Simon Dubnow, the future renowned historian of the Jewish people. Like the children of the generation before him and after him, my father found candies fallen “from heaven” on the table in front of him the first day at the *kheder* and he, like other children, believed that an angel had tossed them down.

When my father reached the age of fourteen or fifteen, he heard the unseen horizon’s call, and felt an urge to seek greater goals. The small business of his parents, probably a little shop, deteriorated; and it happened once that a creditor slapped the face of my father’s elder sister. This episode made a fierce impression on the young man, and he decided to strike out on his own and achieve a position in life through study. Study meant Hebrew study of the Law. In Mstislav there were great talmudists, but no *yeshiva* or academy of learning. My father conceived a plan to go away secretly to the famous center of Jewish learning—the *yeshiva* of Volojin. Very possibly his father would not have opposed his going to a *yeshiva* had he asked; but the reading of a book, I believe by Mendel Moher Seforim, made him emulate the way of leaving the paternal home, and even the letter of parting he wrote partly copying it from that book.

With a friend whom he persuaded to join him Simon departed secretly from Mstislav, leaving a note for his parents in the hands of his younger brother Feivel. Cooking their food in the woods, the two friends caused a forest fire. After one or two days’ march afoot they slept in the house of a woman who knew and revered Jacob Hotimsker. Awakening the next morning, Simon heard the voice of his father: travelers who had seen two boys running out of a burning forest probably directed him. But before starting the pursuit Jacob had asked the advice of the rabbi of the town, who advised him to let Simon study and even wrote a letter of introduction to the leader of the Yeshiva of Mir.

In Mir my father was the *matmid* (the most studious) of the Yeshiva: he spent sixteen hours daily in learning, sometimes pouring water into his shoes to keep himself from falling asleep. He would not see the sun rise or set, for he would be indoors studying; and alone, late at his folios, he would implore the Creator to redeem His people. At the words of the prayer “keeper of Israel, keep the remnant of Israel” tears would well up in his eyes.

The time came and he was called to Mstislav to present himself to the conscription board, and he remained there, occasionally studying the Gemarrah at the feet of a

local merchant-talmudist. He improved his knowledge of the Russian language word by word with the help of a Hebrew-Russian dictionary. The spirit of Haskala, the Jewish movement of literary renaissance and interest in secular subjects, was awakened in him. Simon Dubnow guided him in this, and he, in turn, kindled in Dubnow the national idea, as Dubnow himself wrote, more than fifty years later, in the Hebrew daily, *Haaretz*. The issue carried several other articles dedicated to my father, and Dubnow narrated among other reminiscences, how some Friday afternoon he was reading *The Love of Zion* by the poet Mapu on the steps of my grandfather's home.

My father felt that his world of ideas was too liberal for traditional rabbinical teachings, and he looked for a chance to find a way in life. His first tries were unsuccessful, and he began to accompany his father on his trips to Smolensk from where Jacob Velikovsky brought goods for the merchants of Mstislav on wagons or sleighs. Once my father remained in Smolensk and took a job in a store doing manual work. Then he arranged with his employer to work selling in the town. During his hours of rest he would try to study at the railway station, but was often asked to leave; when late at night he studied by the light of a candle, the employer in whose house he had a small room would call to him to extinguish the light, which cost money. But on Saturdays my father used to sit on the square in front of the synagogue and read, and he greatly enjoyed the freedom of the Sabbath; he promised himself that he would uphold the holiness of the day of rest—the great social institution established thousands of years ago by the Hebrew lawgiver—in the days when he would no longer be dependent on an employer.

Then he started his own business with the blessing and advice of one Peter Rifkin. This man happened to come to the store and, entering into conversation with my father, was surprised to find a learned youth at manual work. As soon as his business allowed, my father called his brother Feivel to Smolensk and made him a partner; and soon many relatives ate at his table.

One day my father conceived the idea to obtain the agency for Smolensk from the huge concern of Vogan, which traded in tea and many other kinds of merchandise. He wrote to Moscow. Rifkin advised him not to be so ambitious, but soon an invitation came from Moscow to present himself. He waited together with several men of obviously greater wealth. When his turn came and he made a good impression the Director asked him to come the next day and sign the papers. He answered that he was a Jew and would not sign on a Saturday. Here the story could easily have ended, because Vogan's firm did not as a rule employ Jews. But my father's straightforwardness gained him even more sympathy: the Director told him to return on Monday. He spent three nights in a hotel near the Kremlin, listening to the quarter hour melancholy beat of the clock on Spassky Gate. Would somebody come to Vogan from Smolensk and ask for the same business in the meantime? He was uncertain until the hour on Monday when he was given the papers to sign. Later he found out that the mother of the Director was Jewish and was buried in a Jewish cemetery. He became the favorite of this man. The Director would call an assistant

and tell him to go with my father and open credit for him in one bank or another, and the man would throw his overcoat over his shoulders and go. Many years later, when this assistant became the Director and also the President of the Moscow stock exchange he would stop his *cabriolet* (carriage) driven by a coachman in top hat, when seeing my father on his early walk, and exchange reminiscences.

I have here gone into some sentimental details of my father's life and career. My father once wrote his autobiography in Hebrew, during our wandering in the Ukraine, in the years of the civil war in Russia. This version having been left in Russia, he wrote it for a second time in Tel Aviv, this time describing also his work for the revival of the Jewish people in its ancient land and other efforts for the sake of this homeless nation.

My father met my mother in the town of Starodub in the northern Ukraine. My father apparently came there for business. My mother was sent there by her father to open a branch of his trading house and with her was her eldest brother Ephim. As I mentioned earlier, my mother was the first of ten children; her mother, Basha, took her out of the gymnasium at an early age in order to help at home with the ever increasing number of brothers and sisters. My mother regretted not having had a good schooling, and made it a goal in her life to give us, her children, the best schooling possible. Yet she could speak several languages fluently and at the age of sixty, on arriving in the land of Israel, took herself a teacher and soon spoke Hebrew and also wrote letters to me in perfect Hebrew.

After two years of engagement my parents were married. For seven or eight years they lived in Smolensk. Their first child was a girl, stillborn, and my mother was rather sick. In the seventh year my elder brother Daniel was born in Smolensk. After that they moved to Vitebsk, where Alexander was born.

My father was a dreamer, chained to his business; but he also had a grasp of economic problems on an international scale. My mother had a practical mind with a very strongly developed feeling of justice; my father told me how my mother once went back to the market to find the vendor who had given her one single kopek (half-cent) too much in change.

I have read that Leo Tolstoy believed that he remembered himself from the age of half a year. I certainly remember myself long before I was three years old, and some of my memories may refer to my being one year old. My earliest memory is dreamlike: in a small orchard or garden I am carried on the arm, I believe, of my father; there was a group of grown-ups, my mother among them, and the group was slowly walking in the orchard, it seems toward the house. How old I could have been I would not know; but many memories before I reached the age of three are very vivid, not dreamlike, and could be described in many details, as if they had taken place only recently.

The house in which we lived was situated at the riverside: the street, one of the main

thoroughfares, is here cut by the confluent of the West Dvina, Viluika, spanned by a bridge. A tiny garden was next to our house towards the stream, and a backyard. The house was three stories high, but the first had a low ceiling and was not occupied, but was used for storage and the like; we occupied the second story. The parents' bedroom had its windows to the Viluika, and in the spring rafts of beams and unattached tree trunks would move from morning till evening toward the Western Dvina and down toward Dvinsk and Riga on the Baltic Sea. The stream was small in the summer but in the spring it overflowed and once our yard was under water and a boat floated in it. Our beds were at the other corner of the house; a picture with horsemen on a mountain path was above my bed. In the winter snow was outside and the sun was bright in the windows; at night I listened to a monotonous sound, and I do not know whether it was a clock or a drip in the sink or the pulse in my arteries. A small and narrow valley lay between the windows and the next house. It led to a road with a mill, and farther to a field; the river made there a bend. In winter on walks there with our uncle Israel, the youngest brother of my father, we would throw stones that would skip along the ice, and in spring along the water's surface.

The only picture of us three brothers I know is a photograph showing me sitting in a girl's dress, with black curls, my brother Alexander-Lev, called Lelia, with blond curls, standing in a pose of little Lord Fauntleroy, and Daniel with a short haircut. I remember vividly the hour when my mother took me into the bedroom and changed my girl's dress to a boy's outfit; my brothers met me with great joy when I emerged from the parents' bedroom. I remember also when the hairdresser came to us, placed his bag of instruments on the couch, and clipped my hair, promising that it would be stronger if cut; thus my curls were gone. I was a strong and healthy boy, the only one of us three who was fed on mother's milk; my brothers were, as the custom then was, fed by wetnurses. I remember playing under the table when parents and guests dined, at the age when such things are done.

Growing up somewhat, I would stand in the drawing room, which had a balcony, and watch the passing clouds, and pray, probably to the glory of God, in my own words. Early I started to learn Hebrew: a *melamed* (teacher) used to come to us; he would put the book before me—sometimes it was upside down—and I would read the syllables. On High Holidays we used to visit the synagogue; my father had his seat at the East Wall, next to the holy enclosure with the rolls of the Torah. The synagogue was situated in a large garden on the quay of the South Dvina.

Standing on the mountain pathway, I liked to watch the steamboats with turning waterwheels moving towards the sea on the broad stream; and in the winter I remember walking on the ice of this great river, accompanied by an employee of my father.

During the summers we used to live in a cottage on a hill some distance from Vitebsk. Beyond was a field with rye, farther a forest, in which there were heaps built by ants; we would watch the ants become agitated when a broken treebranch was stuck into a heap. In the forest we collected berries. We tried to persuade a squirrel to

come down to eat nuts placed on a kerchief. We played in the grass when it was harvested, behind a nearby mill on a lawn surrounded by bushes and trees. Next to the mill there was a road and on the other side of it a pond dammed by the mill; reeds grew there, and we brought home shells with their occupants still inside. A narrow rivulet ran down from the dam, and once my brother Lelia, who was my permanent playmate, and I were caught by the sudden swelling of this rivulet. The road led to a larger road and there I loved to follow the carriages uphill and down. Farther there was a hill with a church on top and many ravens flying around and making noise.

Once my brother Alexander and I, probably age 5 and 4, went to a large Christmas tree party, arranged by some institution. I would not know how I made the causative conclusion, being yet more than twenty years ahead of my medical degree, but I thought that the very sweet and tasty almond milk which both of us enjoyed and of which second helpings were offered from unwashed glasses, brought measles to my brother—he became ill soon after that evening. The apartment was divided by a locked door, my brother being transferred to the half where also my parents' bedroom was, my mother taking care of him, and I was placed under the surveillance of a governess in the other part of the house. But recovering from measles—then a quite undesirable sickness to contract in view of the many complications that the doctors of that time were unable to cope with—my brother contracted scarlet fever. Again, entirely on my own, I arrived at the conclusion that the doctor visiting him daily brought to him the germs of the new disease. My mother, afraid of letting me live in the same apartment divided by a locked door, had me move to an apartment a floor higher. But at last Alexander recovered.

In 1900 or the beginning of 1901 my father left Vitebsk for Moscow. My mother soon followed with Daniel; we were left with a “bonne” (Freulein) and partly with uncle Israel. He was a bachelor, liked horses, and kept them when my parents were in Vitebsk. The very move to Vitebsk was preparatory to establishing a home in Moscow: only after paying for a number of years the dues of the first guild merchant, could my father as a Jew make his domicile in Moscow, generally out of bounds for Jews.

That summer (1901) part of Vitebsk burned and we watched the reddened sky from our summer home. From Daniel came letters telling us of the capital and the many gates in its walls. Meanwhile we, Lelia and I, began to learn to read Russian and German; our teacher was the “Freulein,” Meta Redlich, the daughter of a miller in Nevel, not far from Vitebsk. We had had governesses previously, but her we called our “beloved Freulein.” Meta Redlich was seventeen years old when she came to us and we became very attached to her.

In the fall of 1901, on a walk in the hills of Sosoniki, we saw from afar a horseless carriage, the first automobile any one of us had ever seen.

References

1. Since in many cases the place of origin of a person was used to form his surname, Velikovsky—so one of my reader-correspondents, also from Russia, suggested—could mean the origin of an ancestor from one of the geographical places that contain *veliky*, as Veliky Volochek or Veliky Luki, not far from Mstislav.
2. Moshe Halevi was a member of the Hebrew Theater Habima in Moscow and later founded the Ohel Theater in Israel.





Moscow

One day in October or November, 1901, Alexander and I were dressed in our warm clothes, and winter boots were put on our feet for our travel to Moscow. We were driven, accompanied by the “beloved Freulein,” in a horse-drawn carriage over the bridge on the Western Dvina to the railway station. We took our places in the second class compartment in the train that left in the early afternoon that October or November day. There was an exchange of harsh words between our Freulein and two gentlemen who insisted on occupying the same compartment; but then the gentlemen became more agreeable, and entered into an animated conversation with our Freulein. In the evening we reached Smolensk, but all I could see was a pool of water from rain outside our windows. Only many years later, passing through the station in daytime, I saw that, like a fortress, the town nests on an elevation.

In the grey morning I awoke and looked out of the window of the train. In a snowy landscape of fields and forests trees moved and ran swiftly, the swifter of them, those closer to the tracks, overrunning the trees away from the tracks. In my solitary watch it appeared to me that the train was circling for hours as if going up a hill on which Moscow stood.

In Moscow we were met at the station by our mother and our brother Daniel, who was excited to show us the capital. We traveled through to Tverskaya Street, and came to a residential hotel in the business section of the town, the Kitai Gorod, where our parents and Daniel lived. There the Freulein and we occupied a room. In the hotel I spent time looking at the incandescent electrical bulbs with spiral filaments—this was new to me. In our room Freulein read to us *The Prince and the Pauper* and the story of *Little Lord Fauntleroy*. I could already read them myself; I also liked to copy geographical maps, especially of Europe, and color them.

We lived in that hotel for a few months. The summer we spent on a *dacha* in Sokolniki. I became seven, and I remember well that day. My father, sitting in a hammock in the garden, asked me how many days, in my estimate, I had lived. Having in my memory an inexhaustible store of events, I made a guess—“a million days”; but then, when my father bode me to calculate, I found to my great surprise that all my memories came to me from the experiences of some two thousand days only. For that birthday my father gave me half a ruble, the price of admission to the children’s festival, a big affair that happened to be on that day. This entitled me to participate in track running—and I remember how I ran, the first of the group, probably admired; I was, however, overtaken by one or two other boys, but still felt happy. In the evening there was a lantern festival.

One day boys from the other side of the fence threw stones at us and we three brothers fought valiantly against a “superior” force, and returned stones. One stone hit me in the temple. My mother saw me through the window, my head covered with blood; but I did not cry, and stood my ground. She ran down the steps and brought me in to wash my head.

That summer, thinking of the little pool not far away from our *dacha*, I made the following invention, which I explained to my brothers—though, it seems to me, I expressed it as though it were an event that had actually happened. By going very swiftly over the pool, so that before my foot could sink I would move it into a new position on the surface of the water, I would be able to walk on water. This sounded good in principle, but my performance was just wishful thinking, and a bit of a fantasy.

It was the time of the Boer War. My father’s interest in world affairs and even more his preoccupation with the problem of the Jewish people—which must have been already then manifest to me—made me, when once asked, “Whom do you love more, father or mother?” answer “father.” His idealism, in my consideration, gave him the right to preference.

My father in his unusually pleasant voice sang Hebrew songs at the evening meal with the children on his lap; these were songs of longing for Israel, songs describing Rachel, who cries for her children, or telling of a rose, symbolizing the Jewish people, torn and trodden by the passers by. He had beautiful melodies for his songs.

One day my father called me into his bedroom. There was a steel safe; he opened it and showed me a book by Dr. Joseph Sapir, *Zionism*, in Russian, and on the introduction page it was written that the book owed its appearance to the munificence of Simon Velikovsky.

My father had been one of the leading members of the Jewish community of Vitebsk. He went to the Second Zionist Congress in Basel as a delegate, and there met Herzl who, impressed by my father’s appearance, approached him to press his hand. My father returned enthusiastic about the new National Bank. He spent many efforts to persuade his friends to participate in purchasing the foundation’s shares, but found ignorance and apathy among the people he approached. Then he made an offer to the Vilno Zionist Committee, which was the central organ in Russia, to contribute 300 rubles for a literary prize, which was then a large sum. More than twenty manuscripts were sent in; the manuscript of Sapir won the prize. But the committee needed money to print it, and my father supplied an additional five hundred rubles, a matter nowhere mentioned. It was not known that my father gave his last money to make this possible; in his autobiography written many years later he commented, “I thought that if everything is fallen, at least this should remain from all my efforts.” On this book a generation of Jewry was educated to the national idea. Its preface was written by Moses L. Lilienblum, a noted Jewish figure. The book was also translated into other languages.

In Moscow we rented an apartment on Milutenski Pereulok, off Miasnitzkaya Street. It was one of the most modern houses, six stories high, with an elevator. It had a front staircase with the fashionable embellishments characteristic of French architecture of the turn of the century. There was also a back staircase for the servants—a family would in those days usually have two female servants, a cook and a chambermaid. The older of them were born still in slavery, abolished in Russia one year before it was abolished in the United States. One day crowds filled the streets and the windows, and waited long. First a dog ran by, frightened by the crowds; then Tzar Nicholas II drove by in an open carriage on one of his rare visits to Moscow. I saw that his face was white with fear, since from any place a bomb could be thrown at him, as it had been at his father.

The business of my father was on Nikolskaya in Kitai-Gorod, housed in large flats with numerous workers; one flat was used as a storage-place for fabrics, visited by sales people who traveled to sell the merchandise; another flat was a tea dispensary—imported tea was divided by a dozen or more workers into packages wrapped with lead paper and stamped with the name of my father's firm. My mother assisted my father, who was always above the details, and easily cheated; but even the careful and exact nature of my mother did not spare the business from a collapse in a few years. No doubt the sales people took advantage of the freedom they had in giving credits; and with the outbreak of the Russo-Japanese War many merchants did not pay their debts, and probably also the import of tea from China was hampered. Thus my parents saw their business deteriorating and apparently heading toward an abyss.

Soon after we moved to Moscow, Meta Redlich, who used to tell us stories before we fell asleep, left for her home and sent us her picture; in her stead came Mr. Messerer, a Hebrew teacher from Vilno. He was middle-aged, with a black beard and bald head; he left his family at home, and possessing a diploma, but no knowledge, in dentistry, could live in Moscow, otherwise restricted to the Jews. Since the time the Jews were expelled from Moscow and then selectively readmitted, he was the first and only teacher of Hebrew in the city; he was to act as our educator. He lived with us a few years. When in the summer of 1904 Herzl died, Messerer cried bitterly. On one occasion I remember him explaining to me the creation of the soul by God: a lighted candle kindles more candles without losing its own light.

My lessons in German were displaced by lessons in French. By moving the family to Moscow my mother intended to provide for her children the best possible education; the best gymnasium was considered to be the new Medvednikov, or 9th Government Gymnasium, founded from the bequest capital left by a rich and liberal merchant. There were three "preparatoires" followed by eight grades. Already in the first preparatoire the knowledge of French was required. I went to exams at the age of seven for entrance to the first preparatoire; I was asked questions, both oral and in writing. I made a favorable impression, and my mother had to decide whether to let me or my elder brother, Daniel, who also presented himself for examinations to the

third preparatoire, be accepted: there was only one “Jewish vacancy,” the governmental rule being that Jews could compose but three percent of the students. She preferred, and justly so, that the elder brother be accepted.

Daniel traveled to the school, rather far away, and I was sent several times a week to a French lady, Madame Chaulet, who lived in the Dolgi Pereulok in the Devitchie Pole on the outskirts of town. She had taught in the Medvednikov Gymnasium in former years, and apparently was recommended to us to be my tutor. She was an elderly noble lady, of the Russian Orthodox faith, as I judged by the many icons in her bedroom. She was very kind to me. Each time I came she would greet me, inviting me to have a cup of sweet tea or chocolate with cookies. She was a good soul.

The way to Mme. Chaulet’s house was long. In Moscow there were no electric tramways as there were already in Vitebsk—only horse-drawn trolleys. I would walk to the Liubianskaya Square, where stood the building occupied by an insurance company, which fifteen years later became the headquarters of the secret police, a horrible place. On the square along the outside wall of the Kitai Gorod were little wooden stores with all kinds of merchandise; I would stop at stationery displays, at bookstores, and loaf. Sometimes I would buy a ball of chocolate with a “surprise” ring inside; the ring had a “stone,” and all was for three kopeks.

Daniel impressed on us early that the business of our parents was declining, and that they were having difficult times. Therefore, he told us, we had to save some of the travel money. My way to Devitchie Pole would cost five kopeks—half of the way in a two-story horse-drawn trolley and the second half in a one-story small trolley—to which I had to transfer at the quay of the Moscow River. But traveling only the first half on the open upper deck of the trolley, one paid three kopeks, but had to go afoot the second half. Thus to save two kopeks I would walk for an hour, but often I would save the whole amount by walking the entire distance both ways, which at my slow, loafing pace, took a full two hours. Sometimes I would go by the long park along the high wall of the Kremlin, sometimes through the Kremlin, by the long rows of cannons displayed there since the Napoleonic war. There was one particular cannon, not very big, that I could lift by one end, and I would not miss doing it each time I passed there. The Tzar bell, broken, the size of a house, and the Tzar cannon, with four immense cannon balls, were my permanent interest. But most of all I loafed, going by Volchovka and Mochovaya, with their many bookstores. I would look attentively at the postcards, and sometimes buy a few, with romantic content, such as a nymph at a well; but soon I was more and more interested in the books, and became familiar with many titles and authors. Daniel collected books, and all of us participated in this hobby; the books were mainly works of Russian authors or of foreign authors in translation, as given to subscribers of certain periodicals, usually in covers with gilded imprints.

When one year passed and I again had to present myself for examinations, I was not accepted—my French was but “satisfactory,” and not “very satisfactory.” I went

another year to Mme. Chaulet; at the same time I had at home a tutor for Russian and mathematics. He was a medical student named Bialo, and sometimes he used the lessons to practice on me the art of making bandages, a study that I recognized twelve years later when myself a student of medicine.

After another year, at the third try, I had again only “satisfactory” for French—this was a stragem to keep me out of the quota, promised to somebody else. Madame Chaulet, very indignant, since she knew my knowledge in French was not the reason for my non-acceptance, went to the Gymnasium, where she earlier had taught, to talk to the director. I did not have any feeling of degradation in that as a Jew I repeatedly met rejection, while the Gentile boys found acceptance with no difficulty. But my mother suffered. Once she went to see the director, Vasili Pavlovich Nedatchin, who posed as a liberal yet was of a dictatorial nature with aristocratic aspirations, though a commoner by birth. Suddenly my mother burst into tears. A proud woman, she could never pardon herself this display of human weakness; but she so much wanted me to enter this school, thought to be the best.

Two years we lived in our apartment in Milutinski Pereulok, and then we moved into a more modest place in Obidinski Pereulok. Yet the two years in our first apartment—from my age of seven to nine—left many imprints. Our apartment was on the top floor. An attic was over the adjacent part of the building, and there the chambermaids or cooks would hang the washed linen to dry—there was no such thing as sending linen to a laundry. One day Alexander, or Lolya as we would call him, and I went to investigate the place. It smelled of pigeon habitats; heavy beams supported the roof, with one or two dormers opening onto the steep metal roof. The domestics who happened to be there, an uneducated folk unable to read or write, thought it a good joke to bolt the door and frighten us by denying us a means of returning. Only with children could the female servants, actually still living in semi-slavery (half-day off every second Sunday) permit themselves such a practical joke; and they laughed behind the door. Without much hesitation, Alexander climbed out of the attic through one of the dormer windows. The opening was close to the edge of the roof and Alexander, holding on with his fingers to the tin of the roof, was moving with his feet towards another dormer—six or seven stories above the street. The women seeing him there shouted in fear and opened the locked door and called to me. I, however, was already one leg out of the dormer about to follow my brother and possibly was already crawling along the roof’s edge. I climbed back and made my way out through the door.

In 1905 I went for the fourth time for the examinations of entrance. This time Mme. Chaulet went with me to the examinations; I was accepted, at the age of ten, to the first class.

Now that I was enrolled as a student in the Gymnasium, my mother took me to a store of uniforms, and soon I was, like all the others, dressed in the school uniform. It was made of black cloth, and included a black belt with an emblem on the metal buckle, and a military cap, with another large emblem in front identifying our gymnasium.

There was also an overcoat in blue-grey, very similar to the one worn by officers in the army in peacetime. For festive occasions we had a short tailless jacket, in a dark color.

Ours was an unusually large class—fifty nine pupils; in the following years the number diminished to a little over forty. I still remember most of the names: Adelgeim, Aleksejev, Arkadjev, Armand, Bleklov, Vaganov, Vargaftig, Vasilief, Velikovsky... (In the Russian alphabet the letter V follows the letter B.)

The first, third and fourth, in a year or two, were no longer in the class. Yet very many of those with whom I started at the age of ten in the first class went with me through eight grades and finished, like myself, in 1913, at the age of 18—or some at the age of 19; I was one of the youngest in the class, by several months to a year younger than the others. The system required that a student be satisfactory in all subjects—and there was no free choice of subjects, with the exception of Greek, which was not obligatory and was offered in upper classes and taken only by a few students. If a student's marks were unsatisfactory in one subject, he had to pass an examination in the fall before the start of the new class; if he did not pass the examination, he would be required to repeat the entire grade in all subjects, joining the younger class. This was a great humiliation, not so much for the loss of a year as for being compelled to part with one's classmates and join the younger boys, for whom there was always some feeling of contempt just because they were younger. With more than two unsatisfactory subjects a boy would automatically "remain" in the class, without a chance to rehabilitate himself in the fall. Often such a boy would prefer to quit the gymnasium entirely; but some "remained" and even more than once, so that a few students who studied with Daniel became my comrades.

The year that I entered the class, two more students were *novitchki* or "green ones": Golunsky and Gorbov, both very talented boys; all the others had already spent three years in this group, having started at the first preparatoire. In my class there was one other Jew—Eugene Luntz, the son of a doctor. We were free to abstain from the class of "God's law," or religion, given by a priest.

On my way home from the gymnasium I was often joined by Golunski, whom his mother brought and came to pick up, whereas other students came and went by themselves. His father was a military staff doctor, whom I never saw. His mother was a large woman. The boy was pampered, always warmly dressed, with warm heavy boots long before the winter set in. He was very studious, never participated in any pranks, always knew his lessons excellently, was respectful toward authorities, and showed little imagination. Forty-five years later he was a prominent Bolshevik, a professor of international law, designated by the Soviet Union as Justice at the Hague tribunal. At his visit to the United States I could still recognize him by his picture in the press; but there was no one among the fifty nine students who fitted less the role of a revolutionary or member of the Bolshevik elite.

Gorbov was the son of a Jewish mother, with whom he lived; she was divorced or

separated from her husband, a justice in a minor court in Moscow. Gorbov later became a poet, then a Bolshevik; at the height of his career he was denounced and purged.

Vargaftig, who grew into a very strong boy, was a baptized Jew; not a few Jews baptized their children to open them a road in life. Being baptized, they were never again discriminated against. Being strong and big and jolly, he soon dominated the class, and around him several other boys of some distinction grouped themselves. But he did not grow up to what could be expected of him: he later became a tennis player, a boxer, a trainer in sport, but nothing outstanding.

Another group in the upper classes centered around Zavadski, a very tall and lean boy; he was talented in drawing and liked to participate in school plays. In adolescence he was not interested in girls, and in later years became a noted stage director of one of the famous studios of the Moscow Art Theater.

It seems that I hurry to tell of these boys as they grouped themselves in later grades and as they grew up; the fall of 1905 neither showed yet their talents as clearly, nor presaged their future.

I was placed at one desk with a boy of Polish extraction: Sedlezki. He tried by various means to frighten me, but was unsuccessful. Pupils sat two to a desk of good oak. They were placed at the desks according to their height: smaller boys at lower desks in front.

For eight years I would walk in the morning some four or five blocks of Moscow's side streets to the Medvednikov Gymnasium and in the afternoon retrace my steps homeward. My way passed a *kazienka* or a government monopoly store that sold exclusively vodka in bottles of various sizes. Occasionally I would see a man of the labor class come out of the store (it was not permitted to drink inside), slap the bottle on the bottom, thus uncorking it, and drink it on the spot, and stagger on his way, or return to the monopoly for another bottle. Sometimes I would see a drunk lying in the gutter, his broken bottle next to him.

The name *kazienka* was derived from *kazna* or State Treasury. Under Tzar Nicholas II every village in Russia had a *kazienka*, but by no means did every village have a primary or any other school. Russia was held in ignorance and illiteracy but was kept thoroughly drunk, and the government of the Tzar obtained its revenue from a monopoly that kept the peasant and labor classes in dissolution and mental decay. When drafted into the army, some of the men called to the colors had, during the training, straw tied to one boot and hay to the other, marching under the corporal's barking, "straw, hay, straw, hay!" since many of the inducted could not distinguish right from left.

The Russian-Japanese war was started for the protection of the possessions and concessions of the members of the House of Romanov on the River Yalu and in

Manchuria. It is true that upon mounting the throne in 1894, Nikolai had an idealistic plan for an international court (the Hague Tribunal), but this idealism did not last. In 1903 a pogrom in Kishinev, in southern Russia, was staged at the directives of the Tzar to frighten the Jewish population of the country and as punishment for their liberal tendencies and spirit of westernization. When the Japanese war was lost in the naval battle off Tsushima, the hero of the prolonged defence of Port Arthur, General Stessel, was sentenced to the Shliesselburg prison, a measure calculated to find a scapegoat outside of the inefficient and corrupt palace.

Workers who went to the palace to ask the Tzar's ("Little Father's") protection were shot by artillery, and Cossacks with their sabers were let loose into the crowd. In Moscow gendarmes occupied a place across the street from the university and shot at students, but the population of Moscow, undeterred by the "black hundreds," the butchers, and similar "patriots" of Moscow's lower places, staged huge marching demonstrations and won concessions from the Tzar: this was the 1905 revolution.

The Tzar was compelled to promise land to the landless peasantry and to grant a "constitution" and a representative Duma (Parliament), which he disbanded as soon as he felt safe. The members of the Duma, headed by the president, Professor Mourmizhev, gathered in Vyborg, Finland, and wrote the Vyborg declaration, inviting the population to refuse paying taxes; Mourmizhev and other signers of the document were sentenced to prison terms.

From one Duma to the next (there were four), the franchise was ever more limited: a rich person voted in a different curia than a poor person and his vote weighed a score of times the vote of the latter. Stolypin, the Prime Minister, gave his name to the "Stolypin tie" which meant a noose at the gallows. Many revolutionaries spent their lives in Siberia; some great men and women, like Nikolai Morozov and Vera Figner, spent years and decades in solitary confinement.

Nor would the Tzar tolerate the illustrious efforts of some of the nobility, most notably of Leo Tolstoy, to bring about reforms. Tolstoy did not advocate the overthrow of the regime, but he was persecuted by the government for his call to return to the ideals of early Christianity. While he lay dying in the station master's house at Ostapovo, a refugee from his own house and estate, the Holy Synod, dominated by the Tzar, forbade prayers for the octogenarian in any of the Orthodox churches of Russia, and when he died, he was refused a Christian burial. So also was the evil Tzar, who was to meet an evil end.





Student Years and Wanderings

In the early summer of 1912, when I was a tall seventeen-year-old youth, my wish of several years' standing came to fulfillment: I traveled to the land of Israel. My father still had not seen the land of Israel, but he made it possible for me to visit the land, then a Turkish province. I departed as soon as the term in the Gymnasium was concluded. By now I had finished the seventh "class" and one year was still left before graduation. I went first to Kursk to meet my companion, the arrangement having been made by my father. Mr. Supraski was not of my age—he was 36 years old, the father of a family, and a delegate to several Zionist Congresses. I stayed one or two days at his home. The arrival of a gymnasiast from the capital was an event in the dull life of a few young girls in Kursk and they came to meet me in the garden of Supraski. A little dog bit me as I approached the waiting group, but true to the code of behavior, I did not even turn around—yet the signs of the dog's teeth could be seen decades later.

From Kursk we travelled by train—stopping I believe at Kiev—to Vienna. There we stayed for a week. I went to museums, spent time at the Prater, and attended a meeting of the Parliament, which I remember only hazily. With Supraski I went to the cemetery where Theodor Herzl's tomb—in black granite if I remember right—was next to his father's grave. Another part of the same cemetery was Christian. I was in a mood that found expression in an elegy.

From Vienna we went to Trieste—a bustling city, then a part of the Austrian empire and its chief port. After two days we boarded the "Vienna," the boat on which, I believe, Herzl had made his voyage to the land of Israel about a decade earlier. This was my first sea voyage. The blue water of the Adriatic and of the Mediterranean, the seagulls following the ship, crimson stony Crete, and the colorful sunsets, all impressed me. In Port Said we spent one night, and the silvery calm water of the port, with numerous boats and shouting Egyptians, was again a new and exotic scene to my eyes and ears. We traveled now in the first class of some Ottoman ship, and the food, served with innumerable dishes, including big cakes with candles burning inside casting a reddish illumination, had a flavor out of the *Thousand and One Nights* in the capital of el-Rashid. Because of the Turkish-Italian war our ship went all the way to Beirut. There I lent my passport to a Jewish youth who had left Russia to escape service in the Tzarist army. After he entered the country (Ottoman Turkey), the passport was brought back to me on board, and I went to visit Beirut and the American University.

We came to Jaffa, and shouting Arabs in boats tossed about by waves took us off the ship far from the shore and brought us to the stony steps; Supraski read me a letter

from my father, and reminded me to kiss the earth for him—he had not yet been in Israel, the land of his dreams. But I reserved the carrying out of my father's wish until a visit to a hill in Rehoboth.

Tel-Aviv was three years old. I still see it with the Gymnasium on Herzl Street, the only store near the railway track, and a little stretch of a boulevard and a few streets. On Nahlat Benjamin Street I shared my room in a little house that pretended to be a hotel with Kaplansky, a young engineer, who later became known as a political figure. Bezalel Jaffe, a distant relative, was one of the founders of Tel-Aviv, and I was received warmly at his home. We attended some classes at the Gymnasium.

Supraski made the itinerary. We visited Rishon le-Zion, where we were shown the vinepresses. I bathed in a reservoir in an orange grove in Nes-Ziona. In Rechoboth, at a private party in the house of an American cantor, I saw a girl whose face and figure caught my imagination; she had large dark eyes, a Roman nose, was dreamy, and was an embodiment of my taste then, an Oriental beauty; she was, as I found out, only fourteen years old, but ripe for that age. I was in love with her at first sight. I hardly spoke to her, if at all. The next morning a lady guest at the little hotel in which we were staying volunteered to show me where the girl lived and we went to a little one-story house with green shutters; the girl—Esther Bashist was her name—came out, and I saw her again. For many years she was in my thoughts my future bride. To her and her little house I wrote some poetry, and for the next ten years, in faithfulness to her, I preserved my “innocence” or celibacy, until I found my real companion in life.

We went as far south as Katra (Hedera), and on donkeys' backs traveled to Ekron and Hulda. Then we went to Jerusalem and to the Wailing Wall. I was deeply impressed by the old city with its narrow streets, and by everything I saw there. Leaving Jerusalem for Tel-Aviv, I wrote in the train a piece of poetry “At the Wailing Wall.” It was, I believe, the first of my writings ever printed.

The journey from Tel-Aviv to Haifa took three days, the wagon being drawn by tired horses through deep sand dunes; there were no paved roads. We stopped at Petak Tikva, Hedera and Zichron-Jacob, and I remember many details of these overnight stops. From Haifa we went by train to Merhavia. This was the only settlement in the Emek (the plain), presently teeming with settlements; and it had no building but the old *sarai* of the sheik who had sold the “village” and the land. I slept in the field among the tall sheaves of harvested rye and watched the full moon. We went on to Degania, which was new then, crossed the Jordan, slept in Kinnereth on the shore, went up to Poria in the mountains, and spent time in Migdal. My father was the initiator and organizer of the group that had purchased Migdal, but he himself did not participate in the ownership since he wished the movement he started to be democratic and popular and not exclusive, as Visotzki and other people whom he influenced to purchase the land wanted it to be. We did not go farther north, nor did we visit south of Hedera. At about that time Ruhama, in the south—my father's second “pioneer colony”—was in the throes of being born.

We spent five weeks in Palestine. I parted with Supraski, who felt a little ill in Tel-Aviv, and I went to Egypt on the deck of an Arab boat. I slept in the life boat that was suspended above the deck, alone amidst the barefoot Arabs, probably pilgrims. On the train from Suez to Cairo it was so hot that I could not help but drink water from the tap in the dirty toilet compartment, and I wonder than I did not catch some disease. In Cairo I spent several days, went up the Cheops pyramid, pulled and pushed by three paid guides, and sitting to rest halfway up felt the immensity of the structure over the great valley.

On the streets of Cairo, as before in Vienna, prostitutes approached the seventeen-year-old youth, without evoking in him even the slightest desire to follow them.

In Alexandria I boarded a Russian ship bound for Odessa. I visited Piraeus, went to Athens, and climbed the Acropolis—and was almost late getting back to the ship. In Smyrna, on Turkey's Aegean coast, I went with two students from Petersburg to see the town and the surroundings; from afar our guide pointed out the place where, he said, Troy once stood—which, I understand, could not be the true site. Two oarsmen in their boat carried us to the ship in Smyrna harbor. The two cocky students in white helmets had some disagreement with the oarsmen, and when one of the students pulled a revolver out of his pocket to intimidate the men, one of these, a true bandit, beat him over his helmeted head with the oar, and only the helmet saved him; there was blood to all sides. I bent down to help the wounded, and the people who witnessed the scene from the ship told me later that by this movement I saved myself, since the other oarsman, behind me, was about to stab me with his knife. The shouts from the ship made the oarsmen let us out, to another boat, or to the ship itself.

In Istanbul I wandered alone, saw Hagia Sophia, visited Perun and Galata. I saw the dirt and the colors of the oriental city, and the little wooden cubicles on the streets where brothel women called to the marines. Then, back on the boat, I remember its quiet glide through Bosphorus, a storm in the Black Sea, and the landing in Odessa and a walk on its promenade above the port. From there I proceeded to Kiev. On Kiev's main street I chanced to meet Supraski who was on his way back from the land of Israel.

It was the middle of the summer when I returned to Moscow. Riding in a horse-driven carriage through the street where Mme. Chaulet lived, I was filled with reminiscences of the years I used to visit her almost daily between the ages of seven and ten. Returning from the south, the summer in Moscow felt chilly. On August 16 (old style), as usual, the classes started. I had before me my last year, the eighth class.

Already the year before I had edited the class journal, actually printed it on a typewriter several times; the main illustrator was Golz, a pupil who first studied with Daniel, but being twice left to repeat a year, was now with me in the same class. To be an editor gave me some pleasure.

Once there occurred a small—or in the world of a Gymnasium class a

big—disturbance. The class had to announce to the German teacher that our homework was not done: there had been an evening of dancing in some girls' school the night before. As the teacher's favorite, I was asked by the class to announce the failure. The teacher did not accept the collective "strike," and called the Inspector. Finding the class in revolution the Inspector summoned the guards. The end of the story was that Gorbov and I got a miserable mark in conduct and were barred for a season from the balls and concerts—the big events in the Gymnasium—and forbidden to visit any place of amusement in town for many months. I heard that at the teachers' meeting even our exclusion from the school was considered. I certainly was not a favorite of the director, Vasily Pavlovitch Nedatchin. He had a reputation as a liberal, but I am not sure that he was free from antisemitism—he was something of a libertine; certainly he had an affair with the mother of a close school friend of mine, who by now was in a lower grade. Yet Nedatchin compelled our French teacher to marry a girl whom this teacher, a bachelor, had made pregnant.

As two years before, I worked hard. I excelled in mathematics. Before graduation the final exams had to be passed, and I remember especially the written mathematics examination: it was held, as other exams, in the very big and high-ceilinged Aktovi Sall (Festivities Hall), each student at a separate desk, distanced from all other desks. I finished a full forty minutes before the next one (Golunski) and handed in the examination papers and left the hall, and certainly there were capable students among my classmates.

I knew history books by heart, and won high praise for my Russian composition. My permanent protector was Boris Ivanovitch Dunaev. His lectures were inspired. He loved the old Russian literature and traveled in northern regions and collected *bylins*, or songs and ballads, often of epic character. Once the teacher of English, Eduard Isaievitch Radunski, stopped before me in the class, and could not help telling me that at one of the teachers' meetings Dunaev had expressed his belief that I would be the future great Russian poet.

I, too, liked the old Russian *bylins*, and the charms of the language. And whether it was the story of Protopope Abbakume, sent away into exile for heretical views, or the song about the young merchant Kalashnikov, by Lermontov, or the tribulations of Turgenev's Rudin, whom I defended in a circle on literature under Dunaev that came together some evenings, I lived in Russian literature, and everyone thought that after graduation I would study philology. Once during the physics lecture, I believe it was the last year, I was observed by the teacher Baranov reading a book by Merejnovski on Tolstoi and Dostoievsky, and he, with some measure of respect to this interest of mine, took the book away and gave it to the Inspector (second only to the Director) Vladimir Pavlovitch Goncharov, who was also the librarian; but I was not scolded. I studied Latin second to none in the class; however in modern languages I did not excel, neither did I show great interest in natural sciences, if there were any courses in the last grade; but Russian, mathematics, Latin and history were considered the basic subjects.

It would take many pages to write of the colleagues who studied with me. Certainly there were talented men among them; I have already mentioned Zavadski, who became one of the leading stage directors in Russia. Some never proved their abilities because the war (World War I) and especially the revolution either killed them or reduced them to littleness. Of poets in our class there were three: Kharlamov, Gorbov, and myself. The first of these was an introvert; with Gorbov, however, I was on close terms.

About the time we finished the last grade and graduated, Kharlamov printed a booklet of his verse, and Gorbov and I printed a booklet together, each of us contributing, I believe, twelve pieces of poetry. I paid for this edition since Gorbov had no money to spend, as he said. We chose a miserable little press, which after the proofreading reset the pages—apparently they needed to use the types for some other printing job while waiting for our corrections, and so there were new typesetting errors introduced after proofreading. The booklet, entitled *Stikhi* (Poetry) was a success among our friends. At about the same time, or a little earlier, my poem “At the Wailing Wall” was printed in *Rassviet*, the leading Zionist weekly (or bi-weekly) published by Daniel Pasmanik, in Petersburg; it was the poem I had written on the train on leaving Jerusalem the summer before. A few months later, visiting the editorial room of *Rassviet*, I was told by the editor that I should continue to write.

I finished the Gymnasium in 1913, which was the three-hundred-year jubilee of the House of Romanov on the throne of all Russia. I received a gold medal at graduation, an equivalent of “summa cum laude.” It had on it the pictures of the first and last of the house of Romanov. Golunsky, Murahovsky and I were clearly the best in the class. Murahovsky was a silent, friendly, and industrious pupil. But in our class seven gold medals were given, and it was said that it was on account of Nedatchin’s, the Director’s, leaving that year, that the school made this rather unusual “splash”—unless our class had a true collection of very capable students.

The summer after my graduation—and what a feeling of freedom and relief—we three brothers spent several weeks in Finland. There, after a visit in Viborg and Helsinki (Helsingfors), we came to an isle in the Scheres. The travel by steamboat between the innumerable islands, with the sea narrowing to the size of a river and then again broadening to wide expanses, was an unforgettable experience, and throughout my life I have wished to visit those islands once more. On the small island on which we landed we left our luggage on the pier with nobody to take care of it, and found it still there when we returned after finding a room in the house of some fisherman. Possibly we spent there a week. With Alexander I went to Abo (Turku of today). Again together with Daniel, we went northward from Helsinki on one of the lakes, so numerous in Finland, and descended southward, slowly, on a boat that went through many sluices or gates, the level of water being adjusted after each descent from gate to gate.

Though I had graduated from the Gymnasium with a gold medal, I was not accepted to the Moscow Imperial University because that year a new measure was introduced.

Until that year of 1913, Jews were accepted only if they excelled—thus the recipients of medals filled the *numerus clausus*. But this arrangement compelled the Jewish gymnasiasts to study hard and thus many of them became the best students in their classes. Therefore in 1913 the antisemitic minister of education Kasso changed the procedure to a “lottery” ; henceforth not the Jewish students with the best marks, but those few to whom chance was gracious, would be accepted. At the offices of Moscow University I met an aspirant by the name of Burstein, from Balti in Bessarabia, who told me in advance that he would win the lottery, since his father was the managing agent on the estate of an important Petersburg bureaucrat. And in fact he won the lottery.

I did not regret at all not having been admitted to the University in Moscow, and made plans to study abroad. I thought of Italy, and bought a book to study Italian. Together with the choice of land of study I had before me the choice of the faculty—and this, to the surprise of those who knew me, was to be medicine. Actually my mother was insistent on that. I cannot claim that I myself had a strong inclination to this field, or that I had a burning desire to help humanity as a medical doctor. Yet I did have rather strong desires to be of some help, especially to my own race, and so ancient history, and in particular the history of the Jewish people was not unfamiliar to me. I was most interested in literature, but not in studying philology, which appeared too dry to me; I also felt an inclination toward architecture and interested myself in chances to study it—but not seriously enough. Actually, I was not attracted by any profession, and led a detached or dreamy way of life. In medicine I was interested in ophthalmology, and several times visited the Rumiantzevo library, the largest in Moscow, reading there on eyes, and even devising a plan for reducing myopia by cutting off a slice from the lens, thus decreasing its refractory power. For medical studies I had a certain disinclination, not believing in my abilities in chemistry, and thus in pharmacology. Before his exams, I gave some help in composition to my brother Alexander, who finished his Kommarcheskoe Uchinie (High School) the same year as I did; but I was aware of his far greater abilities in chemistry, a subject that did not attract me.¹

My father advised me to talk over the choice of university with a lawyer, Urison, a friend of his; he advised me to choose Montpellier in the south of France. I still remember many episodes of my journey to Montpellier. One late evening and night I spent on the train, my neighbors being people of show business or the circus. I stopped in Frankfurt on Main and observed a Zeppelin over the town, then a new sight. I did my sightseeing dutifully, visiting the Rothschild library; then I continued my journey. I arrived in Belfort early. Having to change trains, I went to see the lion carved into the rock of the outside wall to commemorate the defense of the stronghold in 1870. Passing through Dijon and Avignon, I came at night to Montpellier and slept in a hotel near the railway station. The next day I found a room in a pension close to the Roman viaduct.

About five hundred Jewish students from Russia gathered at Montpellier; it was the time of the trial of Beiliss. Every day at some fixed hour when the mail and

newspapers arrived, we would crowd the two rooms of our fraternity library where the detailed records of the trial were read to the assembled crowd. Many would stand under the windows in the quiet narrow street to listen to the newspaper readings from the Kiev courthouse, where the trial of Beiliss went on for weeks.

It is a matter of historical record that Tzar Nicholas II was the instigator of that trial, in which Beiliss (and by implication the entire Jewry) was accused of using gentile blood for *matza* (unleavened bread). The police and the government knew the real murderer of the boy, but let the female criminal appear as a witness for the prosecution. The civilized world shrugged it off as it had the Dreyfuss trial nineteen years earlier, but this time not Beiliss only, but clearly the entire Jewish people was under indictment.

The campaign against the Jews of Russia was formulated early in the twentieth century by Pobednoszev, the head of the Holy Synod: “A third will emigrate, a third will be killed, a third will assimilate.” Too true was this prognostication.

Among the students in Montpellier the socialist party of Bundists reigned supreme; the main speaker was a student named Fleischer. The Zionists were as if not present at all; nobody confessed openly to such leanings. Once when after the reading of the newspaper report the Bundist spoke provocatively, I answered with a speech. This proclamation of Zionism spread among the students like wildfire, and before long we had the majority in the student meetings. I was chosen to be the group’s chairman, and a student who had also just started his studies, Michael Marek, was elected as one of my assistants. He, too, had come from Moscow, but there we had not known each other. There was also a student from Israel, Garber: he was from Petah-Tikva, and was studying medicine at the insistence of his parents, although he loved agriculture. Another student from Israel was Baharav; the large majority of students, however, were from Russia and from Poland, then a part of the Russian empire.

Once, after a meeting, five of us climbed over the iron rail and walked on top of the aqueduct, a tall and narrow structure from Roman times, possibly just a meter wide, with no rails, as tall as a six story building and possibly a kilometer or more in length. It was evening, and seeing the numerous lights below and in the distance it appeared as if one could see the entire Provence. On the way we sat down, but it was frightening to stand up again; and when the one going in front announced to the one who followed, and this to the one behind him, that there was a bend—a new direction in the aqueduct—Baharav, who was supposed to be behind me did not answer; and we did not know whether he had fallen down until we reached the end. We went to the end, then returned to the starting point, and found him standing there.

One evening after a heated debate at a meeting, where I was among the disputants, Marek and I in our colorful student berets started toward the fishing village on the Mediterranean seashore to cool ourselves off by a long night walk. We ate and slept in a little chamber in the village and in the morning we continued southward, climbed towards a castle built a thousand years earlier by Charles Martel, saw the expanse of

the Mediterranean—at the other end, we knew, was the land of Israel—and wandered farther amid the dunes and the lagoons.

Back in Montpellier, soon after the classes started, we were unpleasantly impressed by the rigorous discipline and the disrespect shown by the teachers to the pupils in one of the classes—this was far different from the freedom we had known as students in the universities of Russia. Standing on the platform near my home, from where the aqueduct started, with a bright view stretching in front of us, I suggested to Marek that we not continue the classes but go together to Israel—to which he gladly agreed. Our friends in the group were impressed by this decision; to us it seemed to be merely the natural and immediate consequence of our Zionist attitude.

We traveled to Marseilles; from there we wrote home of our decision. Visiting the geographical society of Marseilles, we asked to be shown maps of the Sinai peninsula, since we had a fleeting idea to cross the peninsula by foot, thus repeating the desert wanderings of the children of Israel. We were dissuaded from the plan, being made aware of the lack of roads and of our own lack of preparation. This course would have been rather perilous, if realizable at all. We bought two revolvers in Marseilles.

Climbing the hill on which stands the church with a gigantic Madonna on its roof, we looked out at the island made famous by the novel *The Count of Monte Cristo*, which I had read many years earlier when I was about twelve. Then we boarded a ship; it brought us to Egypt, again on the blue waters of the sea familiar to me from my travels less than a year and a half earlier. In Egypt we found letters from our parents. My mother regretted my decision to drop the study of medicine, but my father wrote me an enthusiastic letter and blessed me on my road. Marek's parents thought his step unwise. Marek's father was a publisher of art books in Moscow; he eked out his existence, and it was an effort to send a son to study abroad. Michael's monthly check was not big, less than half of mine. Neither did Marek's parents feel bound to the land of Israel in any way.

In Cairo we climbed the pyramids, but once again I omitted visiting their interior—faced with the choice, it appeared more interesting to spend money for the ascent. By boat we came to Jaffa. In Tel-Aviv we received from Bezalel Jaffe, one of the leading citizens and a remote relative of my mother, a letter to Eisenberg, the director of Agudath-Netaim, in Rechoboth. We were seen only by his assistant, and were included in the cadres of plantation workers on a day-to-day basis. We took two rooms in the “colony,” as Rehoboth and other settlements were called, and ate in a primitive laborers' kitchen. But of work in the field not much was done: it was the rainy season and during the rain we had to stay home and were not paid. One day we worked at slicing the earth and pulling out the roots of *ingil*, a strong weed, and my tallness was not an advantage since the work was done in a bending position. Another day we worked in planting. And again ceaseless days of rain. Some days we subsisted on chocolate powder and condensed milk, preparing this drink again and again. In our room, I read Dostoievsky's *The Brothers Karamazov* and was impressed.

I met Esther Bashist at the square where mail was received, and again on a late afternoon on the hills near Rehoboth, when other girls were with her. I languished, hardly exchanging a word with her. This was untypical since among my friends in the Gymnasium I was the most daring and able to start an acquaintance with a girl, surprising these “wolves-to-be.” Here I was without initiative and without speech.

Marek and I would go to visit the huts of the *shomrim* (the sentries): this was the romantic period of the movement and the *shomrim*, who guarded the plantations and who rode horses, were the heroes whom the youth of the colony would come to visit, and sing or dance.

For our mail Marek and I used to go to Jaffa, a walking distance of five hours in each direction, but it did not appear to us impractical to make this trip each time on foot. On the way, in Nes-Ziona, we would take oranges in some grove—to take for one’s meal was regarded as permitted—and bury a few in sand and find them on our way back from Jaffa.

On our way we slept one night in Rishon le Zion. Since during those days the founding meeting of the Histadruth was taking place, presided over by Ben Gurion, there was no place to sleep under a roof, and we slept on the benches in front of the large synagogue building. In the middle of the night some pious man awakened us and brought us to sleep in a Hassidic prayer house; it was a cold winter night.

At the end of December—and we had long since given up the idea of working for Agudath Netaim (all we earned was a few silver coins)—we made our way afoot to Ruhama. It was the southernmost Jewish settlement. The first day we walked as far as Castini, which until the founding of Ruhama had been the southernmost of the Jewish settlements. There we slept. Early the next morning we were again on our way, being told that to find the way to Ruhama we had to follow the track of wheels, since Arabs at that time did not use vehicles on wheels but traveled on foot or rode camels. The entire day we hardly met any human beings. To the left were mountains at a distance, and once at the foot of a distant slope we saw what appeared to be the ruins of a large ancient town. The sun and the moon were of the same size, and like two equal arms of a balance stood symmetrically in the sky, the moon very shiny and the sun somewhat dimmed. When the winter’s early darkness fell rather suddenly on the semi-desert, we thought to lay ourselves down on the sand of the moon-lit desert for sleep. But when we had already selected the place to lie down we heard from afar the barking of dogs and we understood that the Ruhama farm was close by. We now traveled in the dark through valleys along some winding *wadi* and came to a farm yard. When we stood in front of some one-story building we heard from inside dancing and singing—it was Friday night—*Am Israel hai ad bli dai*: “The people of Israel is alive and so forever.”

This settlement, Ruhama, owed its existence to my father. It was founded by the group Sheerith Israel, which my father had organized. The idea of redemption of the

soil in the land of Israel first took shape when the Israel Colonization Association, a Baron Edmund Rothschild Foundation, began its work in the 1880's. The entire Herzl movement added but very little to the program of land redemption. In 1895 Warsaw Jews founded Rehoboth, and somewhat later The National Fund started a few points like Degania and Merhavia. Poria, a small settlement, was built above the lake of Kinnereth (Galilee), by the private endeavor of Americans.

In about 1909 Migdal on the shores of Kinnereth Lake was begun at my father's initiative. In the years 1905 and following he had influenced by personal efforts one by one a group of prominent Jews in Moscow to participate in the redemption of land in Palestine, not by donation of a few rubles to the National Fund (Keren-Kajemeth), but by an investment of substantial sums. Vissotzki and Gotz, rich Jews, were among the members, and Dr. Tchlenov, too. The latter was a leader of the Zionist movement in Russia. When a group was organized and land purchased, the farm that was founded was called Migdal. I remember with what unusual devotion and effort my father made this possible. It had not yet been tried, and nobody could think in terms of a national business action, buying land in an Ottoman province, governed by *pashas* and Ottoman law. My father needed to persuade people, but by nature he was not what one calls a "talker." So he "spoke his heart." His idea was not to have one settlement in Palestine, but to have a central cooperative, composed of Jews of Moscow, whom Jews of other Russian towns would trust, and in whose steps they would follow. This cooperative he intended to call *Sheerith Israel*. This name, familiar to him from his prayers when a youth in the *yeshiva*, was holy to him: "the remnant of Israel." Yet the group he organized decided to be exclusive and was disinterested to gather around itself more groups and to found more settlements. Then my father, again neglecting his own business, devoted his time and energies to creating a new group. Endlessly he tried, visiting those of his acquaintances whom he thought could be persuaded to become members of Sheerith Israel. The sum pledged by each member was about five thousand rubles, a substantially smaller amount than for Migdal, yet large enough in those days in Russia; it was to be paid in installments.

My father started this one-man crusade, as was said, when the revolution of 1905 had not yet been suppressed, and a pamphlet by Prof. O. Warburg was disseminated by a messenger when it was not very wise to do so. Buying land in Turkey was seen as a political activity abroad and must have aroused the Tzarist administration's suspicion. My father asked to have these activities legalized. He was called before a committee of the Governor-General in Moscow. He was ill on the day he had to appear but went nevertheless, together with Prof. Schor, a concert pianist and prominent figure. The matter, discussed and questioned before this bureaucratic assembly, was referred to the administration in Petersburg. But my father, who went there with a fever, fell sick with pneumonia. The sickness dragged on—he was sent to Menton in the south of France to recuperate, but he had Dr. Buchmil, an orator who had participated in Zionist congresses from the first one on, come out to him, and engaged him to travel to certain districts in Russia to try to find people interested in sacrificing part of their property to invest in the land of Israel. Yet Dr. Buchmil failed in the task. Upon his return from abroad, my father resumed his Sheerith Israel work, as soon as he was

able to do so. Whenever he would obtain another signature on the list he carried with him, he could not refrain from showing us that the list of names was growing. And how many times did he fail, too, to influence the men he went to see! He was oblivious of his own business. The expenses incurred by the organization work he carried gladly; in his entire life he always gave, never took from anyone. Finally, when he had about forty signatures, a group from Bialostock joined.

There was land for sale in southern Palestine. Dr. Ruppin, then new in Palestine, looked for a way to realize the purchase. Dr. Tchlenov influenced the group to invest the funds in Gemama, in the district of Gaza. My father wished to start from the extreme Negeb, from el-Arish, which was under the British, who governed Egypt; this was in line with the idea of Dr. Herzl, who thought of beginning in the small area outside of the Turkish province. Yet Gemama's land was bought. My father was asked by the group to choose a Hebrew name for the new settlement, and he chose Ruhama; in the prophet Hoshea, the rejected daughter, symbolizing the Jewish people, is renamed Ruhama, the one to whom grace and compassion are shown. In most settlements, especially in those founded by Baron Rothschild, the settlers employed the cheaper Arab laborers, thus making it impossible for Jewish workers to get a foothold; but my father insisted that in Ruhama Jewish workers should be hired. Then he stipulated that ten percent of the land should be owned by the workers; finally, that only Hebrew should be the language of Ruhama. When the "colony" was founded, the members of the group gave my father a palm tree, which stood in our apartment.

Marek and I arrived in Ruhama in the last week of April of 1913. Until then, I believe, nobody of the Moscow group had been there to see the place built. Hirschfeld, a farmer from Rishon le Zion, was chosen as manager, and he was eminently fitted for the job, where Jewish work and the Hebrew language had to be honored. He offered to let me see the books, but I was not interested to check on what he spent. Marek and I worked a little in the field, with other workers, their number being about thirty, or we rode horses.

The pride of Ruhama was its artesian well. At a depth of about fifty meters water was found and thus the problem of settlement in the south seemed solved from the standpoint of water. Gemama, the former name, means actually Waste or Deserted Land. The new name was prophetically chosen.

We stayed in Israel during the winter months. Memorable and dear is the religious experience I had when I went alone to the "cave of Samson" in the afternoon, alone in the deserted height, and returned in the dark.

In spring Marek and I returned to Moscow, traveling by fourth class. A few days after coming back I contracted diphtheria. But I was tall and generally in good health, and I pulled through.

In the spring of 1914 I entered the University of Edinburgh, Scotland, and took pre-

medical courses in the natural sciences. I had the opportunity to hear lecture of Henri Bergson, then a visiting professor at Edinburgh. But I was handicapped by lack of familiarity with the extensive nomenclature, especially in botany and zoology. For the first time I had a spell of indecision—I had to compel myself to persevere in my resolve to study medicine. There was in Edinburgh a very small Russian colony. I stayed for only one term.

On my return to Moscow for summer vacations the Sarajevo crisis was ripening. Soon there was war, and I was stranded in Russia. My parents were at that time in Germany, and with difficulty they made their way back via Switzerland and Bulgaria.

I enrolled in an institution which was not under the Ministry of Education, but under the Ministry of Commerce. The University of Moscow since its formation had enjoyed autonomy, which meant that there were not trustees, the university being managed by a rector who, instead of being appointed by the government, was elected by the professors. Now the reactionary government of Tsar Nicholas II wished to take away this autonomy from Moscow University, and this caused the rector and most of the professors and anybody with a good name to leave the university and to found a new school under the Ministry of Commerce. For this reason it was called the Commercial Institute, but actually it was a full-fledged university. The best minds in jurisprudence and philosophy were teaching there. I studied at the Institute for the next two years, taking courses in philosophy, law, ancient history, and other subjects. Of these my favorite subject was ancient history. But since the Institute had no medical faculty, I sought admission to the Medical School of Moscow University. After one year at the Commercial Institute I was admitted, following an interview with the new minister of education, Graf Ignatiev. For this I had to travel to Petrograd (the present Leningrad). I explained to the minister that I had a letter from the Dean of the University of Edinburgh that any points I would earn at Moscow University would be credited to me in Edinburgh. Graf Ignatiev, unlike his predecessor and unlike his own father, was a liberal man, and I was admitted, along with several other promising students, into the second year of study. For the next year I studied simultaneously at both universities.

In the year 1915-1916 I took a very strenuous program in medicine, besides a program in the humanities. I undertook to cover the entire course on anatomy in the two terms of a year. There was also a platonic but very emotional experience in the spring. All this together caused my athletic body to lose its resistance; and to work in an unhygienic and poorly ventilated anatomic theater certainly exposed the students to all kinds of infections. In the spring I lay down with signs of pneumonia and, according to the doctor, of the Fraenkel and Friedlander type simultaneously. At first my father called a doctor whom he knew as a Hebrew writer. Whether he was a good writer I do not know, but as a doctor he treated me for abdominal typhus. My brother Alexander, alarmed by my worsening condition, insisted on calling a doctor who had cured a friend of his. Dr. Loewenthal, a small and slenderly built elderly man, was kind to the patient, but harsh on the family, demanding strict rules. There was a consilium between the two doctors, and they raised their voices one against the other.

Dr. Loewenthal became my healer.

In the late spring of 1916 I went to the Crimea, and after a summer there, returned to resume my studies. The next term I again worked furiously. But before the new year 1917 I still felt run down and went to Kislovodsk in the Caucasus. There, in the mountainous resort, I took a room in a pension, but a few days later I found out that before me a patient dying of tuberculosis had used the same bed and mattress. I moved out and took another room. Once, walking on the snow-covered hills of the Kislovodsk Park, I spat blood. Seeing blood on the white snow, I became depressed and thought that I had become sick with tuberculosis. I applied to a doctor. He had a five-ruble note on his table, as if left by a previous patient, but, since I found it there again on the next visit, I realized that it was a sign to the patient not to leave less (in Russia there was no practice of billing a patient; money was usually stuck into the doctor's hand). The doctor assured me that there was nothing seriously wrong with me. So I could again turn my thoughts to problems not concerned specifically with myself and, walking in the streets of the Caucasian village, I wrote page after page of *The Third Exodus*, a pamphlet of religious fervor and Zionist zeal. In this work I urged that the nations of the world that would convene after the war should right a wrong and create a Jewish state in Palestine. I believe many sentences from the pamphlet became prophetic after World War I, and even more so after World War II.

At the end of February 1917 Kislovodsk, together with the rest of Russia, became excited by the news from Petrograd (as St. Petersburg was then called because of war with Germany). Every new day brought exciting news. The Tzar, last of the Romanovs, abdicated. I remember that day. Full of emotion I went across the hills of Kislovodsk; I met an old man. He seemed unaware of the news, or it did not mean much to him. "O little birds, little birds—such a snow, no food for you? How will you survive?" said he.

I left for Moscow. The land was in exaltation. Those years of war had witnessed Rasputin's baleful rise to power over the Tzarina, and hence the Tzar, and hence the country. An illiterate "monk," a debauching fraud, Rasputin hypnotized and mystified her as his mental prisoner; any prospective prime minister had to crawl to him and kiss his hand to be appointed—this was the case with prime ministers Gromykin, Stuermer and Plotopov. These were the days of World War I, and the Tzarina, originally a German princess, was suspected of disloyalty to Russia and its army.

Prince Yssupov and a few monarchists lured Rasputin to a dinner party and killed him in order to save the monarchy from complete perdition. This was the beginning of the revolution; ten weeks later, the war lost, the land in anarchy, the Tzar was forced to resign and Prince Lvov formed the Provisional Government, with Kerensky as minister of justice.

After two weeks in Moscow I left again for the Crimea, where I remained for eight months, mending my health, living in a village in the Crimea's mountainous crest. I returned to Moscow at the news that a new revolution, of the end of October, had

changed the order in Russia. The October Revolution of 1917 was followed by the Civil War. The White armies were brandishing anti-semitic slogans. The train did not go straight to Moscow. All was in a state of great strain. In the fall, with the country already under the Bolsheviks, I printed my pamphlet, *The Third Exodus*, under the pen name Immanuel Ram.

I spent the winter and the following spring as an intern in the clinics, and also attended the course of Prof. Ross.

On an evening in late November or early December 1917 I was in Moscow, only a few weeks since the street fighting against the regime of Kerensky was over. Some of the buildings showed the wounds of the battle: many stuccoes were pocked by numerous bullet-holes, and here and there a larger hole in a brick wall showed where artillery shots had fallen. There was no jubilation, as there had been in February, some nine months earlier, when the regime of the Tzar fell; the atmosphere was gloomy, either because such is the late autumn in Moscow, or because the fratricidal fight, at a time when Russia was still engaged in war with Germany, was a cheerless affair.

But the white Columned Hall of the old Nobility House was illuminated. The place had not yet been designated for the meetings of the All-Russian Soviets; and so soon after the October (actually November) Revolution, many of the activities which soon thereafter were to be banned were still possible in Moscow. The Jews of Moscow came there to participate in a festival: on November 3, during the very days when the city was in the grips of the street fighting, the so-called Balfour Declaration had been proclaimed by the government of Lloyd-George in England. It was not yet the foundation of the state, but the promise of a national home was made—a very unusual message, awaited for some two thousand years. Only a couple of years earlier, such a “messianic” event would have been laughed down by the same Jewry in Moscow. But the last two months were by themselves an apocalyptic time. The Jews of Moscow filled the white columned hall, the place of many glorious ball festivities in the past. I, too, went there. I was at that time a student in Moscow University, in my early twenties. All the places in the brightly illuminated hall were taken, and I stood to the side of the platform, built for the presiding officers, speakers, and notables of the community, or of the Zionist movement. I stood leaning on one of the big white marble pillars, hidden from most of the public by this pillar. Among the notables on the platform the absence of one person was conspicuous: Dr. Jacobson was the president of the organization that called the meeting; and if I was not wrong, I had seen him at the beginning of the evening—but then he disappeared.

As I stood there, and the speakers replaced one another on the platform, my face must have glowed with some inner light—not because of what the speaker said; not even because of this very festive convocation; I had believed that this event would come, and therefore was less aroused by it than those for whom it was above all expectations. But still my face must have glowed with some not everyday expression, because I was suddenly approached by a stranger, who made his request in the very

first sentence: "I am a sculptor; I would like to make a sculpture of your head. Would you like to sit for me?"

The man was not exactly small, but somewhat undersized. He had long hair, sticking in strains, which should denote an artist; on the other hand, he had something proletarian, even plebeian, in his face and figure. His face, and especially his forehead and his nose were bony, and the skin was brownish-sallow, tautly stretched and thin on the forehead, but lying in deep faults on his cheeks. He looked up to me; nevertheless, there was in his bearing something of a prince newly-recognized from the crowd of beggars, as if he was the man of the day. His age may have been thirty-five, but these must have been thirty-five years of deprivations. His Russian was very bad: not as of a foreigner, but as of a Jewish man who had spent his life entirely in a Yiddish-speaking community. Actually, I had never heard a Russian Jew so poorly in possession of the language of the country.

I asked him his name, and he spoke it—Itkin; it was familiar to me, and actually, I had already anticipated that he was Itkin. For the last two weeks I had read a few times in the newspapers about him. He really was the sensation of those days, when today one would think nothing could have been sensational in Russia next to the political revolution, or the events on the German-Austrian front. But it was not so. Itkin was the unusual news. The newspapers—there were still the bourgeois dailies—wrote about an exhibition of his works shown to a select crowd. But the story around him or, better, his discovery, was interesting. He had been a cobbler in some small town in south-western Russia until this very year. I believe he did not even have his own shop, but worked for somebody else; and in the time that he could spare from work or sleep he produced some unusual carvings. Then three sisters, baronesses—the titles were not yet abolished in Russia—all three unmarried, living in Moscow, became aware of his existence and work, interested themselves in him, and brought him to Moscow; they put at his disposal a mansion that belonged to them. All this was told in the papers, which also reproduced prints some of his sculptures.

Hearing his name, I told him that I had heard about him, and could read the satisfaction on his face. Before he gave me his address—to which he invited me to come in a few days—he interrupted himself and said: "Have you heard? Jacobson died of a heart attack."

We stood in the back of one of the marble pillars, between the platform and a room in the back, in which some activity was going on. I was surprised, since I knew the man. We inquired in the room: it was true. Dr. Jacobson had felt badly, apparently had a heart-attack, was ushered home, and died there. But we were told not to spread the news. The festivities of the Balfour declaration went on, and the organizers thought it better not to sadden the gathering by the news. There were speeches and singing, the large crowd not suspecting that the organizer of the affair had died the same evening.

Outside the weather was windy and cold. All the leaves in the parks and boulevards of Moscow had already fallen, patches of snow lay in the streets, and the wind

zoomed in the wires stretched between the poles.

A few days later, at the appointed hour, I was ringing at the door of the mansion, in one of the side-streets. The mansion was not large, but it was not a private home; it had all the attributes of a mansion: the elaborate facade in front, the expensive iron work, the very large and tall windows, the luxurious marble staircase. The sculptor came down himself to open the door. Possibly the house had been put at his disposal because otherwise it would have been requisitioned by some revolutionary group, not necessarily communists. At that time groups of people calling themselves anarchists rang bells, requisitioned private autos, or occupied villas, and there was no person or agency with which one could lodge a complaint.

Itkin led me upstairs to his studio—a room with a big window—probably a drawing room until recently. There he showed me several of his works. One was the head of a murdered man, his skull deformed by a blow—a Jew killed in a pogrom. It was impressive and even now, thirty years later, I remember the face. A large reclining figure of clay—he was still working on it—called “Russia” was a deformed woman with archaic, even animal features.

Then he asked me to sit down, and started preparing his clay on the rack, looking at me from time to time. When he had a large enough ball of clay on the wires of the rack, he started to work. After about half an hour of modelling, Itkin stopped, and turning to me, said:

“Do you remember the evening I spoke to you in the Hall of the Nobility, when the chairman, Jacobson, was ushered home, and died? Do you remember?”

Of course, I remembered it.

“You see, Dr. Jacobson wished me to make his portrait. We talked it over and we agreed that as soon as the festival affair was over, he would no longer be so overburdened, and he would come here. So he said he would come on Monday, after that festival week, at five o’clock in the afternoon. At the celebration I heard, and I told you, that Jacobson died. Well, it was a pity. But I knew him only slightly; he was not my friend, and I struck this appointment out of my mental calendar.

“But when it was Monday, shortly before five in the afternoon, strangely, I could not do any work. Sadness gripped me...” Itkin looked at me, his face was pale and strained, and he searched for words. The words did not come easily to him, and he brought them out as if improperly fashioned or chiseled.

“Yes, I sat there, sad, and thought, What is man? Here a man was to come to me in a few minutes to make his portrait, but he will never come. I will never make his portrait. What is man? Clay? Not even fired clay. Just dust. And what is his spirit that endures? Vanity of vanities? There was his desire to have his features retained in clay, and the model is dead, dead forever; what is man, and what are his days on

earth?

“As I sat here on this Monday, two days ago, at this hour, thinking these sad thoughts and deliberating over man who is just grass that dies overnight, as the clock started to sound—one—yes, he was to come—two—but he will not come—three—because he is dead—four—dead forever and ever—five—and the doorbell rang. I expected nobody and was startled. I shook a little as I went down the steps. I opened the door. There was a messenger. He said:

‘I am sent by Mrs. Jacobson.’ And he gave me an envelope. There was a note. It said, ‘Please come to take a mask from the face of Dr. Jacobson, my husband.’

“He had kept his word.”

I listened all this time without interrupting the sculptor; when he ended his story, we both sat in silence—he absentmindedly kneading clay with his hands, looking to the reddish hue of the pale grey sky, until it turned dark.

References

1. Alexander later became an outstanding chemist, and, as I was told, winner of the Lenin prize.





Ukraine

*And laughingly calls me the wide road far-running,
The winds of the plain bathe and roll in my breast.
How far to the master? It's far to the Master.
Don't rest.*

These lines from a poet—his name I did not keep in memory—I read in the summer of 1918. We spent that summer in a *dacha* in Malachovka, about an hour by train from Moscow. Feodor Chaliapin, the singer, occupied the neighboring, larger, summer house. That summer a Jewess, a member of the Social Revolutionary Party, made an attempt to kill Lenin, wounding him, and this act was followed by a policy of terror on the part of the Bolsheviks.

It was already the end of the summer; I sat alone on a bench opposite a field and thought poetry, when a note on a small piece of paper was handed to me. It was sent from a place of detention of the Cheka, the highly feared secret police,¹ and was from a young man named Birk, a student employed to visit new members of Sheerith-Israel to collect sums due for their shares. He had only slight success in his task, before he was arrested and a full list of names of members of this group was discovered on him. Yet he found a way of sending a note to me. In it he let me know in all brevity that under interrogation he had named my father as the head of the group; he urged my father to flee Moscow.

It was the second day of Rosh-Hashana, the day which, as I think now, was memorable in my father's life. The Haftara, or reading from the prophets before the congregation, is on that day from Isaiah and contains the words about Sheerith Israel, the remnants of the people of Israel, upon whom the Lord will have mercy. When my father first came to Vitebsk, and when he first came to Moscow, and when he, in the beginning of World War I, came to Odessa on his way to Moscow from Switzerland, he was honored by being asked to read these verses—a sign of respect and esteem. In Odessa this invitation was extended to him by the congregations of Ussishkin, Klausner and others. He used to read it incomparably, his voice being very melodic yet forceful, and invariably he moved his listeners deeply. It was from this Haftara (Isaiah) that he drew the name Sheerith Israel for the group which he hoped would comprise many of the nation. Delivery of the wastes of the land of Israel from the eighteen centuries of neglect was but part of the activities of the planned groups, with humanitarian activities of general character as the other part. But the work was cut short in the beginning.

It was certainly audacious and imprudent to gather every week another group of people in our home to give them a lecture on the land of Israel (which was my task), to let them join the groups of Sheerith Israel, and to collect money for redeeming the land—in the very year of the Bolshevik revolution, dictatorship and terror. The payments were made in uncut sheets of Kerenki, the inflationary money printed without numbers and even without dividing the sheets into individual bills of forty rubles each. Yet it was not actually against the law to participate in such activities. Under the Communist regime the policy was not yet formulated—so, for instance, the Hebrew theater Habima was patronized by Lunacharski, minister of education in Lenin's cabinet. The elected cashier was the civil engineer Cooper; but I brought the money to Izhak Goldberg and exchanged it for drafts on a London bank, an operation saving them from utter devaluation and thus directing the funds for their future purpose in Palestine—an operation certainly not officially permitted under the Bolsheviks. Thus we were taking a risk, and now the whole matter was in the hands of the Cheka, with the list of members taken from Birk. We had no way of knowing the steps that would ensue in the atmosphere of terror that followed the unsuccessful attempt on Lenin's life.

From that moment there was to be no more peace of mind for me until I would be able to take my parents to the Ukraine. I had to find my father; then we had to go into hiding. He did not sleep with us that night in our *dacha*; nor any of the following nights. He slept with the in-laws of my elder brother, not far from our summer place. My father never again entered our apartment in the city, nor did my mother. Our apartment was in an old aristocratic house, with N. Berdiaeff, the religious philosopher, and Prof. Focht, the famed cardiologist, as some of the tenants. Nothing, neither furniture, nor personal belongings, were saved from there; it was closed. My books were left behind; my diaries, about thirteen tomes, that I had written daily for seven years, from the age of sixteen, I left at the apartment of my brother Daniel, innocent of the thought that they could serve as indiscreet reading for his wife, Genia, or for anyone else who cared to read them. I was too open in them about my thoughts, my religious yearnings, and in my accounting of everything that accompanies the development of a boy into a youth. I should have destroyed these diaries. On the contrary, I continued to make my daily entries during our travels.

For about three weeks my parents slept in different places, and during this time all efforts were made toward leaving Moscow and going to the Ukraine, then separated from Soviet Russia by the treaty of Brest-Litovsk, signed by Trotski with the Germans, victors in the war. A few times I went to our home to take a few things. It certainly appeared to me that somebody was on the lookout for my father: once I saw a woman watching, half hidden under the staircase; another time I noticed a man on watch on the opposite sidewalk.

It was necessary to obtain a Ukrainian permit for entry. The courtyard of the Ukrainian legation was crowded by a throng waiting to be admitted. It was not easy to gain entrance into the building. My elder brother Daniel tried to reach the door but

was not let in; then I tried and succeeded. Actually, a classmate of mine, Michail Ionoff, though not a Ukrainian, was employed in the legation, and he helped me to get inside the building. My father, seeing me enter where my brother, always very capable in getting things done, failed, acquired the confidence, as he told me later, to put his and my mother's lives in my hands. And so it was I who was to accompany them on their way to the Ukraine. Daniel had a family of his own. Why Alexander did not go with us I found out only some years later: he was deeply in love—possibly unanswered—with the younger sister of Genia, Daniel's wife. Also, he was studying chemistry at the Economic Institute, and there was no need for more than one of us to go with the parents.

I was about to begin my last year in the medical school of Moscow University. The class before ours left after only four years of study in view of the dire need for doctors. Our class might have had possibly only one term of the last year of medical training; but whether it would have taken till December 1918 or May 1919 in order to obtain my medical degree, not the slightest thought ever entered my mind to continue my studies instead of taking my parents out of Moscow; and it could have easily happened that by leaving the University and the country then I might never have obtained the degree.

Before leaving, an accounting and a protocol of the now-discontinued activities of Sheerith Israel had to be prepared, and this was done together with civil engineers Cooper and Elkind, who served as honorary treasurer and secretary, and for this I had to make various ways through the terror-stricken Moscow. One night I slept at the apartment of a young lawyer, Hershmann, whom I knew from our common interest in the Jewish Legion (of Jabotinsky), and who was a son-in-law of a member of the first group of Sheerith Israel, which had purchased Ruhama before the World War, in 1911. Hershman gave me his nightshirt to use on that occasion, and this remained in my memory because of the Iskariot role this Hershmann was later to play in this same affair.

Never before had I known a sleepless night—but during those weeks I would turn over on my bed at night, tormented by the thought: Would I be able to save my father from doom? Our exile started on September 23, 1918, when, after several contacts were made to obtain passage on a train—some officials of the railway even came to the apartment of Daniel—we (my father, my mother and I) boarded a train at the Brianski Station and headed toward the Ukraine. I do not remember whether it was the same or the next day that we arrived at the Russian-Ukrainian frontier. Leaving the car at a whistle stop, I ran to an official on the track at some distance who was giving the permits to leave—two words written in pencil. I showed him my passport to travel to Palestine, given me nine months earlier by the Bolshevik government; but probably even without this I would have obtained the permit. From there a distance of several kilometers had to be covered; my parents traveled in a wagon drawn by horses and I followed afoot. At that moment it appeared to my father that the guards were taking me into a forest, but it was not so.

We arrived at the Khutor Michailovsky, in the Chernigov Gubernia, not too far from Starodub in the same Gubernia where my parents met for the first time back in the 1880s. We found a place to sleep in the utterly crowded village, in the house of a peasant. Outside, the migrants made here and there a bonfire to keep themselves warm. Shots were heard intermittently. In the early morning, walking through this village, I heard the loud wailing of a woman who, in the middle of the broad village street, was bemoaning the death of someone dear to her, killed that night.

During that day I came to the place where the Germans were giving permits of admittance to the railway station—following the treaty of Brest-Litovsk the German occupation forces ruled the Ukraine under Hetman Skoropadski. People stood outside and a young German soldier was counting them from the steps by touching their heads not too gently with his baton. When I finally succeeded in reaching the station—the track ran there on an embankment—there were shots; somebody on the track was killed. My father, who was waiting below, was told by the people around him that a student had been shot to death. He was terrified by the thought that it was I. Human life was worth but very little.

The train finally took us away to Konotop and another train to Bakhmach. There we waited long evening hours and I was sadly impressed by the sight, in a silent and tired evening crowd of travelers waiting for their transportation, of a German soldier in his metal helmet courting a handsome Jewish girl who was not displeased by this situation.

When the unilluminated train on which we were to travel forth was put on a track and people stormed toward it, I felt in the dark that my documents were being pickpocketed as I was caught in the squeeze, but I noticed it in time to shout that thieves were at work, and they dropped my passport, my pocket Bible, and my wallet on the floor, where I collected them as they ran away. After a night of travel the train stopped at a station, and we had to wait for transportation to Poltava. This town was a kossack *khutor*, on a flat plain, with low houses scattered in empty orchards in autumn garb. The place was noted for the pogroms made by the kossacks not long before and, I believe, also remembered for the same since the days of Hetman Khmielnitzki in the seventeenth century, under whom hundreds of thousands of Jews were slaughtered. We spent a day and a night there waiting for a train.

There my mother showed the first sign of a sickness that was to take hold of her soon after our arrival in Poltava.

It was my intent to go from Khutor Mikhailovski toward Odessa in order to find there a ship for Palestine. But my father decided that we should go to Poltava, where his brother Feivel, known to us as Uncle Pavel, lived. There my parents wished to rest and to wait until my brother Daniel would succeed in sending us some means, because we had left with very little money in our pockets. So I submitted.

Uncle Pavel met us with his horse-driven carriage at the station and took us into his

house. He was one of the richest men in town, belonging to the little group of four or five wealthy men whose names were known to all. He started his career in life when my father called him from Mstislav to Smolensk to assist him and to be his partner: thus the hardships of the start from nothing had been carried by my father alone, who was five years older than his brother. Always there remained cordial relations between them, but my father regretted Pavel's marriage to a daughter of a Poltava merchant, a family of hard dealing people. Yet relations were never clouded by any disagreement or neurosis, so common between brothers. Pavel had the greatest esteem for my father. Also in learning, knowing Hebrew only by his prayerbook, Pavel was by far inferior to my father. He had two sons and a daughter; one son, Peter, recently married, lived in Poltava. He was of a meek character. His younger brother, as also his mother and sister, maintained a household in Kharkov, a large city not far from the more agricultural Poltava. There they had a large apartment building, or several buildings, and a mansion for their own use. Thus Feivel lived most of the time alone in his Poltava house taking care of his soap factory.

A day after our arrival my mother fell ill with dysentery. With no specific drugs against this disease, it was a perilous illness. Feivel's wife, Pasha, on receiving the message that "illustrious guests" had arrived from Moscow, wrote that she would come in a few days, and so she came. But finding the house in Poltava occupied by refugees, and turned partly into a hospital for my sick mother, she quickly changed her attitude and became impatient and hostile.

From my childhood I knew that my elder brother, at the age of three, had fallen sick with dysentery and that the doctors had given up on him; but then someone who knew folk remedies advised my parents to give the child an infusion of flowers of white clover mixed with a certain herb. Daniel survived, though he never again was the sturdy boy he was before. Now remembering this family tradition, I went outside of the town to some wet fields covered with October or November mist in search of clover, and went to mills and asked them to grind the herb. The tannin in those plants might have been the helpful ingredient. Dr. Gurevitch, a local practitioner, who later worked as a podiatrist in Palestine, a man of few words, told me that the chances for my mother's survival were slim. There were also consilia, when more doctors conferred, helpless beyond prescribing bismuth. But finally my mother slowly recovered.

At the time that my mother was very ill, Pasha, instead of leaving for Kharkov where she had a house all for herself and her unmarried children, produced an hysterical grand fit by throwing herself on the floor, together with her daughter, true to her mother, demanding that my parents leave the house. There was no place to find for rent. The scene occurred when my mother was in bed, my father in his room, on the door of which the women banged, then dropped to the floor in cries; I was at the time not at home, actually looking for a place to rent.

Also outside the world was not at peace. Soon after we arrived at Poltava we heard that a movement started by Petliura had gathered momentum and an army of his was

driving the Germans and the puppet Hetman Skoropadski out of the land. Petliura was approaching Poltava from Kharkov. Feivel occupied the upper floor of his house, the lower floor being rented to the town police. Cannon shots resounded for several hours; we sat in a corridor which was but slightly more protected than other rooms, and listened to the cannonade. When Petliura's troops entered (shortly they would leave, only to come again) a police officer was seized by his antagonists, possibly his fellow police troopers, and beaten on the floor below us. This went on for hours, he ever weaker, crying for mercy, the blows by belts and clubs sounding in response to his cries, until he died.

But the rule of Petliura did not endure. More than once we heard cannonades shelling the town. And then, close to Christmas, the Reds took over the Ukraine, battling the armies of Petliura. In the foreshadows of a new change of power in town, Feivel and his wife married their daughter to a young "Don Juan," the son of a rich owner of mills. He used to seclude himself with the girl, who had big black eyes and who, on her arrival from Kharkov, showed certain interest in me. Uncle Feivel had long since harbored the idea of one of us brothers taking his daughter, our cousin, to wife. Now the family wedding went on like a hidden affair in the dining room, my parents and I not being invited though we stayed in the same apartment; I slept in a small office room in the apartment, and saw the lights and heard the voices from the wedding room.

My uncle was a kind and goodhearted man, but he was entirely helpless against his wife, a boisterous woman; there was something very hard in her, and the younger brother of my father, Israel, used to call her *grobovaya doska* ("coffin lid"), though not to her face. Israel, too, soon arrived in Poltava from Nizhniy-Novgorod (Gorky), deserting his business and property. He, too, was a man of means—a reason for fear under the new regime. Feivel's other fault, besides his being submissive to the will of his wife, was his tight-fistedness. In my father there was an unusual broadhandedness; in Israel there was a mixture of this and of great care for order and of thriftiness. Feivel had only the latter, yet was willing and eager to make any effort if only he could help a person. He was tall and stooped, and had a melancholy look in his large eyes. He obviously suffered from the behavior of his wife toward his brother, to whom he owed much and whom he almost worshiped.

About the beginning of January 1919 the guns thundered, the bullets whistled, and the Reds took Poltava. Somewhere nearby people were killed and buried in the field. The rich were arrested and required to pay large sums, and Feivel was repeatedly under arrest, being one of the leading rich men of the city.

Only with the approach of the Reds did I succeed in finding a place to live for my parents and myself: two front rooms in the house of Vorozheikin and his wife. A gentile married to a Jewess, Vorozheikin had a very rich estate. The entire block of large hotels belonged to him. He was one of those Gogol type of estate owners who did absolutely nothing, spending his day on his couch. His wife was good-looking and younger than himself. They rented out the two front rooms so that they would not

be requisitioned by the incoming troops, being by their economic status and political views very adverse to the communists. But a little time passed and a handsome, dashing Red army officer contacted our landlady and easily talked her into giving him our rooms; then he abruptly informed my parents that they would have to leave in a matter of hours. I was not at home and did not see the officer. When told of this I went to the department of "Living Space" and brought an official to see our place, then went to the headquarters of the commanding general, the conqueror of Poltava. I spoke to the general, a tall man, in a large room and made him put in his own handwriting his command to the officer to submit to the decision of the Department. He signed the document, "General Bondarenko." I hurried home and there I sent for the officer, a debauching type of hero soldier. I told him in our hall to stand at attention since I would read him the order of the general, and when I read it the man was done and left, to the disappointment of Mrs. Vorozheikin. Some time later, possibly two or three months thereafter, I heard that he had been shot by order of his commanding officers, after a court martial for debauchery.

We lived three months at Uncle Pavel's and about ten months at Vorozheikin's . During these months the city of Poltava changed hands many times; every incursion was followed by terror, White or Red. From the very beginning my father, expecting a prolonged stay and in order to have income for living expenses, organized in partnership with two of Feivel's young clerks a candlemaking workshop, he not taking part in the manual work, but asking me to participate. Thus I observed and learned candlemaking.

When money arrived in a Kharkov bank, sent by my brother Daniel, my father (we were still living at Feivel's) went to Kharkov by train and, having received there the poorly printed Ukrainian money, changed it in the same bank to English pounds—twenty banknotes of a hundred pounds each. Upon his return to Poltava, I expressed my fear that England would soon come on hard times—India, for instance, would fall away from the British Empire—and I went by train to Kharkov to try to return the British banknotes. The director of the bank refused to cancel the deal, and my father was prudent enough not to let me keep these banknotes with me; but we retracted an option for another thousand pounds. Soon the Ukrainian money was worth nothing.

Machno, a dwarfish robber who called himself an anarchist, also raised an army, established a front, and took Kremenchug, but did not reach Poltava. His warfare, like that of Petliura, was accompanied by pogroms. Then Denikin's "White Army" swept up from the south and occupied Poltava. Again, one army left, killing hostages and other unfortunates, and drew out of town, and another entered, sparkling with sabres and bayonets. Poltava was spared from a large pogrom, but many other towns and cities of the Ukraine were not so fortunate. Reading of the massacre in Kremenchug and the rape of Jewish girls by soldiers, I wrote a poem to those unfortunates, "Pure in the House of Israel." I sent this poem to Beka (Rebecca) whom I knew from the last year in Crimea and whose home was in Kremenchug, that she might console someone whom she knew, and she answered by letter that she had to console with my

lines her own sister, age 17. I sent to Beka all the money I earned from candlemaking.

When seven months of our stay in Poltava had passed, Daniel arrived for a visit. It was about the time of Passover, 1919. These seven months had seemed endless. Daniel could come while Ukraine was united with Russia under the Reds. But then the Whites came, and as usual the hotels in Vorozheikin's block were occupied by the officers of the victors. One evening while going home I was stopped by two or three soldiers of Denikin who attacked me as a Jew; but an officer passed by and ordered them to abstain. When I followed the officer in order to thank him, he said: "From a Jew I wish no thanks." I had only a wound on the palm of my hand, but a greater wound in my pride.

For the Jews it was a time of suffering that naturally called forth Messianic hopes. Only a few days after our arrival in Poltava a man came to see us, we having newly arrived from Moscow. He had a ruddy complexion, broad face and forehead, and a large beard, not unsimilar to the image of Zeus as usually painted or sculpted. He was finely clothed in an expensive coat with a velvet collar. He had messianic ideas, and if what he said sounded exalted, that which he had in writing was not very coherent. He said he had to see Trotsky and actually, later, went to see him in Moscow. I was told that he was a farmer or a merchant of a village who had been very tight with his money, his charity, and his love of neighbor. Then something happened to him and he changed completely; I believe he gave away his property. He had in his mind a vision collected from the teachings of Tolstoy, from messianic hopes, and from communistic ideology. But only later, when his behavior became even stranger and his appearance less immaculate, and he was also occasionally arrested, I heard that he suffered from progressive paranoia which took the form of religious delusion, entirely appropriate to that time of great sufferings.

I loved to spend time with the rabbi of Slobodka, as he was called, because he was a rabbi refugee from that famous place of learning in Lithuania. He resided that year in Poltava, and a few times I spoke with him, meeting him in the empty loft of a synagogue, he trying to introduce me to the works of Maimonides, but without much success.

In Poltava there were three synagogues, one next to another. One was Sephardic, for the oriental way of worship, though I wondered that there should be such worshipers in Poltava. Was the oriental worship a heritage from the movement of Shabbatai Zvi, the seventeenth-century messianic claimant who ended as an apostate and convert to Islam? One of the other synagogues in the group was Hassidic. Once a young cantor came to town and into one of these synagogues. He did not sing as cantors usually do, but spoke the prayer. Never before or since have I heard such conversation with God in public, never such a way of saying words, and I have known the celebrated actors of the Moscow Arts Theater, and have heard a number of times Chaliapin saying his monologue in Boris Godunov, and have seen Sarah Bernhardt on stage. The crowd was as still as if there were not a living soul in the synagogue save the cantor speaking to God for his people. The young cantor left town and was never heard of

again.

Several times I tried to arrange our departure toward some place from where we could proceed to the land of Israel. But by now it was becoming more and more dangerous to travel. Once when I made plans to leave with my parents the city of Poltava, where we were rooted now for so long, five or six Jews who had been killed in trains were brought to Poltava, displayed at the station, and then were carried in a cortege followed by a few hundred, or even thousand, Jews to the cemetery, the gentiles gazing from their windows. I participated in the cortege. The rabbi of Slobodka came to our home to dissuade us from traveling. All four routes from Poltava were equally dangerous.

At this rabbi's I was witness to a gentile man in his forties who came with his son to become Jews. He came from some place outside Poltava, and had the very fine face of a sufferer dedicated to his inner call. He was a man of some manual profession—a carpenter I believe. As is usual in such cases, the rabbi first used his eloquence to dissuade the man from his plan: the Jews are not only disinclined toward missionary zeal, but are adverse to having proselytes in their midst. But I was very strongly impressed by this man and his young son, age ten or eleven, who was following his father wherever he went or whatever he did. I met them again on the street, the man still going through the throes of his irrevocable decision; it was an hour of dim light, before evening, and the messianic expectations in the man, his boy at his hand, were close to madness amidst the wide stretches of the Ukraine, darkened in a craze of torture and blood.

In Poltava my father met Israel, his younger brother who, as I already said, arrived in town after us, coming from Nizhniy Novgorod, later named Gorki. After years of separation my father again became close to him. Being infirm on his legs, Israel usually carried a folding chair with him; a gentile woman of Caucasian origin, Sosieva, took care of him and was also his companion. We left Poltava later than he did, but he reached the land of Israel before my parents, by way of the Black Sea.

Before we left Poltava we talked of my father's plan for organizing cooperatives of land and farms in Israel for the Jews who congregated there as refugees, many of them from Vilno in Lithuania; but we took no direct part in the material or financial part of the cooperative. Its participants decided to start a business with the cooperative's funds to save them from devaluation, but this was the end of the plan because before the ware arrived (they were wool spinners, for the most part) they were already heading each in a different direction.

We, too, made a mistake. My father, seeing the money (not exchanged, as mentioned before) losing its value, bought some real estate, a group of tenement houses. The negotiation was made during Sukkoth (Tabernacle). I spent a sleepless night. Now, when I was hoping to get out of this place, it was as though, with the purchase of this property, we had chained ourselves to the town. But a few weeks passed and, leaving that property behind, never to have anything from it, we left Poltava for Kharkov.

It was a labor of love, preparing for this trip of a few hours, the first leg of a journey away from a 13-month-long frustration, some way or somehow toward the land of Israel. Under the “Whites” a Jew could not travel in a train unprotected without risking his life, almost forfeiting it. Therefore White officers were sought to accompany the travelers. There was in town a Jew, a military tailor on one of the main streets, who was supposed to know the officers and be able to procure their services. He acquainted me with a young officer for this purpose, but we did not travel with him. Some of the Vilna Jews hired several officers and a box car, used for cattle or for cargo—the manner of travel then ubiquitous in Russia—and one day, with others of the group and all protected by the hired officers of the White Guard, we traveled to Kharkov, usually a distance of only a few hours.

We arrived in Kharkov about midnight. Rain was pouring from the dark sky. We found an open, flat platform on wheels, unprotected from the rain, hired the vehicle and its man and horse, put the two trunks on the platform to use as seats, and then started looking for a hotel or guest house. On the Moskovskaia Ulitza, an old two-story house with a sign “hotel” made me cross the street, stepping into deep water, but the dimly lit place had no rooms free. Likewise a large hotel on the Ulitza had no vacancy. We passed in the rain a lone building on a square, and strangely loud music was blaring from the illuminated but otherwise as though uninhabited place. The streets were all empty, the windows were dark, the city was asleep; we were drenched. Then, after traveling along the streets for what seemed hours, my father ordered the driver to direct the vehicle toward the house of his brother Feivel. There in front of us stood a tall apartment building belonging to Feivel, and in the back his mansion. We rang at the door of the mansion and Uncle Feivel, poor of sleep, came down and opened the door; he let us in, arranged for us mattresses and covers on the floor of a big living room, and took care of us. In the morning I left early to look for a place to move. My parents were still asleep, and my uncle asked me to have tea; I, however, answered while going down the staircase: “I will not eat or drink until I find some place for my parents”—and asked him to protect them until I returned. I went first to a far-removed relative but was not admitted since his daughter was ill with scarlet fever. Then I found a room in the same large hotel I had visited during the night.

I immediately took my parents to our new quarters, a corner suite in the hotel. From there I went to the muddy autumn open market to buy victuals. This I continued to do in the days following, as I had done the whole year in Poltava, in order to relieve my mother, still weak after her sickness. From the peasants I could buy milk in clay jugs, bread, and other food. But not two weeks passed before Kharkov was in an uproar.

The Red Army once more rolled southward. It took Belgorod, north of Kharkov, on the chalk hills, and advanced on Kharkov, the capital of eastern Ukraine and the largest industrial city south of Moscow. The two-room corner suite which we occupied in the hotel—with windows on two streets—was, as we were told, occupied by the Red Army chief-of-staff the previous time the Reds held the city. It was

unwise to remain there. And actually we considered Kharkov a transit point of short duration on our way to the land of Israel. The way from there led to Rostov, and from Rostov to the Caucasus.

Soon after our arrival at Kharkov we were visited by a man, white-haired and sad and very likeable; his name was Janovsky. I believe he was from Grodno in Lithuania. He had a portion in Ruhama. His wife, if I remember correctly, had killed herself in a fit of melancholia during his wanderings in the Ukraine. He had a daughter and a young son in Russia, and two daughters attending school in Israel. He strove to reach them. He told us of a group of *halutzim*—or pioneers—that had convened in Vladikavkaz (later renamed Ordzhenikidze) in the Caucasus, on their way to the land of Israel. I believe he told us that his daughter was in that group.

Thus the direction was clear to me—via Rostov on the Don to Vladikavkaz. Now the task was to obtain passage to Rostov, not an easy thing because there was a stampede to get out of Kharkov. One of the Vilno wool merchants, who came from Poltava with us, went to the railway station to make arrangements but was snared by an agent of the Osobiy Otdel, the terrorizing secret police of the Whites; he was taken to the Otdel, questioned, and freed only after being relieved of his money. Still agitated and frightened, he came to our hotel to tell of his effort and to warn us not to try to obtain passage via the railways. Though running away from the Reds could not be looked upon by the Whites as anything but legitimate, yet it was—in the absence of law—thought a crime to try to obtain passage when only the military and the privileged were first to be evacuated.

I went with Janovsky to some distant office to ask for evacuation. Neither he nor I had reason to flee before the Reds, but our desire to reach the land of Israel dominated us entirely, and with the frontier moving over our heads, we feared that our goal would be cut off from us. I went also to the railway station, though warned not to do so. On my way there, in an overcrowded tramway car, I was pressed suddenly from all sides, and then my Bible was gone from my breast pocket; yet I found it on the floor, dropped by a disappointed pickpocket. In the station building I looked for an opportunity and found it: I saw there the young officer who was introduced to me by the military tailor in Poltava as one who was “honest” and ready to sell his services. I spoke to him and he told me to come to his address and bring money for the passage and for his services. Then I saw, not far from the hotel where we stayed, on the sidewalk, with his face to the thoroughfare, a white-haired general in a red-breasted coat, the usual garb of generals in Russia. I boldly approached him and asked him to help me and my parents get passage to Rostov. Certainly he was to leave in a private railway car. He was kind to me and told me to come to him the next morning. This was a perfect opportunity. But I was so eager to reach the Caucasus, the group there, and Palestine with them, that I made the mistake of going to the young officer at his hotel. It happened to be the same dark building that I had visited by chance two weeks earlier on that first night in Kharkov while looking for a room, stepping knee-deep into water. I was met by a soldier, and soon there were two, who told me to wait while one went to call the officer; soon I was with him and three

soldiers, all of the regiment of General Shkuro of Denikin's army. This regiment was famous for its cruelty. They closed the door with a key, and I understood that I was trapped.

My four captors were armed with rifles, pistols, sabres, and daggers; and if that was not enough, they were four against one. They tried to frighten me with their sixteen pieces of weaponry. I said: "Comrades, stop it!" (*Tovarishtchi, prosite*), and this was a slip of the tongue; though *tovarishtch* was a word much used among friends in our school days, presently it was a designation applied by communists or socialists to others of their kind. The officer, the scoundrel with a snubnose and shifting eyes who put me in the trap, started to repeat in a singing way: *tovarishtchi, tovarishtchi*, and his three men did the same. There was a mental struggle—for they kept me, I believe, for an hour or more; I do not remember what was said in detail, but I know that I did not humiliate myself; just the opposite—if I was not beaten or killed then and there, it was because of my bearing. They searched me for money and took that which I had brought for the passage. Then the officer ordered two men to take me to the Osobiy Otdel to be questioned further and then killed, and the two took me to the street. It was evening. We crossed Moskovskaia Street and I looked up at the hotel where my parents were waiting for me. The six-story building was dark, but the corner windows of my parents' rooms had light. The hotel, which only two weeks earlier had been filled to the last room, was deserted now because its occupants had run away. After crossing the street, we passed along the very walls of the hotel building, and in my thoughts I parted with my parents; their future without my return could not be anything but desperate. We went only a short distance—a block or a block and a half—when I spoke to the two soldiers; one was of Caucasian or southern origin. Would they let me go? And I may have mentioned my parents. "Let him go," said one to the other. I often thought, later, that in the mental struggle of that evening was born in me the future psychotherapist. They certainly saw me superior to them; my striving to go south and not be left in Kharkov indicated my not being a communist. But hundreds of thousands of people were killed in the Civil War without any reason or proof. I did not think of all this then. I went, liberated, not straight back to the hotel, but made a circuit around the block in order to calm myself before seeing my parents. I wanted to look at my watch—I had on me a little steel watch of my mother's—but it was gone; when I was being searched, one of my captors had stolen it without it coming to the notice of the others or of myself.

When I came to my parents, I did not tell them what had happened; but soon my mother asked what the time was, and I had no watch on me. She had already wondered why I was away for so long; now, with her unerring instinct, she guessed that I had been in a trap. She announced that she would not travel; we must remain in Kharkov—it was too late. I disagreed, determined to obtain passage through the general, in the morning. But in the morning when I looked upon my mother's pale and tired face—she hardly slept that night—I surrendered. The thirteen-month-long longing to go southward in the direction of Israel was left unrelieved, and we were faced with the prospect of staying in the Ukraine for an undetermined time longer.

I left the hotel in the morning to look for a more permanent place to stay: we were told that the hotel would probably be closed—the Reds were almost on the outskirts of Kharkov. I went on the same sidestreet on which I was led the evening before, then I turned left and saw a large platform truck. It was loaded with dead human bodies; the loaders put one row of corpses one way, the other row on top of the first, the other way, across. I lifted my eyes to the building from which they were being carried out—a large sign read “Osobiy Otdel.” For only a few seconds I observed the scene, then turned and went away. It was the place to which the soldiers had been leading me twelve hours earlier; I did not know then how close we were to the goal when they let me go.

I went toward the residential parts of the city and wandered about two miles; at several places I saw furniture or valises on the street, belonging to people making a last hour evacuation. Finally, seeing pieces of luggage being carried out from an apartment building, I asked the people whether they would rent their apartment; in the rush of evacuation, practically of escape, the people let me into the place and gave me the keys. Their name was Soloviev, and he was professor of gynecology and obstetrics at Kharkov University. Probably I made a reliable impression, but in their hurry they could not deliberate much, and an empty apartment would immediately be seized by the incoming Bolsheviks. They also left their maid servant in the place.

I brought my parents from the hotel. My father occupied a small room with a glass door, my mother the Solovievs' bedroom, and I made my place in the dining room; but after a while my mother, feeling the small dark bedroom depressing, exchanged with me. The Bolsheviks were in town. The first posters were signed with Stalin's name, Stalin being in the vanguard of the army, but at that time having a much lesser name than Trotsky, the organizer and commander of the entire Red Army.

In his room my father wrote his autobiography; in longing for the land of Israel, which he had not yet seen but for which he worked devotedly all his life, he sang a song which he composed—words and melody—to Ruhama, the farm which had been founded by his efforts—as if she were his daughter. It was a melancholy song. In the kitchen the maid sang a loud song, and sang it again and again. I put my feelings into the words of a poem about the sufferings of the Jewish people, and I adapted the Ukrainian melody of the maid to my song, and it suited it exceedingly well. The two front rooms, with gynecological instruments, we gave to a civil engineer with his wife, a gynecologist, who turned up by chance—and this we did since these rooms would certainly have been requisitioned, in an apartment occupied only by the three of us. After a while the maid made an attempt to steal some valises stuffed with valuables hidden in a storage space by sending an accomplice with forged instructions, as if from the Solovievs, to hand over the things. When this did not succeed, the maid disappeared.

The majority of the university professors, like Soloviev, ran away, and the only way open was to Rostov. But the University started to function with the remaining faculty. I registered in the medical school: since I could not travel farther, I intended to use

this time to finish my medical studies, cut short by our departure from Moscow. I especially remember three teachers. The pharmacologist, Prof. Postoeff, was the dean. Before I started medical studies years earlier, I deliberated whether I wanted to study chemistry and pharmacology, feeling an aversion to this last subject. Now I studied it in the book of Kravkov, and admit that never had I seen so interestingly written a textbook. I went repeatedly to Postoeff at his home for examination, part by part, of the subject. The lectures and laboratory work in criminal medicine were given by a professor with a Latin name, an elderly man with a big bald head, who was on intimate terms with one of his laboratory assistants. The course in psychiatry I took with a young lady examiner, and the course in surgical anatomy with a stern professor who, unmindful of the revolution and the new liberties, sat while examining the students, whom he made to stand in groups of four.

Some time passed, and my brother Lelia (Alexander) arrived. I was going up the staircase to our apartment and there he stood ringing the bell. He was lean, and his shoes were worn. He came to us after being released from prison. We had not been informed by Daniel of what had happened. My two brothers had continued their business and sold shipments of oil to some old customers. In one place there were, as it seems, parties in strife, and intrigues, and arrests; Alexander, who was more of a factotum, was accused of selling ware unregistered in the *kommisariat*, which issued permits for all manufacturing and trade activities. I do not know whether I correctly narrate here the cause of his arrest, but he was in a Bolshevik prison for several months. There *typhus exanthemus* was rampant: the cots of the prisoners were in rows, one near the other, and lice crawled all over them; yet Alexander did not get the disease, though in places next to him others had lain sick with it, with high fevers. The prisoners were reduced in number—new ones always arriving—by summary executions: repeatedly the prisoners were put in rows in the courtyard and every seventh, or fifth, or tenth, as the case would be, would be taken out of line and shot. Alexander was chosen by his fellow inmates to be their head, or chief; this would free him from certain duties, like carrying out the heavy pails of urine, but he would not take advantage of this privilege of the unwritten law of the prison. Daniel worked furiously to get Alexander free. Finally there was a court hearing. The justice was not above reason and human interest in the case. Alexander was freed. All this was told by him in the most unpretentious way.

Time went on. I do not remember going to any show, or movie, or concert in Kharkov. A Jewish philosopher, Ish-Horovitz, who in his time created a controversy by attacking another Jewish philosopher (Ahad-Haam), visited my father occasionally; and there was a circle in which Jewish problems were discussed. It convened in the house of one Hillmann, his son being the leader of the group.

The winter, spring, and summer of 1920 passed. In Kharkov I stopped writing my diary which I had been keeping since the age of sixteen, the beginning of the seventh “class” in gymnasium, for about eight or nine years. At some moment (possibly already in the first weeks of our stay in Kharkov) when there was danger of a change of power, with the usual searches, I gave the booknotes I wrote during our stay in the

Ukraine to an acquaintance—a person whom I do not remember and knew only slightly—to keep for me, never to see them again.

In August 1920 we received a message from Moscow that Daniel had been arrested. I left for Moscow. By the time I arrived there, Daniel was already free. He had some diamonds he wished to sell and fell into a trap, but his wife Genia had “connections” and succeeded in freeing him. When in Moscow—for perhaps ten days or less—I obtained a certificate from the University and, with the courses absolved in Kharkov, I was presently admitted to start the final examination for my medical degree.

Then I met a young acquaintance, Kimmelfeld. I had a message for him from his father, who was languishing in a cell of the Cheka in Kharkov. Once my father passed by on a sidewalk when this man, who had once been a rich man in Moscow, noticed and recognized him, and let him know from his iron-barred cellar window of his plight. But I found the son entirely indifferent to his father’s fate. His brother was in exile in the isles on the White Sea, and he himself might have been punished by the Bolsheviks. Were I a novelist, the little I observed of this family since the age of seven or eight would have inspired me to write a sketch.

In Moscow I also provided myself with a *kommandirovka*, or a statement that I was delegated to travel to Vladikavkaz—without a *kommandirovka* one could not travel; I obtained mine from a department where I had a friend. The department was that of mining, and the *kommandirovka* was for studying the mineralogical deposits of the Caucasus. It was my intention to take my parents and Alexander there: the Caucasus up to the ridge of the mountains was now in the hands of the Moscow regime. Daniel accompanied me to Kharkov to take leave of our parents, since we (my parents, Alexander, and I) intended to obtain Palestine via the Caucasus. After a few days in Kharkov, we parted with Daniel at the station, he being desirous to join us on our way. He then returned to his wife and child.

References

1. Cheka is a shortened form in Russian for an organization with the full title of All-Russian Extraordinary Commission for the Suppression of Counterrevolution and Sabotage.





Caucasus and Lithuania

Once more I left behind, without a single thought, the medical degree; to reach it would have required only weeks, no longer months or years. The train brought us to Rostov on the Don, the route on which I had been denied travel ten months earlier. And possibly it was for the better. At that time, in October or November 1919, an epidemic of *typhus exanthemus* (Flecktyphus) reaped a grim harvest in the terribly overcrowded trains, and many of the escapees did not reach Rostov.

We reached the station of Mineralnyi Vody, from which a short sidetrack leads to Kislovodsk, the place where the revolution of February 1917 found my father, myself, and Alexander. Now it was all very different. For two nights we slept on the floor of the station or its platform, during which people would be awakened and required to show their identification. Finally there was a train that carried Armenian refugees toward the south. We traveled in the crowded boxcars, changing trains somewhere. My mother, used to comfort, never complained. Some years later my father recalled that I had made a step of my back for my mother to get out of the boxcar. This was all self-understood and did not require any effort on my part. A train on a short track took us to Vladikavkaz. Upon arrival we obtained two rooms in a hotel, but after a few days we were told to move to a more permanent place. All we had eventually was a single room for the four of us (for Alexander was with us) with a kitchen and a yard, in a rather primitive building with a ladder instead of a staircase.

It was from Vladikavkaz that Janovsky, who reached it several months before, had written to tell us a few details about the group of *halutzim*, or pioneers, that assembled there and waited for a chance to reach the other side of the Caucasian ridge and from there to proceed to Palestine. Now Janovsky came to us, and sat next to the window in a dark corner, his face framed by white hair and a white beard; his boy, also silent, stood next to him. One of the first men we got to know was Lichtenstein, a local cobbler who was an active Zionist and interested himself in the *halutzim*. Then we got to know the group, too. Many of them were from Rostov, some from the mining region of Donetz, and a scattering from other places. Altogether, counting those who arrived after us, there were thirty or forty souls.

The oldest travelers were a bearded man, Ratner, and his wife, the sister of his first, deceased, wife. He had an estate in the land of Israel, in Rishon le Zion. Winter in Vladikavkaz was moving in rapidly, and it was cold in the unheated dwellings; it happened that I took Mr. Ratner, a sturdy octogenarian, to a place where I knew pieces of lumber could be purchased—cuts left by a maker of wooden soles for shoes. I would fill a large sack with the wooden pieces, lift it on my back, and carry it to his room to use to fuel their little stove. These stoves were usually placed in the middle

of a room so as to have heat also from the smokestack. Ratner promised to offer me wine from his vineyard in Rishon when we should reach that goal of ours. It was highly improbable that such old people as they would make it, but the day did come when I was offered a glass of wine by the Ratners in Rishon le Zion. Fate was not as merciful to many others.

The town of Vladikavkaz, later renamed Ordzhonikidze, lies at the foot of the Caucasian ridge, and the river Terek, emerging from the deep gorge of Daryal, rushes through the town. The main street runs on flat land, but in front of it rises the wall-like ridge, here dominated by the snow-covered Kazbek. The Voyenno-Gruzinskaya Doroga (the Military-Georgian Road) crosses the ridge, starting from Vladikavkaz and running to Tiflis, the capital of Georgia, on the other side of the Ridge. This road is famed all over the world for its wild beauty: a gorge runs alongside, and mountains rise above the road and the gorge. Snow covering the road and avalanches of snow falling on it from great heights cause the road to be closed in wintertime; yet that winter the Red Government tried to keep the passage free—but not for the usual mortals. The would-be emigres had congregated here to wait and wait for a miracle, or plan to travel afoot over the snow-covered slopes of the Kazbek when even the road was perilous for travel.

The bulk of the group rented, or more properly, occupied, a space on the main street and worked on farms somewhere close to the town. The leader of the group was a dedicated man in his middle or late twenties; he and Mina Janovsky, a girl of about twenty, with a kind and dreamy face and curly black hair, intended to marry. There was Nahum Karpovsky, a well-organized youth, but a little dry for a *halutz*—a bookkeeper; Raia, an exalted girl, tall, with sparks in her greenish-gray eyes and a crown of hair; Kulkin, a youth of small but athletic stature and a daring spirit; Vinnik, a simple soul, not handsome, with a deep furrow above his nose, a good worker; and many others. They called themselves *Hapoel baderekh*, or “laborers on the way.” In large dormitories they lived, they cooked and ate, and spoke of the land of Israel, and sang Hebrew songs.

One day there arrived a young man who called himself Gibori. Small in stature, with nervous ticks, he told a story of persecutions, wanderings and escapes. He knew perfect Hebrew, having come from the land of Israel. I had already met him briefly in Poltava where he gave a few Hebrew lessons to my uncle Israel. He thought himself followed by the Cheka, and more than once jumped from a train. He wrote poetry and sang a Hebrew song about the wind. After escaping from Vladikavkaz he was heard of here and there, and finally several years later made news by living in a cave in the outskirts of Jerusalem and having a Yemenite bride and followers.

Should I tell in advance the story of each of the members of the group, I would commit an error against the biographical character of the story: I could not know their individual destinies, as they would come to pass in succeeding years and decades. The members of the group *Hapoel Baderekh* and those who did not belong directly to the group were awaiting a chance to cross into Georgia, then outside of the Soviet

Union and communist domination; month after month passed. Alexander took a job, since without it he would hardly be in the graces of the local soviet administration, and so did many of the others stranded in Vladikavkaz. He and I would chop firewood to heat our place, and a neighbor, the wife of a communist, would express to our mother her liking for us, young fellows, working so handsomely. We slept all four in one room.

In Vladikavkaz I wrote “Thirty Days and Nights of Diego Pirez on the Bridge of Sant Angelo”—a poem in prose in Russian. Pirez, a *marrano* (a Jew from a family forcibly converted to Christianity), born about 1500, was high in the court of Portugal. He returned to his Jewish faith, impressed by the arrival of David Reubeni, who claimed to be a royal prince of a Jewish kingdom in Arabia, and an ambassador to Christian princes, the pope included, with the mission of finding allies for a war of deliverance against the Arabs and Turks who had penetrated to the outskirts of Vienna. Among the many unusual experiences of Diego—who upon circumcizing himself took the name Solomon Molcho—was a thirty-days-long vigil on a bridge across the Tiber, close to the Vatican; a death sentence from the Inquisition from which Pope Clement VII saved Molcho by having another prisoner burned in his stead; and finally a death by fire, after being condemned by Charles V, the emperor, to whom Molcho had traveled together with Reubeni, trying to convert him to their plans. I wrote—with no notes or books before me—three or four pages for each of the thirty days and nights of the vigil. The first four days I had already written in Kharkov, but all the rest I wrote in Vladikavkaz.

Once I read my poem in prose to Ierahmiel Krupenin, a youth from the northern Caucasus who arrived in town after us. He knew and loved my cousin, Njuta Rosenblatt. Knowing that I was her cousin, he was friendly to me. Once I went with him and Selig Rivkind, an unusual youth from the group, to the snowy slopes of the mountains rising over the city, and sat there and read from the Bible that I carried with me in my breast pocket all these years—the Hebrew Old Testament.

Once, trying to find the way out of Vladikavkaz, I went to the palace on the hill in which was the office of the chief of the military-political police, a kind of political governor of the area. He was a young Jew from Siberia. He knew very little of Jewish problems and was interested in what I would say. And I, like some Solomon Molcho going into the den of the powerful to plead for his people, pleaded the case of young and old who strove to reach their ancestral home in the land of Israel. I even invited this feared chief to come to the place where the majority of the group lived, and see for himself; they intended to go to the land of Israel and live there in a commune. It was a risky thing that I did, but I was full of faith and kindled something in him, too; he was not a scheming man, and he was impressed by me. Two or three times I visited him, and on one of these errands I took with me Nahum Karpovsky, one of the members of the group.

At the same time we looked for another means to proceed on our way. My father told me that some family whom he by chance met was about to depart on the road to

Tiflis, having bribed their way, and that they were ready to tell me with whom to do it; so I visited them—there were two couples, rich people trying to leave Russia. They introduced me to the police officer who had arranged the trip for them, and told me that their diamonds would be secreted in the tires of the hired automobile. A few days later, going up the staircase of the palace of the military police to see the police chief, I found the two men sitting on a bench. I approached them, but they told me to go and not to talk to them because they had been arrested, and the same would happen to me should I be seen talking to them. In their plight they thought of my safety; they had been trapped by a provocateur.

In this atmosphere of impatient waiting we lived through the end of 1920; in front of us stood the towering wall of the Kazbek, with the river Terek tearing and foaming through the town. The unusually good pears bought at the market and the food cooked by our mother kept us alive and healthy. One of the girls in the commune, Raia, had an exalted dream and told it to all: she saw me as a High Priest in some magnificent hall, someone to whom was entrusted the deliverance of the Jewish people. Rivkind, years later, told me of the strong impression my father and I made upon him at our visit to the group, when he first saw us.

By January 1921 I had decided to go back to Moscow and to seek there a chance to get out of Russia. This decision was taken in view of the fact that the Soviet regime was about to occupy Georgia.

I made my long travel to Moscow, leaving behind my parents and Alexander. It took several days. In the meantime Daniel's little daughter, born just before we left Moscow in September 1918, had grown into a charming child; I wrote for her long nursery rhymes about a cat and a goose, and she learned them by heart; by heart she could also narrate long poems read to her by her nurse. I slept with the child in her room, which had been our boys' room when we went to school. Only two rooms in the apartment were left for my brother and his family, and soon I moved in with Moshe Halevy, my cousin, who was a member of the cast of Habima, the Hebrew theater, then a kind of miracle, performing in Moscow.

Years earlier I had been one of the first two onlookers of Habima's first production. Now Habima was working on *ha-Dibbuk*; Moshe was competing with the director, for the role of a prophet in a messianic piece: both ended up playing the role.

Daniel told me of a great tragedy: Avsey, a brother of Moshe and our favorite cousin, had been killed by the Cheka during the years we were away. When in 1918 uncle Israel left Niznij Novgorod, he entrusted the business (factory) to his manager Zirlin, who had once worked for my father and loved us children, and to Avsey. This Avsey was very handsome. At the age of seventeen he had come from Mstislav to Moscow to work for my father. He was crazy about opera and introduced Daniel to this operamania. He would work during the day, managing the little factory as a trusted relative, and go to the opera almost nightly. Then he went to study in the conservatory of Petersburg, and there was a long affair with a Russian girl. When on

a visit to Moscow he would receive four or five letters from her every day; then, when we were in the Ukraine, he decided to leave her and to marry the daughter of a competitor, a rich family in Nizhnij. Zirlin was arrested. Instead of fleeing, Avsey stayed and tried to release the man, but was arrested too. Daniel in Moscow was alarmed and arranged that a demand be sent to Nizhnij to bring Avsey to the capital, but on the day arranged for his marriage he and Zirlin were shot. Avsey was then about 30 or 31.

I slept on the upholstered chairs put together at Moshe's room. He told me of Khana Rovina's love for him; she was then in the sanatorium, and I urged him, out of compassion, to go to see her there.

At Daniel's house I was once witness to this little scene. A couple of guests were visiting, among them Vladimir Mayakovsky, the famous poet. Genia, Daniel's wife, always had people of name or distinction among her acquaintances. Daniel was playing with them in some card game. During the game Mayakovsky announced that the "bank" was his, and threw the winning card on the table—face down. Daniel lifted it, put it with the rest of the cards, and shuffled them; after a little while Mayakovsky, who knew that Daniel had seen the card, called to resume the game, and pushed back the pile of cash he had grabbed before, saying it was a joke. Later, when the guests left, I asked Daniel the meaning of the thing: why did he not announce the fraud when he saw it? He answered, "He was my guest at my home." This Mayakovsky was deified, especially in later years, as *the* Bolshevik poet; in the end he killed himself.

I did not stay long in Moscow. It was a successful visit. During thirty days I passed thirteen medical examinations, and thus obtained my degree. The exams were spaced two or three days apart, but in a few cases there were two on the same day. There was very little to eat; it was the year of hunger, the winter of 1920-21. I studied in Moshe's room, went afoot to the clinics at the Devitchie Pole, a distance, and there drank a sort of "tea" made of carrots or other vegetables, with a little jam for sugar—there was nothing else. But at the abandoned Okhotnyi Riad in the center of Moscow, where once the most unusual delicacies filled the stores on both sides of the sidewalk, a solitary figure would sell me a quarter pound of butter from under his overcoat, and I would eat it in slices, without bread. But I passed all the exams.

Had I succeeded to leave by way of the Caucasus, I would not have become a doctor. During the same month I managed to achieve something else, which had actually been the purpose of my travel: to obtain a permit for my parents to leave Russia for the land of Israel. This was among the first such permits given. I found some protection. There was a distant relative, of the same name, working in the political police; I saw him at his house. The incident that made us leave Moscow in September 1918, when the Cheka looked for my father because of his Zionist activities, had apparently been lost in the files. Several weeks later Chaim Bialik, who too came to Moscow to seek a permit obtained it as well. One more thing I achieved: I went to the University (Kommercheski Institut) in the technical department where Alexander had

studied before his arrest, and reinstated him, obtaining permission for him to renew his studies and matriculate again. With these achievements I traveled again to the Caucasus, a journey of some days; I hardly remember this passage.

My father was daily awaiting me, often at the window or the glass-paned door of the humble place where we lived on the second floor, a ladder serving as the outside stairs. Finally I came. I did not boast of my achieved degree, so that months later my parents were surprised to hear from me that it was in my possession. Actually I did not take out the degree until close to my own departure from Russia—otherwise I could have been drafted as a military doctor. But my father I found with a bandaged head. The day before my arrival an automobile had knocked him down on the street; he was wounded in his temple. I went with him to the clinic of the town hospital, and when the dressing was taken off to be changed I felt a faint spell and had to sit down.

During my absence from the Caucasus the family of Janovsky, father, daughter and son, and Yania (Jacob) Zipelson, the daughter's husband-to-be, went to the mountains with guides who promised to take them over the Caucasus to Tiflis in Georgia. Even on the Military-Georgian road travel in winter was hazardous, but to go over the snowy slopes of the Kazbek was foolhardy. Yet the greatest danger was in the treacherous Osetin guides. It was agreed between Zipelson and Janovsky and their friends that should they succeed in crossing into Georgia they would send a note back with their guides. After several days a note did come, written by the hand of Yania, but it was hardly reassuring: it was obviously written under coercion: its contents were not as agreed beforehand; thus they sought to warn their friends, and a certainty of the disaster that befell them at the hand of their guides gripped the hearts of those who waited behind. Had I then been in the Caucasus, I probably would have opposed their going, an old man and a young boy being in the group.

Yet soon after I returned the other youths desired to follow Janovsky's example: one was Eliezer Finkel, the other by the name of Melodist, a tall and friendly youth. I remember the evening in the hall, the group gathered around the stove, these two, and a bearded Menshevik by the name of Mintz, leaving the Soviet Union for political reasons. Mr. Lichtenstein found them guides who would take them that night into the mountains. Possibly I tried to dissuade them, but it was too late to change their hearts. After parting with us they left, and went into the night. A year later when the bulk of *Hapoel Baderekh* reached Palestine in a round about way, through Europe, they found a heartbreaking letter from a sister of Finkel—please, oh please write us a single word that you are alive. But this letter awaited Finkel, and he was no longer alive; Melodist, I believe, was the only son of his mother, and how much must she have loved this fine youth.

Despite my father's wound we decided to start on our trek back from the Caucasus. His bandage, we trusted, we would be able to change at some stations where there were ambulance rooms. We found such an occasion on a train to which a salon car was attached—actually the car that once belonged to the Tzar's Prime Minister Stolypin (assassinated in Kiev in 1911). Under the conditions of the time this was

very fortunate. But our itinerary was not clear to me: the permit for my parents to go abroad had only a thirty-day force, and though after my return from Moscow I remained only a few counted days in the Caucasus, it became obvious that should my parents travel to Germany via Moscow, the permit would expire before they would be able to cross the border. Thus when the train remained standing for an hour or so at a station from which a side track was running toward the Black Sea port of Novorossijsk, I went through a spell of indecision. Having wandered with my parents for two and a half years, I was afraid to send them off on their own to Constantinople: they would have to find their way alone to the land of Israel, without knowledge of Turkish, French or English. And so I decided to take the risk of going via Moscow and applying for an extension of the permit, in the hope that this time, too, nothing would be uncovered that would trap my parents in Russia. But the indecision repeated itself at another station from where, again, a railway line ran to the same Novorossijsk. Many years later I traced to these events the indecision I would often experience before going on travels.

Thus we reached Rostov; we lived in the railway car for several days. The car was out somewhere on the very numerous tracks of the Rostov terminal. For over three days we waited for a train for Moscow. I went to town where by chance I met Yuza, my cousin, the son of my uncle Feivel. In 1919 they had succeeded to run away from Kharkov to Rostov, the route I tried then so unsuccessfully to go with my parents. On the way they experienced typhus—it was then a dreadful journey. Soon Feivel found my parents in the railway salon car—I was again away—and came to see them, after some seventeen months. He sat there in the car, sad, and asked the forgiveness of my parents for the way they had been treated in Kharkov, that night when, after seeking shelter from the rain, we slept on the floor of their mansion.

After three days of waiting I learned that a train set up at the platform was to leave for Moscow in a few hours, and I again arranged a salon car for my parents and berths for Alexander and myself. I transferred my father and a part of our belongings, and went back to transfer my mother, but I could not find the car on the sidings. There are several hundred sidings in Rostov, and all were blocked by the rolling stock, almost all of it boxcars, in the near-paralyzed traffic of Russia. I was frightened: the car with my mother in it had been moved away. I looked around and searched, and could not find it. I asked somebody and was told that it must have rolled away to Bataysk, across the river Don. After years of travel, during which I carried my parents through all perils, I had lost my mother. In the condition of Russia then, this would mean a parting forever. She would be helpless, and how could we proceed to Moscow without her? My father and Alexander were already in the train awaiting departure. I ran toward Bataysk. There are several stations, I read later, seven kilometers distant from Rostov. But could it be seven kilometers that I ran? I came to a railroad bridge over the river Don—I believe it was the longest bridge in Russia. An armed guard stood at the entrance and would not let me in, but there was another bridge close by. I climbed over barbed wire, in view of the guard, and ran over this bridge, waving to the soldiers that guarded it some papers I had in my hand, as if a permit, and I reached the other side at Bataysk. There stood a lonely train, very long, packed with

refugees, mostly orientals, who sat and also loitered in front of the cars of the train. I ran and cried: "Mama, mama!" I ran to the end of the very numerous boxcars of which the train was composed and there was not the car I looked for, nor my mother. Time was running out; in the meantime my father's train would leave without my mother and myself. I ran back to Rostov in the hope that I would find her there. This time I headed for the railway bridge; on this side, too, the sentinel would not permit me to enter it, but I waved my papers, and shouted at him: "Shoot!" and ran onto the bridge. With every step I had to touch the crossbeam under the rails: in between was the blue of the river beneath. A single false step and I would be flying to the depth. The kilometer-long bridge and a thousand steps in running, and not once did I slip: perhaps the fact that I was under great stress kept me from a false step, as if I were on "automatic pilot." On the other side of the bridge the guard that had not let me in let me out without shooting me, and soon I was again on the Rostov terminal sidings. I cried again "Mama!"—and suddenly saw her at the door of the car that had apparently been only slightly transferred to another track. With the rest of the strength in me I took my mother and the belongings still with her, which I loaded on my back, and ran to the train at the station. The train was still there. I lay myself on the upper berth, my shirt as wet as if taken from a pail of water. There I remained, unable to stand up.

The train moved. On the lower berth was a famous socialist, a military hero; years later, if I remember right, he was put to death in one of the purges. The travel was not short. It was around the time of Passover. Finally we reached Moscow.

In Moscow my parents came to know their first grandchild—Lenochka. The few weeks in Moscow until the permit was renewed (and this happened without a hitch), my parents lived in a rented room in the building complex where Daniel lived, and where we had lived for many years.

Came the day, and all three of us were at a station seeing our parents off in a very comfortable Pullman car, almost empty; direction: Riga, the capital of the newly-independent republic of Latvia. After the train left we three sat on a bench. It had taken me from September 1918 to late spring or early summer 1921 to achieve this.

In August of the same year it was planned for me to meet my parents, who would take the train in Riga and travel over Latvia to Germany: I would join them in Kovno (Kaunas), Lithuania, and accompany them to the German frontier in Virbalis or Eydtkuhnen. This also came to be and I spent a few hours with my parents whom I had not seen since the spring, when my brothers and I brought them to the railway station in Moscow and saw them off to Riga. My mother looked healthier and happier than I had seen her in many years. The stamp of deprivation from the years of wanderings in the Ukraine and the Caucasus during 1918-1921, amidst civil war, as refugees and with no household, were now all but erased in the healthy atmosphere of the seaside resort where they had spent the summer. My father, however, had had some fearful moments or worried days when the Latvian authorities questioned their right to enjoy a temporary residence in that republic; possibly he was even concerned

that they might be returned to Russia, probably an exaggerated fear. But their friends in Riga—an engineer whom we met in Kharkov, in the Ukraine—helped them to solve the bureaucratic difficulty. Now on the train, leaving Latvia, both of my parents seemed relieved and eager for a new leaf in life having Russia behind and life in the land of Israel before them. The stations of Virbalis, the old Russian frontier town, and of Eydtkuhnen, the German town on the other side of the state frontier, were familiar to me from several crossings, when at the age of 12 and then at the age of 14 our parents took us to the Baltic sea resort of Krantz near Koenigsberg. On one of these neighboring stations I parted with my parents who continued to Berlin. Waiting for a train to take me back to Kovno I looked over the small paperbound books on the rack and bought myself a copy of a book—I do not remember whether in German or in Russian—on the Theory of Relativity. I spent two months in Kovno and obtained documents to enable my two brothers and their families to leave Russia, should they wish to do so.

Now I had to think how to make my way to the land of Israel. I made several efforts. Returning to Moscow, I registered as of Lithuanian origin on the ground that my mother was born in Grodno. Eschelons with repatriates were then leaving Moscow and going through various steps, and I was registered with one eschelon. At the Lithuanian embassy in Moscow I had to receive a permit. I was asked whom I knew in Grodno, and I named the familiar Jewish names, and so was declared acceptable by the Lithuanians. Daniel was with me at that legation and asked advice whether he too should leave Russia; I did not influence him to do so, and for that in later years I blamed myself. But his wife was too much of a Muscovite, and strong-willed, too.

Alexander renewed his studies and did not consider leaving. He was in love with the sister of Genia, and for that reason he also had not left with us that September, three years earlier; but she was admired by a few others, one of whom she married, and died young several years later from measles, complicated by pneumonia.

Thus I was to part with my brothers at the age of 26, they being 27 and 29. They never saw our parents again. With Alexander especially we had been very close. He did not envy me in anything, and was proud of me; and since our early childhood there was an unusually fine relation between us two. Daniel was older, more precocious, and only when all of us were students in the universities did the relation become comrade-like; but his marriage again made a difference.

One day somebody appointed to my eschelon told me that that very day the eschelon would be leaving. I hurried home, to Daniel, and left for the Briensk railway station. I do not remember whether Alexander came to the station to see me off—I left in a hurry, when he was not home. It seems to me that he found out still in time and came. The eschelon was put in many boxcars and the train slowly left. The Russian frontier was in the town Sebez. Crossing into Latvia the “refugees” were interrogated by a Lithuanian commission visiting the train. I saw a group of Jews who were denied entrance, and they stood immobile; they had come from Siberia or some other distant place. I went to them and led them back to the members of the commission that they

should reconsider the decision. At this point I was also regarded as one to whom entrance had been denied, and I was turned back, too. Then I hid myself among the sacks and valises in a boxcar. Immediately upon my arrival in Latvia, all emigrants to Lithuania were called out to attend an evening meeting where communism was denounced and Jews were attacked (verbally); when the inmates of the car where I was hid returned, I heard the repeated word “zhid” (Jew). In the morning, possibly it was still Sebezh, I left the boxcar guarded by the military as if for some needs, and from the bushes headed over a large field into the town.

I succeeded to make my way to Riga, capital of Latvia, and from there to Tallin, capital of Estonia. Then a ferry took me to Stockholm. After about six days in Stockholm, I started on the last leg of my journey—toward Berlin.





My Years in Berlin

A train carried me from Stockholm over Göttesborg and by ferry to Germany, and in the early evening I was at the hotel on Kurfürstendam Street where my parents were staying.

It was a balmy evening; Kurfürstendam was brightly lit and my spirits were high. Now I was reunited with my parents after being separated from them since late spring. I was told that two messages were awaiting me—one a telegram from Daniel that he had arrived in Kovno to meet me: he had obtained a *kommandirovka* from the Kommissariat for External Trade in which he worked to go to Riga for a few days; and from there he made a quick trip to Kovno, only to find that I had already left. The other message was from the Jewish community in Vladikavkaz, in the form of a mandate to attend the Zionist Congress in Karlsbad, the first after the World War. I wished to be simultaneously in two places, and since the Congress had already convened, I telegraphed to my brother to wait for me, and having picked up the “mandate” at the Palästina Bureau, I headed by train towards Carlsbad. In the train I was approached by a friendly gentleman, the chief of the Palaestina Bureau in Berlin. He had the sign of the Congress in his lapel, and so we came to converse. Before parting I inquired where in Berlin I could have kosher meals and he gave me two addresses. There was some fatefulness in this meeting. An old Russian saying has it that “The one who is fated as your consort you cannot elude, not even on horseback.”

In Carlsbad I spent only one or two days. I hardly participated in the proceedings. I had to choose my place according to my political sympathies, and was not clear to me where I should take my seat. I was one with the left, since I was a socialist in my sympathies; I was one with the Mitzrahi, since I had a strong religious inclination; I was one with the Revisionists, the group of Vladimir Jabotinsky, since I was for the Legion and had wished to participate in it in the years that preceded, and felt not much differently now; finally I felt sympathy with the General Zionists, because I was against fractionalism and saw in this group a striving for union. Yet the question was merely academic; I hardly voted on any issue. But I made the acquaintance of Professor Heinrich Loewe, who spoke Hebrew with a mixture of German and Sephardic accents, and had a friendly smile. I needed Loewe’s help because I already had a plan. We agreed to meet in Berlin again.

I went from Carlsbad to Kovno, where I met Daniel. He was already eager to travel back to Moscow. I told him of the papers I had received in Lithuania which were to enable him with his family and also Alexander to leave Russia. When my train was taking me back to Berlin, I saw Daniel, one cheek wrapped in a kerchief because of a toothache. I have not seen him since then, nor my other brother Alexander.¹

Again I did not try to influence Daniel to leave Russia, since I knew the stand of his wife Genia, who was enamored of all things Russian, and would not leave Moscow; and Alexander had just resumed his studies.

It is a great pity that Daniel did not come out of Russia. Possibly also lack of funds abroad kept Daniel from undertaking a change of domicile: he had several great transfers to Western Europe—London, also Switzerland—but these needed first to be cashed. Life in the years to come would have been very different for my parents, for myself, and especially for Daniel, if he had decided to emigrate.

In Berlin my parents stayed at the same place as Itzhak Goldberg and from him they received the sums that in 1917 they had transferred abroad, some five or six thousand pounds sterling; besides they had the sums, not fully 2,000 pounds, that my father had bought in a bank in Kharkov. These were not large amounts; the greater part of my father's property was lost, either nationalized by the communist state (his houses, factory, business), or abandoned (his apartment with all in it), or not immediately obtainable (several large transfers abroad), and, as the following years would show, also lost and not redeemed.

Feeling gratitude for having come out of darkness into light, and nurtured by his never ceasing desire to do something for the good of the world or of his nation, he talked to me of his intention to start something of importance. The nations of the world were licking their wounds after the World War; my father thought that a new foundation for peace propaganda would be the proper way for him to invest part of what he had saved for himself—and the means should be spent on calculating and making known how many schools, hospitals, homes for the aged and infirm, scientific laboratories and other institutions for the benefit of all races could be built by the sums spent on war, the human sacrifice being irredeemable. I disagreed with this plan, believing that the roots of wars and animosity among the nations are hardly extricable by these means—that the knowledge of what could be bought by the resources spent on armaments and on war could hardly suffice to keep mankind from another war.

I offered my father another idea, and he immediately agreed with me. My idea was for a collective publication which would bring scientists and scholars of the Jewish faith together to prepare the intellectual foundation for the future Hebrew University in Jerusalem, to develop the Hebrew language in various scientific fields, and at the same time to advance science.

The planned publication would demonstrate the role played in the scientific world by Jews, who were then known only as citizens of their adopted countries—thus Einstein, or Paul Ehrlich, or von Wassermann, were considered Germans, Hadamard French, and Levi Civita Italian. The volumes were to be published in the name of the National Library and the University of Jerusalem. At the time, the National Library existed, but of the University there was only a piece of land on Mount Scopus, with a

foundation stone on it from before World War I and nothing else. The National Library, housed in a two-story unpretentious stone building in Jerusalem, had been founded decades earlier by a fanatical lover of books, Dr. Joseph Chasanowich who, residing and practicing medicine somewhere in the pale of Tzarist Russia, for many years collected books for a modest beginning of a National Library in the far-away Turkish province of Palestine. He died destitute in 1919 during the revolutionary war in the Ukraine. A year later the library which he founded in distant Jerusalem and which carried his name was recognized and renamed the “National Library,” and Dr. Hugo Bergmann became its director; he was known as a writer in philosophy who in the second decade of this century came from Prague, from the circle of Max Brod. He is no longer alive.

The idea of a University goes back to Hermann Schapira, professor of mathematics at Heidelberg, a position he achieved starting as a poor Jewish youth, self-educated and, like the others here named, dedicated to the idea of the Jewish renaissance. He offered his idea at the First Zionist Congress in 1897. I do not think that he ever visited the land of Israel—travels in those days were not what they are today. The idea of the University lay dormant for the next quarter of a century. It was the purpose of the *Scripta* to become the real founding stone of the University; today the Hebrew University in Jerusalem is one of the most prominent places of higher learning in the world.

I approached Prof. Heinrich Loewe, whom I had met, as told, at Carlsbad; he realized the scope of the idea and guided me (he prided himself on having guided, years earlier, Chaim Weizmann, then a student in Berlin, in Zionist education); my father, after giving me the funds, left with my mother for the land of Israel, now in British hands after having been seized from the Turks to become a mandate territory, the mandate of the league of Nations being to create there a “Jewish National Home.” Loewe and I came into written contact with hundreds of scientists and scholars. Weizmann, then president of the Zionist organization, who came from Manchester for a visit to Berlin, agreed with our plan and gave us his blessing. With all the energy stored during the years of wandering I immersed myself in the materialization of the plan. I had no previous experience with the publication of a scientific journal. One of the first tasks was to find a printing plant that could set type in Hebrew as well as in European languages, but also had types for mathematical articles, and oriental scripts like cuneiform, Arabic, or Ethiopic. After surveying a long list of printers, we selected Kreysing in Leipzig.

Each contribution was to be published both in the original language of the author and in a Hebrew translation. Soon the response showed that two fields were best represented, “Orientalia and Judaica” and “Mathematica and Physica.” Einstein, then in his forty-third year, one year after being accorded the Nobel prize, agreed to act as editor for the latter series. Soon we had contributions from a galaxy of illustrious names in mathematics, physics and engineering, like Harald Bohr, L. S. Ornstein, J. Hadamard, and others.

The answers from the scholars were by far not all in the affirmative: some French Jews refused to participate with German Jews in one venture—the wounds of the World War were not yet healed. Some German Jews wished to be known only as Germans *des mosaischen Glaubens* ("of Mosaic faith"), an attitude that did not save them years later from the onslaught of the Nazis. Freud, when requested to participate, answered in longhand, but refrained from contributing a paper: his readers would not be able to find his articles if printed outside his own journals. The collection of letters that thus came my way had historical-cultural value. But as I found on a recent visit to Israel, not much of this collection is still preserved.

The work of translating the contributions into Hebrew required the combined effort of quite a few Hebraists versed in the subjects, especially mathematics, physics and engineering, while translations in Judaica and Oriental Studies did not require pioneering work. I took the task very seriously. For instance, the article by Edmund Landau, the eminent Göttingen mathematician, was given for translation to three different scholars: Landau's own pupil Amira, a graduate of the Tel Aviv gymnasium, working for his doctorate (in years to come he himself was a professor of mathematics at the Hebrew University), Dr. Jacob Grommer, assistant to Professor Einstein, and Dr. H. A. Wolfson, earlier a professor at Kharkov University and at the time on a temporary sojourn in Kovno (Kaunas), Lithuania. I engaged Simon Rawidowicz, a young Hebrew writer, to work as the editor of the Hebrew translations, and also to see to it that there should be a certain uniformity in the use of scientific terms by various translators.

To translate the monographs by Levi Civita and Gino Loria from Italian into Hebrew it was necessary to find an Italian Hebraist knowledgeable in physics and engineering, and I was fortunate to find such a person in Dr. Nathan Sholem. Today, with many institutions of higher learning and many scientific publications, Israel has no problems of this nature—but it was a time when the field was virgin.

The secretarial work was all done by Rose Bombach, a dedicated worker, whom a cruel illness later snatched from normal life. Elisheva Kramer, a violin student under Adolf Busch, volunteered to help me in organizing the work. I had other help too, but Elisheva helped me not as an employee—it was a work of love. Elisheva had been a pupil of Hess, who wished to promote her, when she left to study with Adolf Busch, who gave her private lessons for only nominal pay because of her talent.

Every manuscript went through the mail more than a score of times, once after every one of the steps: each paper was typed (most were sent in handwritten), then corrected by the author, seen by the editor, sent to the translator, to the printer, to the editor of translation, and this was repeated for the series of galleys, on the same round.

I visited Einstein several times, and once or twice sent Elisheva Kramer to him. He admitted to me that he did not understand many of the articles, which were in various fields of physics or mathematics, but then he relied on the reputation of the authors.

He lived on the upper floor of an apartment building in a quiet residential section of Berlin. Still unconvinced that the Jewish nation needed to be preserved and not assimilated, he once asked me: “Are not all races equally ancient?” I called him to the window, next to which he had a small telescope, a gift from somebody, and asked him to look down on the street, and told him: “Do you see those cobblestones of which the road is made? They are ancient, but they are not collected and preserved in a museum.”

In February 1922 I traveled by boat and train from Europe to the land of Israel, to which I felt a strong attachment throughout all the years following my departure in the spring of 1914, after I had spent the winter there upon leaving Montpellier University. Now, in February 1922 I returned and spent the next five months there, directing the progress of “Scripta” from afar, but it gradually came to a standstill. Loewe admonished me in letters to come and continue the work we had started together. He also came to Israel, and we traveled with David Yellin, leader of the Jewish community in Jerusalem, to Mount Scopus; I photographed them at the foundation stone of the future university.

In Jerusalem I found the girl I had loved, Esther Bashist. She assured me that she loved me, but it was hardly sincere, and I asked God what was the purpose of these nine years of love at a distance to be ended at the first meeting. So I returned in July 1922 to Berlin and became closer to Elisheva. I plunged myself again into the task. The editorial office, which before I had in my furnished room, small as it was, on Schaperstrasse, I now transferred to 13 Xantenerstrasse, where I rented two larger rooms with balconies.²

When on the sixth of January Dr. Weizmann came to Berlin we met again and I acquainted him with the progress of the work; he was impressed. For years the idea of a Hebrew University had occupied his mind, but nothing was taking place. Now he spoke to me in Hebrew: *Thi av l'universita*—“Be the father of the university.” I was not yet twenty-eight. He wished that I should take upon myself to bring the university into existence, and thus to materialize the plan not progressed since 1897 when H. Schapira came with the idea to the First Zionist Congress. I did not promise, and Weizmann thought, as it appeared later, that I wished to think it over.

Already since my return from the visit to the land of Israel, in July 1922, I went rarely to the Moabit section of Berlin where Loewe lived, and soon took the entire work of editing and publishing upon myself. Possibly he was a little hurt, but generally he was a good-hearted man, with smiling eyes on his broad face, framed between a large bald top covered with a few tufts of hair overlaid from one side, and a glorious greying beard, which he liked to stroke; he and his wife were in love after many years of marriage, but children they had not.

I met personally only a few on the large list of those who agreed to collaborate. One of them was Professor A. von Wassermann, the discoverer of a diagnostic test for syphilis, in his office at the Kaiser Wilhelm Institute in Dahlem near Berlin; on the

same visit I also saw Professor Neuberg, who dominated the field of biological chemistry. Prof. A. Fodor at the University of Halle felt and complained that Neuberg had closed to him the doors for scientific advance and publications; he was soon in contact with Weizmann, later to become the first professor in the University of Jerusalem. I also visited Professor Ernst Cassirer, the philosopher, in his mansion in Hamburg.

In the early spring of 1923 Elisheva and I took out our marriage license (civil marriage, preceding religious rites) in Hamburg, where her father, George Tuvia Kramer, had a Hebrew bookstore and also published books on rabbinical subjects, among them the codifice Shulhan Aruh of the early sixteenth century by Joseph Caro of Safed. Elisheva had lost her mother at the age of 19; it was then that she left Hamburg to study in Berlin.

On April 15 we were married in Berlin by the well-known Rabbi Munk in the courtyard of his synagogue; the dinner thereafter we had, at the insistence of my landlady, only recently widowed, in her apartment. Professor Loewe represented my parents by reading a telegram sent to his address: "We bless you with Psalm 128."

The next afternoon we spent some time in the Berlin University Library, studying the ways scientific institutions published their proceedings. A visit to the library became an observance on many of our anniversaries. I regard my meeting Elisheva as the greatest luck I had in my life. The nobleness of her character, her femininity, her honesty, her self-denials—all is before me through now thirty-six years as an unending blessing. She would go afoot across a large part of Berlin to visit a girl from Poland suffering from a brain tumor whom she happened to meet; she would walk, and not ride, because it would be Shabbat. On some visits she would play the violin for the girl.

I would travel to Leipzig often, possibly once a week for some period of time—and sometimes Elisheva would go with me. I had only good experience with the printers. If Elisheva would not accompany me, leaving for the train I would whistle one of our melodies, and even from the other end of Oranienburg Platz, a block or two away, we would exchange the duet in the morning hours of this quiet residential quarter.

With collaborators of *Scripta*, I had only once an unpleasant experience. Professor Radcliff Solomon of London, when invited to participate, sent in a paper on "What Became of the Philistines?" The paper was forwarded by me to the printer, and the galleys arrived together with the plate prints of the lithographs for the illustrations; I read the galleys one morning still in bed and was aghast. Radcliff Solomon reproduced scenes from the bas-reliefs of Ramses III in Medinet-Habu that depict the Pereset, recognized in the historical literature as the Biblical Philistines. Now Semites are supposed to be dolichocephales, or of long skulls; Pereset on the bas-reliefs were brachicephales, or round-headed. Three thousand years later among the Jewish legionnaires fighting under the British general Allenby, many were round-headed, as seen on photographs which, I believe, Radcliff Solomon made himself. He came to

the conclusion that the Philistines became absorbed into the Jewish People. The argument seemed very flimsy, and, to add to it, the way I felt then and saw the purpose of the *Scripta*, it would have been almost sacrilegious to spread such an idea which would obtain, by publication in *Scripta*, a sanction of scholarship. I wrote to Solomon an apologetic letter and offered, also ordered, the lithographs to be sent to the author for his use wherever he might succeed. (Actually, two years later, at the opening of the Hebrew University, I received a reprint of the article with a few triumphant words of the author who came to participate in the opening—by then we lived in Jerusalem.)

When all this took place, I could not have anticipated that decades later I would write a volume on *Peoples of the Sea*, as a part of my reconstruction of ancient history, in which the Pereset would largely figure; and that I would be able to show that Pereset were Persians and not Philistines, and that the time was not before the conquest of Canaan by the Israelites, but long after the destruction of the Judean monarchy. The better that I was so resolute then.

A work in the volume on “Orientalia,” by E. Mahler of Vienna, dealt with the chronology of the el-Amarna Period; of it, too, I could not have anticipated that I would use it five decades later for certain source arguments in dealing with the cuneiform letters found in el-Amarna, in the frame of the same work on *Ages in Chaos*.

Scientific contributions that I received from scientists in the field of biological sciences—and there were a few great names—had not a true scientific value; a paper such as was sent by von Wassermann I did not find to be of an adequate level: it was a popularization instead of a scientific contribution. Thus the only monograph I selected for print was by Professor D. Katz from Rostock who claimed to discern special nerve endings that could register vibration.

I also published in Hebrew, separately from the *Scripta*, a popularizing work by Dr. Jacob Greenberg, who worked as one of our translators, on “Atom and Ether”; and I made a new edition of the two Hebrew volumes, *Sfotenu*, published by my father in Russia, with scores of philological essays by Dr. Joseph Klausner, later one of the leading Hebraists of the Hebrew University.

At that time Berlin was becoming a cultural center for Hebrew and Judaica, and several publishing enterprises were initiated; thus Nahum Goldman began a multivolume *Jewish Encyclopaedia*. Chaim Nahman Bialik, the great Hebrew poet in his earlier years, now more absorbed by the commercial publication of Hebrew books, having seen the plan of *Scripta* and its fulfillment, said to me in his affected way: “This is the greatest collective work [for Judaism] since the conclusion of the Talmud.”

Except for two short vacations to the Harz and to the Sächsische Schweiz (near Dresden) all my time was taken by work. At the beginning of my stay in Berlin I also

participated in several post-medical courses given to physicians, a number of them from various foreign countries, at Charite Clinic of the University of Berlin, and took courses in serology at the Kaiser Wilhelm Academy. I also bought myself a Zeiss microscope. There was nothing memorable in these courses; the time was before antibiotics, just before insulin; few hormones and hardly any vitamins were used in medicine. My mother wrote me letters advising me to specialize in some branch of medicine that was needed in Israel, but I was more and more absorbed by *Scripta*.

When in 1924 the volume with twelve papers on mathematics and physics by prominent scientists was published, together with the other volume on Orientalia and Judaica, the leading British journal *Nature* (June 28, 1924) observed that if from a scattered population of thirteen million Jewish people sprang talents like Edmund Landau, Jacques Hadamard, Albert Einstein, Levy Civita, Gino Loria, Theodor von Karman, Harald Bohr, and others, then clearly the Jewish nation is unusually rich in creative spirit and ability. The published volumes served the National Library in Jerusalem (Later University Library of Jerusalem) for exchange with many scientific institutions for their publications.

The Hebrew University was begun in 1924 and inaugurated in 1925: at the time of the inauguration the two volumes of the *Scripta* were placed in front of Lord Balfour, who came to the inauguration ceremony, and the wind coming from over the valley in which lies the Dead Sea played in the pages of these books, on which my father had spent a large part of his fortune, and to which I had dedicated several years of passionate work.

References

1. Alexander died in August 1973. Shortly before his death I received a letter from him, the first letter since the beginning of World War II, in which he expressed his feelings towards me. He followed the course of my career through several articles about my work that had been published in the Russian press.
2. The order and organization in the small room was unbelievably meticulous—E.V.

SCRIPTA UNIVERSITATIS ATQUE BIBLIOTHECAE HIEROSOLYMITANARUM

A. MATHEMATICA ET PHYSICA

(The papers of this Series were also published in Hebrew)

1. E. Landau, Göttingen: *Über Diophantische Approximationen.*
2. H. Bohr, Copenhagen: *Über einen Satz von Edmund Landau.*
3. Loria, Genoa: *Osservazioni Relative alla Rappresentazione Analitica dei Sistemi Elementari di Coniche o Quadriche.*
4. J. Hadamard, Paris: *La Notion de Differentielle dans l'Enseignement.*
5. A. Loewy, Freiburg: *Über Algebraisch Auflösbare Gleichungen.*
6. A. Fraenkel, Marburg: *Die Axiome der Mengenlehre.*
7. A. Einstein and J. Grommer, Berlin: *Beweis der Nichtexistenz eines überall regulären zentrisch symmetrischen Feldes nach der Feldtheorie von Th. Kaluza.*
8. L. S. Ornstein, Utrecht: *Eine neue Methode zur Intensitätsmessung im Spectrum.*
9. T. Levi-Civita, Rome: *Sulla Velocità di Trasporto nel Moto Ondoso Permanente.*
10. Th. V. Karman, Aachen: *Usher die Grundlagen der Balkentheorie.*
11. S. Brodetzky, Leeds: *Fluid Motion past Circular Barriers.*
12. I. Popper-Lynkeus, Vienna: *Grundsschema eines Schraubenfliegers.*





Home Ancestral

As soon as the two volumes of the *Scripta* arrived from the printer in the summer of 1923, Elisheva and I went on our way to Israel with two copies (still without title pages) in our hands. We traveled first to Kissingen, where we met Elisheva's uncle Solomo, then continued to Wurzburg, where we came late in the evening, and, waiting for the train to Carlsbad, wandered through this charming medieval town, even more charming because of the night, our steps in the empty street being the only sound except for the clocks on towers that sounded the time.

We arrived in Carlsbad, where the Zionist Congress was convened. On the sidewalk near the Congress hall, Professor Chaim Weizmann stopped me and said that he still waited for an answer to his proposal to me to head the work of establishing the University in Jerusalem. We gave the members of the Congress reprints of the works published in the *Scripta*, and not remaining too long there, traveled toward Trieste.

I believe that the first of our many visits to Venice took place then. This city later again and again attracted us. On the boat to Egypt was Elieser Kaplan, whom I knew well from my student years in Moscow, and I asked his advice about the form in which I should mention Prof. Loewe's role in publishing the *Scripta*. Loewe gave me much support and guidance in the beginning, but for more than a year since my return from Israel he was practically out of the picture. This indecision I called the "Loewe problem." In the end I mentioned him following my name. If I think back, I wonder why the name of my father, who gave the funds, is not mentioned at all on the front page of the books, which is printed in Latin, but appears only on the Hebrew side of the volumes; the volume on Mathematics and Physics also has his Preface. But in the libraries of the world these volumes are not mentioned on the catalogue cards in any relation to my father. Apparently the "Loewe problem" had something to do with my father, whose name I omitted on the Latin front page as if from modesty, as I understood then.

The work on the *Scripta* was not continued. Had I been a practical and honor-seeking man, I would have accepted Weizmann's offer, put myself to work to organize the University, traveled to America to find funds, and continued the *Scripta*. My father's funds were exhausted, and actually he had so little to begin with that nobody in his place would have thought to underwrite such a costly enterprise.

From Egypt we traveled by train, and on the sand near the primitive railway station in Tel Aviv we were met by my parents: there they saw Elisheva for the first time. With one arm I held her; in the other arm I had the fruit of our great effort—the two volumes of the *Scripta*.

My parents immediately liked Elisheva, and my mother, speaking fluent German, could converse well with her. But already on the very first day of our arrival, October 30th, 1923, I had to take over a mission: my father had come into agreement with the Anglo-Palestine Bank (later the Jewish National Bank) on the division of Ruhama. During the World War Ruhama played an important strategical role. In the British parliament and press the role of Ruhama was mentioned often, when for long months the army of General Allenby held the front there and had water from the only artesian well in the region. When the Turks under Djemal Pasha retreated before general Allenby's army, they planted a bomb in Ruhama's well, the only artesian well in the south of Israel. As soon as they departed after igniting the fuse, two Hebrew pioneers climbed all the way down into the well and at the last moment severed the fuse from the mine.

For many months the army of Allenby remained stationed in the Negeb, the well of Ruhama being its main water supply. Then the British Army and the Jewish-American Legion conquered Palestine. But the farm fell on difficult times: the manager, Mr. Hirschfeld, died of typhus, and the place became deserted. In some way the bank supported the place a little, and though not a single tree or plant was added the Bank presented a bill for 29,000 pounds sterling to my father for the loan. The entire farm with its plantations and buildings was worth much less. My father could refuse to acknowledge the debt because the Bank had not been asked by the owners to make this loan, and the amount of the loan was but the result of an arbitrary conversion of Turkish pounds into British pounds sterling. My father informed the Bank that he had the interests of the Bank—which he had helped to create as a member of the Second Zionist Congress in Basel—as much on his mind as the interests of the cooperative, and offered to divide the land with them. By this he hoped also to preserve this, the only settlement in the Negeb, because the members of the cooperative had no means, or were not reachable, since the October Revolution in Russia. The Bank agreed, and we had to accept the division as mapped by the Bank—certainly prepared to its advantage. And the day after my arrival I had on me this task.

Soon I found out that my father was having a very hard time also with the new group of Sheerith Israel. My father had lost as much as 95 percent of his property; his own transfers of money to Europe were not honored by the recipients, but the money of the second group of Sheerith Israel we saved to the last ruble, even though the rubles were worthless “Kerenski” money. Yet these sacrifices were not appreciated, and those who thought that they had some rights demanded money, as if we were in the money transfer business. Actually, none of the original members of the new group arrived in Israel. What we did was to purchase land in Palestine, or, as it was usual then to say, to “redeem” the land. Actually my father had already bought land for that purpose, but considering the changed conditions, and partly being influenced by brokers, he bought land adjacent to the developed portion of Tel Aviv, that was soon to become its central part.

My father appointed a lawyer, Hershman, mentioned earlier, a son-in-law of a

member of Ruhama, to help him, and to advertise in papers in Poland that anybody who participated should write to him. Soon, on being warned that this lawyer had a bad reputation, my father severed connection with him. Hershman used the answers he received to inform the writers that he could obtain money for them, whereas the plan was for a new settlement.

To make the long story short, for the next seven years my father was exploited by lawyers who wished to be near the pot, but who could not solve the problem—especially the legal problem of whether the old group and the new were the same or two different companies. I never hesitated to take on this burden and, instead of starting my medical practice, became involved in the protracted consultations.

I remember how once in the morning I stood on Herzl Street and waited to meet Hershman—I did not wish to see him, yet I needed to talk to him, the man in whose night shirt I had slept five years earlier when the secret police found out about my father's and mine Zionist activities. As for the money that was due to us from various sources, I made hardly any effort to recover it.

Elisheva took in her stride this our waste of time; she organized a quartet, and in the spring of 1924 they traveled through the Emek Israel and Galilee, and played, and I accompanied them. Still I hear in my ears the aria of Bach and the melody from Schubert's "Der Tod und das Madchen." It was the first time that the people in the *kwuzoth* heard chamber music in their places. In Kinnereth the mother of Marek, who had wandered to the land of Israel, wept, listening to the music.

About ten months after our arrival in Tel-Aviv, I traveled one day to Jerusalem, and found a place where I could practice medicine with a group of better-known doctors. Each practiced his own specialty, and the post of internal specialist happened to be open. So Elisheva and I moved to Jerusalem, and lived there for almost two years. We liked to go to the Old City, to the Wailing Wall, and walk on the walls around the Old City. Our daughter Shulamit was born in Jerusalem in 1925. My mother came from Tel-Aviv to help—from Shulamit she had her great and last joy. Our second daughter, Ruth, was also born in Jerusalem—on April 26, 1926, while I was away in Tel-Aviv. That day Elisheva accompanied me to the taxi—and I saw on her face the first signs of labor; but in her self-denial she told me to go, and then in Tel-Aviv I received the message that she was in the hospital.

One evening in 1926 we parted with Jerusalem, for the last time walking on the city wall. In the spring of 1927, after having spent about nine months in Tel-Aviv in the house of my parents in an ever-frustrating effort to find some legal solution to the conflict over the group Sheerith Israel, I went one day to Haifa. My nerves were strained; I was not earning anything, giving my time and efforts to helping my father in that thankless task. My mother was now on the decline in her health, and the means of my parents were also diminishing, all making mandatory a change in my unproductive way of life that now dragged, week after week, through the fall and

winter of 1926-1927.

In Haifa, in the space of two days, I had a little luck: passing by a pharmacy on a stony road uphill, I was called in by the proprietor—it was Simoni, who recognized me from the days back in Crimea where he had spent time ten years earlier because of an incipient tuberculosis. He told me of a musician's family in the building in the court who wished to have a violin teacher for their son—for very little pay, but it would be a beginning. Then from that family I heard of a violin teacher who was about to leave town and had a rather large class to give over. I visited him. He had about thirteen pupils, and cared that they should not fall into the hands of his competitor at the local music school, who was truly an unsympathetic character. Neither of them could measure up to Elisheva, even by a long stretch.

Traveling on the little bus to Mount Carmel, I entered into conversation with a man, Marcus his name, and he told me that in the Ahuza of Herbert Samuel, farther back on the Carmel, they would like very much to have a visiting physician, and would I not agree to look at the place and the room they had for that purpose in their new settlement? This Mr. Marcus was a brother of the organizer of the new settlement of Rumanian Jews, and himself an official of this enterprise. I continued to travel with him, and found the new houses high above the Mediterranean and the Jezreel to the northeast. There was no salary in it, but a kind of "monopoly." Then I found myself a place to live on Carmel: it was in a stone house with an entrance room, and two bedrooms, each with a stony and roofed porch—one to the sea and one to the woods. I also spoke with a lady physician who was leaving Carmel, and another physician who had a very small practice. There were no others on Carmel and I decided to settle there, and rented the place. I also agreed to take over the care of the thirty or so members of Kuputh-Holim, a labor union on Carmel. A few times a week I was to visit their clinic in a dingy little room, all for four Palestinian pounds a month: the only paying job I have held in my life.

I returned to Tel-Aviv after one night in Haifa at the house of Simoni, with a certain feeling of success: a good start! I would tell all these little achievements to Elisheva. We had not much to pack. So we moved. We looked at the wide horizon of the Mediterranean from our porch, and we said to ourselves, quoting the words of our poet friend Kamskoi:

The heaven all around closed us here in a ring,
And here we shall stay and not move.

It is much better in Yiddish. We longed for a place of our own for peaceful work, for the horizon of the sea, for a little sunny place in the homeland, that land we had dreamed of for so long. I would soon be thirty-two, and we wished to drop our anchor, prepared to find satisfaction in very little, to have peace. I was the only doctor on Carmel. Elisheva earned more than I did, giving violin lessons in Haifa. She had a large class, and two of her pupils later made prominent careers—Ivri Gitlis and Zvi Zeitlin.

My mother spent some time with us after we moved to Carmel, but her condition deteriorated; my father cared for her during the fall and winter of 1927-1928, and she died. Elisheva, I, and our two daughters, Shulamit and Ruth, lived on Carmel from the early spring of 1927 to December of 1930. I had an office in town, but would also go to Ahuza on foot, and say Kadish for my mother.

My father was left alone in Tel-Aviv. He came to Carmel to visit us and, upon returning, felt lonely. A year later he married a widow, a much less educated woman, who at first concealed that she had grown-up children in Tel-Aviv.

The death of my mother coincided with my beginning to work in psychiatry. I was reading books on psychology and occupied myself with the problems of memory, subconscious mnemes, automatic actions, and telepathy. The books that I read about spiritualism—though written by the detective mind of Sir Conan Doyle, the creator of Sherlock Holmes, and quoting as confirmed spiritualists such authorities as Crookes and Oliver Lodge the physicists, Flammarion the astronomer, Richet the physiologist, or Weber or Fechner the psychologists—did not convince me in the least: the messages of the deceased were just not worth dispatching, and the only feeling left was that from immemorial times—from the days of the witch of Endor—the same practices were repeated and the same claims made, in different ages and various cultures.

But still my thoughts were not exactly conservative. In the tower that was atop the house we rented on Mount Carmel, or in the train I jotted down my thoughts on the mental processes in man. In the summer of 1930 I went to Paris, visiting the Pasteur Institute, and then to Switzerland. There a very nice person, Rivka Schaerf, who later emigrated to Israel and lived in a kibbutz, gave me freely of her time to help me express the concepts in my paper in a more precise form; until then it was only a draft. The work done—I called the paper “*Ueber die physikallische Existenz der Gedankenwelt*” (“On the Physical Existence of the World of Thought”)—I showed it to Professor Eugen Bleuler. He was the most prominent psychiatrist of his generation; it was his interest in the work of Sigmund Freud, a private scholar, that brought the work of psychoanalysis out of the private domain into the academic circles. In Burghoelzi Krankenhaus the theories of Freud were tried out, and one of Bleuler’s assistants, Carl Jung, soon became the main armorbearer for Freud, only to become a renegade later. As Bleuler did to Freud over twenty years earlier, he did now to me. He showed enthusiasm for my essay and the thoughts it contained, discussed the themata with me at his home in Kuessnacht, close to Zurich, on Zurichsee, and invited me also to follow him to Lucerne, where a psychological convention was to take place. There we met again and he wrote a preface to my paper. In it he said that my work serves science by opening for discussion a region that had previously been taboo.

The main idea of my essay was the unity of mind and matter; thus an idea has a physical existence, and I imagined that the idea of light and the perception of physical

light have the same physical existence in the human brain. Memory (mnemes) are in a sense physical “negatives” of ideas and experiences; and thus I envisaged an artificial memory.

As an addendum to the paper I wrote a preliminary note about the prospects of applying electroencephalography in epileptics and expressed my opinion that strong discharges should characterize the brain waves of epileptics. This I was subsequently able to demonstrate in a series of experiments I performed at Hadassa Hospital in Tel-Aviv. A boy about ten years of age was brought to me from Tiberias. He was having daily epileptic seizures, and was under the care of a pediatrician there. I took this opportunity for recording an early curve of *petit mal* using a cardiograph adapted for the purpose.

In Zurich I also visited Carl Jung, in an effort to see whether his teaching would be in harmony with my own feelings and approaches. He was a tall man, inseparable from his dog, a Great Dane. All went very well until I mentioned that he was a pupil of Freud. He bristled at my words—he did not like the reference to himself as a pupil of Freud. Nevertheless I suggested that we should spend some time together. He referred me to a lady-analyst who was close to him, but after two meetings with her I decided not to continue. I worked for a while at the Monakow Brain Institute in Zurich, and developed a friendship with Prof. M. Minkowsky. In Geneva I investigated the methods of treatment applied by Baudouin and attended lectures of Prof. Claparede at the J. J. Rousseau Institute. But I could not stay indefinitely—my family was in Israel. Elisheva joined me for a week in Switzerland, then went to see her father in Hamburg.

Although my paper “On the Energetics of the Psyche” had a preface by Bleuler, the first scientific periodical to which I sent it upon my return to Carmel declined to publish it. Then I mailed it to *Zeitschrift fuer gesammte Neurologie und Psychiatrie*, the leading journal in its field, and its editors published it in the January 1931 issue. I sent a copy of the paper to Freud. He wrote me that he himself had very similar ideas—almost identical he said—ideas he had not yet published.¹

Shortly before my paper was printed, we moved from Carmel to Tel-Aviv. With an increased part of my practice devoted to psychotherapy, and with patients traveling from afar, I need to choose a central location in the country; this was one of the reasons for the move. Another was to enable Elisheva to participate in music. I rented a villa and paid my first rent, as agreed, later in the month—I arrived in Tel-Aviv with 33 piasters in my pocket. Beginning in December 1930 and for the next few years I was very busy with work on patients, being also chairman of the Psychological Society in Tel-Aviv, and often the lecturer at its meetings. This left me with very little time for reading or for following the scientific literature. The Sheerith Israel affair was practically finished. After securing from the Mandate Government the consent that the portions of absent members would be given to the Jewish National Fund, and not appropriated by the Government, a voluntary liquidation was arranged. The appointed liquidators—the prominent lawyer Mordechai Eliash was

one of them—wrote a statement officially praising my father's role, conduct, and sacrifices. Ruhama became the property of the Jewish National Fund. Today it is a large agricultural settlement.

The *Scripta* were not continued. In Jerusalem Dr. Magnes, later Chancellor of the Hebrew University, asked me to continue by printing textbooks and the like, but I declined. We had no means. All these years Elisheva and I worked hard for necessities, and my father's income was insufficient. My father greatly regretted that he could not do something like the *Scripta* anymore. In his seventies he wrote several dramas, two of which I published. I also saw to it that an issue of *Haaretz* and other newspapers carried several articles of prominent authors, among them Simon Dubnow, dedicated to the jubilee of my father, which gave him satisfaction in the atmosphere of oblivion in which he lived.

From December 8, 1930 until the summer of 1939 we lived in Tel-Aviv. These nine years in Tel-Aviv were taken up by work with patients. I used to start early and work till the late evening, and yet I could not earn more than expenses. Even so, we invited one after the other three sisters of Elisheva to move to Israel, and at first stay with us. While I practiced medicine, Elisheva brought music to the land. She was the first to organize a quartet to go to Emek and Galilee and play there; and there were among the listeners those who cried. She gave concerts in Jerusalem and also in Tel-Aviv, Haifa, and other places. She led the Palestine String Quartet, first with Bentwich and Yellin, traveling often from Tel-Aviv to Jerusalem for this, and I encouraged her to play. Then she organized another string quartet in Tel-Aviv. She is a very fine musician, and her playing was sometimes divine.

In the spring of 1933 Elisheva and I went to Vienna. On the way we visited Italy, going by train from Brindisi to Naples, to Rome, to Florence. I had already selected in advance to see Dr. Wilhelm Stekel. In a book that I had, describing various forms of psychotherapy and psychoanalysis, I liked Stekel's approach best of all. I thought that the shortest preparation and the shortest analysis would be the way that would suit me best, partly because of my temperament. Stekel was of the first generation of Freudian pupils. Freud started his work in 1895, the year I was born, and the next nine years he spent in "splendid isolation," a time when he had no followers and no pupils, and felt best. In 1904 he had two pupils, and these were Wilhelm Stekel and Paul Federn. Stekel was a very prolific writer and intuitive thinker, and was considered a better dream interpreter, quicker in thought, than Freud. But I did not come to Stekel empty-handed. I brought a paper in which I revised his analysis and interpretation of dreams in a case of his, described in detail in the first volume of his multivolume work on *Neuroses and Psychoses*. The patient was an opera singer, who had lost the ability to sing. Stekel described this analysis on many pages, including her associations and dreams. Though I was not very knowledgeable in German literature, I observed immediately that what she was telling Stekel was actually from Goethe's *Faust*. The entire analysis—her dreams, her associations—were from this poem, and she confabulated herself into the role of Margarete. Stekel did not notice this and gave a far-fetched interpretation of the dreams and the case itself. I wrote a

re-interpretation of this analysis, and with this came to Stekel, three years after my visit to Zurich. He read the paper and was so generous as to invite his group of followers, some twenty people or more, and let me read my paper—a devastating criticism of his way of analyzing this singer. He acknowledged that I was right, and only then revealed that the patient's real name was Margarete. On the part of a dream interpreter superior to Freud himself, it was magnanimous. But this was in some respect also my undoing, because after a rather short time Stekel told me: "You are a master, I don't need to give you analysis; you can do it yourself." He himself had taken only eight lessons from Freud.

In Vienna analytical practice and theory occupied a very important place in that year of 1933. Daily there were public lectures, especially open meetings held by people of the school of Alfred Adler. In order to have insight into the ideas of the contending schools of thought in psychoanalysis, I attended a seminar given by Adler at his house. I also visited periodically the psychiatric clinic of the University and attended consultations given to delinquent children by Aichhorn.

In those days of my sojourn in Vienna in 1933 I also became acquainted with Dr. Paul Federn. As president of the International Psychoanalytic Society, Federn chaired that year the monthly meetings of the Vienna Psychoanalytic Society, of which Sigmund Freud was the founding member. At one meeting that spring at which I was present, the discussion became rather emotional—a chapter in the new book by Freud was the theme, and it dealt with telepathy. Freud was absent due to his poor health (he repeatedly underwent surgery on a cancerous jaw) but his daughter Anna was present. The subject of telepathy, foreign to the tenets of psychoanalysis, caused visible and audible consternation among the assembled members of the Society, mostly psychoanalysts. Only Federn and I sided with Freud and spoke up. After that meeting Federn and I spent the rest of the evening in a Viennese cafe, and though I soon left for home, our friendship can be dated from that date.

With Freud himself I had a tête-à-tête on his 77th birthday in a suburb of Vienna where he went for this occasion. He left his guests on the terrace and came to see me, and we spent thirty or forty minutes together. We had already corresponded long before, and he had published several pieces of mine in *Imago*—so I was not a stranger to him. He impressed me as being a fragile man. I did not write down what we discussed, and regrettably I do not remember too well.

That spring Freud published a paper of mine, "On the Dream Interpretation in the Traktate Brachot of the Talmud."² In it I showed that the ancient Hebrews knew of various things considered innovations of psychoanalysis. I also published a paper in Stekel's *Psychanalytische Praxis* under the title "Psychische Anaphylaxie."³

In this paper on a case of my experience I established the existence of the anaphylactic phenomenon in mental processes. Thus I introduced a new understanding of the complex nature of neurosis. A patient who as a child almost

drowned reacted to the next peril to his life with asthma, although he suffered from no lack of air. This paper was accompanied by a short excursus on the physical signs of fear as self-defense. Finally, before leaving Vienna, I submitted to a medical journal a paper in which I discussed the phenomenon of melancholy, or depression, and the role which tears play in relieving a person in distress or mourning.⁴

We stayed a few months in Vienna—Hitler’s shadow was already reaching there. On our way back to Israel we visited Venice and fell in love with Lago d’Iseo, the village of Del Castro and the surroundings. After crossing the Mediterranean, we visited Cairo and saw the Cairo Museum and the pyramids. Then we continued by train to Tel-Aviv. Upon my return to Israel I resumed my practice, adopting a method of participating personally in the analysis, rather than the accepted way of sitting passively, making notes. I wrote several additional papers on psychoanalysis, among them one dealing with the psychological problem of the specificity of the brain centers and the discrepancy in the different levels of intelligence in the same person. In another paper I explored the question whether a newly-acquired language may become the language of the unconscious. I showed how in dreams are to be found plays on words—and not only in dreams, but the entire structure of a neurosis is sometimes built on a play on words. This I was able to show on numerous cases, presenting a few lines from each—and each case could have been made into a complete story by itself, had time permitted. Yet I see now how my years of sessions with patients prepared me for my future work by allowing me to see similarities in things that do not at first glance appear related. I also investigated the role played by subconscious homosexuality in neuroses, and planned a book on this theme entitled *The Masks of Homosexuality*, of which I wrote several sections.

In 1935 Elisheva’s father, George Kramer, and his second wife Mally came to Israel from Hamburg, leaving behind Nazi Germany. But he died several months later in Jerusalem and was buried on the Mount of Olives. Elisheva saw that morning a dream that was as if telepathic—we did not expect her father to die; he was not seriously ill.

In 1935 I published in Paris my Russian prose poem “Thirty Days and Nights of Diego Pirez on the Bridge of Sant’ Angelo,” written fifteen years earlier in the Ukraine and Caucasus. It was accepted by Petropolis Publishers after Ivan Bunin, the Nobel Laureate (1933) read it and wrote in praise about the talent of its author. It is the story of Solomon Molcho who spent thirty days before the palace of the pope, waiting for God’s sign to act as a messiah. I admit that many of the feelings ascribed to Molcho were ones I myself experienced during those years.

Once, in 1935, Elisheva and I went to the Cedars of Lebanon, and stayed there above the clouds. My hair greyed early, and Elisheva also had a few grey hairs. That same year I started to build a large building on the site in Tel-Aviv where my father had a small structure. I drew the plan myself, including the exterior—all that an architect would do. Capital we had not, even the small building was mortgaged, but I was able to raise the necessary money through a large mortgage based on future rents. But I

chose a difficult man to execute the building, and soon became depressed. The depression passed when I took a boat to Cyprus with my family; there the children enjoyed riding on horses on paths above precipices. Returning from Cyprus (1936), I sent the contractor away and finished the building myself, with great energy. It was one of the best buildings in town, and the professor of Architecture at the Haifa Technion came to see me, looked at my sketches, and said he would bring his class to see the building.

After I finished the building, Elisheva and I went on a grand tour of Europe. Four months we traveled, spending some time in northern Italy, again in Venice and Florence, then in Paris, on the left bank. In Paris I attended the XIth International Congress of Psychologists. A great number of psychologists attended, also from America. The Chairman of this convention, Prof. Claparede from Switzerland, read the main address, "Hatred among the Nations." My paper, "The Psychological Origins of the Hatred among the Nations" was the only other discussion of the same theme. Following the convention, Mally, the widow of Elisheva's father, brought our children, Shulamit and Ruth, to Venice, and we traveled with them to Como, Pontresina; there the children saw their first snow. When we returned to Tel-Aviv, my father was weak. He had waited for me so long, and said to me as Jacob said to Joseph, that it was good that he lived to see me. I visited him daily for the next few months until his death. He died on December 16, 1937, in the house he had built for himself. My father died as if he were going to a wedding with death—such was the expression on his face. I have a photograph made by myself. His last blessing to me was barely audible.

In Tel-Aviv we lived about two years in the rented villa, and seven years on Shadal Street. By now the war was approaching. In our new apartment on Rhov Balfour, we lived three months. To the memory of my father I started a new series, *Scripta Academica*. I saw Weizmann, explained to him the idea of an Academy, and later he gave me for publication a paper he had written in collaboration with E. Bergmann.⁵ After this I published a work of Prof. A. Fodor, also a chemist, the first professor of the University, the results of twelve years of his research.⁶ I regret that I did not start this series in the lifetime of my father—it would have been a source of great satisfaction to him.

Looking back on the almost sixteen years spent in Israel, I could note but little achievement. I treated many psychoanalytic patients, and usually succeeded. I published a few philological works of my father (*Sfotenu*), and two issues of *Scripta Academica* after his death. I wrote several psychological papers, as well as a treatise on philosophy and biology called *Introgenesis*, which was accepted for publication by Presses Universitaires of France but was left incomplete because of the war. I experimented with electroencephalography; Elisheva bore me two children; I built a large building in Tel-Aviv. But altogether it did not amount to much for the best years—my 28th to 44th—and I stated to myself that my achievements were few; at this tempo there was nothing but the chance to write some more essays on psychology, to see some few hundred patients, to make a few trips to Europe, and to

be the landlord of an office building. All this was far from what I expected from my life. But at the age of 43 I had already lost the faith of achieving something great as a scholar. I thought of continuing the *Scripta Academica* as a basis for a Hebrew Academy based in Jerusalem. But once Elisheva on a walk asked: “And what of your own vineyard (*kerem*)? Don’t you think to do something yourself?”

Once I stood before a window of a bookstore; there was the book of Hitler, *Mein Kampf*, and the book of Freud, *Moses and Monotheism*. I deliberated which to buy, and bought the latter. Actually, I had read Freud’s earlier presentation of his ideas about Moses already when I was in Paris in 1937. At the Bibliotheque Nationale, a place that I liked to visit, I read the paper by Freud in *Imago*. Now the reading of *Moses and Monotheism* led me to surmise that the Pharaoh Akhnaton, whom Freud thought to be the originator of monotheism and a teacher of Moses, was in fact the prototype of Oedipus of the Greek legend. Today I wonder what were the sufficient grounds for that conclusion, which I would later elaborate and substantiate with material which I did not then have. But in a few weeks I had a rather convincing list of supporting evidence. I also concluded that Freud had some unsolved problem of his own concerning his being a Jew, and I turned to his own dreams as found in his *Interpretation of Dreams*, about sixteen in number. I found that, truly, he had a subconscious desire to convert to Christianity, in order to open up for himself the road to advancement.

Thus I had the idea to write a book on Freud and his heroes. In Tel-Aviv I could hardly concentrate on writing, and the meager Tel-Aviv library did not suffice for doing research. Also, I looked with concern upon the approaching war, which I correctly predicted in an article offered to Klinoff, ed of Haaretz.. I decided to go to America. As long as my father and mother were alive, then my father alone, I could not leave them: the land was harsh and they had too many aggravations. Now they were resting in peace; and only three months later we were packing to go to the United States, with the plan to stay there for a while.

I remember coming to Ruth’s school to take her out: the children ran and jumped, not surmising with their parents that the war was approaching. I felt a little of a coward to leave at that time, but I had wished for so many years to start working on some book. *Freud and his Heroes* appeared to me an important enough work.

The last two nights, and especially the last before leaving Israel, were nights of agony. I could not overcome the feeling of indecision. It was like jumping into the unknown. The future was not revealed to me: many times I opened the Bible and looked for a verse to guide me. Finally, leaving my business affairs unsettled, we took a cab to Tel-Aviv harbor, intending to board a ship going to Trieste. There was no place there, and I could have room only on the ship from Haifa. We went to Haifa and took the ship bound for America. I wavered until the last moment; when the boat reached Larnaka in Cyprus, we disembarked, but immediately regretted it bitterly; Elisheva advised to cable Paris, and a new passage was secured. Within a few days the “Mauritania” came and we continued to New York, where we arrived on July 26,

1939. It was still a gay trip; a few weeks later the boats were arriving without lights. The war started with the invasion of Poland on September 1, five weeks after our arrival.

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America

In America we took rooms, later an apartment, and I was visiting the library daily. For eight months I worked on “Freud and his Heroes,” publishing the interpretation of Freud’s dreams as a paper in the *Psychoanalytic Review* (1941). After eight months we were prepared to go home. On the day we had to sail, I was informed that my manuscript, “Freud and his Heroes” was accepted for print. We remained. In April 1940 I came upon the idea that the Exodus took place during a physical catastrophe; I started on the reconstruction of ancient history—from the end of the Middle Kingdom to Alexander of Macedonia, finding the correct correlation. In about October 20 the same year I came to the understanding of the real cause of that catastrophe that was embodied in *Worlds in Collision*. I also realized the implications for the celestial mechanics—and published a summary in “[Cosmos without Gravitation](#)” (1946), as an issue of *Scripta Academica*, to which previously Ch. Weizmann and Prof. Fodor contributed.

I worked hard for all those years. It is difficult to describe in short the enthusiasm and devotion provoked by and given to my research. We lived almost in poverty. I used pencils, two for a nickel, and could not buy a fountain pen, when I lost mine. We had for a year an apartment with a beautiful view of the Hudson, but none of us used 10-cent bus that passed in front of the house, because we could travel for 5 cents. Actually the second year in the U.S., we lived for \$2,000, out of which \$1,000 for apartment. Morning, day and evening I went to Columbia Library, and daily I had new finds. A little of the story is found in early sections of “Stargazers.” Elisheva studied sculpture at Columbia University under Moldarelli, and showed an unusual talent; her ability to give expression to a face, of unusual beauty, is probably unsurpassed, even in the sculptures of the Renaissance.

My books were rejected by many publishing houses. Finally Macmillan showed interest. When the mns. was given to the printer—I sailed with Elisheva to Palestine. Our daughter Shulamith left in 1946 after having finished college (Hunter), Jewish Theological Seminary and having started in Columbia (Physics, graduate). Ruth remained in the U.S. and married a boy, Sidney Sicherman (later Sharon); we first opposed, then conditioned our consent on his going to college—which we also made possible. During the 1948 war in Palestine Shulamith actively participated. She was in the most dangerous spot, the Old City of Jerusalem when it was besieged, she actually went there with the intent to fight. she was the last to leave when the city fell. She saw her girl friend die next to her, wounded. She was attacked by Arab soldiers, cried to God, and was saved by an Arab officer, before harm was done.

I published over 40 inspired articles “[Observer](#)” in *N.Y. Post* on the editorial page,

dealing with the Middle East. They were widely read, in U.N., in Washington, by Jews, and the identity of the author was a discussed topic—nobody knew, for several months not even the editor of the Post, Thackrey, who found it out only by a trick on the day the Israeli state was founded. Not many single items served so well the cause in America as these articles. Then in 1948, Oct. 27 we—Elisheva and I went to Israel, by Mauritania to France. In Paris when the Security Council deliberated sanctions on Israel, I wrote an article that caused indignation of the British representative. In Israel we met Shulamith. There I became depressed: My depression started in January 1949 and deepened. I was overworked (by the work on my books, by articles, by psychiatric patients that I started to see since 1945). On February 1 we left Israel, the new state, reaching New York on Feb. 9 after a hard time in Paris. Finally Elisheva broke down. We both spent time in sanatoriums; I was four weeks under care, but did not receive in these weeks any medicine except once or twice one tablet of aspirin. Finally by the end of April I was my old self and on May 8 I was reunited with Elisheva, who suffered for me.

I resumed my psychoanalytic practice, and worked on “*Ages*” and “*Worlds*.” The latter work was described by *Harper’s* (Eric Larrabee) in the January issue of 1950 in advance of publication. An enormous amount of criticism, for and against, followed the publication of the book. The story of the opposition is described in *Stargazers*. The book immediately rose to the first place on the non-fiction best-seller list and remained there for about 20 weeks. The opposition used unfair methods; Macmillan was coerced already in May-June 1950 to transfer the book to Doubleday.

In the fall of 1950 Shulamith came from Palestine and soon thereafter came Abraham Kogan and they were wed. Abraham studied aeronautics in Princeton. In 1952 first volume of *Ages in Chaos* was published; in the fall of that year we moved to Princeton, buying there a house. Shulamith bore a son, Meir; then they left for Israel. In the meantime, Ruth and Sidney moved to Princeton from California.

From November 1953 until the death of Einstein in April 1955 I had with him a series of long and exceedingly interesting debates. We also exchanged many letters. My debate with him centered only on one point, namely whether the sun and the planets and other celestial bodies are charged or not. From his marginal notes on my letters it is seen that he firmly opposed the idea of a charged earth and celestial bodies; he thought that I did not realize the largeness of the problem, until a month before his death, in two long sessions—till close to midnight, he read with me “On the Four Systems of the World,” agreeing that the fourth of these was well thought through. He read several of my manuscripts. *Worlds in Collision* was left on his desk when he went to hospital where he died. In the beginning he rudely rejected my work, though he, too, believed that some extraterrestrial (later he changed to terrestrially-caused) catastrophe took place. Nine days before his death, at our last meeting, he said to me—“I read much in your book [*Worlds in Collision*] and I find it very important” (previously he would say he thought it wrong that scientists do not read it and give their own explanation)—“but I would not oppose Newton—all in your book could be explained in the frame of his system.” In my books I left this chance standing

(Epilogue to *Worlds in Collision*) but I claimed that in case the Earth and other celestial bodies are electrically (and sufficiently strongly) magnetically charged, the theory as conceived about 1666 must be re-examined. But when Einstein died, his name was used to degrade me. His death and the new attacks caused me much aggravation. In the fall of 1955 Doubleday published “Earth in Upheaval”; it was unfairly attacked by the same group, the soul of which was Shapley of Harvard.

In the fall of 1955 Shulamith came to Princeton with her two children—Rivka was born in Israel. Abraham came and made his Ph.D. with distinction. They spent 17 months with us. They left in the spring of 1957.

In the summer of 1957 Elisheva and I left for Europe, spending almost three weeks in England, Holland, France and Switzerland. There we spent time with Schaeffer, he came to the same conclusions as myself about the catastrophes, their number and times, and we contemplated to write in two volumes a common work. I have postponed for very long this trip but was happy to have made it. Elisheva’s sight became weak due to a cataract, and I wished to show her Europe. I analyzed myself—why was it so difficult for me to go on a trip. Finally we went and enjoyed it. From Switzerland to Italy, to Greece, again Schaeffer, and to Israel. This we added to the original plan. Twelve days after we came I knew that I was sick. I was operated and under similar conditions as in 1949 became depressed and went through once more the “Valley of Tears.”

* * *

Elisheva was before me in the night air before our house and I entered our home. Over five weeks we have not seen one another, only spoke occasionally on the wire. Warm and loving she met me and I had to be grateful to God that he spared her and she was before me not broken in spirit or body. How awful were the days and nights alone for her, pacing the floor. We started the life anew: we loved one another even more than all the years that passed, in soul and in body.

But I was not free of my depression. The great humiliation that I experienced by “quarantening” myself I felt keenly, and twice I broke down in loudly reproaching the Providence for what passed over me, whereas I gave my life to work and research; my position in the defense of my scientific stand was now immeasurably more difficult. How, for instance, could I publish *Stargazers* with Shapley’s reference to “keepers”? I felt that I did not deserve the punishment, having led a life of devotion—years of wondering in Ukraine and the Caucasus, years of publishing *Scripta*, years of dissolving Sheerith Israel and protecting my parents to the best of my ability, years of writing *Worlds in Collision* and *Ages in Chaos*.

Psychoanalytically my outburst could have been interpreted as a protest to my late father for being punished for not having done the filial duty in time to his memory at the cemetery, though so much I have done to him and for him in his lifetime.

Time is a healer; Elisheva wept with me when I spoke of my experiences. Neither she

nor I could read without crying the letter I have mailed to her from the sanatorium, with words of love.

A month after my return, I offered Dr. W. Federn to assist me and though he was prepared for a while to work without pay, I named the sum that I could pay monthly, and this was a little more than he had from another work for a relative-doctor in translating from late Latin. For the first time in his life he could make up his budget by earning it.

He read my draft of *Oedipus*, and he wrote: (22.IX.58): “Ich habe ... den Eindruck dass Sie mit genialen Intuition wirklich das richtige getroffen haben, als Sie den Ursprung der Oedipus-Sage in historishcen Vorgängen der ausgehenden 18. Dynastie suchen.” Yet he tried to change my scheme, and to make not Akhnaton, but Amenhotep III, to Oedipus. It was a strange offer, since all personalities of the tragedy were without similarity with the changed prototypes, Ay had no role at all in Federn’s scheme. But for some reason, my work on Oedipus and Akhnaton provoked in Federn an eruption of new ideas. Three days later (Sept. 25.58) he wrote again: “The fertility of your idea is almost frightening.” and on Sept. 30, he wrote: “Ich habe Ihnen folgende geradezu welterschütternde, jedenfalls mich selbst erschütternden Mitteilungen zu machen.... und das Allerwichtigste: Ich bin jetzt der festen Überzeugung, dass “Ages in Chaos” richtig ist, und habe eine fast unüberschbare Fülle von Beweismaterial.” He twice underlined “richtig”; and he wrote that the second volume of Ages must be reworked.

This came to me seventeen years and eight months after first telling to Dr. Federn of my reconstruction on a snowy night near the Public Library, in January 1941, when for two hours we walked forth and back on the sidewalk of 42nd Street, Library side. Since then innumerable times he assured me that I cannot be right, yet he gave me all the constructive criticism and supplied me with bibliographical data. (*Worlds in Collision* he did not read before publication, but *Ages in Chaos* he read and supplied with many useful remarks). On May 31, exactly four months earlier, on his only visit to Princeton, he was completely declining my “Ages,” and telling me that I could not be right in my reconstruction, not even the smallest chance was for that, and the, I repeatedly interrupted him, saying—how does he say this to me, so harsh, when he sees me in depression. Then I needed only one “success,” only one achievement, and possibly I would have been able to straighten myself, if he would have told me on May 31 what he wrote me on Sept. 30.

Yet soon I saw that he intended to change drastically the scheme of 8-4 centuries, and to me it appeared entirely unsupported; then also he wished to change radically in vol. I of Ages, claiming, on the other hand, complete agreement. He started to call my scheme “New Chronology,” and many letters followed.

When I was away came a long letter from Claude Schaeffer, and it was so completely negating my reconstruction, that Elisheva spent many sleepless nights, not being able to face the situation: How will she ever be able to let me see Schaeffer’s letter. In that

letter he was intemperate; and instead of giving arguments, invoked his own and his colleagues' authority, even more his own position in learned institutions, than authority. Cannot be, is not, impossible, with these words he strafed all my identifications. Schaeffer asked Elisheva to show me his letter only after I shall recover, because he was by then acquainted with my break-down. But his letter almost broke completely Elisheva and she cried in the night and kept the letter hidden under her mattress. To me she would not show the letter, saying she misplaced or destroyed it—but finally, upon my insistence, about a week after my return home, showed it to me. I took it, to her surprise, very calmly, and then I wrote a long answer to Schaeffer. He was probably also personally hurt because his work in Alasia was not accounted by me (he forgot that I had my mns of Ages 2 set in 1951). “I beseech you” not to publish my work for the sake of my reputation and his friendship for me. But I was not disheartened.

Should I be given a chance to live and work, I have to publish “Ages” vol. 2 and other books. But I would also like to write an autobiography, “Days and Years” or “At Evetide.” Should I not be given the chance, I thank my Creator for the life I had, for Elisheva I met, for children and grandchildren, all very fine and cordial, for the three years in Caucasus and Ukraine, for two years with Scripta, for defending my parents in Palestine, for the discoveries it was my luck to make. Actually God let me know of the past of the world and possibly of its architectonics, more that it was disclosed to any other person, if I am right in what I found.





Postscript

When in 1940, in the early evening after a day in the Public Library at Forty-second Street in New York Emanuel and I walked to Central Park and sat down on a bench, I said to him life was not always easy with him, but it was certainly an adventure. This sums up in some way my life with Emanuel. In this autobiography of his this feeling of adventure comes through. Almost every day, especially since we came to the United States, unusual things happened.

He was always on a hunt for more knowledge, following roads into different directions to look for and find more clues to his intuitive thoughts and expectations. He was like a hunter on a trail—though he would never have hunted an animal or gone fishing, he respected life too much for such sports—but as a man of a vision, who looked into many directions, he was driven by a never ending urge to know more.

He was humble and proud at the same time, and before all he was a great fighter who never took no for an answer; who went to the authorities of the past as well as to the great living to ask for explanations. He was never discouraged. When one of his expectations was not fulfilled, he went into the next direction to find the answers he looked for. He abandoned one way and went to the next without losing confidence in his search for what he hoped to be the solution and the truth. All in all, Emanuel was a man of a very unusual character. As I said, proud and humble, courageous, never to give up even when the odds against him and the personal attacks on him would have overwhelmed many a man. Of course, the strain showed through his life. There were times when he felt depressed as in reaction to the difficulties found in his way. And no wonder, I lived with him through very trying times and I understood when the load became too heavy.

He was a very gentle human being, he cared for his parents, family, friends, and for the plain and simple. He lent a hand to people, he found time to comfort and advise and help, never being too busy to listen to the unfortunate, adults and children alike. He was a great optimist who believed in the goodness of man and in the purpose of life, and he also had a fine sense of humor. He was a great raconteur and would tell anecdotes and stories. I would ask him to cheer me up when I felt let down, and he would say, let us count our blessings. And we would count. And that helped every time to make us feel positive and happy again. He gave this advice also to his friends, who still remember him for that. It was always “the cup is half full and not half empty.” He called me Shevik, and when he was in a sentimental mood I was Shevinka; but when he called me Elisheva, I knew that something was wrong, that he did not approve of me at that moment. I, however, never had a nickname for him—he

always was Emanuel for me, also Aba. Some of his family called him Monia, but to me it sounded too much like “money,” and this association did not fit him at all. He could have gotten rich many times, but it was not written in his stars, and certainly not in mine. And when he was sometimes sorry that he did not take advantage of an opportunity to buy land and enrich himself and his family, I would say, never mind, you bought the sky. And he would smile.

He wrote about his first 6½ years in several but similar versions and in several languages: Russian, German, Hebrew and English. He made lists how to divide his life into different epochs, but wrote only sporadically, and some parts are missing. There were also letters, correspondence with his father, with friends and scholars, which are biographical. There were no letters between us, because we were almost never separated. All the trips to Europe and Palestine we made together, and I went with him across the United States to campuses to be with him when he lectured.

A few sentences of friends after his death:

S. Vaughan wrote me a poetic line: “So Velikovsky has left this fragile ship, but he is sailing the seas of space.”

Walter Kaufmann quoted Fulton Oursler, “Do not mourn that he has died, be glad that he has lived.”

And a recent note to me from a reader I don’t know: “May I . . . tell you how admiring I am of your matchless memorial to this great man—the publication of his unique works.” And that is what I have been doing these past two years, and that is what sustains me.

There is a saying which dates back to older times—Herodotus records it of Solon speaking of Croesus, the richest man, whether he was lucky. Only after his death do you know whether a person was lucky.

In this sense Emanuel was a lucky man. On a Sabbath morning, lying quietly on his bed after a rather restless night, speaking softly to me—I was sitting next to him, on the edge of his bed, and touching his shoulder asked him to repeat his last words I did not hear clearly; he turned his head a bit to the side, he did not answer—he had died—without a gasp, without a murmur. He was a lucky man in many ways because of his strong character, his honesty with himself, his total devotion and integrity, a man of vision, of commitment with belief in his work.

— Elisheva Velikovsky





THE VELIKOVSKY ALBUM

click on thumbnails to see full-scale image



Earliest photo,
ca. 1920



At ISA 1971



At ISA 1971



Photo by Fima
Noveck, ca. 1974



FOREWORD

This unpublished manuscript is a chronicle of Immanuel Velikovsky's contacts and debates with Albert Einstein. The two men first met in the early 1920's, when Einstein edited the *Mathematica et Physica* section of *Scripta Universitatis atque Bibliothecae Hierosolymitanarum* (*Writings of the University and the Library of Jerusalem*), of which Velikovsky was the general editor. There were a number of other contacts over the years, and in the late 1940's Einstein read parts of *Worlds in Collision* prior to publication.

Velikovsky begins his story in 1952, with a brief meeting at the lake in Princeton between the Velikovskys and Einstein. Velikovsky saw this meeting as a low point in the relationship between himself and Einstein. He then reviews, in a lengthy flashback, the contacts of the previous thirty years. Next he turns to the main subject of this book, the series of letters and conversations from 1952 to 1955 that were the setting of the ongoing debate between Einstein and Velikovsky on the subject of Velikovsky's theories, especially the role of electromagnetic factors in the celestial arena. By the end of Einstein's life, areas of disagreement between the two men remained, but those areas had been greatly reduced during the course of their increasingly cordial and productive discussions.

— Lynn E. Rose



INTRODUCTION

In the dark hours before morning, at the crossing of the Yabbok, flowing into the Jordan, Jacob struggled with a man whom he did not know; and the stranger, upon seeing the sky beginning to redden in the east, asked Jacob:

“Let me go, for the day breaketh.” Jacob, however, replied:
“I will not let thee go, except thou bless me.”

The title of this book is taken from this story in Genesis (32:24-27). The reader will find out at which juncture of our relations I exchanged this ancient dialogue with Albert Einstein.

For long months we carried on a struggle by written and spoken word; the subject of the struggle dealt with invisible but real forces, whether they do or do not take part in the movements of the silent mechanism that carries worlds on their paths. My claim of the participation of electromagnetic fields and their interrelations in the structure of the universe was opposed by him almost to the last, and this was *the* issue of the dispute. The Morning Star was also a subject of our contention.

The main story starts in August 1952, though there were some exchanges also earlier. We defined our positions, he in brief, I at length. Then, after an interruption of over a year, we came to closer grips. In letters (testimonials to the stands we took) in his marginal notes to manuscripts of mine, and in discussions that went sometimes nearly till midnight, we were not sparing of each other.

Before the debate started there certainly was in my opponent a preconceived stand which he shared with so many men of science who could not see in my published work any *vrai-semblance* of scientific truth. Yet as soon as the contact became personal it grew in warmth, and a reciprocal affection developed between us, unyielding as we were.

I believe it was not until our two long discussions accompanying the reading of my paper “On the Four Plans of the Universe” less than seven weeks before his death that my opponent fully comprehended my stand. By that time he had also read *Worlds in Collision* for another time, with a decidedly different reaction. At the end I felt as if he wished me to be proven right.

Our debate ended on Friday, April 8, 1955, only nine days before Einstein’s death. I think I was the last person with whom he discussed a scientific problem. On that day I brought him the published news that Jupiter sends out radio noises; ten months

earlier, in a letter to him, I had offered to stake our dispute on this my claim of an as yet undiscovered phenomenon — and at that time he let me have his reply in a marginal note to my letter. It happened repeatedly that he wrote his arguments in the form of notes, sometimes copious, on the margins of my letters, returning my originals to me; with notes he also supplied some of my manuscripts that he read: *Earth in Upheaval*, published half a year after his death, and *Stargazers and Gravediggers*, memoirs on the origin and reception of my work.

Over twenty years have passed since the figure that dominates this narrative left the abode of men. With the passing years many phenomena have come to light, and today it is sometimes difficult for a scientist to reconstruct his own and his colleagues' attitude of 1950 or 1955. And it is even more difficult for the young generation to envisage the stand of science in those years, almost a generation ago. Since then, many discoveries of the Space Age have completely changed our understanding of the structure of the solar system, and radioastronomy has brought home a new and exciting picture of cosmic spaces and of the forces that act in them. It is easy to be misled into thinking that this knowledge was already common in the early fifties; thus whom better to quote than Einstein as a spokesman for the prevalent scientific view of that time?

This short book is intended also as a personal tribute to a man who was simple to the extreme, strong in convictions, humble in fame, curious for human destiny, and very solitary.

If the years that have passed have not substantiated Einstein's stand in the arguments we exchanged, his very attitude in this exchange that much occupied his mind to the end of his life, and his effort to uphold the human dignity of a heretic ostracized by the entire scientific community, remains for me an unforgettable experience. I have tried to communicate to my readers this glow that lives in me undiminished since the dawn broke for me.

Many of the following pages were written when Einstein was still alive, and now, in a number of instances, I have had to change the present tense to the past tense. Other pages were written soon after his death, and some I add while preparing the story for print. Being now several years older than Einstein when he died, I think that I should not delay, but put together and leave a record of our relations and of the issue that divided us and bound us. I did not know intimately the man with whom I struggled before the dawn, but I sensed something angelic. *Before the Day Breaks* is a record and a tribute.

Princeton, 1976





At the Lake

It was August 1952, eight or ten weeks after we moved to Princeton. Elisheva and I sat on a bench at the boathouse on the shore of Carnegie Lake, which sprawls in the valley only a few minutes' walk from our home, and talked with the boatman. We saw a tiny boat with a sail approaching the anchorage. An elderly man with his head covered by a wide-brimmed hat against the rays of the setting sun came from the boat and, going toward the boathouse, looked at us with his friendly smile. Only now I recognized Einstein. I approached him and named myself.

"Ah, you are the man who brought the planets into disorder," said he in German, and the smile disappeared from his face. He was carrying the oars into the boathouse. I made a move to help him, but he kept the oars. I heard a challenge in this greeting and said:

"I would like an occasion to meet you and discuss. . . ."

"But what do you know of astronomy?" he said dryly.

"I know to put questions," I said, or only thought so.

"Not one of these days, sometime later," he said.

"May I write you?"

"Do it," he said, and was already a bit impatient to be away—his home is at the other end of town. His car moved on the unpaved road that runs along Carnegie Lake, and Elisheva and I went home, uphill, only several hundred feet from the mooring platform.

This short encounter made me realize that Einstein, too, was full of resentment against me. I had not yet had any chance to show him that I had thought through the physical consequences of the conclusions at which I arrived in my study of the natural phenomena of the past. Six years earlier, in 1946, as I will soon narrate, I had the ambitious plan to discuss with him the physical consequences of *Worlds in Collision*, then in manuscript, and on July 5th of that year visited him in his Princeton house. Einstein agreed then to look through a part of the manuscript. At that time he advised me to rework my book so as to make it acceptable to physicists and to save what was valuable in it; if I would not do this, I would not find physicists who would accept my views, nor a publisher willing to print them.

Since then six years had passed. Einstein was right: most astronomers declined even to deliberate my evidences; the publisher that had brought out my book had parted with me.

Now, after our accidental meeting, I wrote on August 26th a letter to Einstein:

Dear Professor Einstein:

When, by chance, we met last week at the lake, I became aware that you are angry with me personally for my “Worlds in Collision.” From you I have not expected this reaction.

I have written a culture-historical book. A physicist cannot prescribe to an historian what he is allowed to find in the past, even if he finds contradiction between the alleged historical facts and our understanding of natural laws. There are facts a physicist observes daily which are in conflict with the laws he formulated; one such case is the keeping together of positive elements in the nucleus of an atom; he accepts the fact though it contradicts the law, and he looks for some explanation.

Two facts appeared to the scientists as fallacious in my book: 1. No forces in the celestial sphere but a head long collision could retard the earth in its rotation or incline its axis into a different astronomical position, and in such a collision our earth would have perished; 2. No planet could have come to its orbit as recently as a few thousand years ago, and therefore Venus could not have traveled on a cometary orbit in historical times.

These two assertions are true only if gravitation and inertia are responsible for planetary motions, a notion subscribed by every “vernünftigen Physiker.” Here, though no physicist or astronomer, I am provoked to disagree.

The sun has a general magnetic field, the solar spots are magnets, the solar prominences return on an oblique line to the place on the solar surface from where they erupted, the cometary tails are repelled by the sun in a manner and with velocities which the pressure of light cannot explain; the earth is a magnet; the ionosphere, the polar light, the ground currents, the terrestrial magnetism react to solar disturbances; cosmic rays are charges that travel in magnetic lines of force; meteorites come down in a magnetic state; the position of the moon influences the radio reception (Stetson); the position of the planets influences the radio reception (Nelson of RCA); the fixed stars are strong magnets (Babcock). In the face of all this is it true or wrong to insist that only gravitation and inertia act in the celestial sphere? And if the electromagnetic fields are not invented by me for the solar system ad hoc in order to explain the phenomena and their interpretation as found in “Worlds in Collision,” then may I ask: Who is in conflict with observed facts, the astronomers that have all their calculations concerning the planetary motions perfect on the assumption that there are no electromagnetic fields in the solar system, or the author of “Worlds in Collision” ?

Venus could come to a circular orbit and the Earth could be retarded in its rotation or have its axis inclined, under the influence of electromagnetic fields. Such fields exist; at close distances they would act strongly. I believe, therefore, that not only the historical phenomena that I describe in my first book could have happened, but also that celestial mechanics that has all its motions explained without taking into account the electromagnetic fields in the solar system, is in conflict with facts.

I have read a book of a prominent astronomer of this city who says that nothing could take place in the celestial sphere which conflicts with the words of Jesus of Nazareth as preserved in the Gospels. Thus he has two world conceptions that live side by side in his mind—one of mathematics, the other of faith. But the rest of astronomers are like him: they acknowledge the magnetic and electrical properties of the sun and its spots, or of the fixed stars, of meteorites, of cosmic rays, occasionally also of cometary tails, and they do not deny that the Earth is a magnet, and that the sun, the moon, and the planets influence in some way the ionosphere; but as soon as it comes to the celestial motions, they still keep to pre-Faraday Laplace and Lagrange, and actually postulate sterile electricity and impotent magnetism, which do not act at distances, and which do no more than produce a Zeeman effect.

In my debate with Prof. J. Q. Stewart of Princeton Observatory in Harper's Magazine, he presented the common view by asserting that electromagnetic forces have no part in the planetary relations. I, on the other hand, have written that the general solar magnetic field discovered by Hale (1912) was often denied to exist (Menzel). "Has not a basic mistake in observation or interpretation been committed?" Now this April, the same Menzel announces that the sun must have a very strong magnetic field, and that there was a difficulty of finding it because of the angle of observation.

For over two years I have been a target of abuse and calumny. When did it happen that a spurious book caused such a fury in the minds of the contemporary scientists?

I have taken too much of your time. I wish you everything best.

Cordially,

Immanuel Velikovsky

To this my letter of August 26 Einstein answered the very next day. It reads in

A. Einstein
112 Mercer Street
Princeton
New Jersey, U.S.A.

27th August, 1952

Dear Dr. Velikovsky:

The reason for the energetic rejection of the opinions presented by you lies not in the *assumption* that in the motion of the heavenly bodies only gravitation and inertia are the determining factors. The reason for the rejection lies rather in the *fact* that on the basis of this assumption it was possible to calculate the temporal changes of star locations in the planetary system with an unimaginably great precision.

Against such precise knowledge, speculations of the kind as were advanced by you do not come into consideration by an expert. Therefore your book must appear to an expert as an attempt to mislead the public. I must admit that I myself had at first this impression, too. Only afterwards it became clear to me that intentional misleading was entirely foreign to you.

With friendly greetings,

Yours,

Albert Einstein

This answer, of words measured and precise, of a mathematical brevity, an art in which Einstein was a supreme master, made it clear that no argument in my letter produced any effect or even had attentive hearing, because I was up against a formidable structure erected by the greatest minds, proven correct by the supposedly most minute observations of the motions of celestial bodies; therefore it was not even a structure, but a natural massif, an Everest, that I was trying to shake. And who was I, and what was my knowledge, and against what opponents did I carry my arguments? Einstein was and still is considered the greatest mind, almost divine in his knowledge, whose word in the matters I was raising was thought infallible; and the great apparatus of mathematics was his, and the calculations of Newton, Lagrange, Laplace, Leverrier, and Newcomb were the basis for what he said, and the observations of the heavens for three centuries with ever greater telescopes unfailingly confirming the theory were on his side.

Yet, knowing me even as little as he did, how could Einstein think that my intention had been to mislead? In the two preceding years he must have been involved many times in discussions of *Worlds in Collision*, and the opinions of others must have colored his own. This would also explain his cold and even harsh greeting when we met at the lake. He was prepared to admit that I was deceiving myself; and deceiving myself I was, because I was pitting myself against the closed front of mathematics and astronomy.

In a hundred years, in over 400 revolutions, Mercury precesses (advances) ca. 5600 seconds of arc, of which 46 seconds are unexplained by classical celestial mechanics; the visible face of the moon is by comparison ca. 30 minutes, or 1800 seconds of arc. This anomaly of Mercury, so small, was so disturbing that for seventy years from 1845 when it was calculated by Leverrier, until 1915 when Einstein announced his General Theory of Relativity, it caused great unease among theoretical astronomers. Was possibly the mass of the sun unequally distributed?, it had been asked. Was possibly an undetected planet revolving between Mercury and the sun, obscured from observation by the sun's dazzling light? This was a problem which, so long as it remained unresolved, did not let astronomers live in peace; and only with Einstein's explanation for the phenomenon was the looked for solution found and peace restored: now, observations and calculations coincided almost precisely.

If such a tiny disagreement between observations and calculations made such an impression and claimed so many efforts for its solution, how could I brazenly claim admittance for two powerful natural forces, electricity and magnetism, into celestial mechanics? But I, on my part, thought it strange that nobody before or after Einstein had tried to figure out whether the Mercurial anomaly is or is not an effect of electrical or magnetic interrelations.

In the classical celestial mechanics there is no need nor place for electricity or magnetism; but was it proper never to consider electricity or magnetism as the explanation of an anomaly in the celestial motions? Were these two fundamental forces completely taboo in celestial mechanics? In 1908 Hale at Mount Wilson Observatory found that solar spots are magnets several thousand gauss strong. And in 1913 Hale announced that he had detected a general magnetic field of the sun, which he computed to be fifty gauss strong at the solar poles. Was it methodologically correct in 1915, when Einstein wrote and published his General Theory of Relativity, to disregard Hale's publications, the magnetic nature of the spots, and the general magnetic field of the sun? Methodologically, it was an oversight, whether Einstein was correct in his solutions or not.

Einstein knew nothing, and could not know, of the scruples I had concerning what I considered a methodological oversight. If there are electromagnetic interrelations in the solar system, then of course they must be considered in their effects on the precession of Mercury, on the red shift, and on the bending of light—all three regarded as proofs of the General Theory of Relativity.

September 10, 1952

Dear Professor Einstein:

By your answer to my letter you have truly obliged me to think the problem all over again. I have tarried to answer because I did not wish to appear just obstinate; but the problem is permanently on my mind. I have to ask patience, which a "Fachman" is generally reluctant to accord to an outsider. Without this patience we shall build barriers between sciences, in this case—astro- nomy and history. I would certainly listen carefully to what you may say on history or psycho- analysis.

You say that the *fact* of the exact correspondence of the planetary motions with the theory proves this theory as correct: in the celestial motions only two agents participate—gravitation and inertia. Let us first assume that your statement of exact correspondence between theory and phenomena is rigidly correct. Still the mere fact of a force acting at an inverse square rate would not exclude electricity and magnetism, also acting at the inverse square rate, from participation in celestial motions. But the statement is not rigidly correct, either. Let me illustrate.

Here is the year 1845. Leverrier in France and Adams in England, out of perturbations of Uranus calculated, to the exactness of one degree of arc, the presence of a yet unseen planet. Both of them assumed that a planet of a size not larger than that of Uranus travels on an orbit at a distance dictated by Bode's law. Neptune is actually of the size of Uranus, but the mean distance between their orbits is not ca. 1,750,000,000 miles, as Bode's law required, but only ca. 1,000,000,000 miles; thus the error is equal to ascribing to Neptune a triple mass. The discovery of Pluto did not solve the conflict between the theory and the fact and caused also conflicting estimates of Pluto's mass. Thus the finding of the planetary stations in relation to a chart of fixed stars is not enough; if the theory is true the distances must also be correct. And still the discovery of Neptune is regarded as the strongest proof of the Newtonian theory of celestial motions.

Now in the same 1845, the year of this triumph, Leverrier calculated also the anomaly of Mercury, and by this caused to think that the Newtonian law of gravitation may be not precisely true. Leverrier first thought of some planet moving inside the Mercurial orbit or of a possible unequal distribution of the mass in the sun. You have used the fact of the anomaly to prove that the space is curving in the presence of

a mass. About the same time—in 1913—G. E. Hale published his paper on “The general magnetic field of the sun” (Contr. M. Wilson Obs., #71), in which he estimated the general magnetic field of the sun as of 50 Gauss intensity. At this intensity “under certain conditions electromagnetic forces are much stronger than gravitation.” (Alfven) The last named author in his “cosmical Electro-dynamics” (Oxford, 1950, p. 2) shows that a hydrogen atom at the distance of the earth from the sun and moving with the earth’s orbital velocity, if ionized, is acted upon by the solar magnetic field ten thousand times stronger than by the solar gravitational field.

Now the visible streamers of the sun that conveyed to Hale the idea that the sun is a magnet reach a long way toward Mercury, almost half the way. Was the electromagnetic state of the sun ever considered as the cause of the anomaly? The effect of the e.-m. action must have been reckoned, and possibly excluded, but not disregarded. . . .

The *fact* that the theory accurately coincided with the observed planetary positions was the main argument for the Ptolemaic system and against the heliocentric system. For more than two generations, until 1600, it was not the Roman Church who opposed the Copernican theory; the scientists opposed it and used as their main argument their ability to predict planetary positions, conjunctions and eclipses. They have actually predicted eclipses that we still have to experience in the future. How could they achieve this degree of accuracy with the sun revolving on one of the orbs around the earth? By a continuous adjustment of their observations to their theories and their theories to observations. Similarly it is today. And when the facts prove to be different from what they were supposed to be—that the sun is charged, or that the cometary tails are electrically glowing, or that planetary positions of Saturn or Jupiter markedly influence our ionosphere,—then these facts are left outside of the theory and it covers less and less of the phenomena. No wonder that it agrees with the residual facts in such an arrangement.

Sometimes it seems to me that the hidden psychological cause of the emotional attitude of the scientists to “Worlds in Collision” is in its reminding a few repressed physical facts. In that book I have not invented new physical laws or new cosmical forces, as cranks usually do; I have also not contradicted any physical law; I came into conflict with a mechanistic theory that completely coincides with a *selected* group of observations; my book is as strange as the fact that the Earth is a magnet, the cause of which is indeterminate and the consequences of which are not estimated in the Earth-Moon relations.

When over a year ago, Professor Stewart, your neighbor, was invited

together with myself by the Presbyterian Society of this town to participate in a debate about my book, and the time became short, I asked my opponent: “But you have excluded the existing electromagnetic conditions in the solar system from the celestial mechanics,” his answer was: “We do not need them: our calculations are perfect without them.” Later, when our debate was renewed on the pages of Harper’s Magazine, I observed: “If the balance sheet of a bank is correct to the last cent, but two large deposits (electricity and magnetism) are omitted, the entire balance may be questioned.” . . .

I did not really expect an answer from Einstein, nor a conversion on his part. I did not speak basing my arguments on my work on global catastrophes; nor did I draw my evidence from folklore; I was enumerating physical facts left outside the domain of celestial mechanics, though they, by right, belonged there. A minute discrepancy in the motion of Mercury was noticed; to its explanation the majestic structure of the General Theory of Relativity was erected. Larger discrepancies, however, were left out of the discussion, or, in other cases, quite unsatisfactory explanations were offered, like light pressure as the cause of the behavior of cometary tails: no quantitative analysis was made for this assumption, yet it was taken into the textbooks.

To my letter of September 10 there was no answer, and the finality of Einstein’s previous short letter did not engender a hope for give and take. In that letter between my two, Einstein spoke of my evidence as if it consisted mostly of folklore—but it was physical. I wrote in my notebook:

As to the first paragraph of his letter, I was genuinely satisfied to have it in this wording. Not only the general public, but even people who know something of the natural sciences imagine that Einstein introduced electromagnetism into celestial mechanics. What he is actually trying to do is to find a unified theory in which gravitation should be integrated in a common structure with electricity and magnetism, as light was brought into the electromagnetic field theory by Maxwell, and before this, electricity and magnetism were found to be interrelated by Oersted in 1820. In his letter Einstein made it clear that he, like all others, regarded gravitation and inertia as the only forces that act among the celestial bodies and keep them on their orbits.

I thought: This is the second best reply I could have had—at least the opposition was spelled out; an agreement with my argument I could hardly expect.

As to his second paragraph—I saw that the muddy wave of suspicion had reached even Einstein and infected him for a while, despite the fact that he knew me a little from former years.

I have repeatedly, and also very recently, been asked: “What made you so strong that

you could persevere in the face of a concerted opposition of the entire scientific establishment, and to do it for so many years?” Whether this is the true ground or not, I usually answered, “It is the obstinacy of my race, the race of Marx, of Freud, and of Einstein.”

References

1. See Appendix I for the original text in German.





A Flashback

Thirty-one years earlier, on a late summer afternoon in 1921, I was the only stranded passenger in a small station on the frontier of Lithuania and Germany. I followed with my eyes the train that carried my parents; it left the platform and soon disappeared from sight. It was the end of our three years of wandering in Russia, in the Ukraine and the Caucasus, lands torn by civil war; perils of death were more than once only an arm's length away as we sought to reach the land of Israel, the elusive goal of our striving. Now, finally, my parents were traveling toward the West, intending to continue from there to the land of Israel.

Waiting for a train that would take me back to Kovno (Kaunas), I found a rack with books at the newsstand. I purchased a small book on Einstein's theory. This was very possibly the first time I encountered the name. I had only recently emerged from what later became known as the Iron Curtain—from the vast plain of a great country racked by war, disorganized and famished. Latvia and Lithuania, where I now found myself, were independent republics. Hardly any news about scientific progress in the outside world reached the reading public in the Soviet Union in those years. However, it is possible that during the several weeks that I spent in Lithuania the name of Einstein could have already met my eyes from a page of a Kaunas newspaper. I had not yet heard of Minkowski; the name Lobachevsky was familiar to me. There in the station building, and then on the train on the way back to Kaunas, I read the purchased paperback, and I was electrified. The theories presented in it stirred in me an intense interest, and even emotion. Energy is a form of matter; time is a fourth coordinate—in that first description of Einstein's theory that I read, ideas that had already visited me seemed to abound. I was rarely so struck by what I read as I was then.

Several weeks after parting with my parents at the train station in Lithuania, I came to Berlin by way of Stockholm to meet them again. I believe it was that very evening that my father told me that out of what was left him from all his possessions he would donate a large portion for a humanitarian purpose. Such were his ways all his life; he wished with the little means that he still had available to him to initiate something of great design—he thought of propaganda for peace. But I had a different idea, and my father agreed with me. My idea of organizing a series of scientific publications to serve as a platform for Jewish scholars around the world in preparation for the establishment of a Hebrew University in Jerusalem immediately appealed to him, and he offered me generously from his shrunken means to fund the *Scripta*.¹

I met Prof. Heinrich Loewe, a librarian of Berlin University, and found in him an enthusiastic collaborator. We approached a number of eminent scholars of Jewish

origin. The Jew was known the world over as a tradesman, but the renown of the nation's scholars belonged to other peoples. Rothschild was a Jew—everyone knew this. But many of the great names of science—Hertz, Michelson, Ehrlich, Wasserman, Minkovski, Bohr and others—belonged to the halls of fame of other nations.

Professor Loewe approached Einstein, and he agreed to be the editor of the part *Mathematica et Physica*. During the process of editing the papers in the section on *Mathematics and Physics*, I repeatedly met Einstein in his apartment in Berlin. He was then at the zenith of his fame, having been awarded the Nobel prize for physics in the previous year at the age of forty-one. His face was young, and framed by dark hair. I did not pretend to know much about the subjects discussed in the articles, and Einstein himself admitted to not being acquainted with several of the fields discussed by other authors. We had some interesting conversations. Still unconvinced that the Jewish nation needed to be preserved and not assimilated, he once remarked: “Are not all races equally ancient?” I called him to the window, next to which he had a small telescope, and asked him to look down on the street, and told him: “Do you see those cobblestones of which the road is made? They are ancient, but they are not collected and preserved in a museum.”

He was always friendly, as was also his wife, who was his cousin; it was she who regularly opened the door, and both of them would be at the door, friendly, when I would leave.

The work on *Scripta* progressed, and the eminence of the Jewish people in science and the humanities started to shine through. Some barriers had to be overcome, since the original works were to be printed not only in the language of their authors, but also in Hebrew translation. It fell to my task to create something like a collegium of translators, for at that time schools of higher learning did not exist in Hebrew, except Yeshivot. In many cases new terminology needed to be created. This work was partly helped by *Sfotenu*, two volumes of Hebrew terminology, published in Russia in former years with the funds of my father under the editorship of Dr. Joseph Klausner.

For two years I worked passionately on this undertaking. By the fall of 1923 over thirty bilingual monographs were printed. Most of them were subsequently united in two volumes, *Mathematica et Physica*, and *Orientalia et Judaica*.

In 1924 the British journal *Nature*, reviewing the volume on “Mathematics and Physics,” observed that if from a population of thirteen million Jewish people sprang talents like Edmund Landau, Karman, Hadamard, Einstein, Levi-Civita, Loria, Born, Landau and others, then clearly the Jewish nation was unusually rich in creative spirit and ability. The published volumes served the National Library in Jerusalem (later University Library of Jerusalem) for exchange with many scientific institutions for their publications.

I lived a number of years in what was then the British mandated territory of Palestine,

working as a medical doctor. In 1928, after the death of my mother, I turned my interest to psychoanalysis. In the spring of 1930 I wrote on “The Physical Existence of the World of Thought,” to which Eugen Bleuler, the dean of world psychiatry, whom I came to know, wrote a preface, stressing the pioneering nature of my work and revealing that he had harbored very similar ideas.

In 1939 I came with my family for a sabbatical to the United States to complete research on a manuscript on Freud and his heroes. A few weeks later the World War started, and humankind was enveloped by catastrophe for the second time in the space of twenty five years.

In 1940 I approached Einstein and discussed with him a plan for the foundation of an Academy of Sciences in Jerusalem—before this I had started a series of scientific papers called *Scripta Academica* with a paper by Chaim Weizmann and E. Bergmann. Einstein added his signature to the list of those who agreed to participate—it was headed by Franz Boas and Enrico Fermi.

Soon afterwards my research led me to an understanding that at the time of the Exodus an enormous natural catastrophe took place—an understanding that brought me to a realization that the ancient history of the Near East needs synchronization, and natural history needs a reconstruction. I spent the next several years in libraries reading and writing. Two manuscripts, *Worlds in Collision* and *Ages in Chaos*, resulted from these years of labor.

After a period of six years, during which Einstein and I had not met, I went to Princeton to see him on July 5, 1946. His telephone was not listed, and the telephone office did not supply the information without checking with the scientist about whether he wished a particular party to be given his telephone number. He asked me to come on that day, and I took my daughter Shulamit with me. She had spent many mornings with me in discussing some aspects of the gravitational theory. At that time she was taking graduate courses at Columbia University, having received her honors degree in physics from Hunter College in New York. She was my silent companion.

I never thought I would ever discuss physical problems with Einstein. But, as explained above, my work on natural upheavals of the past led me to consequences which I could not disregard. Going now to see Einstein, I knew I would not be able to explain all that I had thought through about the role of electrical and magnetic forces in the solar system, although I had it in writing. He received us on the terrace at the back of his house, overlooking the yard with tall trees; he was wearing sandals, and greeted us with his unique kindness and smile. Two hours passed in a discussion, my daughter listening. I did not feel like saying—“I have found some of the premises of the astronomers to be wrong” ; my intent was to prepare him through the reading of my manuscript to wonder about the conflict that presents itself between the theory of changeless orbits and the conclusions that ask to be drawn from the material I had assembled. I left with him the first half of my manuscript of *Worlds in Collision*, the part dealing with Venus. Three days later he already wrote his answer:²

July 8, 1946

Dr. Immanuel Velikovsky

526 West 113 Str.
New York City

Dear Mr. Velikovsky:

I have read the whole book about the planet Venus. There is much of interest in the book which proves that in fact catastrophes have taken place which must be attributed to extraterrestrial causes. However it is evident to every sensible physicist that these catastrophes can have nothing to do with the planet Venus and that also the direction of the inclination of the terrestrial axis towards the ecliptic could not have undergone a considerable change without the total destruction of the entire earth's crust. Your arguments in this regard are so weak as opposed to the mechanical-astronomical ones, that no expert will be able to take them seriously. It were best in my opinion if you would in this way revise your books, which contain truly valuable material. If you cannot decide on this, then what is valuable in your deliberations will become ineffective, and it may be difficult finding a sensible publisher who would take the risk of such a heavy fiasco upon himself.

I tell you this in writing and return to you your manuscript, since I will not be free on the considered days.

With friendly greetings, also to your daughter,

Your

Albert Einstein

The letter contained one positive statement and two negative ones, expressed with vigor and finality not given to appeal or reconsideration. To have Einstein subscribe to the thesis of global catastrophes in historical times and, furthermore, to make him agree with the extraterrestrial origin of such events can be counted as an achievement: this acceptance immediately carried Einstein into the camp of the catastrophists—not even a camp, because hardly anyone in the mid-twentieth century believed in the notion of global catastrophes. Astronomers had not produced a single man from among their ranks who would have conceded as much as Einstein did in that letter.

But I found no satisfaction in the concession obtained at the beginning of the letter because I hoped for more. I hoped that I would be able to continue the discussion

started on July 5th and to lead it to the subject that was the purpose of that discussion, namely, the consequences for celestial mechanics that followed from the historical events presented in my work. My stand was later formulated in the Preface to *Worlds in Collision*: "If, occasionally, historical evidence does not square with formulated laws, it should be remembered that a law is but a deduction from experience and experiment, and therefore laws must conform with historical facts, not facts with laws." I had planned to spread before Einstein the many facts that all point to the unjustified omittance of two all-pervading and interdependent natural forces, electricity and magnetism, from all and every consideration of being active agents in the plan of the universe, and in the mechanics of the solar system.

Now the discussion was cut short before we reached the theme; Einstein called off our next meeting and there was no point in asking him to read the second part of the manuscript. It appeared also that he was under the impression that he had seen the entire manuscript, whereas it was but the first folder that I had left with him.

Had I been insecure in my work and its conclusions, this would have been the moment to reappraise the entire endeavor. But I was so completely convinced of my theses that my reaction was not of re-orientation in order to salvage what to Einstein appeared as valuable in my manuscript and thus to secure a good chance of publishing it. It was a short-lived regret that my effort with Einstein was luckless. I wrote to him on July 16, 1946:

Dear Professor Einstein:

I thought carefully of what you wrote in your letter of July 8, for which I thank you very much. I thank you also wholeheartedly for the time you gave me on July 5, and for reading a part of my Ms "Worlds in Collision."

I was perfectly aware that my historical cosmology is in conflict with the accepted physical laws, and because of that I asked you to read it. You stress two instances. The reversal of rotation (not revolution) is attested not only in traditions but also in geo-physics: the magnetization of rocks "indicate that the polarity of the Earth has been completely reversed within recent geological times." . . .

In the last part of my cosmology I try to solve the problem of the conflicting geological and historical data versus the accepted laws.

Best regards to Miss H. Dukas who received us with friendliness at your home.

Very truly yours,

My efforts, accordingly, were directed to the following tasks:

First, to have one of the conclusions of my work, identifying Venus as the agent which caused the great global catastrophe, checked by a physical method, namely by spectroscopy on the presence of hydrocarbons, and already before approaching Einstein I had approached the Harvard College Observatory with the request of having this specific test made. The description of that step and the correspondence that ensued during April and May find their place in a separate publication.³

Second, to have my work's implications for celestial mechanics presented to a limited circle of specialists in a concise form, with physical facts being the only material of discussion. In this way I would be able to hear criticism of these implications in and of themselves, apart from the historical-mythological material which inspired them.

Thirdly, I decided not to postpone any longer and to inquire into the possibility of presenting my manuscript in book form to the scholarly world.

References

1. The full title is *Scripta Universitatis atque Bibliothecae Hierosolymitanarum* (*Writings of the University and the Library of Jerusalem*).
2. See Appendix I for the original German text.
3. *Stargazers and Gravediggers*, (William Morrow Co.: New York, 1983).





Before the Forum

Having surveyed the years when we created the *Scripta* and, again, the years of occasional contacts in the United States, first on behalf of the plan to initiate the Academy, then on behalf of my own work, starting with the visit of early July, 1946 in Princeton, I return to that period when, upon having met Einstein at the lake and exchanged letters with him, the contact seemed to be torn again. Yet, apparently, my bearing intrigued him. One evening, later in the fall (1952) I received a visit from a chemist, Dr. Plungian, accompanied by his wife, Gina, a sculptor. Gina was a friend of Einstein's daughter, Margot, who was also a sculptor. The Plungians had heard from Einstein that I was living in Princeton. Gina, interested in what she had read about my work or was told by Einstein, and generally interested in writers and artists, was pleasantly surprised to find that my wife also was a sculptor. Dr. Plungian came to invite me to deliver a lecture before the Society for the Advancement of Science of Summit, New Jersey. This is the site of Bell Laboratories, one of the largest scientific laboratories in the world; the members of the Science Society there were for the most part scientists working for Bell. I accepted the invitation.

I addressed a large audience at Summit. The lecture took place in February 1953. The chairman of the Society, Dr. Joseph Baker, met me in the hall and before I entered the large auditorium worriedly inquired whether I would be able to restrain myself if some in the audience should become abusive. I assured him that he had nothing to worry about.

In my lecture I spoke mainly on the geological problems that are related to the theory of *Worlds in Collision*. The question period went off without a disturbance. At tea in the gallery the discussion went on for another hour and I realized the great appeal that geological problems— of sea depths, of mountain building, and of ice ages— have to the minds of many. As I took leave of him, the chairman announced: “Dr. Velikovsky has acquired a new follower in me.”

On another occasion I was asked to meet a group of scholars and scientists at the home of the Plungians; Dr. Shockley, the co-discoverer of the transistor, and a future Nobel Prize winner, led the discussion. We had a little mathematical skirmish in which I happened to be right, and he generously and immediately admitted it.

About that time Margot Einstein, who had known Elisheva since the 1940's, began to come to our home. Margot and Elisheva met in 1941 at Columbia University, where they both studied sculpture under Oronzo Maldarelli. Once Margot arranged for Elisheva to come to Princeton to play quartets with Einstein. Elisheva is a professional violinist, and used to give many concerts before we came to the United

States. And so in April 1944 Elisheva came to Princeton, arranging for a violist and a cellist to join her, and played with Einstein three string quartets of Mozart.

At one of her visits Margot told us in great detail of her experience in Holland during the Hitler regime, and mostly her stories were about animals— lambs and birds— with whom she related better than with human beings in this evil world; it seemed she wished to be well thought of by us. Occasionally she came with Miss Helen Dukas, Einstein's secretary. Miss Dukas had then been with Einstein for almost twenty-five years— she entered her service with him several years after I knew him in Berlin. After the death of his second wife, she took care of his correspondence and of his household. Elisheva and her musical colleagues would have chamber music at our home, and a small company of intellectuals would gather at these occasions; there were animated discussions. Miss Dukas and Margot were present a few times and enjoyed these evenings.

The Graduate College, or Proctor Hall, lies separate from the Princeton University Campus; its tower is seen from a distance, rising above the fields and golf courses, by any car traveling on U.S. Route 1, and is the first visible landmark identifying the university town, hidden in verdure. The Common Room, with its ornately panelled walls, and leather easy-chairs, is reached through a gateway and a quadrangle.

In the fall of 1953 I was invited by the graduate students of Princeton University to address their Forum; the student who invited me, as I recently found out, was George Field, ten years later a scientist of achievement and subsequently Director of Harvard College Observatory, a post once occupied by Harlow Shapley. I was glad to have this occasion. As the theme of the lecture I selected: "*Worlds in Collision* in the light of recent findings in Astronomy, Geology and Archaeology."

The lecture took place on the evening of October 14. The Common Room was filled and many stood around the walls and in the doorways. In the front row sat Graduate College Dean Sir H. Taylor and other dignitaries. Among those who remained standing for about two hours— for the address and discussion— were, as I hardly noticed, Margot Einstein, Helen Dukas, and Gina Plungian.

Before the lecture started my wife overheard one of those in the audience, a graduate student or an instructor, as he assured his neighbor that it would be fun to listen to a crackpot. But as soon as I began, the audience followed my delivery with great attention. I offered non-conformist views, but there was nothing in them to confirm the expectation of a circus performance. I spoke for over an hour. A question and answer period followed. A few days later a young friend, a twenty-four year old assistant professor of aerodynamics, Ronald Probst, told me how a scholar in the audience with a pipe in his mouth looked on with sarcastic triumph when the question period started, and changed his expression with every answer I gave.

Question and answer periods, then and since then, have been my forte; the audience apparently discounts the knowledge that a lecturer offers in his delivery, since it

could be carefully prepared, but is surprised to observe that a lecturer has the information needed to answer and rebut questions from the floor. I answered without difficulty the queries of all who came up from whatever department. There was one inimical graduate student in geology who loudly inquired: "Whom did you read on Rancho La Brea?" And he suggested that this deposit contradicts my assertions. I answered: "In my lecture I have not discussed Rancho La Brea; but I read Merriam's monograph." "I worked with Merriam's son," said the student. Merriam was the original investigator of that deposit at a time when it was on the outskirts of Los Angeles— now it faces the "Miracle Mile," the elegant shopping avenue. Actually the asphalt beds of La Brea offer great difficulties for the uniformitarian theory of evolution: human bones were found under a skeleton of an extinct vulture; a multitude of bones, smashed and broken, were found there, not in good order or shape— despite what the student had asserted in his question. Yet, the student announced: "Catastrophes are your brainchildren," and thus had the last word. I did not answer. The audience applauded me warmly, and the student approached me to offer his apologies for his rudeness.

In the course of the lecture I made two statements as to the future findings I expected; after having reported on the manifold confirmations that had accumulated in the three and a half years since the publication of *Worlds in Collision* I thought it proper to conclude with one or two new predictions. For some time I had in my notes suggestions for tests to be made. I put it this way:

In Jupiter and its moons we have a system not unlike the solar family. The planet is cold, yet its gases are in motion. It appears probable to me that it sends out radio noises as do the sun and the stars. I suggest that this be investigated.

It is generally thought that the magnetic field of the earth does not reach sensitively to the moon. But there is a way to find out whether it does or does not. The moon makes daily rocking movements— librations of latitude, some of which are explained by no theory. I suggest investigating whether these unaccounted librations are synchronized with the daily revolutions of the magnetic poles of the earth around its geographical poles.

Actually, both tests suggested were derived from one and the same concept: that the celestial sphere is not electrically and magnetically sterile.

After the lecture one of the graduate students who surrounded me told me about certain folkloristic material of the Indians that would support my views; I observed that he did not come forward to say this during the question period.

As I walked to my car, I chanced to meet in the dark the three ladies who had come from Einstein's house to my lecture: his daughter, Margot, his secretary, Helen Dukas, and their friend, Gina Plungian. Later Gina told me that when she had called

to take Margot to the lecture and Miss Dukas joined them, Einstein said that he was eager to go, too, but was conscious of the interest that would be centered on himself to the detriment of the proceedings. He added, however, that he expected to receive three reports from the three ladies. And he did. Gina Plungian later said that the dinner hour at Einstein's the day after the Forum was spent discussing my lecture, and Einstein expressed sympathy for my position, that of a lone thinker defending his ideas.

The Princetonian, the undergraduate students' paper at Princeton, printed two articles about the lecture. In the first it described how "with sheaves of documented evidence, Velikovsky quoted a myriad of scientists in these fields whose recent work, he said, made his theory more conclusive." In the second article it said: "After his lecture last night, he impressed all attending by his well-reasoned and well-documented answers to questions posed by experts in physics, geology and other sciences."

In the next few weeks I put the lecture into writing, following the notes I had before me when addressing the Forum. After it was typed I gave a copy to Lloyd Motz, astronomer at Columbia University. Since the beginning of 1950 I had met with him on a number of occasions in his room on the upper floor of the Michael Pupin Physics Building. The subject we discussed was always the same: my insistence that the solar system, and by implication, the universe, is not electrically and magnetically sterile.

Since those memorable days at the end of 1949 and beginning of 1950, I would, at intervals of five or six months, again and again return to Motz, trying to prove to him by enumerating a series of physical facts, some of them discovered since our previous meeting, that the accepted celestial mechanics could not be right in excluding electricity and magnetism from participation in the movement of the celestial "clock." The arguments must have been much the same as those that I used in my letters to Einstein in August and September of 1952. Motz would patiently listen and remain adamant. I would describe the motion of the cometary tails and insist that the accepted explanation of this phenomenon as being due to the pressure of light was inadequate. I was trying to evince from Professor Motz the concession that this was a decidedly insufficient explanation that could not account for the observation of a large comet sweeping with its tail hundreds of millions of miles of space in a matter of a few hours, when going around the sun at perihelion. Yet, he would still try to explain it by the pressure of light. The sentence concerning the radio noises of Jupiter startled him, and we discussed it.

I asked for a meeting with Professor V. Bargmann, a physicist who was possibly closest to Einstein of all the scientists in Princeton. I remember the evening I visited him in his room in Fine Hall on the campus. I discussed the question of electromagnetism in the solar system. Instead of slowly preparing the issue in his mind, I showered him with facts and details that indicated the inadequacy of purely mechanical explanations. I assume that he must have been left with the impression that I was a man stubbornly questioning fundamentals which were beyond questioning. However, had he been present at my lecture in the Graduate College, he

would not think me without some knowledge, or with a deficiency in logic. At that my first meeting with him, Bargmann was a patient listener, possibly believing me to be irreparably lost to a fallacious view of things celestial, or perhaps recognizing some sound argument in what I said.

I left with him the typed text of my address before the Forum with its claims of radio noises coming from Jupiter and a magnetosphere surrounding the Earth and reaching the Moon. Though he intended to return it to me after he had read it, it so happened that he misplaced it and only found it over three years later— all of which was fortunate, and thinking of such incidents I could not help feeling that Providence was taking part in these matters: for in the meantime, in the spring of 1955, radio noises from Jupiter were discovered, as I had predicted in my lecture of 1953.





At McCarter Theater

A couple of weeks after my lecture before the Forum, it happened that at a concert at McCarter Theater in Princeton we met Einstein. It may be that he made up his mind to show a little of his change of heart in order to erase the impression of rejection he had left with me over a year earlier. During the intermission he stood up, greeted us from his seat a short distance away, and asked me to sit and chat with him. I took a temporarily vacant seat in the row in front of him, turning my head to hear him speak. There was something very unusual in this man. I am not a hero-worshipper, more nearly an iconoclast: great names do not startle me, nor do they make me feel humble. But in Einstein I felt this time something I had not felt on meeting him in Berlin, when he was a jolly man in his early forties who had achieved singular and spectacular success which was still new to him, and I was still in my twenties; nor when I spent time with him again in New York in the spring of 1940, nor when I visited him in the summer of 1946.

In 1921 he was a young-looking man with well-filled cheeks, warm and sparkling eyes, a forehead framed by dark and wavy hair, and a moustache over soft lips, with a ready laugh—almost the likeness of a bon-vivant. Epstein, who portrayed him several years later as flimsy, furrowed, and wiry, did not succeed at all. Now, thirty years later, at the age of seventy-four, the change in his appearance was very great. He had grown old, yet stood erect, with his grey-white hair, now long, falling on his collar. He had a kind face, and a clear and sonorous voice. Sufferings and private losses and human destiny had cleansed him and spiritualized him. He looked at me with kindness, and warmly pressed my hand with his own fleshy hand. The mattness of his face lighted up.

I reminded him of the *Scripta* on which we had worked together in Berlin. This made him wonder aloud on the mystery of time. Is time a stream flowing always in one direction from the present to the past? Do the present, future and the past all exist simultaneously? He wondered and asked me. Yet he brought counterargument to his own thought: but we cannot remember things that are in the future. This did not appear to me a valid argument, but I did not say so. Instead, I referred to Plato's discourse on simultaneous existence of the past and the future. The field of parapsychology deals with such problems. Yes, once I wrote and published something on the subject, and Freud commented in a letter. Einstein asked me whether I still had Freud's letters, and whether he could read one. I promised to select a letter for him to read. And we continued so, already old friends, when the bell called the audience into the hall. I returned to my seat.

I sent Einstein the letter of Freud that he wished to see. In that particular letter Freud

wrote me, as usual by longhand, that he had similar, almost identical ideas, and that he would subscribe to the preface to my work written by Eugen Bleuler.

A single week passed. There was again a concert at McCarter Theater: Einstein hardly showed himself twice a year in public, but this time he came again. Again, during the intermission—he sat across the aisle—he asked me to take the vacant seat next to him. Some of the Princeton graduate students sat in the row in front of my wife, and she could hear them wondering at this fellowship: Einstein when in public was of course the center of attention, though the public tried to make this not too obvious. Einstein spoke of religion, and mentioned Spinoza, a spirit toward whom he probably felt affinity. Like himself, Spinoza was a lonely man; like himself he was not concerned with material goods; like himself he was in conflict with men, though he was kind and humane; and like himself he was deeply religious, though not in the church or synagogue, and it is no wonder, if one considers the great sufferings to which his mentor Uriel Acosta was subjected—one of the saddest chapters in the long story of the Jewish people. But Spinoza was an Aristotelian, without wishing to be so; the cold reason which insists on explaining away anything unusual or singular separated Aristotle from his teacher Plato, who tended to the esoteric, the wonderful, and the singular.

Not long thereafter my wife and I received an invitation to have tea with Einstein. The day before our visit I found in the mail a letter in which the writer, a resident of Seaford in England, wrote:

The “authorities” will object to your subversion of their life-work, but it is from their minor followers that the bitterest opposition will come. Those who exercise authority are not so shocked by rebellion as their underlings. They are doubly offended, for you threaten their security and insult their judgement. . . . The one Roman Catholic I would expect to sympathize with my doubts on infallibility would be His Holiness. It is the hedge-priest and Sunday School teacher who would cry “Blasphemy!”





112 Mercer Street

Einstein's house at 112 Mercer Street is located only a short distance from Nassau Street, the main street of this university town. Nassau Street at its western end divides into several avenues, like the trunk of a maple tree that throws many unequal branches simultaneously at one and the same joint. Two of the streets run toward Trenton; if one should walk along one of them, Mercer Street, past the buildings of the Princeton Theological Seminary, he would find Einstein's house on the left side where the street begins to go downhill. The wooden two-story building stands between not dissimilar neighboring structures. It is unpretentious with a narrow front and stretches into the backyard with its gray-painted sidings. Located in an area of low elevation, it is probably in one of the less comfortable parts of town, hot and humid in the summer. Einstein used to leave the town in the summer months and go to Saranac Lake in the Adirondacks, but in later years he discontinued his summer departures and stayed home.

Continuing a block or two along the street, one comes to Springfield Street on the left, and this well-shadowed valley would bring Einstein on foot to the Institute for Advanced Study—he had only to choose one of the streets with mansions or well-kept villas, like Battle Road, to turn right and then he could already see the Institute, built in the nineteenth-century style, in red brick, with a cupola and spire, standing out across a field from the approaching visitor. In later years Einstein discontinued his daily walk to the Institute and back and used the Institute vehicle, a kind of small omnibus, which would pick him up as it did other members.

In the Institute he was rather lonely. I once read that Gödel, who used to travel on the same bus, was closest to him of all the members of the Institute. Dr. Kurt Gödel, a mathematician and a great introvert, who lived at the other end of the town, was a silent man, with greying hair, who even in summer bundled himself against drafts, and was certainly of limited inspiration for Einstein who, though solitary, was greatly interested in human contact, warm in handshake, roaring with laughter. Gödel, like other famous mathematicians in the history of this abstract and exact science, produced the feat that made him famous at an early age, in his twenties, only to find the spring dry in the following decades. They could converse on some philosophical subject—I repeatedly saw Gödel on the third floor of the University Library studying books on philosophy or psychology.

A man of very different disposition and much closer to Einstein was V. Bargmann, a theoretical physicist, who was not a member of the Institute, but a professor at Princeton University. He was—and is—an unswerving follower of Einstein, prepared to offer a fierce front to anybody who would challenge Einstein's theories. I believe

that among the physicists in Princeton Bargmann was closest to Einstein while the younger generation of physicists showed a certain skepticism concerning the General Theory of Relativity in view of its apparent conflict with Quantum Theory, and because of Einstein's rejection of Heisenberg's Principle of Indeterminacy ("God does not play dice").





Before the Chair of Jupiter

On November 8, Elisheva and I went to Einstein and were seated in the living room. When one enters his house, proceeding through the narrow hall, the living room is to the left; directly ahead is a steep staircase leading to the second floor: on the second floor there is a room with a large window toward the backyard, with a low table, books, chairs, and next to it to the right another room, also lined with books. In a little while Einstein came from the upper floor to us, his long hair well-groomed, his face lighted up with his friendly smile. He started to move a chair with a straight high upholstered back, which had already drawn my attention in the modestly furnished room, and as I helped him, a help he graciously accepted, he said, “this is my Jupiter chair.” During our conversation I took this lead and remarked that if one evening I should stop every passing student and professor on the campus and should ask which of the stars was Jupiter, it is possible that not even one would be able to point to the planet. How is it, then, that Jupiter was the highest deity in Rome, and likewise Zeus in Greece, Marduk in Babylonia, Amon in Egypt, and Mazda in Persia? All of them represented the planet Jupiter. I asked Einstein if he knew why this planet was worshipped by the peoples of antiquity and its name was in the mouth of everyone? Its movement is not spectacular; once in twelve years it circles the sky. It is a brilliant planet, but it does not dominate the heavens. Apollo, the sun—the dispenser of light and warmth—was only a secondary deity. After inquiring and hearing from me again that Marduk was the Babylonian name of the planet Jupiter and Mazda its Persian name, he expressed his wonder. Then I told him that in the *Iliad* it is said that Zeus can pull all the other planetary gods together, the Earth included, with his chain, being stronger than all of them together; and that an old commentary (by Eustatius, a Byzantine scholar) states that this means that the planet Jupiter is stronger in its pull than all the other planets combined, the Earth included. Einstein admitted that it was really very strange that the ancients should have known this.

When, after three quarters of an hour, during which we were served tea, we rose to go, Einstein kept us, saying, “We have only started.” In order not to appear a bore, or a fanatic of one idea, I repeatedly changed the theme of conversation, as was so easy with Einstein, whose associations were rich and whose interests were many; the conversation was vivid. We spoke again of the problem of time, which apparently occupied his mind then, and of coincidence and accident. He observed that it was an accident of unusual rarity that his chair should occupy its very position in space, but that it was no accident that we two were sitting together, because *meshugoim* are attracted to one another—and he laughed heartily and loudly. *Meshuga* is a Hebrew word, and it means “the possessed” ; in the Jewish-German parlance it is often heard, and it means “crazy,” in both senses (like the English word), more often in its milder meaning. Thus he likened me to himself. On this occasion, and several times more at other occasions, he liked to stress that each one of us is entirely alone in his scientific

standing. This was also said to heighten my spirit—was he not lonely, too? Of course, there was an enormous difference in our positions in the scientific community and in the attitude of the scientific world toward us—beyond comparison. I took up the problem of coincidences to illustrate it by several examples.

The authors of the Declaration of Independence were Adams and Jefferson, who subsequently became the second and the third presidents of the United States. They both died on the same day, and it was the fiftieth anniversary of the Declaration of Independence. What is the statistical chance of this coincidence of three dates? Or if a schoolboy or a man in the street should be asked to select the greatest statesman of the nineteenth century, and the greatest scientist of that century, he would most probably select Abraham Lincoln and Charles Darwin: both were born on the same day, February 12, 1809. Or similarly the two greatest writers of their age, Miguel Cervantes and William Shakespeare, died on the same day, April 23, 1616.

I mentioned these instances to illustrate the idea that coincidence sometimes bears the mark of the miraculous, and sometimes the explaining away of telepathy is stranger than telepathy itself, for which I offered a naturalistic explanation in my paper on “The Physical Existence of the World of Thought.”

Before we left, Einstein told us of his dream of the night before. This dream impressed him strongly and he recounted it with a voice of unusual warmth and passion, expecting that I would interpret it. He also related a dream he had had many years ago about an old colleague whom he had not liked, and he told the story in detail. The old dream’s explanation he already knew. I felt regret in having to disappoint him, but in accordance with standard psychoanalytic procedure I offered no clues to the understanding of the dream of the night before, especially since my wife, Miss Dukas, and Margot were present, though I could closely guess its meaning.





A Round Sun

Since Einstein at the time of my lecture before the Forum wished to be present, and later had to satisfy himself with the reports of the three females of his household (Gina Plungian could be counted as belonging to the household), I supplied him with a copy of it.

January 6, 1954

Dear Professor Einstein:

I have carefully put into writing my lecture before the Forum of the Graduate Students here (October 14, 1953). Doing so I was guided by the desire to place it before you for reading.

In the written form I have considerably shortened the archaeological and geological parts of my address; but I have elaborated on the astronomical part of it to a greater length than I did orally. Before submitting this paper to you I have asked Professor Lloyd Motz of the Astronomy Department of Columbia University to check its factual statements.

I am aware of the great demand on your time made by various authors; therefore have my sincerest thanks for agreeing to read this paper.

Cordially yours,

Immanuel Velikovsky

After a few days Einstein invited us to come and discuss my lecture. Thus the wall was breached. Until then, in our previous conversations that winter, neither he, nor I, mentioned anything of my *Worlds in Collision*. But during this visit of February 11, 1954 I turned to Einstein and said:

"Now imagine that the Lord sent a messenger to you with these words: 'I gave you, Albert Einstein, a very unusual mind and, what is still rarer, the recognition and admiration of your contemporaries. Now build a working plan for another universe; only don't apply gravitation that propagates at the inverse square, but electricity and magnetism you may use as much as you need.' Could you do this?"

"I would answer the Lord: 'Do such a thing yourself!'" Einstein burst into a loud laugh. But then he thought a few seconds and said: "Yes, on condition that it be a dark universe."

"Why?" I asked.

"The charge on the planets would be expended in the photoelectric process."

The problem he selected for discussion that evening, from a series of problems mentioned in my lecture, was the round shape of the sun. Because of rotation it should be somewhat flattened; and in addition the sun rotates at a greater velocity at its equator than at higher latitudes. We spent the evening talking about this and a few other points in my lecture; when my wife and I left, it was already late and Einstein's eyes were tired.

After a few hours of sleep, I awoke and jotted down my comments to various arguments Einstein had brought up, especially discharge by photoelectric effect. It appeared to me that this effect must *charge* a neutral body. In the morning I thought of calling Helen Dukas and saying a few words of apology for our too long conversation, when the phone rang and Miss Dukas said: "The professor would like to talk to you." His voice sounded resonant and clear, and I thought, if one does not see Einstein but only hears him, he may imagine that he is speaking with a young man. He said (as I recall):

"After our conversation last night I could not fall asleep. For the greater part of the night I turned over in my mind the problem of the spherical form of the sun. Then before morning I made light and calculated the form the sun must have under the influence of rotation, and I would like to report to you.

"Imagine the sun as a body one meter in diameter; because of the slowness of rotation—I took one rotation equal to 25 days—the deformity should be only"—I believe he said—"a quarter of a millimeter." While he was saying this I quickly calculated in my mind (in general, I am not quick at figures), that this would amount to about one half a second of the arc, the visible face of the sun being about half a degree, or 1800 seconds, and, in his opinion, this small difference could escape observation. I told Einstein his figure, translated into seconds of arc.

We agreed to inquire of Professor Lyman Spitzer Jr., Director of the Princeton Observatory, whether a difference was established in the length of the solar equatorial and polar diameters.

February 19, 1954

Dear Professor Spitzer:

May I ask for an information? Is a difference established in the length of the equatorial and polar diameters of the sun?

This question came up in a conversation with Prof. Einstein and he thought it would be right to put this question to you.

Very truly

Immanuel Velikovsky

PRINCETON UNIVERSITY OBSERVATORY

14 Prospect Avenue
Princeton, New Jersey

February 26, 1954

Dr. Immanuel Velikovsky
4 Hartley Avenue
Princeton, New Jersey

Dear Dr. Velikovsky:

In reply to your letter of February 23 I am writing to say that there is no established difference in the length of the equatorial and polar diameters of the sun. Some observers have reported a small difference but I believe that no such difference has been firmly established.

Very sincerely yours,

Lyman Spitzer, Jr.

I know that Dr. Donald Menzel even found an excess in the polar diameter which he was "loath" to consider.

In March the world paid Einstein a renewed tribute at the occasion of his reaching seventy-five years of age. His mail was coming in big sacks. I wrote him a quotation from Emerson:

Beware when great God lets loose a thinker on this planet. Then all things are at risk. It is as when a conflagration has broken out in a great city, and no man knows when it will end. There is not a piece of science but its flank may be turned tomorrow; there is not any literary reputation, not the so-called eternal names of fame, that may not be revised and condemned. The very hopes of man, the thoughts of his

heart, the religion of nations, the manners and morals of mankind are all at the mercy of a new generalization.

Einstein called by phone to express his thanks.





In Einstein's Study

On May 20, 1954 I went to see Einstein. This time I asked to see him. I wished to ask him to read a part of my *Earth in Upheaval* in manuscript. There was also another subject that I thought I ought to discuss with him. A few days before a correspondent in California drew my attention to an article in *Astounding Science Fiction* in which I was accused of inventing my sources. I realized the damage done by the Harvard group had spread into pulp magazines read by common people. I had not complained to Einstein before about the campaign of suppression and vilification carried on by some groups of scientists against my theory and myself.

He received us this time in his study on the second floor, which has a large window overlooking the garden in the backyard. It was about the time before sunset. He asked:

“Would you like our conversation between four eyes or between eight?”

“Between eight,” I replied, my wife and Miss Dukas being admitted.

“The women will listen but not participate,” he said, expecting something important to discuss with me.

“Like in a synagogue,” I remarked. But then I corrected myself. “No, I feel myself here as Solomon Molcho must have felt in the palace of Pope Clement VII.” I explained that this *marrano*, i.e., a Jew from a family that had been forcibly converted to Christianity, was sentenced to die for reverting to Judaism and was burned as a heretic in Rome by the Inquisition; but the next day he was alive in the inner chambers of the Vatican discussing philosophical problems with the Pope. The Pope had let another heretic be burned and hid Solomon Molcho. If only the Holy Inquisition knew *where* he was! This was my way of referring to what my opponents and detractors among the scientists might think and feel were they to know where I was spending that evening.

“Is he a gentleman who permanently turns his pockets out to show that he did not steal?” I quoted Vladimir Jabotinsky. I could not spend all my time proving that I have not misquoted or otherwise misused my sources. But silence on the part of the accused is understood as admission of guilt. Einstein agreed with me. And thinking of injustice to a man, he mentioned Oppenheimer, whose removal from the advisory committee to the Atomic Energy Commission caused at that time great agitation.

“But you do not do better,” I said. Einstein's face expressed surprise. “I do not think

of you personally, but of your colleagues, the scientists.” He wished to know more. I went down and brought from the car a file with some of the letters exchanged between Harlow Shapley and the Macmillan Publishers. He read them with great interest. But we did not proceed far enough; we had not come to read the letter of Whipple to Blackiston Publishers in Philadelphia, or the statement of Shapley in the *Harvard Crimson*.¹

Einstein was obviously impressed and did not spare harsh words in characterizing some of the actors in the campaign of suppression.

Einstein advised me to make the material public. I should, he said, find somebody with a talent for dramatic writing and entrust him with the task of presenting the case. He was obviously impressed and indignant. “This is worse than Oppenheimer’s case.”

I mentioned that in Germany the church also opposed me, and in fact suppressed *Worlds in Collision* at the hands of its publisher (Kohlhammer of Stuttgart). As in America the book had a great success, and went through five printings in less than a year when the lid fell down.

“But what should the church people have against the book?” asked Einstein, and turned his face to me (as often during our conversations, he was sitting to my left). The opposition of the churches to a work that provoked furor among the scientists must have appeared to him incongruous. All this must have been thought, not said, for my answer followed immediately:

“The church opposed my interpretation of miracles as natural phenomena.” Einstein laughed with his loud, hearty laugh. He wished to read more in the file. But now I was interested in taking up the problem that really occupied my mind—my theories.

Already at one of our earlier meetings, Einstein said to me: “I know how to explain the great global catastrophes that occurred in the past.” He spoke then of vestiges of an ice cover that were observed in the tropics and referred to an unpublished theory of Charles Hapgood, who thought that growing ice caps can cause a slippage of the terrestrial crust relative to the interior, thus displacing the poles. This evening Einstein returned to the same idea and said that terrestrial causes could have been responsible for the catastrophes. I told him that the problem of the displacement of the terrestrial pole was already much discussed in the last century by astronomers and geologists. “By whom and where?” he asked. “Here,” I said, about to leave, and showed him the second (of three) files of the manuscript of *Earth in Upheaval*, “Here you may find the arguments of that old discussion.” First he was reluctant to take another manuscript for reading. The daily mail alone takes so much of his time, he said, and standing at the top of the staircase, while I was a few steps down, showed with his hands how thick was the bundle of his daily mail. But, hearing that the physical problem of the terrestrial crust moving over the core is discussed in that file,

he took my manuscript.

The next day I wrote two letters:

May 21, 1954

Dear Professor Einstein:

It may be that I said more than I was aright to say when yesterday evening I expressed myself that Einstein is humanly obliged not to be indifferent to the wrong that was and is still done by an organized group of scientists. But because of your position of a recognized leader among scientists and fighter for human rights, I feel obligated to you not to keep you uninformed.

These are two problems, entirely independent: Am I right in my theory? I am striving to prove it. Have I the right to express in writing the conclusions to which I came in an honest endeavor? Though the answer is elementary, this right was so mistreated that, following an attack this month, after some hesitation, I decided to ask more than just a few minutes of your most precious time.

With sincere regard,

Immanuel Velikovsky

May 21, 1954

Dear Miss Dukas:

Yesterday evening Professor Einstein wondered to hear that in my book the role of Venus in the catastrophe is deduced from direct references in the folklore of many peoples. I am sending to you, Miss Dukas, a copy of the German edition of *Worlds in Collision*; between the pages 170 (where Venus is for the first time mentioned in my book) and 220 I have marked with pencil such references. Please, show them to Professor, if he likes to see them.

Professor wished also to see the passage concerning the solar eclipses before -687, especially one seen in China, with reference to Venus in the source. I have marked the passage in my reply to Stewart in Harper's. . . .

I enclose a few lines for Professor. I hope I have not tired him yesterday too much.

Cordially yours,

Immanuel Velikovsky

Two days after our meeting Einstein wrote me a long handwritten letter—which was rather unusual, since most of his letters were dictated and typed. He also returned my file and supplied some of the sections with numerous marginal notes.

22.V.54.

Dear Mr. Velikovsky!

Remarks on the part of your manuscript “poles displaced.”

The first impression is that the generations of scholars have a “bad memory.” Scientists generally have little historical sense, so that each single generation knows little of the struggles and inner difficulties of the former generation. Thus it happens that many ideas at different times are repeatedly conceived anew, without the initiator knowing that these subjects had been considered already before. In this sense I find your patience in examining the literature quite enlightening and valuable; it deserves the attentive consideration of researchers who according to their natural mentality live so much in the present that they are inclined to think of every idea that occurs to them, or their group, as new. *The* idea of a possible displacement of the poles as an explanation of the change of climate in any one point of the earth’s crust is a beautiful example. Even the idea of the possibility of a sliding of the rigid crust in relation to the plastic, or fluid deeper strata of the earth, was already considered by Lord Kelvin (and was in fact rejected).

The interpretation of the vote mentioned on pp. 159-160² as an attempt at a dogmatic fixation of the “truth” is not obvious to me. It is simply interesting for the participants of a congress to see how opinions concerning an interesting question are divided among those present. I don’t think that the underlying idea was that the outcome of the voting would somehow insure the objective correctness of the outcome of the vote.

From p. 182 on starts a wild robbers’ story (up to p. 189) which seems to rely more on a strong temperament than on organized considerations. Referring to p. 191: Blacket’s idea is untenable from a theoretical point of view. The remark about the strength of magnetization seems to be unjustified (p. 192); it could for example depend essentially upon the

speed of cooling as well as on particle shape and size. The direction of the magnetic field during solidification must however quite certainly determine the direction of magnetization. Bottom 192 etc.: wild fantasy! from here on marginal remarks with pencil in the manuscript.

The proof of “sudden” changes (p. 223 to the end) is quite convincing and meritorious. If you had done nothing else but to gather and present in a clear way this mass of evidence, you would have already a considerable merit. Unfortunately, this valuable accomplishment is impaired by the addition of a physical-astronomical theory to which every expert will react with a smile or with anger—according to his temperament; he notices that you know these things only from hearsay—and do not understand them in the real sense, also things that are elementary to him. He can easily come to the opinion that you yourself don’t believe it, and that you want only to mislead the public. I myself had originally thought that it could be so. This can *explain* Shapley’s behavior, but in no case *excuse* it. This is the intolerance and arrogance together with brutality which one often finds in successful people, but especially in successful Americans. The offence against truthfulness, to which you rightly called my attention, is generally human, and in my eyes, less important. One must however give him credit that in the political arena he conducted himself courageously and independently, and just about carried his hide to the marketplace.

Therefore it is more or less justified if we spread the mantle of Jewish neighborly love over him, difficult as it may be.

To the point, I can say in short: catastrophes *yes*, Venus *no*. Now I ask you: what do you mean when you request of me to do my duty in this case? It is not clear to me. Be quite frank and open towards me, this can only be good in every respect.

With cordial greetings to both of you,

Your

A. Einstein.

It took me seven weeks before I replied to him. With my first drafts I was dissatisfied. So many problems were raised that I could not possibly compress them into a letter of reasonable length. I decided on the strategy of challenging Einstein’s contention that terrestrial, not extraterrestrial (astronomical) agents caused the global catastrophes.

I decided not to answer in a direct way his questioning my competence to handle physical problems and, instead, by presenting my arguments, intended to confront him with the measure with which I *can* handle these problems. I omitted to meet his

challenge “Venus *no*”—in our debate this was premature; he agreed that there were global catastrophes, some in the memory of mankind; so next I had to show that only extraterrestrial agents could have been the cause, without identifying the agent.

June 16, 1954

Dear Professor Einstein:

During the three weeks since I received your kind letter, I have composed in my mind many answers to you, and made a few drafts. I realized soon that I would be unable to compress all the problems into one letter and I decided to try to achieve with this writing only one step - to bring you closer to the insight that the global catastrophes of the past were caused not by a terrestrial but by an extra-terrestrial cause. Before discussing this, I would like to say that I am very conscious of the fact that you give me of the most precious in your possession - your time; and I would not have asked to pay attention to these matters if I did not believe that my material may, perchance, serve you too, whatever your conclusions should be. My delay in replying you is certainly not an act of lack of attention; just the opposite - not a quick reply, but a well thought through is a real courtesy.

You agree that (1) there were global catastrophes, and (2) that at least one of them occurred in the not too remote past. These conclusions will make you, too, to a heretic in the eyes of geologists and evolutionists.

Eight years ago, in 1946, under the impression of those chapters of *Worlds in Collision* that you have read then in manuscript, you have acceded in a letter that “in der Tat Katastrophen stattgefunden haben, die auf extra-terrestrale Ursachen zuruckgefuehrt werden müssen.”³

Now, without re-examining the material that made you think so, you would like to retreat from this position. On the other hand, in 1946 you have brought two arguments against my theory, namely:

(1) “Dass diese Katastrophen nichts zu tun haben mit dem Planeten Venus.”⁴

(2) “Dass auch die Rotationstichtung der Erde gegenüber der Ecliptic keine erhebliche Aenderung hat erfahren können, ohne dass die ganze Erdkruste vollig vernichtet worden ware.”⁵

It appears to me that today you keep no longer the second objection in that definite form; you presently assume that the terrestrial crust, rather

catastrophically, moved over the interior of the earth; the experiences that the human kind must have had in such a plunge, would satisfactorily explain the phenomenon of the retreating sun (the cause of a great wrath in the days of Joshua and of Velikovsky as well), the change of cardinal points, of latitudes, of seasons and climate, and the inability of the ancient water- and sun-clocks to show correctly the time of today. It would, however, not explain the change in the number of days in the year, of which all ancient calendars (Maya, Inca, Hindu, China, Persia, Egypt, Babylonia, Assyria, Palestine, Greece, Rome) concur ("Worlds in Collision," pp. 312-359: these pages would certainly impress you).

*Against a terrestrial cause of
global catastrophes:*

The surmise that an asymmetrical growth of polar ice caused in the past a sudden shifting of the terrestrial crust

(1) disregards all references in the folklore to the celestial phenomena accompanying the catastrophe: meteorites and "bursting of the sky," also darkness.

(2) disregards the geological find of unusual concentration of meteoric iron and nickel in the ocean bed (I attach a section of my new manuscript, "The floor of the seas," with a description of the work of M. Pettersson of Goeteborg Oceanic Institute).

(3) disregards the magnitude of the force necessary to move the terrestrial crust over the equatorial bulge. Ice covers of the polar regions are placed in the least favorable position to disrupt the balance. The seasonal migration of ice and snow from one hemisphere to the other never induced the slightest displacement of the poles. And finally, the most important counter-argument concerns the mass and the form of the terrestrial crust:

(4) "The data secured from observations . . . of the transmission of seismic waves indicate that the earth is either solid throughout with the rigidity of steel, or that it is solid to a distance approximately 2000 miles below sea-level, with the solid portions having a rigidity greater than that of steel . . . This seems to indicate a contradiction between isostasy and geophysical data." (W. Bowie, "Isostasy," in *Physics of the Earth*, II, 104).

The theory of isostasy was conceived in 1851 when J. H. Pratt found that the Himalayas do not deflect the plumb line as expected considering the mass of the mountains. It was assumed that the crust is

thin and lighter than the magma and that every mountain has a mirror image protuberance immersed into the magma, thus the excess of the mass of the mountains is counterbalanced by a defect in the mass (difference between the lighter granite of the crust and the heavier magma). This, however, would signify that in order to move the crust over the very dense magma (twice the weight of granite) the isostatic protuberances (besides the equatorial bulge) will present obstacles that cannot be overcome by an asymmetric position of polar ice. If, moreover, the crust is 2000 miles thick, its mass represents a very substantial part of the globe.

What are the arguments against an extraterrestrial cause of the global catastrophes?

Arguments against extra-terrestrial agents are:

1. Ancient solar eclipses would not have taken place in appropriate times. Answer: As shown in my answer to Stewart, there is not a single case known where they actually did. By the way: the same argument, if true, would be good against the motion of the terrestrial crust in historical times.
2. Earth's axis of rotation would wobble: It does.
3. Things would have flown away if unattached: This depends on the time element.
4. Waves of translation and hurricanes would be generated: they were. A section from the first file of my geological work is attached, and explains, partly, the "wilde Raubergeschichte,"⁶ in the (second) file you just read.

Argument against a massive comet: The observed comets are of small mass. In answer:

1. Even Jupiter, as all other planets, was once in the category of comets, according to the planetismal and tidal theories.
2. The origin of the terrestrial planets (Mercury, Venus, Earth, Mars) from the large planets (to explain the difference in the specific weights) is an old legitimate story.

Arguments against the mechanism of disturbance: A gravitational pull by a passing body could not disturb the rotational velocity of the earth or the inclination of its axis. Answer: In *Worlds in Collision* I brought

historical material leaving astronomers to choose:

1. Either the earth was disturbed in rotation,
2. *or* the axis of rotation changed its inclination to the plane of the ecliptic.

Once more, I left for astronomers to choose: The earth was disturbed by entering

1. into a thick cloud of dust,
2. or into a magnet field.

In *Worlds in Collision* I left open the problem which of these mechanisms was in action (p. 386). You are indignant at the idea that magnetic fields had anything to do with the disturbances. You oppose such explanation

1. because magnetic actions are excluded from the celestial mechanics.
Answer: At usual distances. But at close approaches the magnetic fields could be felt.

2. because in a cloud of iron particles there is no reason for all of them to have the same magnetic orientation. Answer: The same question is asked concerning the polarized light of fixed stars that supposedly passes through clouds of gases or dust particles. Also: would the earth, which is a magnet, and possibly has an iron core, moving through a large charged cloud of dust preserve the direction of its axis or not?

The real cause of indignation against my theory of global catastrophes is the implication that celestial bodies may be charged. It was argued that only an astronomer can imagine the degree of coincidence between the calculations based on the gravitational theory and the observed planetary motions. But this very degree of coincidence is disturbing in the face of many facts known about the sun (behavior of protuberances), the planets (influence of radio-transmission), the comets (self-illuminating; behavior of tails), the fixed stars (strong magnets), the meteorites (magnets). Even for the cases of observed anomalies magnetic or electric charges were not considered, as if they were a tabu in celestial mechanics. Of the many unexplained phenomena presented in my address before the Forum of the Graduate College, you have explained only the apparent spherical form of the sun (and was it correct to disregard the very low atmospheric pressure on the sun in calculating its expected shape?), but not why the sun

rotates quicker on the equator, nor many other similar violations of mechanical laws.

Of course, I am a heretic, for I question the neutral state of celestial bodies. There are various tests that could be made. For instance, does Jupiter send radio-noises or not? This can easily be found, if you should wish.

If planets are charged, gravitation is a short range force, a terrible statement to make. Cavendish experiment with varying distances between the attracting bodies would easily disprove such notion. But if I am not wrong, the Cavendish experiment is not performed in a Faraday cage. It should be easy to find out the constant in a cage. But not easy for me. Especially since Shapley in a relentless effort made me “out of bounds” for scientists.

You, too, would not have had any suspicion about my motives in my book on folklore and ancient literature, were it not for the campaign initiated by Shapley. The few pages on astronomy in my book were edited by Lloyd Motz, professor of astronomy at Columbia University. Too early you have thrown the mantle of Jewish compassion over Shapley: you have seen only the beginning of the file of the documents concerning the “Stargazers and Gravediggers” and their leader. His being a liberal is not an excuse but an aggravating circumstance. My appeal to you to investigate this material was prompted by a new attack, a few days before I last saw you. Then I immersed myself in my work and calmed down.

Cordially,

Immanuel Velikovsky

My answer was written three weeks after I received his letter, but for an additional four weeks I postponed sending it to him. Then when my wife brought it (she went to see the new sculpture work of Margot), Einstein came in, and apparently was relieved of a thought that he had perchance hurt my feelings by some of his remarks. He read my letter immediately, and returned it and asked to see my *Worlds in Collision*, to which some references were made in my letter. Next we had a call and invitation to come and discuss the problems raised by my letter.

References

1. See *Stargazers and Gravediggers*, pp. 158-161.
2. pp. 117-118 of the book
3. “that in fact catastrophes have taken place which must attributed to

extraterrestrial causes.”

4. “That these catastrophes can have nothing to do with the planet Venus.”
5. “That also the direction of the inclination of the terrestrial crust towards the ecliptic could not have undergone a considerable change without the total destruction of the entire earth’s crust.”
6. “wild robbers’ story”





July 21, 1954

On July 21st, 1954 our meeting again took place in Einstein's study, and lasted for three hours, from 8:30 pm to 11:30 pm. When in our conversation I reminded him that in 1946 he had agreed that the causes of the global catastrophes were extraterrestrial, he answered:

"I was too rash to agree."

I replied, "Do you rely on your memory more than on your judgment?"—implying that he agreed when my material was fresh before him, and disagreed when he hardly could remember much of it.

Einstein still found attractive Hapgood's theory that ice covers growing asymmetrically caused the Earth's crust to slide. He wished to explain the catastrophes as the result of forces in the Earth itself. I asked how asymmetries of a few degrees could bring the ice covers to latitudes of 45 degrees where the crust would be the most liable to disbalancing. I also pointed out that his rejection of the theory of isostasy, which claims that mountain ranges rest on deep subterranean structures, undermines Hapgood's position about the sliding of the Earth's crust.

The conversation turned to my claim of the participation of electromagnetic forces in celestial mechanics. I said, "All the sciences—neurology, physiology, physics, and chemistry—recognize the overwhelming role of electromagnetic forces; only astronomy lives in an age before kerosene, in the age of candles." Einstein agreed with the thought I had expressed in my letter to him that it is my introduction of electromagnetic forces into celestial mechanics that caused the vehement opposition of the scientists. I explained to him that these matters are not discussed in *Worlds in Collision*, and read him a sentence from the Epilogue of that book:

The accepted celestial mechanics, notwithstanding the many calculations that have been carried out to many decimal places, or verified by celestial motions, stands only *if* the sun, the source of light, warmth, and other radiation produced by fusion and fission of atoms, *is as a whole an electrically neutral body*, and also if the planets, in their usual orbits, are neutral bodies.



Penelope

During the fall of 1954 we did not meet due to Einstein's poor health. He was told by his physician, Dr. Dean, not to see people and to reduce much of his activity. Einstein also ceased going to the Institute. As I heard later, at that time, in the late summer and the fall, his blood condition deteriorated and could not but cause concern. The medical findings were not known to the public, not even to acquaintances; in general there was always a desire to keep personal matters out of the public view. Thus, for instance, once during the period I describe in this book fire broke out in Einstein's house, an old frame structure with a porch, staircase and partitions, all well dried and a little rickety, which could easily be enveloped by fire. It was a case of faulty wiring. When the flames broke out, Einstein, the only man in the house, beat the fire out singlehandedly, first closing the windows to cut off the fire from inflow of oxygen. By the time the fire brigade arrived, the fire was already out. Such an event, if known to newsmen, would certainly have made the front page; but it was kept secret, and the fire department cooperated. The house was rewired.

The gravity of Einstein's sickness was an equally well-kept secret. His mind was inquisitive, but he was deprived of exchange of thoughts. Later I was told that he repeatedly asked to see me; Miss Dukas, however, followed the doctor's orders and kept Einstein in isolation from all but his closest circle. To this circle belonged Gina Plungian, mentioned on an earlier page, the ebullient, warm, outgoing admirer of Einstein, who became like a member of his little household, almost like a fixture in the house. For seven years she sculpted Einstein's head, sitting as quietly as possible in his study while he worked, not saying a word in order not to disturb his thoughts, though this must have been a great privation to her, a great talker and an interested listener to the personal matters of her acquaintances. Einstein and others of his household used to call her, though not to her face, Penelope, because she used to spoil the likeness she had already attained in clay, like the mythological figure who used to unravel during the night the knitting she had done during the day in order to prolong the process—or did it only seem that way? Whatever were Gina's abilities as a sculptor, she tried not to disturb, and all she asked was to sit quietly in some corner when Einstein worked. Some time earlier she and her family had moved away to Chattanooga, Tennessee, where her husband, a chemical engineer, obtained a position; yet Gina managed to come back, by plane or by bus, once in a while, whether the "while" was a month or a week. She would spend the night at our place, and the day at Einstein's. During the fall of 1954 I asked her to carry a letter to Mercer Street and bring back a reply. Giving her the letter to bring to Einstein, I added a little note for her to read to him.

Knowing that he was still weak and not yet recovered from his severe anemia, I felt

that I had to add a human touch to my unbending stand in the problem we discussed.
The note read:

And he said, “Let me go, for the day breaketh.”

And he said, “I will not let thee go, except thou bless me.”

It is from the book of Genesis, from the story of Jacob wrestling with the angel; Jacob rose that night, on his return to the land of his birth, passed over the ford of the Yabbok, and was alone in the dark of the Canaanite night; “and there wrestled a man with him until the breaking of the day.” The angel did not prevail and asked that the struggle cease (“Let me go”), which Jacob refused to do unless his adversary would bless him.

That evening upon her return from Einstein and again at the breakfast table the next morning Gina told us that when she gave my letter to Einstein she, as instructed, read him from my slip of paper the passage that was intended to mollify the impression my intransigence could create. Einstein liked the passage very much. Of course he understood whom I likened to Jacob and whom to the angel. In good humor he observed: “But why should an angel be fearful of the daybreak? What kind of an angel is it?” During the day he returned to that verse from Genesis more than once, and at the dinner table he recounted it to Margot and Miss Dukas. But when in the evening Gina was about to leave—in the meantime he wrote his answer to my letter all along the margins—he called her aside and told her, in German as usual: “Please, don’t say to Velikovsky that I remarked about the angel. Possibly Velikovsky is a religious man, and this remark may hurt his feelings.” Gina told me and I was not hurt; just the contrary—I thought that this was an example of how Einstein was sensitive to the feelings of others. But it was still night, and the struggle had to go on. I was not giving in; I was actually the attacking partner of the debate; the case of the comet grazing the sun was the square on the chessboard which I selected for the encounter decisive for the campaign to follow.





A Comet Grazing the Sun

The problem between Einstein and myself was always the same, and we were equally obstinate: he because the mathematical model coincided with such unimaginable precision with the natural events, nowhere better observable than in the celestial sphere with the planets and their satellites on the prescribed paths; I, because it appeared to me that these exact coincidences between theory and nature had been achieved at the cost of a grievous omission—of electrical charges and fields. Natural catastrophes which I discovered to have taken place were my starting point, but these catastrophes were denied, and my description of the phenomena that accompanied them evoked the accusation that I had committed an outrage against the entire house of science. Yet even independently of what I read in ancient sources, historical or legendary, the picture of the solar system in which electricity and magnetism were absent and denied a role was strange to me. Once I read that the Jewish people produced the geniuses of Marx, Freud, and Einstein—the three men who so greatly influenced the world of today—because by the nineteenth century the Jewish people was mature in intellect, yet foreign to European scientific thought, and entered this domain when no longer novices in the house of learning, therefore more given to criticism, skepticism, and an original grasp of the content. If I saw things differently, it was possibly because I came in conflict with the accepted notions, being myself no longer a fledgling; I did not go through the normal process of studying geology or astronomy as a student in college, accepting everything on faith, subdued by the assertion that science in our days and since some time ago is finally on the right track, after periods of ignorance of the ancients and erroneous ideas of the pre-Newtonian days. I could not help seeing things differently.

I decided to select a case in which electromagnetic interrelations between two bodies in the solar system would be more apparent than elsewhere. Such a case would be in the passage of a comet very close to the sun, actually grazing the solar corona. In my understanding there would be a very pronounced case of electromagnetic interaction. Physical science, or, better, celestial mechanics, forbade such an interpretation—and why? Because as soon as electromagnetism is given right of entry, the entire solar system with planets and satellites would be engulfed in a forbidding sweep of forces and interrelations. If a comet that goes through the corona of the sun experiences some electromagnetic effect, then what about the same comet a little distance from the sun, before it reaches perihelion, or the point of nearest approach, or after it passes it? And if there, too, there should be some electromagnetic effect, then what about still greater distances and the behavior of cometary tails in general? Cometary tails, as already mentioned on earlier pages, keep away from the sun: on approaching the sun the tail moves behind the head of the comet; at the time the comet circles the sun in perihelion, the tail sweeps the sky, almost like a stiff rod; and when the head retreats from perihelion and rushes on its orbit back into space, the tail precedes the

head, again kept away from the sun. The behavior of the cometary tails is not in accord with what should have been expected on the basis of gravitational forces; the tails should be attracted to, not repelled by the sun. The problem was also in the minds of astronomers of the nineteenth century. John Herschel wrote:

There is beyond any question some profound secret and mystery of nature concerned in the phenomenon of their tails; the enormous sweep which it [the tail] makes round the sun in perihelion in the manner of a straight and rigid rod, is in defiance of the law of gravitation, nay, even of the recorded laws of motion.¹

But when at the beginning of the present century the Russian physicist, P. Lebedew, succeeded in demonstrating that light exerts pressure on the surface it falls upon, in agreement with the postulate of Clerk Maxwell, he wrote: "this result is of importance to astrophysics as furnishing a much simpler explanation of the repulsive force of the sun than the hypothetical ones of electrical charges."²

This pressure, or repulsion, is generally much smaller—in the case of the sun 20,000 times less—than the opposite action of the gravitational attraction; but calculation shows that on particles of dust of a certain small diameter the pressure of light will exert a greater force than will gravitation, and this because gravitation acts according to the mass, and pressure according to the surface, and a small particle has more surface in relation to its mass than does a larger particle. Although celestial mechanics never really tried to investigate the problem quantitatively, the explanation was taken over into all textbooks. A quantitative analysis would show that the force needed to drive particles away from the sun at the speed observed must be between 200 and 2,000 times more powerful than the gravitational attraction exerted by the sun, instead of being 20,000 times weaker; (both act as the inverse square of distance—light and its pressure act four times weaker on an illuminated surface when the distance from the source of the light is doubled). A comet may have a tail as long as 100 million miles and thus reach all the distance from the sun to the terrestrial orbit, or even 200 million miles and thus reach past the orbit of Mars.

Finally, the cometary tails obviously have on one hand particles larger than dust grains and on the other hand they contain gases, but it is also obvious that light cannot drive these larger particles as it drives molecules of gases, and on this alone the argument capsizes—and leaves the behavior of tails unexplained.

The light of cometary tails is not just the reflected light of the sun; they glow by their own light, a fact established by spectroscopic analysis. It appeared to me that the comets are charged bodies, and possibly their tails and heads carry significantly different charges.

On the other hand the rotating sun, if it is a charged body, must create a magnetic field. Does not the corona when seen at full eclipse, or with the help of an occultation

disc (coronograph), have the appearance of magnetic lines of force as they can be traced by the position of iron filings spread over a Compton paper, in the presence of a magnetic field? Then would not a comet going through the corona of the sun be subject to electromagnetic interactions? Further, is not a comet held away from the sun by its magnetic field? But if comets are subject to electromagnetic forces when close to the sun, they may be subject to the same forces when at some distance from the sun, too; and if comets respond to forces besides gravitation, are not the planets also responsive to some—large or small or minute—but *some* influence emanating from the sun, besides gravitation, namely of electromagnetic nature? The consequences are innumerable: is space empty, or filled with fields and influences? This is a question not unlike the question in theology: Is there or is there not a God? But now I was like a chess player sitting opposite the world champion, I being just an amateur, a beginner, plotting my attack. I moved a pawn—but I placed it in such a position that the champion immediately grasped the implications of my strategy. Let this move stand, and one by one, the bishop, the castle, the queen, and the king himself would all be under attack. The pawn could not be left in its threatening position.

You can take a pawn from the board if you have a piece in position to do this, and if the consequences will not be harmful; Einstein made his move. It was contained in the remarks he made to a letter I wrote him on September 17, though I did not send it until eight weeks later, with Gina Plungian. I included a note for Miss Dukas. Einstein's handwritten marginal annotations on my letter are here given as footnotes.

November 12, 1954

Dear Miss Dukas:

Enclosed is a copy of my September letter, retyped double-spaced for easier reading. At the end of it stands a question which has far-reaching implications. This is a logical move on my part in our extended discussion, and when Professor feels inclined to answer and his health permits, ask him, please, to dictate whatever he has to say to the problem.

With cordial regards

Immanuel Velikovsky

September 17, 1954

Dear Professor Einstein:

May I renew our discussion? At our last long conversation on July 21, you have acceded that the cause of the global catastrophes of the past

could have been extra-terrestrial.¹

You have found the behavior of Lexell's comet almost unbelievable.²

The next step in my strategy is to show that the comets do not revolve as neutral bodies around a neutral sun. I quote from H. Spencer Jones:

"The presence of bright lines in the spectra [of comets] can only be due to a self-luminous body. . . . the electrical phenomena obtained by discharge through a Gessler's vacuum tube enable the assertion to be made with a high degree of probability that the comet's self-luminosity is due not to an actual combustion, but to an electrical phenomenon."³

More facts point to a charged state of the comets. The envelope (coma) of a comet contracts with the approach to the sun and expands with recession, though in the heat of the sun the reverse could be expected.⁴

"There is good evidence that all particles in the comet influence the motion of each other. The configuration of the streamers in the tails . . . strongly indicates a mutual repulsion." (N. Bobrovnikoff, "Comets" in *Astrophysics*, ed. Hynek, 1951, p. 328).⁵

As to the sun: "Certainly the formation of coronals over centers of attraction and sunspots can be caused by the extended electrical fields of these areas of the sun; just so, coronals can be formed by the electrical fields about the end of a moving prominence." (E. Pettit, "The Sun and Solar Radiation," *ibid.*, p. 296).⁶

When prominences on the sun were observed to run one into another, "both prominences participating in the action recoiled violently . . . Strong electrical fields of the same sign might explain the phenomenon." (*Ibid.*, p. 297).⁷

As to the spherical shape of the sun, the measurements were carried to one hundredth part of a second of an arc, and no departure from spherical shape was observed (*ibid.*, p. 260); the admitted error of observation could not exceed a tenth of a second.⁸

Should we now assume that a comet moves in perihelion without experiencing an electromagnetic effect between itself and the sun?⁹

Cordially yours,

Immanuel Velikovsky

¹ [E.: I saw at that time no other possibility for a quick change of climate at any point of the Earth's crust. But since the mobility of the crust as against the main body is probable, so is an explanation for such phenomena based upon itself much more plausible than the assumption of an extra-terrestrial cause.]

² [E.: As far as the comet is concerned, you have unjustly claimed that it orbited Jupiter for a certain time; this possibility I disputed. In fact, through disturbance by Jupiter the comet repeatedly experienced a strong change in its course, without being "caught" by Jupiter.]

³ [E: This is very vague and has nothing to do with the actual problem of motion.]

⁴ [E: This is a quite superficial way of inference. One would have first to show that the phenomenon cannot be explained through an independent movement of the tail, without assumption of specific forces.]

⁵ [E: A mere assertion.]

⁶ [E.: Vague assertion.]

⁷ [E: This is quite possible with formations which consist of (one-sided) charged ions.]

⁸ [E.: Weak explanation! On this one cannot build. It would be interesting to know what other specialists think of it.]

⁹ [E.: Yes. Otherwise Kepler's third law would not be valid.]

The best I could wish was that Einstein would cede me the point; and the next best that he would answer as he did; thus he documented the position of science on the issue in 1954. Four years will pass and it will be admitted that the pressure of light cannot, by a factor of 200 to 2,000, be the cause of the repulsion of the cometary tails³;

the time will come when scientists will think it elementary that a comet crossing the solar corona could not escape electromagnetic effects; but by then it will appear self-understood that this is as it should be; and then I will need to prove that not so long ago different notions prevailed; and how much easier it will be if a man whose authority is unmatched should have written the verdict of science on the very document in which I claimed a divergent view.

Johannes Kepler, mentioned in my letter and in Einstein's notes, the discoverer of the three laws of planetary motions known by his name, was a man to whom Einstein felt a special sympathy, even affinity.

I was obstinate. I was determined to face the issue squarely on this most obvious case—of a comet going through the corona of the sun. And I had to answer the reference on Einstein's part to Keplerian laws.

January 11, 1955

[sent January 18]

Dear Professor Einstein:

Am I right or wrong in the following: A comet grazing the sun can experience an el.-magn. effect without violating Kepler's 3rd law,¹ because:

1. A static potential difference between the sun and a body on an orbit would also produce an inverse square relation which can be hidden in the gravitational effect.²
2. The magnetic component of the effect would produce acceleration. And actually an unaccounted for acceleration is observed in comets passing close to the sun; this effect was studied on Comet Encke. (J. Zenneck, 'Gravitation' in *Encyclop. d. Mathem. Wiss.* vol. V, part I, p. 44).
3. Even assuming a comet as a neutral body partly consisting of ionized gases, and a solar protuberance as a collection of ions of one sign on a neutral sun, we would have in a grazing comet a conductor passing through an electrical field.

By the way, Kepler himself regarded the motion of the planets and comets on ellipses as originating wholly in the sun, and for a time thought of magnetic action (electricity was not yet known; but Gilbert's book on magnetism already appeared in 1600). Kepler wrote:

" [Sol] trahendo et repellendo retinet, retinendo circumducit" (*Opera omnia*, VI, 345).

Actually Kepler's idea of a magnetic field reaching from a primary to a satellite can be checked as follows:

If the lunar daily librations in latitude follow the rotation of the polar

magnetic field of the earth around the geographical pole, then the magnetic field of the earth reaches sensitively to the moon. Among lunar daily librations are some unaccounted for. According to H.T. Stetson of M.I.T., a magnetic needle slightly follows the sun.

As to Lexell's comet: It was removed by Jupiter from a parabolic orbit to an ellipse of $5\frac{1}{2}$ (five and a half) year period, and at the next passage it was sent away on a hyperbolic orbit. This I mentioned; you have thought it impossible, even after reading this in Newcomb's astronomy.³

You have asked me: what do the specialists say about the shape of the sun. I quote Donald Menzel of Harvard Solar Observatory (*Our Sun*, 1950, p. 39): "but the measures are as likely as not to indicate a *polar* diameter greater than the equatorial, which we are indeed loath to believe."

With all good wishes,

cordially,

Im. Velikovsky

¹ [E: No, that would be a miracle. If the forces of the solar system were of an electrical nature then for instance the following would occur: if the sun were charged positively, then the earth would have to be charged negatively, and the moon again positively. The sun would then repel the moon, so that the moon's motion would deviate considerably from the factual. Kepler's third law which connects periods of revolution and the radii of orbits of planets revolving around the sun would not be valid because the charge of each of these bodies would be independent of the charge of one another.]

² [E: It is not enough for the understanding of Kepler's *third* law.]

³ [E: No, you have stated that the comet was for a time captured by Jupiter. Only this I declared impossible.]

Einstein also appended the following postscript to my letter:

Nobody denies electromagnetic effects between the heavenly bodies. But these are too small to assert themselves upon the observable motions. With qualitative considerations only, one can achieve nothing against keen quantitative perceptions.

When an astronomer hears such arguments as yours, and he has not enough sense of humor, then he necessarily will be angry or rude.

That the sun cannot have any appreciable electrical charge can be seen from the following elementary consideration. The radiation of the sun generates positive and negative ions in its atmosphere. If the sun was originally (for example) positively charged, it would have repelled the positive ions and hurled them into space. Thereby its positive charge would be reduced. This process will last until the sun will have lost its positive charge. This consideration is likewise valid for negative charge.

The solar radiation produces also enough ions on the surface of the planets and moons for a charge to disappear in a short time.

Finally, if gravity were of an electrical nature, then a body would have to lose its weight as soon as it touches the earth, or is brought into conducting contact with it.

References

1. *Outlines of Astronomy*, p. 406.
2. Peter Lebedew, "An experimental investigation of the pressure of light," *Annual Report of the Board of Regents of the Smithsonian Institution* (Washington, 1903), pp. 177-178.
3. Ludwig Biermann and R. Luest, "The Tails of Comets," *Scientific American*, October, 1958.





The Four Plans of the Universe

During the winter Miss Dukas informed me regularly of Einstein's progress. When he recovered a little he wrote notes to my letter of January 11, and as usual covered the margin of my letter and its back with his handwritten notes. From his answer I felt that I had not yet made myself sufficiently clear, all my discussions with him being up to now more in the nature of prolegomena. At the end of February 1955 I wrote a thirteen-page letter where I stated most of the problems concerning the nature of gravitation and inertia, and discussed the difficulties and the advantages of four plans of the universe. I reminded him of my challenge to him made over a year earlier, to construct a plan for a new universe in which gravitation and inertia would have no part. This time I wrote in German, in order that it should be more comprehensible to him, though it proved to be by far more difficult for me to express myself in writing in this language after years of disuse.

February 2, 1955

Dear Prof. Einstein:

All I wanted in my last letter to you was to gain the concession that a comet, going through the corona of the sun or through an outburst of ionized gases, sustains an electromagnetic effect. The consequences of opening the gate to such an effect into the heavenly mechanics force the astronomer to disregard physical experiences, in order not to violate in the least the system of 1666. But in fact the comets do not follow precisely Kepler's third law: those that pass near the sun (like Encke's comet) show acceleration unexplained by gravitational mechanics.

My knowledge is not great, yet gravitation with static electricity I do not identify, as you understood me and then refuted me with the fall of a body which must discharge itself upon touching the ground. In the following I present my thoughts about the nature of gravitation and discuss also in short—more in the form of questions—the four systems of the world, of which the first is the Newtonian, and the second actually does not violate the Newtonian.

Do you remember how I asked you: If the good Lord would give you the task to conceive a plan for a new universe, where gravitation of the inverse-square variety takes no part, would you be able to comply? To Newton He could not have made such a proposition, since Newton had only a very vague idea of electricity. However, the sentence with which

he concludes the “Principia” is very interesting. I let this sentence follow as a supplement.

Enclosure 1

The end paragraph of the PRINCIPIA by Newton

But hitherto I have not been able to discover the cause of those properties of gravity from phenomena, and I frame no hypotheses . . .

And now we might add something concerning a certain subtle spirit which pervades and lies hid in all gross bodies; by the force and action of which spirit the particles of bodies attract one another at near distances, and cohere, if contiguous; and electric bodies operate to greater distances, as well repelling as attracting the neighboring corpuscles; and light is emitted, reflected, refracted, inflected, and heats bodies; and all sensation is excited, and the members of animal bodies move at the command of the will, namely, by the vibrations of this spirit, mutually propagated along the solid filaments of the nerves, from the outward organs of sense to the brain, and from the brain into the muscles. But these are things that cannot be explained in few words, nor are we furnished with that sufficiency of experiments which is required to an accurate determination and demonstration of the laws by which this electric and elastic spirit operates.

[end of the *Mathematical Principles*; transl. by F. Cajori]

Plan 1

Newton’s plan in which the heavenly bodies in their movements are influenced only by gravitation (and in a very small measure by light pressure). For this plan speak:

- a) The simplicity of the law of gravitation. (The simplicity would be more complete if the same system would also be in action as the dominating force in the atom, and if gravitation, like all other energies in nature, were given to transformations).
- b) The exactness with which the positions of the planets are predicted. (The exactness of Ptolemaic astronomy in predicting eclipses and conjunctions was superior to that of Copernicus; and still the geocentric system is false).
- c) The discovery of Neptune and Pluto (Neptune’s position, but not its distance from the Sun was calculated in advance; Pluto’s mass is by far

not sufficient to explain the disturbances it causes).

Some of the circumstances which cannot be explained, or only with great effort, are:

1. The Sun, Jupiter and Saturn rotate quicker on their equators; the rings of Saturn rotate quicker than the planet. The inner satellite of Mars revolves quicker than Mars rotates; the sun possesses only 2% of the “angular momentum” of the solar system.
2. The Sun’s protuberances *gain* in speed with the distance from the Sun. They fall back as if attracted to the place from which they erupted, falling back (as if on a rubber band) to the sun without acceleration.
3. The Sun’s equatorial diameter is equal to, and in the consensus of other observers is 0.038 seconds of the arc smaller than the polar diameter (and to this says Menzel: “We are loathe . . .”).
4. The tides caused by the Sun in the Earth’s atmosphere are 16 to 20 times greater than those caused by the Moon.
5. The Moon and [some] other satellites always show their planets the same face.
6. The comets’ tails are turned away from the sun and move in perihelion with a speed approaching the speed of light; no attempt at quantitative calculation has been made in this direction.

Plan 2

The heavenly bodies are held in their orbits mainly by gravitation; however they are not neutral.

Since static electricity also acts according to the inverse square law, its presence is masked by gravitation. From this follows: The masses of the heavenly bodies are not exactly calculated.

This plan can explain satisfactorily most of the difficulties of Plan 1. For this Plan 2 speak also, among others, the following facts:

1. The Sun too has a general magnetic field the strength of which is estimated very differently—the difficulty lies in the angle of observation. The corona has a form which resembles the lines of force of a magnetic field and extends far out.

2. In several stars a strong magnetic field (7000 gauss) has been detected. These stars must also be electrically charged because electrical currents would hardly occur on hot stars. The movement of two members of a double star system which rotate around each other in a few hours must probably be affected by more than just gravitation alone.

3. The earth is a magnet. The earth is enveloped in electrical layers of the ionosphere. Chapman postulates a strong electrical layer high (12,000 to 16,000 miles) over and around the earth.

4. The planets Mercury, Venus, Mars, Jupiter, Saturn, clearly influence our ionosphere and radio-reception; Jupiter and Saturn also have a connection to the origin of the sunspots.

5. The polar lights consist of electrical charges which come from the sun and which, after eruptions on the sun, or after the passage of a big sunspot, influence radio transmission and ground currents, and cause magnetic storms.

6. Meteorites are magnetized without exception. Also, upon entering the atmosphere they are regularly diverted toward the east and sometimes even seem to be hurled out after they have already penetrated into the atmosphere.

7. The fact that comets glow in cold space (lines of emission), and also the contraction of their heads when closer to the sun, speaks for an electrical effect.

8. A rise and fall in the strength of mutual disturbances between Jupiter and Saturn in the years 1898-99 as opposed to that of the years 1916-17 (18 % difference: J. Zenneck, "Gravitation" in *Encycl. der Math. Wiss.*, vol. V, first part, p. 44), speaks also for this and the following plans.

As to the argument that the photoelectric effect of the sun would neutralize the charges on the planets, I would like to ask: Would not the photoelectric effect cause charges on neutral planets? And why is not our ionosphere neutralized by the photoelectric effect?

The other argument against this plan is in the assumption that the sun cannot be charged because it would repel the surplus ions. I would answer: According to spectral analysis, the atoms on the sun have been left without many, often without any orbiting electrons. Could not the electrons which have left the protons in their closest proximity where the attraction is tremendous, also have left the sun entirely? Actually the sun hurls out charged particles (polar lights, also cosmic rays) as if

it were charged and would like to reach a neutral state. (However the sun, charged as it is, changes its charge imperceptibly: were it not so, then the system would constantly change its paths.)

Another reply: In the atom the same problem exists: how can charges of the same sign hold together in the nucleus?

Now a third reply: The stars, which are strong magnets, must also be electrically charged, because no electrical currents can exist at such temperatures. Why do the surplus protons or electrons stay there? And if there, then probably also on the sun.

And finally: Should we not, instead of considering the sun as neutral, rather consider the whole solar system neutral, with a surplus of charge of one sign on the sun and of another sign on the planets?

Plan 3

Gravitation would be a force which quickly diminishes with distance. Static electricity would be the dominating force between the heavenly bodies.

This would mean that the force which we know from our experience on earth as gravitation does not effectively reach the moon.

Against such an explanation speaks the fact that the Cavendish experiment under different conditions and distances between mutually attracting masses always showed the same results. However, as far as I can judge, this experiment was not performed in a Faraday cage; at the same time we know that the atmosphere has an electric potential and that the potential difference strongly increases with distance from the ground, but probably could be almost identical in different laboratories.

This plan of static electricity as the dominating force between the heavenly bodies would explain most of the phenomena which are unexplainable in plans 1 and 2, but against it speak the following facts:

1. In the case the planets are all of the same charge (positive or negative), they would repel each other. But would they not behave like two parallel conductors which attract each other when their currents flow in the same direction?
2. If, for instance, the sun is positive and the earth negative, then the moon would again be positive, and the sun would repel the moon.

Plan 4

In this plan, too, gravitation would be a force which diminishes rapidly with distance. Planets, satellites, and comets are charged bodies which move in the magnetic field of the sun, and which themselves create magnetic fields.

This plan would explain:

- a. The retrograde movement of various satellites and comets;
- b. the distribution of angular momentum;
- c. the behavior of cometary tails; also the fact that comets are attracted to the sun from great distances, but were never seen falling into the sun, even though they are unstable in their orbits;
- d. the position of the moon and other satellites which continuously turn the same face to their planets;
- e. the energy of cosmic rays;

also the fact that the sun is hotter in the corona than in the photosphere; and several other facts.

Since magnetic force decreases quickly with distance, the heavenly bodies must be differently charged in order to obey Kepler's laws. The planets which are further away from the sun must have a correspondingly stronger charge. This would be analogous to the arrangement of electrons in the atom. It would also explain the disturbances caused by Pluto, the mass of which is by far not sufficient to explain such perturbations.

Against this (4) plan speak the enormity of electric and magnetic forces necessary to make this plan effective.

The sun moves in relation to the stars; it rotates; the charged planets revolve around the sun, and create a Rowland magnetic field. How does the magnetic field between the sun and the planets behave, and how quickly does it decrease? (The calculations which I received from several young physicists differ greatly and go all the way from $1/r$ to r^4).

But above all, are the physical experiences of laboratories always applicable to the sky? There, a very great and hot mass of gases moves

in the coldness of space; how would the magnetic field behave under such conditions?

It is apparent that plans 2 and 4 sin less against facts and observations than do plans 1 and 3. In order to decide between plan 2 and 4 the Cavendish measurements between impeccably neutral bodies must be repeated. But how impeccably? The electrical repulsion between two protons is 10^{40} times stronger than their gravitational attraction.

With cordial greetings,

Yours

Immanuel Velikovsky

*[It should be noted that during the last two decades or so of Velikovsky's life, the ideas that had been expressed in **Cosmos Without Gravitation** and in the fourth of the "Four Plans of the Universe" no longer reflected Velikovsky's approach to the extent that they once did. In particular, he backed off considerably from the idea of circumduction as a non-gravitational, non-inertial account sufficient in itself to explain orbital motions, and he also backed off from any general suggestions that gravity and inertia might somehow be banned from the celestial arena. What he often said in his later years was, not that gravity and inertia played **no** role, but rather that they did not play the **only** role, that is, that gravity and inertia were not **alone** responsible for what occurred in the celestial arena: electromagnetic interactions also played a considerable role in cosmic events—especially when celestial bodies were in close approach to each other, but also even when they were far apart.]*

*The Space Age brought the myriads of artificial satellites that orbit Earth on different planes and in different directions. Clearly Earth with its magnetic field does not "circumduct" these artificial satellites around itself in a common plane, nor is it able to control their direction of movement. In such cases, some of the lesser variations and perturbations might still be attributed to electromagnetic factors, but gravity and inertia would remain the principal determining factors. It was no doubt such considerations as these that led Velikovsky to change his stance here. In any case, each of "The Four Plans of the Universe," even the fourth, should be taken as a "construction," a working hypothesis for the purposes of discussion, not as a final position. The same is true of **Cosmos Without Gravitation**: not all of the ideas that were formulated in that early monograph were ones that Velikovsky continued to adhere to in his later work.*

Nevertheless, it must be emphasized that Velikovsky did not ever abandon the idea that gravity itself might eventually be interpreted as an electromagnetic phenomenon,

nor did he ever abandon the idea that the solar magnetic field might to some extent be responsible for the fact that the planetary orbits are roughly co-planar and for the fact that all nine of the major planets, and apparently all of the minor planets as well, orbit the Sun in a counterclockwise direction.—Lynn E. Rose]





March 4, 1955

In the beginning of March Einstein started again to visit the Institute; a call came from him through Miss Dukas: would we not come that evening?; he would like to discuss my letter.

Einstein was in his study, his feet wrapped in blankets, and an electric heater burning close by; he stood up in an attempt to bring us blankets too, though it was not cold in the room. A glass of water was on the table in front of him. I had not seen him since he became sick over a half year earlier. His face was rounder, his composure was mellower. He would not argue as vigorously as he usually did, and less often laughed his uproarious laugh.

He read my letter aloud, line after line, and discussed it; he read with great relish the page of Newton's that I included—the very last page from the *Principia*, where Newton made a prophetic statement concerning the role of electricity in nature; and we discussed Newton's discoveries, and the discoveries of Kepler of the ellipticity of planetary orbits. Einstein read my explanation of gravitation as a dipole, but could not see how I explained inertia; of his own work he thought this was the greatest achievement, his stressing the equality of gravitational and inertial masses (I quoted de Sitter that Newton himself regarded this equality as a remarkable coincidence).

We succeeded to read only up to page 9 in my letter—it became late, and although Einstein was prepared to go on reading and discussing, I asked to postpone this in order to spare him. Thus we interrupted the session after plan 2, at about 10:30, after two hours. At the end Einstein told me that I am not given to change of mind.

In general Einstein was on the defensive—insofar as he had to deny many facts and explanations that are accepted in astronomy: he saw the consequence for celestial mechanics where the people who formulated the theories did not see them. In our discussion I mentioned for instance that the unusually high energy of cosmic rays is explained by the existence of magnetic fields in which, as in a cyclotron, charged particles are accelerated in the solar corona, whirled to very high energies. But if there is such a field, the earth, a magnet, must also experience an effect as it travels through it—an argument that came to my mind on the way to Einstein's house that evening. Seeing this consequence, Einstein denied the existence of such a field; the other explanation, that cosmic rays achieve their energy because they are accelerated by a charged earth, certainly did not help him out of the difficulty: therefore he stated that we do not know what causes high energy cosmic rays. The circumstance that the sun rotates more quickly at the equator than at higher latitudes Einstein thought to explain possibly by some thermal effect. But the same phenomenon is observable on

Jupiter, and he wondered that Jupiter is cold; could it not possibly be hot? Are not its satellites illuminated by it?

As to comets' tails, Einstein expressed his disbelief in the high velocities achieved by the tails, and when I referred to John Herschel and W. Pickering, he wished to see the statements. After a few days I mailed these statements to him:

March 7, 1955

Dear Professor Einstein:

I thank you again for the discussion of the first 8 pages of my letter. Here are the quotations from John Herschel and W. Pickering I have mentioned in our last conversation:

“There is beyond any question some profound secret and mystery of nature concerned in the phenomenon of their tails”; “enormous sweep which it [the tail] makes round the sun in perihelion, in the manner of a straight and rigid rod, is in defiance of the law of gravitation, nay, even of the recorded laws of motion.”

J. Herschel, *Outlines of Astronomy*, p. 406

“What has puzzled astronomers since the time of Newton, is the fact that while all other bodies in the sidereal universe, as far as we are aware, obey the law of gravitation, comets' tails are clearly subject to some strong repulsive force, which drives the matter composing them away from the sun with enormously high velocities.”

— W.H. Pickering, article “Comets” in *Encyclopedia Americana*.

Cordially yours,

Immanuel Velikovsky

I cannot say differently: I became strongly attached to Einstein, as a son to a father, and I felt warmth coming in his feeling toward me. He said also that he too had almost everyone opposing him, but it is harder to tangle with them than with me—they would go into mathematics.





March 11, 1955

This evening, as one week earlier, and even more so, Einstein was of unusual concentration. We read the second half of my paper “On the Four Systems of the World.” We sat at the round low table in his study, he at my left, not in an easy chair as he was wont, light shining on the paper that we read passage after passage, stopping and discussing. We started at 8:30 and continued till after 11:15, for two and three quarter hours. This time, in order to keep Miss Dukas awake—her fatigue was usually the cause of our breaking up—I brought with me the first of the three triple-ring binders with “Stargazers and Gravediggers,” the story of the suppression of *Worlds in Collision*; I did not intend it for Einstein but for her, to have my discussion with Einstein unburdened by the usual sight of Dukas, vivid at the beginning of a session, but tired after a day of the many chores of both the household and the secretarial work, when it was close to eleven o’clock. She and my wife were regularly present at our meetings, she (Dukas) rarely leaving the room. She was usually interested in what was talked about, but not in physical problems—and on one of the previous evenings, when Einstein and I were concentrating on reading my paper, she said to my wife: “*Dies sind für mich Bömische Wälder*”—or “These to me are Bohemian forests”—impenetrable woods with no path through them, an expression of utter unfamiliarity with a subject. For an intelligent person associated with Einstein for twenty-five years this actually was a bit of insecurity that should have been overcome; it is a fact that she could carry on intelligently Einstein’s correspondence.

Now she was immersed in reading the account of my experiences. In the quiet atmosphere of the evening, with no exchange of sentences between Dukas and Elisheva, no telephone calls, no doorbell rings, Einstein and I took up passage by passage. That evening we read the third and fourth systems. The third system—the one which has the sun, planets, and satellites carrying static electrical charges, providing the mechanism of attraction, was included for the sake of completeness; the argument that if the sun attracts the earth because of the opposite signs of their charges, it would repel the moon which, in such a plan must have a charge of a sign opposite to that of the earth, but of the same sign as the sun, disposes of this system; it is an obvious argument, and it was also used by Einstein in one of his letters when he did not suspect that my own interpretation of the electromagnetic effects in the solar system was similar at least in some respects to a rather different model, which model was presented as the fourth system. According to it, the central body—the sun—carries an appreciable charge, and by rotating creates an extended electromagnetic field; charged planets move through the field—or are carried by it; those that rotate create magnetic fields and their satellites move through them; their motion is counterclockwise, or clockwise, depending at least in some cases upon the sign of the charge.

Einstein was obviously greatly interested and intrigued by the fourth model. When reading the text we encountered the issue of the decrease of the intensity of a field issuing from a dipole, as the inverse cube of the distance, which would require a greater charge for planets more remote from the sun in order that the overall effect should still follow the inverse square law, and by way of analogy I mentioned that this is the arrangement in the atom, where the electrons on external orbits carry more energy than those on internal orbits; Einstein's face immediately lighted—he was obviously struck by the analogy. This lighting of the face I observed twice that evening: it was as if a hunter suddenly perceived his game.

"And why do you need gravitation at all?" asked he, obviously fascinated by the model. But immediately he corrected himself: "Oh yes, in order to account for the phenomena on earth."

It is immaterial whether Einstein thought, as it appeared to me, that there could be truth in this system of the world; as a theoretician he was obviously fascinated by the model. It certainly appealed to him as a construction. Actually, I was presenting him with what I challenged him to produce at a meeting over a year earlier: "I gave you, Albert Einstein, a very unusual mind and, what is still rarer, the recognition and admiration of your contemporaries: Now build a working plan for another universe; only don't apply gravitation that propagates at the inverse square, but electricity and magnetism you may use as much as you need." "And why do you need gravitation?" he soon asked again, and again trapped himself—"yes, because of the terrestrial phenomena."

For the second time his face uprighted and lighted up when I mentioned that in this system the satellites, depending in part on the sign of their charge, revolve directly (counterclockwise) or retrogradely (clockwise).

His concentration that evening, the omission of counter-argument on his part, usual in our debates, and the great delight that he experienced in reading for three hours the few pages—the second half—of my paper, made us feel closer to each other than at any other meeting. And it was this that made him say at the end of that evening: "I think that it is a great error that the scientists do not read your book—there is much that is important in it"; and even more, that made him confess to me that among the scientists he had met during his lifetime he valued completely, as a human being, only one man—Lorentz of Holland, all others having shown human deficiencies. He expressed himself strongly, and it was a surprise to me that he, regarded by all as so humane and so forgiving, in his unique position which brought him recognition and admiration from everybody, should be so severe a judge of the human nature of all the scientists he knew, famous and obscure. He was standing, animated, telling me what, possibly, he had never said to any outsider; yet Miss Dukas, who was kept awake during the quiet evening by reading my "Stargazers," now by her response to Einstein's words displayed her knowledge of his attitude. Experience had taught him to regard his fellow men with suspicion and to see their moral inadequacies—it sounded almost as if he were a misanthrope, and this surprised me greatly; but I also

felt that he was taking me into his confidence as he had possibly never taken anybody of the outside world. He was certainly very good to me that evening; I felt some tie of great tenderness, and goodwill, and confidence.

"A theory," he said, "has a much greater chance for acceptance if it can predict a phenomenon" ; with these words he parted with me and then he went down the stairs to the door to press my hand again; he said also something about how he enjoyed the evening with me. In his words about a theory attaining success if it can predict a phenomenon was clearly a wish that I should be able to produce such a prediction, and there sounded a sincere desire that my theory should prove true.

I felt as if Einstein blessed me that night. "And he said, Let me go, for the day breaketh. And he said, I will not let thee go, except thou bless me." I probably did not think of these words that I had sent him several months earlier; but I felt an achievement: after all these months of debate about the participation of electromagnetic forces in the working of the universe, now for the first time I had made him understand how I envisaged the plan. The classical plan was compromised by evidence; the static electricity plan did not stand up against argument; but the other two plans—in both of which electromagnetic effects take part in varying degrees—vie for the position of the true system of the world. Now he knew that I was not contemplating a model in which electromagnetism played a static role of attraction and repulsion, but one in which it played predominantly a dynamic role. I presented my discourse in the dispassionate terms of a brief review of four contestants, and left it to reason, calculation, and experiment to make the selection.

The magnetic field of the earth, the origin of which is a mystery, would be a direct effect of a charged body in rotation; the great, almost unimaginable energies measured in billion billion electron volts with which some cosmic rays approach the earth could be explained by the magnetic field in space but especially by the charge of the earth—and in consequence, the linear acceleration experienced by these ray-particles.

I certainly left Einstein with food for thought that night.





The Last Letter

On March 14, 1955, Einstein completed his 76th year. He was adored and admired by all literate humanity as possibly no scientist before him, also admired for his human qualities, regarded as almost divine; but he was a lonesome man. Letters arrived daily at 112 Mercer Street in scores, from great men of the age and from humble ones; from politicians, scientists, and cranks. He liked to receive these letters. Einstein had experience with people who misused his replies and therefore he would keep copies of his answers, usually dictated to Miss Dukas, in the files. Only to very close people would he write by hand, and of these letters, too, Miss Dukas would occasionally then prepare typewritten copies for the records.

For his birthday letters came from all parts of the world, from royalty, academies, statesmen, scientists, the clergy, the military, artists, housewives, students and schoolchildren.

With a short note I sent him my *Ages in Chaos*, which he had not seen (it was published three years earlier) and Elisheva added that year a kiln-burnt ashtray which Margot chose for him out of several, just the littlest present, a thing hardly worth thanking for.

Many letters had Miss Dukas to write to royalty, to statesmen, and to the rest in reply to their good wishes, and she typed them. Einstein hardly wrote even a few of the acknowledgements by his own hand: it would have been an insurmountable task.

Three days after his birthday he wrote by hand one of his last letters, the last to me, or to us, since it was addressed to my wife and myself. He referred to his birthday as “unpropitious,” and how right he was. It was his last. “Soon the Devil will take me,” he once said to me; but deep down he was a religious man and in these words there was as if a confession of man’s sinful nature, in his calling Death by the name of the Devil. Although he was referring to the birthday as unpropitious, he had many plans and much work to do—the low round table in his study often had papers with calculations by his hand, and his great and protracted effort to solve the problem of the unified field theory was still evading final solution.

The following translation into English is as close as the idioms of the two languages permit. He used “corns” for toes.

17.III.55

Dear Mr. and dear Mrs Velikovsky!

At the occasion of this unpropitious birthday you have presented me once more with the fruits of an almost eruptive productivity. I look forward with pleasure to reading the historical book that does not bring into danger the toes of my guild. How it stands with the toes of the other faculty, I do not know as yet. I think of the touching prayer: “Holy St. Florian, spare my house, put fire to others!”

I have already carefully read the first volume of the memoirs to “Worlds in Collision,” and have supplied it with a few marginal notes in pencil that can be easily erased. I admire your dramatic talent and also the art and straightforwardness of Thackrey who has compelled the roaring astronomical lion to pull in a little his royal tail without showing enough respect for the truth. I would be happy if you, too, could enjoy the whole episode from its funny side.

Unimaginable letter debts and unread manuscripts that were sent in force me to be brief. Thanks to both of you and friendly wishes,

Your,

A. Einstein

This letter, for the brevity of which he asked consideration, was written four weeks before his death. By then he had read for the third time my *Worlds in Collision*, and was looking forward with anticipation to reading my historical work, *Ages in Chaos*. His saying that he would enjoy the embarrassment to which my work would probably subject the historians while his own field would be left untrampled, speaks for the difficulties he had lately experienced and for the thoughts during his waking hours in the dark of the night—his sleep was not good—provoked by our discussions in which I acted as if I were the advocate retained by two natural forces, electricity and magnetism, persistent in my calls and letters, unyielding, never retreating.





“I Would Have Written to You”

From Einstein's letter I learned that he had read my *Stargazers and Gravediggers*. Actually I had not intended to show it to him: as already said, on one of those two evenings in March when we read line by line my “On the Four Systems of the World,” and Miss Dukas was present, I gave her the first file of those memoirs to read in order to keep her awake. But Einstein read it as well; in the first file the story is brought up to the time just before my parting with Macmillan.

A year earlier, upon reading the exchange of letters between Shapley and the Macmillan Company, Einstein said that the material must be made public but that somebody with dramatic talent should be entrusted with the presentation of the story; now, upon reading the manuscript, he obviously found that I had succeeded in the task.

The first folder of the “Memoirs” was returned to me—several of its sections were supplied with marginal notes by a pencil, not a sharp pencil to boot. On the back of one of the pages with the story of Larrabee's article in *Harper's*, Einstein wrote:

Ich hätte Ihnen geschrieben: Die historische Argumente für gewaltsame Vorgänge an der Erdkruste sind recht überzeugend. Der Erklärungsversuch aber ist abenteuerlich und sollte nur als *tentativ* behandelt werden. Sonst verliert der wohlorientierte Leser auch das Vertrauen in das solid Begründete.

Translation:

I would have written to you: The historical arguments for violent events in the crust of the earth are quite convincing. The attempt to explain them is, however, adventurous and should have been offered only as *tentative*. Otherwise the well-oriented reader loses confidence also in what is solidly established by you.

If one should compare this evaluation with his own of 1946 (“*Blamage*”) or of 1950 or of 1952 or even of 1954, one must recognize how much Einstein's attitude had changed. He did not protest any more or argue against the events described, neither against the earth being disturbed in its rotation, nor against the role ascribed to Venus; even more remarkable was the fact that he no longer rejected outright the role of electromagnetism in the events and thus, in the celestial sphere in general: he would only have wished that I should not express myself with such finality. By this he made it clear that the explanation which I gave to the events was not

undiscussable—but only that I should have offered it merely as a hypothesis.

Strangely, one of Einstein's marginal notes to my chapter on Lafleur agreed with the latter's argument that the Earth is neutral because of the behavior of the leaves of an electroscope touching the ground—they do not diverge. To me it was clear that the behavior of the leaves does not give an answer to the question whether or not the Earth is charged. The Earth being charged in relation to the upper atmosphere, the lines of force would pass in near-parallel vertically and, consequently, there would be no divergence of the leaves of the electroscope. Nikola Tesla was a great inventor, perhaps the greatest electrical engineer who ever lived; he would not have asserted that the Earth is a highly charged body if such a simple test with an electroscope could solve the problem. Actually, there is a permanent stream of electrons flowing from the ground upwards: it is calculated that between the feet and the head of a standing man of medium height there is a 150 volt potential. The source of this stream of electrons, or of the source of replenishment of the permanent discharge of the Earth, is not known.

The question of whether the bodies of the solar system are charged or not was from the beginning *the* question between Einstein and myself; as he acknowledged in a marginal note to my letter of June 16, 1954, this contention of mine was the main reason for the display of indignation against myself and my work. On that page of the letter, as the reader will remember, I offered a test to find whether or not the planetary bodies are neutral. At that time, in the summer of 1954, Einstein did not undertake anything in answer to my challenge and request; my offer to stake our debate on whether Jupiter is a source of radio waves, he dismissed in his marginal note, and I could not ask for the test again—it was the time when Einstein became sick, the sickness having kept him weak through the entire fall. But when we parted close to midnight on March 11, after having spent two long sessions at a week interval reading my essay, he said those words about the ability of a theory to predict and see its prediction fulfilled.





Jove's Thunderbolts

In the spring of 1955 Providence wished that the drama should heighten itself. The old chief of all the pagans, the planet Jupiter, was destined to enter the scene and speak.

It was a spring day in early April in Princeton. This is the time of year when magnolia flower, and the Princeton campus has not a few of these trees, especially near the Firestone Library, profusely blooming. During the first week of April of that year the semi-annual meeting of the American Astronomical Society convened for three days in Princeton, in the University's Chemical Building (Frick Laboratories). I entered the auditorium during the reading of one of the papers, when the audience was already seated, and chose a place on one of the back benches, close to the entrance. I did not wish to disturb the convention by my presence because, being recognized, I would have caused some discomfort. After listening to Dr. W. Baade and possibly to one more speaker, I left as quietly as I entered—I did not return for other papers. The program of the three-day convention had one hundred and two papers presented by astronomers from all over the country, but only one—not scheduled, yet read because of the great impact it carried in the field of planetary astronomy—made news. The next day, April 6th, opening the *New York Times*, I found a page-length column on a sensational discovery reported at the meeting. The column read in parts:

Radio waves from the giant planet Jupiter have been detected by astronomers at the Carnegie Institution in Washington.

The waves appear to be short bursts of static, much like those produced by thunderstorms on conventional radio receivers . . . no radio sounds from planets in our solar system have been reported previously . . . the existence of the mysterious Jovian waves was disclosed by Dr. Bernard F. Burke and Dr. Kenneth L. Franklin in a report today at a meeting of the American Astronomical Society here . . .

The two scientists said that they did not have an explanation for the observed emission.

— Princeton, N.J., April 6

The discovery was made entirely by chance when the Carnegie Institution astronomers scanned the sky for radio noises from far-away galaxies. In the news release it was told that Burke and Franklin, who detected the radio noises of Jupiter, were entirely unprepared to observe any radio signal from the planet; later their

perplexity was more fully described: at one point they even assumed that some revellers returning from a party were the cause, trying to start the engine of their car, or that the radio noises were caused by some experiments on a neighboring radio station. But the noises were finally traced to Jupiter: in the weeks that followed, Burke and Franklin observed that the signals were arriving four minutes earlier each day and at length they realized that they must be of extraterrestrial origin. Every third night, for six minutes, when the receiving antenna was directed toward the spot crossed at these minutes by Jupiter, the signals repeated themselves. Then the astronomers of Washington came to the correct conclusion, unexpected and surprising as it was.

For me, this news had a special significance. My own earlier expectation of the noises of Jupiter was based on my view of the giant planet as the center of a powerful electromagnetic system. In ancient sources the planet Jupiter was associated with thunderbolts.

Before World War II, a discovery was made by Jansky of the Bell Laboratories that radio signals arrive from the Milky Way. During the War it was discovered by the U. S. Army Signal Corps in Belmar, New Jersey, that the sun sends out radio noises, too: it was a chance discovery made in the process of testing radar echoes from the moon. Then radio noises were found arriving from far-away galaxies and were explained as crashes between galaxies riding through one another. A new science—radioastronomy—was born.

My understanding of the nature of the sun and planets made me assume that these bodies are charged, or that at least their atmospheres are strongly ionized. Of Jupiter and Saturn it is known that they influence in some mysterious manner the solar spot activity: but nobody thought that these bodies or their atmospheres are charged.

Now, seeing my claims confirmed, I called Helen Dukas and told her that I would like to acquaint Professor Einstein with the discovery of the noises coming from Jupiter, and wished to see him, for a few minutes only—we agreed that I should come Friday, April 8th, in the afternoon. Then I called my editor at Doubleday, Walter Bradbury, and told him that I would come the next day, in the morning. Already on the phone I drew his attention to the column in the *Times*. My book, *Earth in Upheaval* was being prepared for print, together with my lecture before the Forum of October 14, 1953 as a supplement,¹ and this lecture contained my challenge that Jupiter would radiate radio signals. For several years I wished that a check should be made on Jupiter, and took this opportunity to suggest it to scientists. In my letter to Einstein of June 16, 1954 I again suggested that an investigation be performed—it was a challenge on my part to Einstein to stake the debate on this my claim and at the same time a plea to help me that the test should be performed. Einstein did not respond in that instance. In a note made on the margin of my letter he wrote that this would be no criterion. This was not well thought through. Either there must be on Jupiter a dissociation of negative and positive charges that would produce thunderstorms of unearthly magnitudes, or, more likely, the entire body of Jupiter is

charged, surrounded by an electromagnetic field, and attracts opposite charges from space, yet by continuous subatomic processes of fission in the great discharges, or by some other process, keeps its general charge undiminished.

The Forum lecture, a discussion of my theses of 1950 in the light of new discoveries in the fields of archaeology, geology, and astronomy, brought in its wake, even sooner than I dared to hope, a confirmation of a bold yet well-founded advance claim. the discovery of the Jupiter noises thrilled me as had no other confirmation before, and it was the first of a long and spectacular series.

References

1. The text was already copy-edited the summer before by Mrs. Kathryn Tebbel, a copy-editor at Doubleday, and the passage carries her pencil marks with two minor stylistic corrections. Thus Doubleday could witness that my lecture about Jupiter was in their hands long before the discovery was made.





“A Near Miss”

On April 8th I saw Walter Bradbury, the managing director of Doubleday, and my editor. He offered to write to the astronomers in Washington—though I told him not to expect anything favorable for me in their response. The same day he wrote this letter:

April 7, 1955

[read April 8, 1955]

Dr. Bernard F. Burke
Dr. Kenneth L. Franklin
Dept. of Terrestrial Magnetism
Carnegie Institution
Washington, D.C.

Dear Drs. Burke and Franklin:

We note the New York Times article of Wednesday, April 6 describing your detection of radio waves from the planet Jupiter.

In this connection I would like to bring to your attention the following passage:

“In Jupiter and its moons we have a system not unlike the solar family. The planet is cold, yet its gases are in motion. It appears probable to me that it sends out radio noises like the sun and the stars. I suggest that this be investigated.”

This passage appears in the manuscript of a book entitled *Earth in Upheaval* by Dr. Immanuel Velikovsky. This passage occurs in a supplement to Dr. Velikovsky’s manuscript which comprises an address given on the Princeton University campus, Forum of the Graduate Students in October 1953. The manuscript including this passage has been in our possession since last Spring and this particular paragraph was edited in our offices in the summer of 1954 by Mrs. Kathryn Tebbel, our copyeditor.

I understand that it was surprising for an astronomer to find these strong discharges on a planet. I would like to suggest that you might be

interested in discussing with Dr. Velikovsky the theory behind his statement in the quoted passage. In any case I would appreciate your reaction to the fact of Dr. Velikovsky's prediction of what you have subsequently discovered.

Yours sincerely,

Walter I. Bradbury
Managing Editor

The answer, signed by Bernard F. Burke and Kenneth L. Franklin, was written on April 12, 1955, and in order not to return to this issue for a while, I give already here the answer:

Mr. Walter I. Bradbury
Doubleday and Co., Inc.
575 Madison Avenue
New York 22, New York

Dear Mr. Bradbury:

Your letter of April 7, 1955, referring to our recent radio work has been received.

In his previous work Dr. Velikovsky has shown a willingness to make frequent speculations on the vaguest (and frequently incorrect) physical grounds. It is not surprising that an occasional near miss should be found in the large number of wild speculations that Dr. Velikovsky has produced, but such a coincidence could never be regarded as a true prediction.

We do not feel anything would be gained from a meeting with Dr. Velikovsky.

Sincerely,

Bernard F. Burke
Kenneth L. Franklin





The Last Meeting

After seeing Bradbury I took the train back to Princeton, and had very little time before my appointment to see Einstein. This time it had been Elisheva who asked me to do something about the fulfillment of my prognosis, and to see Einstein: this was very unusual on her part. It turned out to be my last meeting with him. Elisheva thought to remain in the car because I was dropping in for a few minutes only, but I asked her to enter with me, as at all previous occasions. She would have regretted it later if she had not been present at this meeting, the last, after having attended all our long conversations since November 1953. It was four in the afternoon when we arrived at Einstein's house.

As in all our conversations since the the previous summer, Einstein received us in his study on the second floor. As usual we found him standing in front of his chair to greet his visitors on entering the room. We sat in chairs, the low round table before us. On the table were pages with figures and calculations that Einstein was working on. He sat on my left, close by.

I could not keep to my intention of spending only a few minutes with him because he started on a different subject:

“I have carefully read your memoirs to *Worlds in Collision*, the first two files in their entirety, and most of the third file. It is very well written. But you should shorten it and omit some parts that do not sound proper. The book must be a collection of documents.”

“Give me an example of things to omit.”

“The section about scientists as priests—it is impossible to read it.”

This section, called “Nearer the Gods no Mortal May Approach,” was a biting satire on the astronomers, who have taken over the role of ancient priests in society; they were assured by Halley:

But now, behold,
Admitted to the banquets of the gods,
We contemplate the polities of heaven;
And spelling out the secrets of the earth,
Discern the changeless order of the world
And all the aeons of its history.

Of Newton, Halley said: “Nearer the gods no mortal may approach.” In this early version of the essay I finished this satire with a sentence from Charles Fort: “The astronomers explained. I don’t know what the mind of an astronomer looks like, but I think of a fizzle with excuses revolving around it.”

I accepted Einstein’s criticism without discussing it, and only asked whether he had read the section about himself, “Before the Chair of Jupiter.” He said that he had read it, and smiled approvingly; obviously he liked it.

We did not yet discuss Jupiter; I was precluded from touching the subject by his announcement:

“I have again read in *Worlds in Collision*. It is a book of immeasurable importance, and scientists should read it.” These words, to hear them—had I not come a long way? “But why do you need to change the theory of evolution and the accepted celestial mechanics?” Einstein continued—and the crest inside me started to fall. I was under the impression after our two night sessions in March that I had finally planted a seed of doubt in the accepted scheme, and I expected that this seed would grow in size, not shrink. But saying this, Einstein was again as if retreating to a system of material bodies with no electrical or magnetic interplay between them.

“I could explain everything you describe in your book on the basis of the accepted celestial mechanics of gravitation and inertia.”

“Even the circular orbit of Venus?” I asked.

“Even the circular orbit of Venus,” he answered, “though this would require a very unusual degree of coincidences.”

I admit—I was not equal to the task. Most probably the rush in the morning to New York and then back to Princeton drained me of my usual control—because at all our meetings I was very conscious of every word I said and turn I made. Here, instead of asking him to explain how would he, in theory, be able to make the orbit of Venus almost circular, I permitted myself to slip into a side track: instead of pressing him to tell me his treatment of the facts described in my book concerning celestial mechanics, I sidestepped to answer that part of his challenge that referred to Darwin. It can be understood, because there I knew more than Einstein, and I could elaborate on my opposition to the dogma of uniformity—the discourse of the concluding chapters of *Earth in Upheaval*. And, of course, I could not know that this was our last meeting.

Sometime during this visit I took out my letter to him with his marginal note concerning Jupiter, reminded him very shortly what had been discussed between us ten months earlier, and then read a few sentences from the *New York Times* of the day before about Jupiter. By now he was sitting to my right, facing me. He became obviously very much taken by what he learned, and the next question he asked was

this: “But how did you come to this conclusion?”

Should I have gone once more through all the gamut, played already more than once, and claimed the charged state of Jupiter—because if the solar system is charged, Jupiter would be the focus of much of that charge? Did not also the ancients, from one end of the world to the other, speak of Jupiter’s thunderbolts by which the “three-fold mountain masses fell”? Why did the ancients pray to this planet and sacrifice to it? Or why are Jupiter and Saturn in some way connected with the sun spot periods? By gravitation alone they could not produce such an influence.¹

Or why does the perturbation activity between Jupiter and Saturn suffer changes (between the minimum of the year 1898-1899 and the maximum of 1916-1917 there was found an 18 percent difference).²

And did I not apply the name “a dark star” to Jupiter in the Epilogue to *Worlds in Collision*? Charged and swiftly rotating, it must create an extended and rotating magnetic field in which its charged satellites move. . . Yet I hardly mentioned these things.

But he was embarrassed. Had he not told me when parting after our last meeting in March about the great importance for the acceptance of a theory that it be able to generate accurate predictions? This was on March 11th. Now, four weeks later, I brought him the message that the very probe that I offered as a crucial test between our stands came out in my favor. Now he inquired what my reasons had been. It was not easy to answer his question, because Einstein became very emphatic. He stood up. His face was glowing. He spoke loudly, in a way I had never heard him speak before. “Which experiment would you like to have performed now?” he asked, in obvious desire to mitigate his guilt, because the previous summer he had not given enough attention to my request, and he let my suggestion go without action on his part.

More than once Einstein had asked me to disregard the attitude of my opponents, to enjoy the solitary way, to take an example from him. Now he felt that he had failed me—the test was not made, whether to prove me right or wrong. He answered his own question: “I know which experiment you would like now—the Cavendish experiment in a Faraday Cage.” This was mentioned in my paper we read in March, and he remembered it—I also proposed it in my June, 1954 letter, right after proposing the Jupiter test.

“No,” I said. “I prefer you help me now to have a radiocarbon test for my historical work performed.” And I explained in a few sentences what this test is about. He was more than willing to help. “This will be done,” he spoke loudly and gesticulated, and repeated again, “This will certainly be done.” He was still standing in his excitement. He asked details of what he should do. I told him that I would like him to write to Dr. W. C. Hayes of the Metropolitan Museum of Art. He again asked me to let him know

what exactly he should request and I promised to prepare a short draft in a few days.

But soon he sat again close to me, almost touching my left arm, and listened to me, and peace descended on him; his long hair hung framing his face, his eyes were looking across the room through the picture window toward the upper branches of the big trees in the back yard, and the expanse of the sky.

“Oh, look. Please look,” he cried out and grasped my hand, “the birds are flying in big flocks.”

Hundreds of birds in a fluttering swarm flew at a distance, all in one direction, and the swarm moved in a wave-like motion down and up as they hurried by. I looked for a few moments at the flying birds, and then continued my words. But soon again Einstein, enchanted, looked at another swarm of birds returning from their winter quarters in the south, and again could not resist calling my attention to them. He followed their flight with longing, and his face shone with sweet sadness. It was already the hour of twilight, the trees stood silent outside, still leafless, the branches hardly moving in the stillness of the clear and balmy hour.

We spent over two hours together, a little less than at our other meetings, but certainly longer than the “few minutes” intended.

References

1. Fox of Vancouver, Canada, found that the influence of Mars on the solar sunspot cycle exceeds by twenty-five times the influence it would be expected to have on the basis of gravitation alone. (AAAS Convention, Feb. 25, 1974, Evening Session).
2. J. Zenneck, “Gravitation” in *Encyclop. der Mathem. Wiss.*, vol V. pt. I, p. 44.





The Last Week

When I returned home I did what I had never before felt the need to do. Thinking of that part of our conversation where Einstein announced that he could explain all the phenomena described in my book without recourse to electromagnetic interplays, and realizing that I should have stuck to this subject during our conversation, I wrote down how the dialogue went and how it should have gone.

It took me a full week to prepare the few details for Einstein so that he could write to Dr. W. C. Hayes of the Metropolitan Museum concerning the desired radiocarbon tests—but the real cause of my procrastination was my desire to answer Einstein on two points of our debate. Is it possible to measure the charge of the Earth with an electroscope? Is it feasible that the sun may be charged? One of my critics, Laurence Lafleur, of whom Einstein read in File II of *Stargazers and Gravediggers*, asserted in *Scientific Monthly* in an article directed against me that if the Earth were charged, an electroscope would show this. Surprisingly, Einstein thought, too, that an electroscope would reveal whether the terrestrial globe were charged: since the foils are not repelled from one other when an electroscope touches the ground, the globe must be neutral. In the beginning of the week, actually on Tuesday, the 12th of April, I traveled to New York and conferred with Lloyd Motz at Columbia University, on the upper floor of the Michael Puppin Building, as I had done so many times before. He agreed with me that an electroscope would not disclose a charge of the ground. I, of course, counted on the probability that the charge of the Earth as a planet is concentrated on the periphery—the charge of a conducting object is usually spread on the surface—and that either the ionosphere is charged, or that above the ionosphere there are layers of greater intensity of charge.

I invited Dr. Cunningham, a young physicist, then on the staff of the Forrestal Center near Princeton, to spend an evening with me. We discussed the same question: whether one can prove with the help of an electroscope—two golden foils at the end of a rod, inside a jar—that the Earth is neutral. Parallel streams of particles moving not only through the foils but also around and alongside them would keep the foils together; thus an electroscope would not reveal whether the ground—and hence the globe in its entirety—is neutral. Dr. Cunningham agreed with me and explained in greater detail why this is so.

Next we discussed the charge on the sun, and Dr. Cunningham maintained that the sun not only can be charged positively, but that it must be charged so, and this due to the circumstance that electrons have a much greater mobility than the protons, and thus many more electrons must have left the sun before the relatively slow-moving protons could do the same, and the protons thus left behind would be responsible for

the positive charge of the sun. Thereafter positive and negative particles would leave the sun in equal numbers, but the original surplus of positive particles would permanently keep the sun positively charged. Thus in theory the sun not only can be charged, but must be so.

I, however, considered the whole solar system as a unit and a surplus of one sign charge on the sun would be neutralized by a surplus of the other sign charge on the planets, especially the larger planets, primarily Jupiter.

During that week I went also a few times to New York to work with Mrs. Kathryn Tebbel on the manuscript of *Earth in Upheaval*, which she was in the process of copyediting. This absorbed the week. By Friday, April 15th, I had prepared the necessary explanation of what should be asked from Dr. Hayes of the Metropolitan Museum of Art, and had also put into writing my answer to the two problems Einstein and I had discussed: the measurement of the Earth's charge by an electroscope, and whether the sun carries a positive charge.

In addition I answered in some detail Einstein's question about the basis for my prediction of the radionoisies from Jupiter. Finally, I enclosed a clipping from a *New York Times* article of April 12, 1955 about magnetic stars. It read as follows:

STARS CALLED FLATTENED BY ASTRAL MAGNETISM

Chicago, April 11 (UP)—Magnetism is so strong on some stars that they are flattened and look like "flying saucers," a scientist said today.

In fact, he said, there is evidence that cosmic rays, accelerated to terrific speeds by the magnetic fields of the Milky Way, may drain off completely these energy fields in "a hundred million years or so."

The role of magnetism in the universe was described by Subrahmayan Chandrasekhar, Professor of Astrophysics at the University of Chicago. He reported on studies made by himself and the late atomic physicist, Enrico Fermi.

A few notes about our last conversation on April 8th, 1955

1. The difference in voltage—100 volts for 1 meter altitude near the ground—indicates that the Earth is charged by 450,000 coulombs, which is very little for the globe of this size. (It is calculated that the Earth must lose its charge in 8 minutes, but some unidentified mechanism replenishes the charge).

But is it correct that if there is an electric layer far above the ground, the above measurement and calculation do *not* reveal the overall charge

of the Earth, which may be large?

2. A physicist at the Forrestal Center (Dr. Cunningham) expressed to me his opinion that the Sun not only can be charged but must be charged—positively—because the electrons easier surmounted the required velocity of escape from the sun than the protons; the equilibrium (balance) in escape of positive and negative ions was established after the sun was charged positively. Is it so?

3. Enclosed is a clipping from NYTimes, April 12th, concerning an opinion expressed by Chandrasekhar of the University of Chicago on magnetic stars.

4. My Jupiter prediction. In my letter to you of June 16, 1954, on which I worked for several weeks, I included my request to help me with the performance of two tests: “Does Jupiter send radio-noises or not? This can easily be found, if you should wish.” And “It should be easy to find out the [gravitational] constant in a cage. But not easy for me. Especially since Shapley in a relentless effort made me ‘out of bounds’ for scientists.” You found the tests unnecessary because no revealing results would be discovered.

Before writing to you, I wrote in my lecture at the Forum of the Graduate College: “In Jupiter with its moons we have a system not unlike the solar family. The planet is cold, yet its gases are in motion. It appears probable to me that it sends out radio noises like the sun and the stars. I suggest that this be investigated.” A copy of my address was read by you, and another copy with that prediction is still, now over a year, in the hands of Professor Bargmann.

A few weeks ago very violent noises were discovered coming from Jupiter, to the general surprise of the discoverers and astronomers in general. Now you say that I have not given an adequate substantiation of my prediction and therefore the revealed results do not support me. Only shortly before you said that a predicted discovery carries great weight.

Knowing from the ancient literature of the behavior of Jupiter and realizing its part in the great perturbations of the early historical past, I made my prediction. From the ancient traditions of many peoples of the world, I learned about violent discharges between Jupiter and bodies that passed close by. I concluded also that the connection between Jupiter and the solar spots cannot be purely gravitational; I assumed the charged state of Jupiter; in such case Jupiter would attract to itself charges of opposite sign and cause radio noises; or, if Jupiter is neutral, charges separated in Jupiter’s atmosphere would cause strong

discharges; such discharges, if directed to passing bodies, would have been the thunderbolts of Jupiter. Phaethon that caused the conflagration of the world by turning the solar chariot from its charted path, was struck by the thunderbolt of Jupiter and was changed into the Morning Star (Hyginus). Seneca distinguished lightnings that “seek houses” or “lesser bolts” and the bolts of Jupiter “by which the threefold mass of mountains fell” (*Worlds in Coll.*, p. 272, German edition p. 288). Much more on this subject will be in my story of earlier catastrophes, Deluge, Sodom and Gomorrah. Sulphur falling from the sky was, in my opinion, the result of nuclear fusion of two atoms of oxygen, at interplanetary discharges (On brimstone and fire from heaven—Genesis 19:24 and many other sources), or at least discharges between an overcharged ionosphere and the ground. In my letter to you I have not given the extensive literature to support my claim.

Whether my ground was firm or weak, now that my prediction is fulfilled, should we follow the evangelical rule (Matthew 13:12):

“For whosoever hath, to him shall be given, and he shall have abundance: but whosoever hath not, from him shall be taken away even that which he hath.”

On Friday, April 15th, armed with these materials, I telephoned Einstein’s home. I wished to see him. Miss Dukas as usual answered the telephone. “How is Professor? I prepared . . .”

But Miss Dukas answered in a sad voice: “Oh, dear Doctor, we are awaiting the ambulance to take Professor to the hospital. In less than an hour the ambulance must arrive. Since Wednesday he has felt very strong pains. Dr. Dean says it is of gall bladder that is very hot and painful.” My heart sank.

Einstein could suffer pain without complaining. He would not have agreed to go to a hospital were there not a great need for that. Miss Dukas sounded very worried. I asked her to call me the next day, and to tell of Einstein’s state of health. The next day, Saturday, I had a worried call from Dukas. She was alarmed. Einstein awaited his son from California. But the world, the town, and even close acquaintances were kept ignorant of Einstein’s sickness and the fact that he had been hospitalized. I kept the secret too.

The day thereafter, on Sunday, Dukas called and said: “It is better, definitely better. His son arrived from California. He wished to have him here.” Einstein’s physician wished to perform surgery—as I understood for gall bladder—but the Professor refused—with humor, but firmly; he said that he did not wish to be cut. A little reassured, but not in full measure, I spoke a sentence or two of our meeting nine days earlier and repeated Einstein’s words about my book. It was an achievement of eighteen months of struggle; probably I should not have at that hour thought about

my work and about what Einstein said at our last meeting. but it was as if I wished to be near him and talk to him again; I felt gratitude to him, the great scientist who through months of sickness occupied himself with my ideas and read my manuscripts and books at a time when the scientific world with its press was cruel to me.

Sunday passed—I do not remember whether we had another call from Dukas or not. It would not have been proper to call the hospital.

The following night I slept peacefully and, if I remember right, Elisheva and I both dreamt of Einstein. At eight in the morning I went to our garden, where the forsythia were already in bloom. I met Mrs. Baker, the neighbor, who said: “Have you heard on the radio? Dr. Einstein died this night.”

In silence I moved away and said the Hebrew prayer for the dead that is supposed to be said by a son after his father’s or mother’s death, in a congregation of not less than ten men, but that after the death of my mother I would often say walking along a road on the ridge of Mt. Carmel. The last sentence of it reads: “He who established peace in the sky will bring peace to you and the entire Israel!” The words “peace in the sky” or “peace on high” have a meaning in the light of events illuminated in my *Worlds in Collision*, and I think the rabbis who composed the prayer in ancient times had those events in mind. Einstein became a paternal figure to me, and though our meetings took place only once in a while, during these eighteen months we were often in each other’s thoughts.

The morning newspapers had no word about Einstein; his sickness, his being in the hospital, were known only to a few people, besides the personnel of the hospital, and did not leak to the press; therefore when he died in the night from Sunday to Monday, the *New York Times* and other always well-informed papers appeared with nothing even remotely foreboding the death of the most famous man on earth.

I went to the hospital. On the way I met Dr. Irving Levey, the Jewish chaplain of the University, on a bicycle—already on his way back from the hospital. We hardly exchanged a few words—there was nothing to say.

The begrudging press, which learned the sad news from the radio after an announcement by the hospital, hurriedly sent their correspondents, who tried to pry something out of anybody entering. Margot Einstein was sick in bed in the same hospital and in her room the “inner circle” gathered—only five or six persons. At first I was not admitted—to the inner circle I did not belong. Dr. V. Bargmann, physicist and close collaborator of Einstein arrived simultaneously with me and went up. Leaving the building I was met in the courtyard by Mrs. Ladenburg, the widow of a physicist and a close friend of the family, and she insisted on my going with her to Margot’s room. I was too passive to resist.

In her room I saw for the first time Hans Einstein, the son, professor of agricultural engineering in California; he looked handsome and unexpectedly young. The few

who were in the room stood at the wall next to the window, but in shade. Margot, always very kind to me, stretched her hands to me from her bed. I said nothing. Dukas came close to me from the row of the standing figures with dimly lit faces along the wall and spoke to me softly and quickly, narrating how everything happened; I listened but do not know what I heard. I brushed a tear from my eye and without having said a single word left the room. In the hall again a newspaperman started to question me. I advised him to clear his story with Helen Dukas at a later time.

At the time I was in the hospital, only a few hours after Einstein's death, the autopsy was being performed; it was found that Einstein had died of a bleeding aorta, a painful process that, as I learned later, was already chronic with him. And his brain, still warm, was being taken from the opened skull by Dr. Thomas Harvey, the hospital's pathologist, a pleasant and thinking man, shy too; but how could he drill into Einstein's head and pry open his skull? I had the feeling that all was done in a hurry. It seemed to me almost as if the brain still had its molecules moving in a thinking or feeling process. Dazed, I hurried from the hospital and went home.

Einstein ordered in his will that his body should be cremated, and only his brain should be used for scientific purposes. His body was cremated not far from the city borough that very day, so that when the next day's papers printed their story, they had to tell in one single issue of his disease, death, and cremation.

I did not feel like going to the library or working at my desk. I took the family (our daughter Ruth had moved recently from California with her husband) into the car, and drove for over an hour in a great circle on country roads around Princeton, past blossoming orchards, with the sky wide open over the spring ground. At that very hour Einstein's ashes, atomized to elements, were being spread over the fields in the afternoon spring breeze. He was consumed by fire and his physical remains returned and mingled with the cosmos and became a part of it, inseparable and anonymous.

Nine days earlier we had brought close to conclusion a protracted debate. "I will not let thee go unless thou bless me." I thought of the words I once wrote to him. I thought also of the longing look with which he followed the birds flying in formation back from their winter quarters, before the dusk when we sat that last time in his study, facing the window. "Do you see the birds flying?" he asked me. But now in my memory it sounded as if he had said: "Let me go."

Gina Plungian who arrived the same day went with Helen Dukas to the study to find how everything had been left there the Friday before. On Einstein's table close to the window was *Worlds in Collision* in German, with many strips of paper between the pages, and open on some page. It was the last book that he read, actually re-read for the third time, each time differently impressed. I was also the last man with whom he discussed a scientific subject (besides a doctor friend from Switzerland, with whom, as I was told by Miss Dukas, about the time of my last visit he also discussed some scientific matter).

The subject we discussed was brought to the finale. Especially grateful I was for the two long evening sessions in March when we read line by line my short essay. Only then did he really understand my thoughts.

I never discussed with him the Theory of Relativity. But by implication it was involved in our debate and even very heavily.

Days passed. The town of Princeton was orphaned but went its normal way. I had the sensation as though I had lost my father for the second time. I could not know him as closely as some others knew him, like Miss Dukas, who was his secretary for twenty-six years. But there was some special bond forged, a kindness and an empathy—and now the link was torn and the town became empty for me. His associates took it much easier, or so it appeared to me. Several days later Margot lost her pet bird which she had taught to share with her hours of vigil and sleep and who ate from her lips, and she was grieving over the bird. Miss Dukas was lifted by the great responsibility that now fell on her, with the archive and manuscripts, and she was up to this, and soon she was even more resolute than ever.

In the daily press one could read that there was already strife over who, the Montefiore Hospital in New York, or the Princeton Hospital, should have the brain of the deceased for study. Later there was some compromise achieved. When years afterward I asked Dr. Harvey, who sliced the brain, whether he found any unusual traits, he, in his shy and modest way, admitted that no unusual traits in form, volutions, or size were observed. If anywhere or anytime there was need to show how little we know of the human soul and its housing in matter, here was the case.





The Einstein-Velikovsky Correspondence

This correspondence is discussed in Velikovsky's book [Before the Day Breaks](#)

| | |
|--|------------------------------------|
| Einstein to Velikovsky | July 8, 1946 |
| Velikovsky to Einstein | July 16, 1946 |
| Einstein to Velikovsky | January 5, 1951 |
| Velikovsky to Einstein | August 26, 1952 |
| Einstein to Velikovsky | August 27, 1952 |
| Velikovsky to Einstein | September 10, 1952 |
| Velikovsky to Einstein | January 6, 1954 |
| Velikovsky to Einstein | May 21, 1954 |
| Einstein to Velikovsky | May 22, 1954 |
| Velikovsky to Einstein | June 16, 1954 |
| Velikovsky to Einstein | September 17, 1954 |
| Velikovsky to Einstein | January 11, 1955 |
| Velikovsky to Einstein | February 2, 1955 |
| Velikovsky to Einstein | March 7, 1955 |
| Einstein to Velikovsky | March 17, 1955 |





A Technical Note

I have been asked by the compilers of the Velikovsky archive to briefly describe the present condition of Velikovsky's unpublished manuscript entitled *In the Beginning*. As Velikovsky explains, parts of this volume were already complete in the 1940s and originally formed part of *Worlds in Collision*. The present manuscript also incorporates material written for a volume entitled *The Test of Time*, which dealt with the new information on the planets coming from the space probes, and contained frequent allusions to the earlier catastrophes; this work will probably never see publication. Other material included in this manuscript comes from Velikovsky's lectures and other scattered writings. During the time that I worked for Velikovsky (1976-1978) one of my tasks was to complete the cataloguing of his library notes, mostly from the 1940s. The headings of the catalogue generally corresponded to the section headings in *Worlds in Collision* and *In the Beginning*. The completion of *In the Beginning* was a cooperative effort between Velikovsky and myself. After Velikovsky's passing, when I returned to Princeton to work on his archive, I systematically moved the parts contributed by me into the notes apparatus and this is how this material appears in the unpublished manuscript.

Jan Sammer

In this edition Jan Sammer's annotations are distinguished from Velikovsky's text by being placed in square brackets and displayed in red letters. For the reader's interest we reproduce here the title page of Velikovsky's manuscript.

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... The very first is the
1.1.1.1

In the Beginning

by

Immortal Velvety
author of World in Collision and
Age in Chaos

This volume is carries the name In the Beginning - the words with which the book of Genesis starts. This name is appropriate because it for this volume - because it describes the events of cosmic events which are narrated in the first book of the Hebrew bible; but also because in it I speak of events that precedes those which were described by me in World in Collision - and the name of the book convey to the reader that to ~~read~~ ^{read} here an earlier history of the world compared with the story which started in the middle of the second millennium before the present era of World in Collision; and though it is a second volume of that series, in some sense it is the first volume, being the earlier story.

The Editors





INTRODUCTION

This volume carries the name *In the Beginning*—the words with which the book of Genesis starts. The name seems appropriate because it describes the cosmic events which are narrated in the first book of the Hebrew Bible; but also because in it I speak of events that preceded those described by me in *Worlds in Collision*—thus the name of the book conveys to the reader the notion that here is an earlier history of the world compared with the story of *Worlds in Collision*; although it is the second volume in that series, in some sense it is the first volume, being the earlier story.

When the manuscript of *Worlds in Collision* was first offered to the publisher (Macmillan Company, New York) it contained a brief story of the Deluge and of the cataclysm that terminated the Old Kingdom in Egypt. But after one of the publisher's readers suggested that the book should concentrate on one event, we compromised in presenting in the published volume two series of cataclysms—those that took place in the fifteenth century before the present era and were caused by the near-approaches of Venus, and those that occurred in the eighth century before this era and were caused by the near-approaches of Mars. The unused material was left for elaboration in a separate work on "Saturn and the Flood" and "Jupiter of the Thunderbolt." The reception of *Worlds in Collision*, however, made me understand that I had already offered more than was palatable. And so I did not hurry with what I consider to be the heritage of our common ancestors, an inheritance of which my contemporaries in the scientific circles preferred not to partake.

Researching and writing this book, I would sit at the feet of the sages of many ancient civilizations—one day of the Egyptian learned scribes, another of the Hebrew ancient rabbis, the next of the Hindus, Chinese, or the Pythagoreans. But then, rising to my feet, I would confer with present-day scientific knowledge. At times I came to understand what perplexed the ancients, and at other times I found answers to what perplexes the moderns. This shuttle back and forth was a daily occupation for a decade or more, and it became a way to understand the phenomena: to listen to those who lived close to the events of the past, even to witnesses, and to try to understand them in the light of the theoretical and experimental knowledge of the last few centuries, in this manner confronting witnesses and experts.

I realized very soon that the ancient sages lived in a frightened state of mind, justified by the events they or their close ancestors had witnessed. The ancients' message was an anguished effort to communicate their awe engendered at seeing nature with its elements unchained. The moderns, however, denied their ancestors' wisdom, even

their integrity, because of an all-embracing fear of facing the past, even the historically documented experiences of our progenitors, as recent as four score generations ago.

I have deliberately described the catastrophes of the second and first millennia before this era before I describe the catastrophes of the previous ages. The reason is obvious: the history of catastrophes is extremely unsettling to the historians, evolutionists, geologists, astronomers, and physicists. Therefore it is preferable to start from the better known and then proceed to the less known. For the last catastrophe caused by the contact of Mars and the Earth I could establish the year, the month, and even the day; not so for the catastrophes in which Venus and the Earth participated, when only the approximate time in the space of a definite century could be established. Still, I found it advisable to narrate the story of the second millennium first: it was possible to write the story of the contacts with Venus with a fair amount of detail. But each cataclysm is not only more remote in time from us, it is also obscured by the catastrophes that followed. As we seek to penetrate ever deeper into the past, we can see the foregoing periods through the veil of the catastrophes; dimmer and dimmer is the light behind every veil, till our eye can distinguish no more behind the veil that hangs over the period when the Earth was Moonless, though already inhabited by human life. We do not know the beginning; we can only enter the theater at what may have been the third or fourth act.





The Hebrew Cosmogony

This world came into existence out of a chaos of fluid driven by a divine blast: this is the epic beginning of the Book of Genesis: “The earth was chaotic and void; and darkness was upon the face of the deep; and God’s wind moved upon the face of the fluid.” From this primeval matter, in a process of subsequent creations, was born the home of the living.

Already before the birth of our Earth, worlds were shaped and brought into existence, only to be destroyed in the course of time: “Nor is this world inhabited by man the first of things earthly created by God. He made several worlds before ours, but he destroyed them all.”⁽¹⁾ The Earth underwent re-shaping: six consecutive remouldings. Heaven and Earth were changed in every catastrophe. Six times the Earth was rebuilt—without entire extirpation of life on it, but with major catastrophes. Six ages have passed into the great beyond; this is the seventh creation, the time in which we live.

According to another tradition, several heavens were created, seven in fact. Also seven earths were created: the most removed being the seventh Erez, followed by the sixth Adamah, the fifth Arka, the fourth Harabbah, the third Yabbashah, the second Tebel and our own land called Heled, and like the others, it is separated from the foregoing by abyss, chaos, and waters.⁽²⁾

The description permits an interpretation that all the seven earths exist simultaneously; but a deeper insight will allow us to recognize that the original idea did not admit seven concurrent but separate firmaments and worlds in space, but only consecutive in time, and built one out of another: “The seven heavens form a unity, the seven kinds of earth form a unity, and the heavens and the earth together also form a unity.”⁽³⁾ The Hebrew cosmogony in its true sense is a conception of worlds built and reshaped with the purpose of bringing creation closer to perfection. The separation of one world from another by abyss and chaos evidently refers to the cataclyms that separated the ages.⁽⁴⁾

References

1. L. Ginzberg, *The Legends of the Jews*, (Philadelphia, 1925), vol. I, p. 4.
2. Ginzberg, *Legends*, I, 10f.
3. Ginzberg, *Legends*, I, 11.
- 4.

[The notion of a succession of worlds created and destroyed is common to many nations of antiquity. Vicentius Sangermano (*Cosmographia Burmana*, quoted by F. Buchanan, “On the Religion and Literature of the Burmas,” *Asiatick Researches* VI [1799], p. 174, 180) wrote: “The Universe is called by the Burmas *Logha*, which signifies successive destruction and reproduction.... The Burma writings do not conceive of one world, but of an infinite number, one constantly succeeding another; so that when one is destroyed, another of the same form and structure arises....”].





Planet Ages

The ages of the past, between the successive catastrophes, are called in many diverse sources “sun ages.” I have tried to show why this designation is meaningful.⁽¹⁾ But the ancients also maintained that the successive ages were initiated by planets: Moon, Saturn, Mercury, Jupiter, Venus, Mars. Therefore the sun-ages could also have been called planet ages.

Hesiod ascribed the Golden age to the time when the planet Saturn was ruling, and the Silver and Iron ages to the time of the planet Jupiter.⁽²⁾ The same concept is found in Vergil, who says that “before Jove’s day [i.e., in the Golden age when Saturn reigned] no tillers subdued the land—even to mark the field or divide it with bounds was unlawful.”⁽³⁾

The idea that the Earth was under the sway of different planets at different ages is also the teaching of the Pythagoreans, the Magi, Gnostic sects and other secret societies.

In numerous astrological texts the same concept is repeated, that seven millennia were dominated by seven planets, one after the other.⁽⁴⁾

The worshipers of the devil, the Syrian sect of the Yezidis, believed that seven thousand years had passed since the Deluge; at the end of every millennium one of the seven planet-gods descends on the earth, establishes a new order and new laws, and then retreats to his place.⁽⁵⁾

An identical tradition is found in the writings of Julius Africanus: the ages of the ancestors passed under the government of the planets, each in its turn.⁽⁶⁾ Also according to the Ethiopian text of the *First Book of Enoch*, the seven world-ages were each dominated by one planet.⁽⁷⁾

The gnostic sect of the Mandaean taught in its holy book *Sidra Rabba* that the history of mankind is composed of seven epochs, that these epochs were terminated by catastrophes, and that one of the planets ruled in each epoch.⁽⁸⁾

The length of the ages in the *Sidra Rabba* is made very long, but the concept is, nevertheless, common to many ancient creeds.

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2. *Works and Days*, transl. by H. Evelyn-White (Loeb Classical Library: London, 1914), lines 109-201.
3. *Georgics* I. 125, transl. by H. R. Fairclough (Loeb Classical Library: London, 1920).
4. [*“L’idée de sept périodes soumises aux sept planètes est commune a plusieurs religions.”* (Cumont, *La Fin du monde selon les mages occidentaux*,” *Revue de l’Histoire des Religions* [1931], p. 48). See also W. Bousset, “Die Himmelreise der Seele,” *Archiv für Religionswissenschaft* vol. IV (1901), pp. 240-244. Similarly writes F. Boll, *Stern Glaube und Sterndeutung*, fourth ed. by W. Gundel (Berlin, 1931), p. 158: “Die übliche chaldäische Lehre unterscheidet sieben Weltalter; jeder Planet, darunter also auch Sonne und Mond, herrscht als Chronokrator über eine Periode von tausend Jahren.”].
5. Cumont, “La Fin du monde selon les mages occidentaux,” p. 49.
6. H. Gelzer, *Sextus Julius Africanus* (Leipzig, 1898), pp. ??; see also E. Hommel in *Journal of the Society of Oriental Research* (1927), p. 183.
7. R. H. Charles transl. and ed., *The Book of Enoch, or 1 Enoch* (Oxford, 1912), LII 2-9 (pp. 102ff.); cf. Bousset, “Die Himmelreise der Seele,” p. 244.
8. *Ginza: Codex Nasareus, Liber Adami Apellatus*, M. Norberg transl. and ed., vol. III (London, 1815), pp. 69-73; K. Kessler, “Mandäer,” *Realencyclopädie für protestantische Theologie*, Herzog-Nauck, 3rd ed. (1903), vol. 12, pp. 170ff.





Sabbath

The idea of naming the days of the week in honor of the seven planets was, according to Eusebius, introduced by the Persians at the time of the war of Xerxes against Greece.⁽¹⁾ Dio Cassius, the Roman author of the fourth century, wrote that the division of the week into seven days in honor of the seven planets originated with the Egyptians, and then spread to other peoples.⁽²⁾

Even today the names of the days of the week in European languages can be traced to the names of the planets. Thus the Roman *dies Solis* (Sun), or Sunday, is *Sonntag* in German; *dies Lunae* (Moon), or Monday, is *lundi* in French and *Montag* in German; *dies Martis* (Mars), or Tuesday, is *mardi* in French and *martes* in Spanish; *dies Jovis* (Jupiter), or Thursday, is *jeudi* in French and *Donnerstag* in German;⁽³⁾ Friday is *dies Veneris* (Venus), or *vendredi* in French, while Saturday is *dies Saturnis*, the day of Saturn.⁽⁴⁾

The naming of the seven days of the week in honor of the seven planets is not only an act of reverence apportioned to these gods, but also a memorial to the seven ages that were governed by each of the seven planets in succession. This idea can be traced in the establishment of the Jewish week with its Sabbath. Although the social significance of the Sabbath as the universal day of rest for man, his servant, and the domestic animal working for him is so apparent from many passages in the Scriptures and especially from the beneficent application of a weekly day of rest by all civilized nations that took this precept from the Hebrew Bible, the cosmological meaning of the Sabbath must not remain overlooked.

In six ages the world and mankind went through the pangs of genesis or creation with its metamorphoses. It is not by mistake that the ages which were brought to their end in the catastrophes of the Deluge, of the Confusion of Languages or of the Overturning of the Plain, are described in the book of Genesis: the time of Genesis or creation was not over until the Sabbath of the Universe arrived. With the end of the world age simultaneous with the end of the Middle Kingdom and the Exodus, the Sabbath of the Universe should have begun.

The destruction of the world in the days of the Exodus closed, in the conception of the Hebrews, the age of creation. It was to signify the end of the time when the Earth and men were to be shaped and reshaped. The traditional and very old Hebrew prayer at the beginning of the Sabbath opens with these words: "The sixth day. And the heavens and the earth were established. And the Lord finished in the seventh day the entire work that He did and rested from all the work that He did."

The meaning of this passage is that in six world ages the heavens and the earth were finally established, and that now, in the seventh age, no further changes in the cosmic order should be expected. The Lord is actually implored to refrain from further reshaping the Earth.

The idea that God's day is a millennium is often met in Talmudic literature; the apostle Peter also says: "One day is with the Lord as a thousand years." ⁽⁵⁾ Thus the seven days of the week represent seven world ages; and the day of the Sabbath represents the seventh world age, which is our age. According to the rabbis of the Tractate Shabbat of the *Babylonian Talmud*, "Sabbath" is to be interpreted as *sabbatu* - cessation of the divine wrath. ⁽⁶⁾ This fits exactly our idea of the Sabbath as the age of rest when the heavens and the earth are established and are not to be disturbed again.

Many exegetes have wondered as to why the prayer of benediction to the Sabbath starts with the words: "The sixth day," expecting to find there the words "The seventh day." The words "the sixth day" are not necessarily wrong here: the meaning may be that with the expiration of the sixth age the heaven and the earth become unchangeable. But it may be that the prayer originated in pre-Exodus days when only six ages were counted. The prayer next refers to the Sabbath as "the day of rest, the memorial to the act of genesis, because this day is the beginning of the reckoning of days, memory of the Exodus from Egypt." The assembling of three different causes for the establishment of the Sabbath would appear confusing were it not for the fact that the three occurrences were simultaneous: the last act of creation, the new flow of time, the Exodus from Egypt.

Although after the beginning of the seventh age new world catastrophes disrupted the established order—in the eighth and seventh centuries before the present era—the idea of the Sabbath of the Universe was already so deeply rooted that the new world catastrophes were not counted, so as not to discredit the establishment of the Sabbath. But the return of the sun's shadow ten degrees in the days of Hezekiah and Isaiah was registered as "the seventh world wonder," ⁽⁷⁾ and thus actually the eighth world age started. The difference in the magnitude of the catastrophes caused also some nations of antiquity to count six, seven (as most nations), or eight, or nine, or even ten ages; ⁽⁸⁾ one and the same people, like the Mayas, had traditions of five and seven ages in diverse books of theirs. Also, catastrophes recurring at short intervals, as those which took place in the eighth and beginning of the seventh century before the present era, could be regarded as the closing of one age, or a few short additional ages could be conceived. Catastrophes, variable as they were in their magnitude and consequences, could have had a subjective appraisal. Even the encounter of the earth with a lesser comet, which appeared very bright, in the days when Octavian Augustus observed the mortuary activities in honor of Julius Caesar, and which dispersed its gases in the atmosphere of the Earth, was regarded by one contemporary author as the end of a world age and the beginning of a new one, although no perceptible changes in the

motion of the earth and no greater calamity than a year-long gloom were observed. ⁽⁹⁾

The Sabbath being a day of rest in the social order, its cosmic meaning in the great fear of the end of the world can be suspected also in view of the rigor with which it was observed; at the beginning of the Christian era, members of some sects among the Jews would not even move, and would remain in the place and position in which the beginning of the Sabbath found them. ⁽¹⁰⁾ Social institutions are generally not observed with such an awe and with such rigor. It was actually not the Deity, having worked during six ages and reposed in the seventh who gives example to man; it is man, by abstaining from work on the seventh day, the symbol of the seventh world age, who invites the Supreme Being to keep the established order of the heaven and earth, and not to submit them to new revolutions.

The same idea is found in the prayer of the Chinese Emperor Shun, who lived shortly after the Emperor Yahu. This prayer, declaimed by him, reads: “The sun and moon are constant; the stars and other heavenly bodies have their motions; the four seasons observe their rule.” ⁽¹¹⁾ A number of centuries thereafter, in the days of the Emperor Kwei, the order of the celestial sphere was again disrupted: “the planets went out of their courses.” ⁽¹²⁾

Also Hebrew psalmists and prophets tried to suggest to nature to abstain from revolt; but at the same time they expressed their fear of changes in the future comparable to those in the past. After more than two thousand five hundred years, one of the two original ideas of the Sabbath, its cosmic meaning, was lost to mankind, leaving the social idea conscious and triumphant the world over.

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1. *Praeparatio Evangelica* IV.
2. Dio Cassius 37. 186; cf. Aulus Gellius, *Noctes Atticae* III. 10; Petronius, *Satyricon*, 30: “lunae cursum stellarumque septem imagines.”
3. [Donnar, or Thor was the name for Jupiter among the Nordic peoples.]
4. Cf. H. Gunkel, *Schoepfung und Chaos in Urzeit und Endzeit* (1895). [The same system was in use in Babylonia and is still current in India and Tibet. See Tsepon W. D. Shakabpa, *Tibet, A Political History* (Yale University Press, 1967), p. 16: “The seven days of the week are named, as in the Western system, for the sun, moon, and the five visible planets. . . .” The people of Burma “also use a week of seven days, named after the planets.” F. Buchanan, “On the Religion and Literature of the Burmas,” *Asiatick Researches* VI (1799), p. 169.].
5. *The Second Epistle of Peter* 3:8.
6. Tractate Shabbat 13B. S. Reinach, *Cults, Myths, Religion* (1912), pp. 168ff.
7. Ginzberg, *Legends*, VI. 367.
8. See *Worlds in Collision*, Chapter 2, section “The World Ages,” and “The Sun Ages.”

9. [This comet of -44 was also observed in China. See De Cambre, *Histoire de l'astronomie chinoise* (Paris, 1817), p. 358.]
 10. Josephus, *The Jewish War*
 11. J. Legge, *The Chinese Classics* (Hong Kong, 1865), Vol. III, p. 1.
 12. *Ibid.*, p. 125.
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Deification of the Planets

The Sun and the Moon are two great luminaries, and it is easily understandable that the imagination of the peoples should be preoccupied with them and should ascribe to them mythological deeds. Yet the ancient mythologies of the Chaldeans, the Greeks, the Romans, the Hindus, the Mayans, preoccupy themselves not with the Sun or the Moon, but *prima facie* with the planets. Marduk, the great god of the Babylonians, was the planet Jupiter; so was Amon of the Egyptians, Zeus of the Greeks and Jupiter of the Romans.⁽¹⁾ It was much superior to Shamash-Helios, the Sun. Why was it revered by all peoples? Why was the planet Mars chosen to be the personification of the god of war? Why did Kronos of the Greeks, Saturn of the Romans, play a part in hundreds of myths and legends? Thoth of the Egyptians, Nebo and Nergal of the Babylonians, Mithra and Mazda of the Persians, Vishnu and Shiva of the Hindus, Huitzilopochtli and Quetzalcoatl of the Mexicans, were personifications of planets; innumerable hymns were dedicated to them and adventures and exploits ascribed to them.

“The life of our planet has its real source in the Sun,” wrote E. Renan. “All force is a transformation of the Sun. Before religion had gone so far as to proclaim that God must be placed in the absolute and the ideal, that is to say, outside of the world, one cult only was reasonable and scientific, and that was the cult of the Sun.”⁽²⁾ But the Sun was subordinate to the planets, even though they are not conspicuous, poor sources of light, and no sources of warmth.

The night sky illuminated by stars is majestic. The geometrical figures of the constellations, such as the Pleiades, Orion, or the Great Bear, rolling from the east in the evening to the west before morning, are favorite motifs in poetry, no less than the Sun and the Moon. But the discrepancy in the choice of motifs by the ancients becomes still more obvious. The constellations of the sky took only a minor and incidental part in the mythology of the ancient peoples. The *planets* were the major gods, and they rule the universe.⁽³⁾

“It is not easy to understand the idea which was the basis for the identification of the Babylonian gods with the planets,” writes an author;⁽⁴⁾ but the same process of identification of major gods with the planets can be found in the religions of the peoples in all parts of the world. The planets were not affiliated to the gods, or symbols of the gods—they *were* the gods. In prayers and liturgies they were invoked as gods. “The greater gods, even when addressed by name in prayer, were regarded as astral powers.”⁽⁵⁾ This or that planet is selected, according to the text of the prayer, from “the multitude of the stars of heaven” to receive a gift.

“The planetary gods are much the most powerful of all. Their positions in the sky, their reciprocal relations . . . have a decisive influence on all physical and moral phenomena of the world.” ⁽⁶⁾

The great majority of us moderns pay no attention to these points in the night sky, and probably not one in ten or even in a hundred is able to point to Jupiter or Mars in the firmament. The planets change their places, but not conspicuously. Were they indebted for their deification to this slow movement, by which they differ from the fixed stars? Did Zeus-Jupiter-Marduk-Amon become the supreme deity, the thunderer and dreadful lord of the universe, only because of his slow movement—he passes in twelve years the circle of the zodiac, traversed by the Sun in twenty-four hours, and by the Moon even quicker? When seen with the naked eye the planet Jupiter distinguishes itself from the fixed stars of first magnitude only by this slow change of position.

Augustine, confused by the problem of the deification of the planets, wrote in the fourth century:

But possibly these stars which have been called by their names are these gods. They call a certain star Mercury, and likewise a certain other star Mars. But among those stars which are called by the name of gods, is that one which they call Jupiter, and yet with them Jupiter is the world. There also is that one they call Saturn, and yet they give him no small property beside, namely all seeds. ⁽⁷⁾

Mercury, the closest to the Sun, is barely visible, being hidden in the Sun's rays. But the ancients made the planet Mercury into a great god—Hermes or Nebo. Why was it feared and worshiped? What is there generally in the planets to inspire awe, so as to influence people to build temples for them, to sing liturgies, to bring sacrifices, to narrate legends, and to dedicate to them the domain of science, of war, of agriculture?

The ancients were sufficiently enlightened to know that the planets are large rocks like the Earth that circle on orbits. ⁽⁸⁾ And this makes the modern scholars wonder: knowing that the planets are rocks, why did the ancients believe that they are gods? ⁽⁹⁾

The key to this problem, which is the major problem of all classical mythology, is already in our hands. The planet Venus was deified because of its dramatic appearance and because of the havoc it brought to the world, as described in *Worlds in Collision*. I illuminated also the events which made Mars a feared god. Divine qualities were ascribed to the other planets because of the catastrophes they wrought in earlier ages.

In the Persian holy books it is said that “on the planets depends the existence or non-

existence of the world—wherefore are they especially to be venerated.” ⁽¹⁰⁾ “The seven planets rule the universe,” says a Nabatean inscription. ⁽¹¹⁾ The Greeks and Romans believed that “everything is, in fact, subject to the changes brought about by the revolutions of the stars.” ⁽¹²⁾

“The celestial orbs by their combined movements are the authors of all that was, and is, and is to come.” According to ancient Hebrew traditions, “there are seven archangels, each of whom is associated with a planet.” ⁽¹³⁾ “The seven archangels were believed to play an important part in the universal order through their associations with the planets. . . .” ⁽¹⁴⁾

The reason for the deification of the planets lay in the fact that the planets only a short time ago were not faultlessly circling celestial bodies, nor were they harmless. This is also expressed in a Mandaeen text: “How cruel are the planets that stay there and conspire evil in their rage . . . the planets conspire in rage against us.” ⁽¹⁵⁾

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3. [For ancient planetary worship among the **Babylonians**, see Bartel L. van der Waerden, *Science Awakening*, Vol. II (Leyden, 1974), p. 59; among the **Egyptians**, see H. Brugsch, *Astronomische und astrologische Inschriften altaegyptischer Denkmäler* (Leipzig, 1883); E. Naville, “La Destruction des hommes par les dieux,” *Transactions of the Society for Biblical Archaeology* IV (1875), pp. 1-18; O. Neugebauer and R. Parker, *Egyptian Astronomical Texts* (London, 1969); among the **Hebrews**, see M. Seligsohn, “Star Worship” in *The Jewish Encyclopaedia* (New York, 1905); cf. L. Ginzberg, *The Legends of the Jews* (Philadelphia, 1925), vol. III, p. 371; vol. VI, pp. 66f.; among the **Persians**, see *The Dabistan*, transl. by D. Shea and A. Troyer (Washington, 1901); among the **Finns**, see J. M. Crawford’s preface to *The Kalevala*, (Cincinnati, 1904), p. xiv.].
4. P. Jensen, *Die Kosmologie der Babylonier* (Strassburg, 1890), p. 134.
5. L. W. King, *Babylonian Magic and Sorcery*, (London, 1896), Section V.; cf. Plutarch, *De Iside et Osiride*, 48.
6. F. Cumont, *Astrology and Religion among the Greeks and Romans*, (1912), p. 120; cf. idem, “Le mysticisme astral,” *Bull. Acad. de Belgique* (1909); also idem, “Les noms des planetes et l’astrolatrie chez les Grecs,” *Antiquite Classique* IV (1935), pp. 6ff.
7. *The City of God*, transl. by M. Dods (1907), Book VII, ch. 15.
8. This was the teaching of Anaxagoras as reported by Diogenes Laertius, *Lives of the Famous Philosophers*, II. 8.
9. E. Pfeiffer, *Gestirne und Wetter im griechischen Volksglauben* (Leipzig,

- 1914), pp. 24f. [The deification of the planets is advocated in the Platonic *Epinomis* 471; cf. also Cicero, *De Natura Deorum* II. 21. 54-55.]
10. *Yasnav* I. 307. See J. Scheftelowitz, *Die Zeit als Schicksalgottheit in der indischen und iranischen Religion* (Stuttgart, 1929), p. 2.
 11. D. Chwolson, *Die Ssabier und der Ssabismus* (St. Petersburg, 1856), vol. II, pp. 604f.
 12. Cumont, *Astrology and Religion among the Greeks and Romans*, pp. 113-114; [cf. M. P. Nilsson, "The Origin of Belief among the Greeks in the Divinity of the Heavenly Bodies," *Harvard Tr. Rel.* 33 (1940), pp. 1ff. and idem, "Symbolisme astronomique et mystique dans certains cultes publics grecs," *Homages Bidez-Cumont* (1949), pp. 217ff. Cf. also P. Boyance, "La religion astrale de Platon a Ciceron," *Revue des Etudes Grecques* LXV (1952), pp. 312-350.]
 13. J. Trachtenberg, *Jewish Magic and Superstition* (New York, 1939), p. 98.
 14. *Ibid.*, p. 250.
 15. M. Lidzbarski, "Ein mandaeischer Amulett," *Florilegium*, pp. 350f.





Uranus

The seven planets of the ancients comprised the Sun, the Moon, Mercury, Venus, Mars, Jupiter, and Saturn. However, the ancients' religions and mythology speak for their knowledge of Uranus; the dynasty of gods had Uranus followed by Saturn, and the latter by Jupiter. In the clear sky of Babylonia the planet Uranus could have been observed by an unaided eye; but since it was known as a deposed deity, it would seem that at some later time the planet lost much of its brightness. ⁽¹⁾

It is quite possible that the planet Uranus is the very planet known by this name to the ancients. The age of Uranus preceded the age of Saturn; it came to an end with the “removal” of Uranus by Saturn. Saturn is said to have emasculated his father Uranus. ⁽²⁾

Behind this story there might have been a scene in the sky. In one theory of the origin of the solar system a sideswiping star tears out from the sun a long filament of gaseous material. Similarly Saturn may at one time have “emasculated” Uranus—Saturn was represented by the Romans with a sickle in his hands.

Circumcision may have originated as an emulation of the acts displayed in the sky—when it appeared that Saturn with a sickle emasculated Uranus, the Egyptians, and so also the Hebrews, introduced circumcision, the removal of the foreskin being *pars per toto*, or instead of castration. ⁽³⁾

It is not unthinkable that sometime before the age the record of ancient civilizations reaches, Uranus, together with Neptune, Saturn and Jupiter, formed a quadruple system that was captured by the sun and from which the planets of the solar system had their origin—but here nothing but imagination takes over where tradition based on witnessing does not reach.

[According to Hesiod, the catastrophe described as the removal of Uranus by Saturn gave birth to Aphrodite. In *Worlds in Collision* Aphrodite was identified with the Moon.] ⁽⁴⁾

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1. Uranus was discovered in 1781 by William Herschel. Its planetary character was not immediately apparent to him—Herschel actually announced the discovery of a comet.

2. Hesiod, *Theogony* 133-187; cf. lines 616-623. [Cf. also the Hittite myth of “Kingship in Heaven” in J. Pritchard ed., *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 1950), pp. 120-121.] The similar story of Jupiter emasculating his father Saturn [Apollonius Rhodius, *Argonautica* IV. 984 with scholium; scholium to Lycophron’s *Cassandra* 76; Proclus, *In Timaeo*, transl. by A. J. Festugière, (Paris, 1967), Vol. III, p. 255] may be “transfer” or borrowing, but may be a reflection in mythology of similar events.
3. Circumcision has a hygienic value; it could have been found out and sanctified by the astral events. Having been “commanded” in the days of the patriarch Abraham (Genesis 17:10ff.) it may reflect the latter event, i.e., Jupiter’s emasculation of Saturn. Cf. Sanchuniathon’s *Phoenician History* in Eusebius, *Praeparatio Evangelica* I. ix: “Cronos was circumcis’d in his privities and forced his followers to do the same” (transl. by R. Cumberland [London, 1720], p. 38).
4. [Velikovsky’s identification of Aphrodite with the Moon has been disputed by several writers; but in the fourth century A.D. Macrobius was able to refer to ancient authorities who affirmed that Aphrodite was the Moon. *Saturnalia* VIII. 1-3.].





The Earth Without the Moon

The period when the Earth was Moonless is probably the most remote recollection of mankind. Democritus and Anaxagoras taught that there was a time when the Earth was without the Moon.⁽¹⁾ Aristotle wrote that Arcadia in Greece, before being inhabited by the Hellenes, had a population of Pelasgians, and that these aborigines occupied the land already before there was a moon in the sky above the Earth; for this reason they were called Proselenes.⁽²⁾

Apollonius of Rhodes mentioned the time “when not all the orbs were yet in the heavens, before the Danai and Deukalion races came into existence, and only the Arcadians lived, of whom it is said that they dwelt on mountains and fed on acorns, before there was a moon.”⁽³⁾

Plutarch wrote in *The Roman Questions*: “There were Arcadians of Evander’s following, the so-called pre-Lunar people.”⁽⁴⁾ Similarly wrote Ovid: “The Arcadians are said to have possessed their land before the birth of Jove, and the folk is older than the Moon.”⁽⁵⁾ Hippolytus refers to a legend that “Arcadia brought forth Pelasgus, of greater antiquity than the moon.”⁽⁶⁾ Lucian in his *Astrology* says that “the Arcadians affirm in their folly that they are older than the moon.”⁽⁷⁾

Censorinus also alludes to the time in the past when there was no moon in the sky.⁽⁸⁾

Some allusions to the time before there was a Moon may be found also in the Scriptures. In Job 25:5 the grandeur of the Lord who “Makes peace in the heights” is praised and the time is mentioned “before [there was] a moon and it did not shine.” Also in Psalm 72:5 it is said: “Thou wast feared since [the time of] the sun and before [the time of] the moon, a generation of generations.” A “generation of generations” means a very long time. Of course, it is of no use to counter this psalm with the myth of the first chapter of Genesis, a tale brought down from exotic and later sources.

The memory of a world without a moon lives in oral tradition among the Indians. The Indians of the Bogota highlands in the eastern Cordilleras of Colombia relate some of their tribal reminiscences to the time before there was a moon. “In the earliest times, when the moon was not yet in the heavens,” say the tribesmen of Chibchas.⁽⁹⁾

There are currently three theories of the origin of the moon:

1) The Moon originated at the same time as the Earth, being formed substantially from the same material, aggregating and solidifying.

2) The Moon was formed not in the vicinity of the Earth, but in a different part of the solar system, and was later captured by the Earth.

3) The Moon was originally a portion of the terrestrial crust and was torn out, leaving behind the bed of the Pacific.

All three theories claim the presence of the Moon on an orbit around the Earth for billions of years. Mythology may supply each of these views with some support (Genesis I for the first view; the birth of Aphrodite from the sea for the third view; Aphrodite's origin in the disruption of Uranus, and also the violence of Sin—the Babylonian Moon—seems to support the second view).

Since mankind on both sides of the Atlantic preserved the memory of a time when the Earth was without the Moon, the first hypothesis, namely, of the Moon originating simultaneously with the Earth and in its vicinity, is to be excluded, leaving the other two hypotheses to compete between themselves.

We have seen that the traditions of diverse peoples offer corroborative testimony to the effect that in a very early age, but still in the memory of mankind, no moon accompanied the Earth.⁽¹⁰⁾ Since human beings already peopled the Earth, it is improbable that the Moon sprang from it: there must have existed a solid lithosphere, not a liquid earth. Thus while I do not claim to know the origin of the Moon, I find it more probable that the Moon was captured by the Earth. Such an event would have occurred as a catastrophe.⁽¹¹⁾ If the Moon's formation took place away from the Earth,⁽¹²⁾ its composition may be quite different.

There is no evidence to suggest whether the Moon was a planet, a satellite of another planet, or a comet at the time of its capture by the Earth. Whatever atmosphere it may have had⁽¹³⁾ was pulled away by the Earth, by other contacting bodies, or dissipated in some other way.

Since the time the Moon began to accompany the Earth, it underwent the influence of contacts with comets and planets that passed near the Earth in subsequent ages. The mass of the Moon being less than that of the Earth, the Moon must have suffered greater disturbances in cosmic contacts. During these contacts the Moon was not carried away: this is due to the fact that no body more powerful than the Earth came sufficiently close to the Moon to take it away from the Earth for good; but in the contacts that took place the Moon was removed repeatedly from one orbit to another.

The variations in the position of the Moon can be read in the variations in the length of the month. The length of the month repeatedly changed in subsequent catastrophic

events—and for this there exists a large amount of supporting evidence. In these later occurrences the Moon played a passive role, and Zeus in the *Iliad* advised it (Aphrodite) to stay out of the battle in which Athene and Ares (Venus and Mars) were the main contestants.

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2. Aristotle, fr. 591 (ed. V. Rose [Teubner:Tuebingen, 1886]). Cf. Pauly's *Realencyclopaedie der classischen Altertumswissenschaft*, article "Mond" ; H. Roscher, *Lexicon d. griech. und roemisch. Mythologie*, article "Proselenes."
3. *Argonautica* IV.264.
4. Plutarch, *Moralia*, transl. by F. C. Babbit, sect. 76.
5. *Fasti*, transl. by Sir J. Frazer, II. 290.
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8. *Liber de die natali* 19; also scholium on Aristophanes' *Clouds*, line 398.
9. A. von Humboldt, *Vues des Cordillères* (1816), English transl.: *Researches Concerning the Institutions and Monuments of the Ancient Inhabitants of America*, (1814), vol. I, p. 87; cf. H. Fischer, *In mondener Welt* (1930), p. 145.
10. [In addition to the sources cited above, cf. *The Nihongi Chronicles of Japan* (I. ii, in *Transactions and Proceedings of the Japanese Society*, vol. I [1896]) which recount how "Heaven and Earth . . . produced the Moon-god." The *Kalevala* of the Finns recalls a time "when the Moon was placed in orbit." (Rune III.35)]
11. [Cf. the effects of such an event on the Earth's rotation calculated by H. Gerstenkorn in *Zeitschrift fuer Astrophysik*, 36 (1955), p. 245; cf. idem, in *Mantles of the Earth and the Terrestrial Planets*, S. K. Runcorn ed., (New York, 1967); also idem in *Icarus* 9 (1968), p. 394.]
12. [Cf. H. Alfvén and G. Arrhenius, "Two Alternatives for the History of the Moon," *Science* 165 (1969), 11ff.; S. F. Singer and L. W. Banderman, "Where was the Moon Formed?" *Science* 170 (1970), 438-439: ". . . The moon was formed independently of the earth and later captured, presumably by a three-body interaction, and these events were followed by the dissipation of the excess energy through tidal friction in a close encounter." More recently, a study of lunar paleotides has shown that "the Moon could not have been formed in orbit around the Earth" (A. J. Anderson, "Lunar Paleotides and the Origin of the Earth-Moon System," *The Moon and the Planets*, 19 [1978], 409-417). Because of a certain degree of instability in the Sun-Earth-Moon system, "the planetary origin and capture of the Moon by the Earth becomes a strong dynamic possibility." (V. Szebehely and R. McKenzie, "Stability of the Sun-Earth-Moon System," *The Astronomical Journal* 82 (1977), 303ff.)]
13. [Cf. Yu. B. Chernyak, "On Recent Lunar Atmosphere," *Nature*, 273 (15 June, 1978), pp. 497ff. The author found "strong theoretical evidence of a considerable atmosphere on the Moon during the greater part of its history."]





A Brighter Moon

Many traditions persist that at some time in the past the Moon was much brighter than it is now, and larger in appearance than the Sun. In many rabbinical sources it is stated that the Sun and the Moon were equally bright at first.⁽¹⁾ The same statement was made to de Sahagun by the aborigines of the New World: “the Sun and the moon had equal light in the past.”⁽²⁾ At the other end of the world the Japanese asserted the same: the Nihongi Chronicle says that in the past “the radiance of the moon was next to that of the sun in splendor.”⁽³⁾

Traditions of many peoples maintain that the Moon lost a large part of its light and became much dimmer than it had been in earlier ages.⁽⁴⁾

In order that the Sun and the Moon should give off comparable light, the Moon must have had an atmosphere with a high albedo (refracting power)⁽⁵⁾ or it must have been much closer to the earth. In the latter case the Moon would have appeared larger than the Sun. In fact, the Babylonian astronomers computed the visible diameter of the Sun as only two-thirds of the visible diameter of the Moon, which makes a relation of four to nine for the illuminating surfaces. This measure surprised modern scholars, who are aware of the exactness of the measurements made by the Babylonian astronomers and who reason that during the eclipses one can easily observe the approximate equality of the visible disks.⁽⁶⁾

References

1. Targum Yerushalmi, Genesis 1:16 and Numbers 28:15; Hullin 60b; Midrash Breishith Rabba. Other sources in Ginzberg, *Legends* V. 34ff.
2. [B. de Sahagun, *Historia general de las cosas de la Nueva Espana* [Cf. the Peruvian tradition recorded by Pedro Sarmiento de Gamboa in the sixteenth century, according to which Viracocha created the Moon brighter than the Sun: *Historia de los Incas*, ch. 7.]
3. Nihongi, *Chronicles of Japan from the Earliest Times*, transl. by W. G. Aston (1896), Book I, pt. 1.
4. Cf. S. Thompson, *Motif-index of Folk Literature* (1932); cf. Ginzberg, *Legends* VI. 35; *Handbook of South American Indians* (American Bureau of Ethnology [Washington, 1948], Vol. II, p. 515).
5. See above, section “The Earth Without the Moon,” n. 13.
6. E. F. Weidner, *Beitraege zur Assyriologie* VII, Heft 4 (1911), p. 99; cf. idem, *Handbuch der Babylonischer Astronomie* (1915), p. 131. Cf. “Gewichte” by





The Worship of the Moon

Because of its size and also because of the events which accompanied the first appearance of the Moon, many ancient peoples regarded the Moon as the chief of the two luminaries. “The sun was of smaller importance than the moon in the eyes of the Babylonian astrologers.” ⁽¹⁾

The Assyrians and the Chaldeans referred to the time of the Moon-god as the oldest period in the memory of the people: before other planetary gods came to dominate the world ages, the Moon was the supreme deity. Such references are found in the inscriptions of Sargon II (ca. -720) ⁽²⁾ and Nabonidus (ca. -550). ⁽³⁾ The Babylonian Sin—the Moon—was a very ancient deity: Mount Sinai owes its name to Sin.

The Moon, appearing as a body larger than the Sun, was endowed by the imagination of the peoples with a masculine role, while the Sun was assigned a feminine role. Many languages reserved a masculine name for the Moon. ⁽⁴⁾ It was probably when the Moon was removed to a greater distance from the earth and became smaller to observers on the earth, that another name, usually feminine, came to designate the Moon in most languages. ⁽⁵⁾

References

1. C. Bezold in Boll, *Stern Glaube und Sterndeutung*, p. 4. [In Babylonian cosmology the Moon-god Sin (Nanna) was considered to be the father of the Sun-god Shamash (Utu) and was commonly addressed as “father Sin” (S. Langdon, *Sumerian and Babylonian Psalms* [1909], p. 193. F. Cumont noted the prominence of Sin in the earliest historical period in Babylonia and found it “remarkable that at first the primacy was assigned to the Moon.” (*Astrology and Religion among the Greeks and Romans*, p. 124; cf. Lewy, “The Late Assyro-Babylonian Cult of the Moon”). According to the Dabistan (ch. 29), a Persian work of early Islamic times, the Ka’abah of Mecca was originally dedicated to the worship of the Moon. On Moon worship among the ancient Arabs, cf. also Tuch, “Sinaitische Inschriften,” *Zeitschrift des Deutschen Morgenlaendischen Gesellschaft* III (1849), p. 202, and Osiander, “Vorislamische Religion der Araber,” *ibid.*, VII (1853), p. 483. Cf. I. Goldziger, *Mythology among the Hebrews and its Historical Development* (1877), p. 72ff. The Greeks regarded the Moon as of greater importance than the Sun: “The sun’s subordination to the moon . . . is a remarkable feature of early Greek myth. Helios was not even an Olympian, but a mere Titan’s [Hyperion’s] son.” (R. Graves, *The Greek Myths* [London, 1955] vol. I, sec.

- 42.1). Christoval de Molina (*An Account of the Fables and Rites of the Yncas*, transl. by C. R. Markham [London, 1873], p. 56) described sacrifices to the Moon by the natives of Peru in the sixteenth century. Also the Indians of Vancouver Island assigned greater importance to the Moon than to the Sun (E. B. Tylor, *Primitive Culture* [New York, 1929], p. 299), as did several tribes in Brazil (*ibid.*, loc. cit.).
2. See Sargon II's "Display Inscription," lines 110 and 146: "since the distant days of the age of Nannaru." Cf. H. Winckler, *Himmels und Weltenbild der Babylonier* (Leipzig, 1901), p. 31: "Die aeltere Zeit bezeichnet Sargon II als die Zeit der Nannar—eine Erscheinungsform des Mondgottes." [A cuneiform text describes the first appearance of the Moon: "When the gods . . . fixed the crescent of the moon, to cause the new moon to shine forth, to create the month. . . . The new moon, which was created in heaven with majesty, in the midst of heaven arose." R. W. Rogers, *Cuneiform Parallels to the Old Testament* (New York, 1912), p. 46.].
 3. D. D. Luckenbill, *Ancient Records of Assyria* (1926-27), II. 870; cf. J. Lewy, "The Late Assyro-Babylonian Cult of the Moon and its Culmination in the Time of Nabonidus," *Hebrew Union College Annual* (19xx), pp. 443, 461ff., 486.
 4. *Yoreach* in Hebrew, *Sin* in Assyrian, *der Mond* in German, *Mesiatz* in Russian, and so on.
 5. *Levana* in Hebrew, *Luna* in Latin and several of the Romance languages, as well as Russian, and so on. [Macrobius (*Saturnalia* VIII. 3) quotes Philochorus as having said that "men offer sacrifices to the moon dressed as women and women dressed as men, because the moon is thought to be both male and female." (Transl. by P. Davies)].





The Pre-Adamite Age

An ancient tradition ascribed the establishment of Moon worship to Adam, the first man. The medieval Arab scholar Abubacer wrote:

They [the Sabaeans] say that Adam was born from male and female, just like the rest of mankind, but they honored him greatly, and said that he had come from the Moon, that he was the prophet and apostle of the Moon, and that he had exhorted the nations that they should serve the Moon. . . . They also related about Adam that when he had left the Moon and proceeded from the area of India towards Babylonia, that he brought many wonders with him.⁽¹⁾

The Adamites, the ante-diluvial men, were most probably not the first human beings on the planet. Even admitting that by “expulsion from the Garden of Eden” is allegorized a catastrophe which quite destroyed mankind prior to the Deluge, it is impossible to declare that it was the first catastrophe. It depends on the memory of the peoples which catastrophe they consider as the act of creation. Human beings, rising from some catastrophe, bereft of memory of what had happened, regarded themselves as created from the dust of the earth. All knowledge about the ancestors, who they were and in what interstellar space they lived, was wiped away from the memory of the few survivors. The talmudic-rabbinical tradition believes that before Adam was created, the world was more than once inhabited and more than once destroyed.

It was at the end of the first age, symbolized by the expulsion of man from the blessed Garden of Eden, that the moon lost its brightness.⁽²⁾ It was not just a single human pair—the tradition ascribes to Adam the invention of seventy languages.

Hebrew mythology assigns to the period preceding Adam’s expulsion different geophysical and biological conditions. The sun shone permanently on the Earth, and the Garden of Eden, placed in the East, was, it must be conceived, under perpetual rays of the Dawn. The earth was not watered by rain, but mist ascending from the ground condensed as dew upon the leaves. “The plants looked only to the earth for nourishment.” Man was of exceedingly great stature: “The dimensions of man’s body were gigantic.” His appearance was unlike that of later men: “His body was overlaid with a horny skin.” But a day came and the celestial illumination ceased: “The sun . . . had grown dark the instant Adam became guilty of disobedience.”⁽³⁾ The flames of the ever-turning sword terrified Adam (Genesis 3:24). In another legend it is told that the celestial light shone a little in the darkness. And then “the celestial

light ceased, to the consternation of Adam.” The illumination of the first period never returned. The sky that man was used to see never appeared before him again: “The firmament is not the same as the heavens of the first day.” The “day” of Genesis, as I have already noted, is said to be equal to a thousand years.

It was after the fall of man, according to Hebrew tradition, that the sun set for the first time: “The first time Adam witnessed the sinking of the sun, he was seized with anxious fears. All the night he spent in tears. When day began to dawn, he understood that what he had deplored was but the course of nature.” It was also then that the seasons began. This is told in the following story: “Adam noticed that the days were growing shorter and feared lest the world be darkened . . . but after the winter solstice he saw that the days grew longer again.”

The earth also underwent changes: “Independent before, she was hereafter to wait to be watered by the rain from above.” ⁽⁴⁾ The variety of species diminished. Man, according to Hebrew legends, decreased in size; there was a “vast difference between his later and his former state—between his supernatural size then, and his shrunken size now.” ⁽⁵⁾ He also lost his horny skin. The whole of nature altered its ways.

References

1. Quoted in Athanasius Kircher, *Turris Babel sive Archonotologia* (Amsterdam, 1679), p. 134.
2. “The very angels and the celestial beings were grieved by the transgression of Adam. The moon alone laughed wherefore God . . . obscured her light.” Ginzberg, *Legends*, I, 80.
3. Ginzberg, *Legends*, I, 79.
4. Ginzberg, *Legends*, I, 79.
5. Ginzberg, *Legends* I, 76.





Giants

The traditions of peoples all over the world are quite unanimous in asserting that an earlier time a race of giants lived on the earth, that most of the race were destroyed in great catastrophes; that they were of cruel nature and were furiously fighting among themselves; that the last of them were exterminated when after a cataclysm a migration of peoples brought the forebears of the peoples of today to their new homelands.

The Japanese narrate that when their forefathers after a great catastrophe about two and a half or three thousand years ago, came from the continent and invaded the isles, they found there long-legged, furry giants. These giants were called Ainu. The forefathers of the Japanese were defeated in the first encounter, but in the second encounter they were victorious.

Ixtlilxochitl described the wandering of peoples of the western hemisphere in the four ages of the world. The first age came to its end in the Flood. In the second age, called “the sun of the earthquake,” there lived the generation of the giants, which was destroyed in the cataclysm that terminated this age. The third period was “the sun of the wind,” called so because at the end of this period terrible hurricanes annihilated everything. The new inhabitants of the new world were Ulme and Xicalauca who came from the east to find a foothold at Potouchan: here they met a number of giants, the last survivors of the second catastrophe. The fourth age was called “the fire sun,” because of the great fire that put an end to this epoch. At that time the Toltecs arrived in the land of Anahuac, put to flight by the catastrophe: they wandered for 104 years before they settled in their new home.

Also F. L. Gomara in his *Conquista de Mexico*, in the chapter about “cinco soles que son edades,” wrote:

The second sun perished when the sky fell upon the earth; the collapse killed all the people and every living thing; and they say that giants lived in those days, and that to them belong the bones that our Spaniards have found while digging mines and tombs. From their measure and proportion it seems that those men were twenty hands tall—a very great stature, but quite certain. ⁽¹⁾

The Hebrew scriptures as preserved in the Old Testament and in the Talmud and Midrashim, narrate that among the races of the world in a previous age were races of

giants, “men of great size and tremendous strength and ferocity,” who were destroying other races, but also were turning upon each other and destroying themselves.

The Book of Genesis (6: 4) narrates that in the antediluvian time “there were giants in the earth in those days.” The Greek Book of Baruch narrates that over four hundred thousand of the race of giants were destroyed by the Flood. After the Flood there were only a few districts where some of them remained alive.

When after a number of centuries another catastrophe ruined the world and the Israelites left Egypt and sent a few men to explore Palestine, those reported that the people of the land were generally of tall stature, and that besides “there we saw the giants, the sons of Anak, which came of the giants, and we were in our own sight as grasshoppers, and so were we in their sight.”

This description clearly differentiates between the people of a tall stature and the giants, and the supposition that the Israelites found in Palestine a normal race only taller than themselves, and thought them to be giants, is not supported by the text.

A similar distinction is made in Deuteronomy (1: 28): “The people is greater and taller than we . . . and moreover we have seen the sons of the Anakim [giants] there.” they—a few families—lived in Hebron (Numbers 13: 22).

At the time when the Israelites approached the fields of Bashan in the Transjordan, “only Og king of Bashan” remained of the remnant of the giants (Joshua 13:12 and Deut. 3:11). The other individuals of monstrous size had been annihilated in the meantime. “Behold, his bedstead was a bedstead of iron; is it not in Rabbath of the children of Ammon? nine cubits is the length thereof, and four cubits the breadth of it, after the cubit of a man.” The text implies that at the time the book of Deuteronomy was written the bedstead of Og was still in existence and was a wonder for the onlookers.

The giants were the remnant of a race close to extinction. Og was “of the remnant of the giants that dwelt in Ashtaroth and Edrel” (Joshua 12: 4). They were also called Emim, or the furious ones. “The Emim dwelt therein [in Moab of the Transjordan] in times past, a people great and many, and tall as the Anakim, which also were accounted giants, as the Anakim; but Moab calls them Emim” (). This branch of the giants was already extinct; but two cosmic ages earlier, in the days of Amraphel, king of Shinar, and Abraham the Patriarch, Eimim flourished in the Transjordan (Genesis 14: 5).

References

1. *Historia de la conquista de Mexico*, (Mexico City, 1943), Vol. II, p. 261.





Nefilim

The present state of the Moon and of Mars and other celestial bodies does not imply that in the past they were equally desolate. Concerning Mars and Moon we have the testimony of our ancestors, supported by modern observations, that these bodies were engaged in near-collisions only a few thousand years ago. It is not excluded that under conditions prevailing on their surfaces prior to these events, life could have developed there or elsewhere in the solar system to an advanced stage.

Working in the early 1940's on *Worlds in Collision*, which in its original form covered also the cataclysmic events preceding the Exodus, I wondered at a certain description that sounded like a visit from space.⁽¹⁾

The sixth chapter of the book of Genesis starts this way:

And it came to pass, when men began to multiply on the face of the earth, and daughters were born unto them, that the sons of God [*bnei Elim*] saw the daughters of men that they were fair; and they took them wives of all which they chose.⁽²⁾

The story told in Genesis VI about the sons of God (*bnei Elim*) coming to the daughters of men is usually explained as referring to an advanced priesthood that mingled with backward tribesmen.⁽³⁾ When Columbus discovered America, the natives, according to the diary of his first voyage, regarded him and his crew as having arrived from the sky.⁽⁴⁾ A similar occurrence could have taken place in prediluvial times, when some invaders from a remote part of the world came and were regarded as "sons of God."

But if we are today on the eve of interplanetary travel, we must not declare as absolutely impossible the thought that this Earth was visited, ages ago, by some people from another planet. Or was this earth alone populated by intelligent beings? In my understanding this passage from the book of Genesis is a literary relic dealing with a visit of intelligent beings from another planet.

It appears that the extraterrestrial visitors made their landing as if in advance knowledge of the impending catastrophe of the Deluge.⁽⁵⁾ It could be that Jupiter and Saturn were approaching each other ever closer on their orbits and that a disruption of one of them was expected.⁽⁶⁾

Possibly many centuries, or even millennia, passed between the landing and the Deluge. The mission could have been undertaken to ascertain the conditions on Earth. If it was an escape it could also have been from another catastrophe in the solar system, one of those that preceded the Deluge, like the one described as the dethronement and emasculation of Uranus by Kronos. If the ancient legends of a battle between the gods and titans, so persistent in the Greek world, but also in the mythologies of other civilizations, have any historical value, we may try to find what may have been the substratum of this fantasy. It seems that following great convulsions of nature observable in the celestial sphere, giant bodies were hurled on the earth. They arrived burned and were crushed by impact.⁽⁷⁾ But at least one group of escapees succeeded in safely reaching the earth.⁽⁸⁾ They descended on Mount Hermon or Anti-Lebanon.⁽⁹⁾ Of the extra-biblical traditions dealing with the subject some reach hoary antiquity, antecedent to the composition of the Biblical texts. The Book of Enoch narrates that the group was composed of males only, two hundred in number, under the leadership of one by the name of Shemhazai.⁽¹⁰⁾ The Aggadic literature says that the “sons of God” tried to return to heaven from where they had come, but could not.⁽¹¹⁾

The new arrivals were probably of gigantic stature—their progeny with women of the earth were giants:

The Nephilim were on earth in those days, and also afterward, when the sons of God came in to the daughters of men, and they bore children to them. These were the mighty men that were of old, the men of renown.⁽¹²⁾

Having fathered giants, they themselves must have been not of human size.⁽¹³⁾

The planet from which they came I would not know to determine. It would refer to Saturn.⁽¹⁴⁾ The great size of the visitors would suggest a smaller body where the gravitational influence would be less.⁽¹⁵⁾

Ten thousand years is only an instant in the life of the cosmos; ten thousand years ago man was only in a rude stone age; today he contemplates to visit other planets. If such progress is made in a time as short as this, who knows what secrets are concealed in the past or in the future?

References

1. Because the story seemed so fantastic, I made up my mind at that time not to publish anything on the subject when discussing the Deluge and still earlier events. I came to this idea in 1940-41. In the 1950's many people reported sighting UFO's , which were claimed to be vehicles of visitors from other

planets (a view which does not find any credence with me). In 1957 the space age began, and by the late 1960's, when the proposal that there were ancient visitors to Earth from other star systems found its way into print, the idea provoked little ridicule.

2. Genesis 6:1-2
3. Cf. S. R. Driver, *The Book of Genesis*, 6th ed. (New York, 1907), pp. 82f. [J. Morgenstern, however, considered them to be heavenly beings ("The Mythological Background of Psalm 82," *Hebrew Union College Annual XIV*, 1939, p. 95.)]
4. *The Journal of Christopher Columbus*, tr. by C. R. Markham (London, 1893)—October 14th, 1892: "They asked us if we had come from heaven. One old man came into the boat . . . to come and see the men who had come from heaven.
5. Their story in fact precedes that of Deluge in the Scriptures.
6. [Later in this book Velikovsky traces the cause of the Deluge to a disruption of Saturn by Jupiter. See below, Part II: Saturn and the Flood.]
7. [Velikovsky seems to be referring to the passage in Ovid's *Metamorphoses* describing the crushed bodies of the defeated giants: "The terrible bodies of the giants lay crushed beneath their own massive structures." Transl. by M. Innes (London, 1955)]
8. [Analogous accounts are reported from the New World. Cf. the Inca account recorded by Pedro Cieza de Leon in the fifty-second chapter of his *La Cronica del Peru*.]
9. In 1960 a Russian physicist and mathematician, M. Agrest, came to the conclusion that the Baalbek stone was a platform for ascent by ancient space travelers, and that Sodom and Gomorrah were destroyed by atomic weapons. (*Literarnaya Gazeta*, February 9th, 1960). At the time I saw some alluring points in this thesis—but I would strongly question the implication that extraterrestrial visitors came to Earth as late as the Old Kingdom in Egypt, because this is the time to which the Patriarch Abraham, a contemporary of the destruction of Sodom and Gomorrah, belongs.
10. *The Book of Enoch VI*. 6-7, transl. by R. H. Charles (Oxford, 1912).
11. Ginzberg, *Legends V*. 172; *Aggadat Bereshit*.
12. Genesis 6:4
13. Previously several correspondents engaged me on the subject; one correctly observed that in order to procreate the visitors must have been of the same species as man.
14. [Eusebius, *Praeparatio Evangelica IV*. xvi; *bnei Elim* would more correctly be rendered as "Sons of the Gods" and may possibly be taken in the sense of "Sons of the Planets," or "Those who Came from the Planets."]
15. [Several sources, including *The Book of Enoch* and Clement of Alexandria (*Eclog. Proph.* iii. 474, Dindorf ed.) maintain that the Nefilim brought with them much astronomical and technical knowledge which they imparted to mankind.]





Astronomical Knowledge Before the Deluge

In the Deluge a civilization was destroyed the real value of which is incalculable. Hebrew tradition estimates that the population of the ante-diluvian world “amounted to millions.” Adam is said to have invented seventy languages; Cain, his son, built cities and monuments and ruled over kings. They were representatives of generations. According to Hebrew legends the Deluge and its time had already been predicted by Enoch, and even more ancient generations were said to have erected tablets with calendric and astronomical calculations predicting the catastrophe.⁽¹⁾ This might have been the knowledge of months, of years, and of the periods of comets that the remote generations had acquired.

It was in the celestial harmony and disharmony that the secrets of the upheavals were conceived to lie. The science about the times in which calamity could return and fall on our Earth was cultivated among populations that had a vivid remembrance of days of misfortune or of lucky escape.

It is told about the children of Seth, the son of Adam, that

they were the inventors of that peculiar sort of wisdom which is concerned with the heavenly bodies and their order.

And that their inventions might not be lost before they were sufficiently known, they made two pillars upon Adam’s prediction that the world was to be destroyed at one time by the force of fire and at another time by the violence and quantity of water.

The one was of brick, the other of stone, and they inscribed their discoveries on both, that in case the pillar of brick should be destroyed by the flood, the pillar of stone might remain, and exhibit these discoveries to mankind and also inform them that there was another pillar, of brick, erected by them.⁽²⁾

This means that stelae with calendric and astronomical calculations were made public knowledge in that early age. According to the Aggada it was the pious Enoch (the seventh generation) who achieved the deepest knowledge of the celestial secret. He was the man who “walked with God: and he was not; for God took him.”⁽³⁾ In this ascension to heaven was taken away the man who more than any other knew the plan

of the world and of its creation. Enoch was a great man of his generation.

Kings and princes, not less than one hundred and thirty in number, assembled about him, and submitted themselves to his dominion, to be taught and guided by him. Peace reigned thus over the whole world for all the two hundred and forty three years during which the influence of Enoch prevailed.

In the story of Enoch's ascension it is said that he predicted the disaster.

Enoch was carried into the heavens in a fiery chariot drawn by fiery chargers. The day thereafter the kings who had turned back in good time sent messengers to inquire into the fate of the men who had refused to separate themselves from Enoch, for they had noted the number of them. They found snow and great hailstones upon the spot whence Enoch had risen, and, when they searched beneath, they discovered the bodies of all who had remained behind with Enoch; he alone was not among them: he was high in heaven.

What the Aggada means to tell is that a human being—and one gifted with the greatest “wisdom concerning the heavenly bodies and their order,” was brought away in a fiery storm which killed many, brought snow and meteorites, and which had been predicted by the one who disappeared.

Some exact knowledge of the revolution of the bodies in the sky is ascribed here to the antediluvian generations.

References

1. It is said that the real period of grace endured not for seven days, but for 120 years. During this time the flood was over mankind as a threat. (Sanhedrin 108b)
2. Josephus, *Antiquities of the Jews* II. 8, borrowed by Yashar Bereshit 10a.
3. Genesis 5. 24.





Deluge

The scriptural deluge is regarded by historians and critical exegetes as a legendary product. “The legend of a universal deluge is in itself a myth and cannot be anything else.” ⁽¹⁾ It is “most nakedly and unreservedly mythological.”

The tradition of a universal deluge is told by all ancient civilizations, and also by races that never reached the ability to express themselves in the written symbols of a language. It is found all over the world, on all continents, on the islands of the Pacific and Atlantic, everywhere. Usually it is explained as a local experience carried from race to race by word of mouth. The work of collating such material has repeatedly been done, and it would only fatigue the reader were I to repeat these stories as told in all parts of the world, even in places never visited by missionaries. ⁽²⁾

The rest of the collected traditions are also not identical in detail, and are sometimes very different in their setting from the Noah story, but all agree that the earth was covered to the mountain tops by the water of the deluge coming from above, and that only a few human beings escaped death in the flood. The stories are often accompanied by details about a simultaneous cleavage of the earth. ⁽³⁾

In pre-Columbian America the story of a universal flood was very persistent; the first world-age was called Atonatiuh, or the age that was brought to its end by a universal deluge. This is written and illustrated in the ancient codices of the Mexicans and was narrated to the Spaniards who came to the New Continent. ⁽⁴⁾ The natives of Australia, Polynesia, and Tasmania, discovered in the seventeenth century, related almost identical traditions. ⁽⁵⁾

Clay tablets with inscriptions concerning the early ages and the deluge were found in Mesopotamia. Their similarity to the biblical account, and to the story of the Chaldean priest Berosus ⁽⁶⁾ who lived in the Hellenistic age, caused a great sensation at the end of the last century and the beginning of the current one. On this sensational discovery was based the sensational pamphlet *Babel und Bibel* by Friedrich Delitsch (1902) who tried to show in it that the Hebrews had simply borrowed this story, along with many others, from the Babylonian store of legends.

But if here and there the story of the flood could be said to have been borrowed by the scriptural writer from the Babylonians, and by some natives from the missionaries, in other cases no such explanation could be offered. The indigenous character of the stories in many regions of the world makes the borrowing theory

seem very fragile.

Geologists see vestiges of diluvial rains all over the world; folklorists hear the story of a universal flood wherever folklore is collected; historians read of a universal flood in American manuscripts, in Babylonian clay tablets and in the annals of practically all cultured peoples. But the climatologists make it very clear that even should the entire water content of the atmosphere pour down as rain, the resulting flood could not have covered even the lowland slopes, far less the peaks of the mountains, as all accounts insist that this deluge did.

References

1. A. Loisy, *Les mythes babyloniens et les premiers chapitres de la genese* (Paris, 1901).
2. R. Andree, *Die Flutsagen* (1891); Sir J.G. Frazer, *Folk-lore in the Old Testament* (London, 1918); M. Winternitz, *Die Flutsagen des Alterthums und des Natuervoelker*
3. E.g., the Malaya story in Andree, *Die Flutsagen*, p. 29. s
4. [Cf. the Vatican Codex, first published by Humboldt, and the accounts of Ixtlilxochitl and Veytia among others.]
5. [Cf. A. C. Caillot, *Mythes, legendes, et traditions des Polynesiens* (Paris, 1914); H. H. Howorth, *The Mammoth and the Flood* (London, 1887), pp. 455ff.]
6. Berosus' story of the Deluge is quoted in Eusebius' *Praeparatio Evangelica* Bk. IX, ch. 12, and in Cyril's *Contra Julianum*, Bk. I.





William Whiston and the Deluge

The years 1680 and 1682 were years of unusually bright comets. Many pamphlets were printed, especially in Germany, on the imminent end of the world; at the very least, great catastrophes were expected. There was nothing new in such prognostications. In earlier centuries and also earlier in the seventeenth century, comets were regarded with awe and every possible evil effect was ascribed to them. Thus a scholarly author, David Herlicius, published in 1619 a discourse on a comet that had appeared shortly before, in 1618, and enumerated the calamities that this comet, and comets in general, bring with them or presage:

Desiccation of the crops and barrenness, pestilence, great stormy winds, great inundations, shipwrecks, defeat of armies or destruction of kingdoms . . . decease of great potentates and scholars, schisms and rifts in religion, etc. The portents of comets are threefold—in part natural, in part political, and in part theological.⁽¹⁾

David Herlicius also quoted Cicero: “From the remotest remembrance of antiquity it is known that comets have always presaged disasters.”⁽²⁾

The fear and even horror caused by the comet of 1680 was just beginning to calm down when in 1682 another great comet appeared.

Edmund Halley was twenty-six years old when this comet of 1682 appeared. He had experience in astronomical observations and calculations, having spent time on the island of St. Helena, cataloguing there 341 southern stars; he had observed the transit of Mercury, and made pendulum observations. Now he calculated the orbit of the comet of 1682, and predicted its return in 1759. Actually, the periodicity of comets was not first discovered by Halley. The ancient authors knew that comets have their time of revolution. Seneca wrote in his treatise *De Cometis*—in some respects still the most advanced discussion of this subject—that the Chaldeans counted the comets among the planets.⁽³⁾ A comet with a periodicity of about 70 years was known to the rabbis.⁽⁴⁾

Nevertheless, only little aware of the works of the ancients, the modern world acclaimed Halley to be the discoverer of the periodicity of comets; however, this acclaim came only after his prognostication realized itself. The comet of 1682, or Halley’s comet, returned in 1759. It came somewhat retarded on account of its passage near the planets Jupiter and Saturn. This delay had been calculated, though not quite accurately, by Halley. On the grave of Halley these words are engraved:

“Under this marble peacefully rests . . . Edmundus Halleius, LL.D., unquestionably the greatest astronomer of his age.”

But when Halley offered his theory of the periodicity of comets, and of the return of the observed comet after seventy-five years, this theory was not received immediately with enthusiasm. Yet in the mind of a contemporary mathematician the idea of a periodic return of comets was the beginning of a broadly-developed theory of the origin of the world and of the nature of the deluge.

William Whiston, born in 1667, published in 1696 his *New Theory of the Earth*. In this book he claimed that the comet of 1682 was of a 575&half year periodicity; that the same comet had appeared in February of 1106, in +531 in the consulate of Lampadius and Orestes, and in September of -44, the year of Caesar’s assassination.

⁽⁵⁾ Whiston further asserted that this comet had met the earth in -2346, and caused the Deluge.⁽⁶⁾

Whiston found in classical literature references to the change in inclination of the terrestrial axis and, ascribing it to a displacement of the poles by the comet of the Deluge, concluded that before this catastrophe the planes of daily rotation and yearly revolution coincided and that, therefore, there had been no seasons. He also found references to a year consisting of 360 days only, and although the Greek authors referred the change to the time of Atreus and Thyestes, and the Romans to the time of Numa, ca. -700, Whiston ascribed these changes to the effect of the Earth’s encounter with the comet of the Deluge. Whiston thought that the Earth itself was once a comet.

Whiston was chosen by Isaac Newton to take over his chair of mathematics at Trinity College in Cambridge when Newton, after many years, retired in order to dedicate himself to the duties of the president of the Royal Society. Whiston, like Newton, was a Unitarian. He was also close to being a fundamentalist. He was certain that only one global catastrophe was described in the Scripture—that of the Deluge. Of the phenomenon described in the book of Joshua, he wrote: “The Scripture did not intend to teach men philosophy, or accomodate itself to the true and Pythagoric system of the world.”

It is difficult to say what caused Newton, who selected Whiston as his successor, to oppose Whiston’s election to the membership of the Royal Society. We have another similar instance a century later, when Sir Humphry Davy, the mentor of Michael Faraday, conducted a strenuous campaign to keep Faraday from being admitted to the Royal Society, of which Davy was president.

But the very idea of a periodicity of comets, gleaned by Whiston from Halley, was not yet accepted. In 1744 a German author wrote: “It is well known that Whiston and others like him who wish to predict the comings and goings of comets, deceive themselves, and have become an object of ridicule by the entire world.” ⁽⁷⁾

Still later Whiston was ridiculed by Georges Cuvier, himself a proponent of a catastrophist theory:

Whiston fancied that the earth was created from the atmosphere of one comet, and that it was deluged by the tail of another. The heat which remained from its first origin, in his opinion, excited the whole antediluvian population, men and animals, to sin, for which they were all drowned in the deluge, excepting the fish, whose passions were apparently less violent.”

References

1. “*Ausduerrung des Erdbodens und unfruchtbarkeit, Pestilenz, grosse mechtige Sturmwinde, Erdleiden, grosse Wasserfluthen, Schiffbruch, verenderung der Regimenten, oder verstoerung der Koenigreich . . . abgang grosser Potentaten und gelaerter Leute, Rotten und Secten in Religion, etc. Sind also die significationes oder Bedeutungen der Cometen dreyerley, etliche sind Naturales oder natuerlich, etliche Political oder weltlich, etliche Theological oder gestlich.*”
2. Cicero, *De Natura Deorum*: “Ab ultima antiquitatis memoria notatum cometas semper calamitatum praenuntios fuisse.” The Pythagoreans believed that great comets appear at great intervals of time. Posidonius, Fg. 131b, L. Edelstein and I. G. Kidd eds., (Cambridge, 1972), p. 123.
3. *Quaestiones Naturales* IV.1. The same opinion was ascribed to Hippocrates.
4. In the second century of this era, Rabbi Joshua said “There is a star which appears every 70 years and misleads the captains of boats.” It has been suggested that this statement is a reference to Halley’s comet. (W. M. Feldman, *Rabbinical Mathematics and Astronomy* (New York, 1931), pp. 11, 216.
5. [The 575&half year periodicity of the comet of 1682, and its previous returns beginning in -44, were first proposed by Halley and accepted by Newton (*Philosophiae Naturalis Principia Mathematica* third ed., 1726, Book III, Proposition XLI, Problem XXI).]
6. “The Cause of the Deluge Demonstrated, being an Appendix to the 2nd edition of the *New Theory of the Earth*” (London, 1708). Whiston changed the date calculated by the earlier cometographers so as to have a multiple of 575½ years. David Rokenbach, Seth Calvisius, and Christopher Helvicus had fixed the date at -2292, and Henricus Eckstormius and David Herlicius at -2312.
7. S. Suschken, *Unvorgreifliche Kometen-Gedanke* (1744), p. 8. “Gewiss ist es, dass Whiston und andere, welche den Auf- und Untergang der Cometen vorher sagen wollen, sich selbst betrogen, und vor aller Welt zu Spott gemacht haben.”





Deluge and Comet

The idea that a comet heralded the Deluge was not new with William Whiston: it is found in several earlier authors, the so-called cometographers and chronologists of the seventeenth century. But they only described the appearance of the comet at the time of the Deluge as a matter of fact, and did not deduce any theory from it. No causal relation was seen: it was more in the nature of a coincidence. New in Whiston was the identification of the comet of 1680 as the comet of the Deluge, and the perturbatory effects on the position and motion of our planet, ascribed by him to the activities of the comet; finally, his general theory that the Earth itself was once a comet.

The author whom Whiston names as his source was J. Hevelius, whose *Cometographia* was published in 1668. Apparently Whiston did not go further back to the sources of Hevelius: to Abraham Rockenbach (15 -16), Seth Calvisius (1556-1615), Henricus Ecstormius, Christopher Helvicus (1581-1617) and David Herlicius (1557-1636).⁽¹⁾ Abraham Rockenbach was a scholar of the late Renaissance, a man of broad interests, already evident from that fact that he occupied both, the chair of Greek and of Mathematics at the University of Frankfurt, and later taught law and became Dean of the Philosophical College at that University. In 1602 he published a short treatise in Latin, *De cometis tractatus novus methodicus*, and in it he had the following entry concerning the Deluge:

In the year of the creation of the world 1656, after Noah had attained the age of 600 years, three days before the death of Methusalem, a comet appeared in the constellation Pisces, was seen by the entire world as it traversed the twelve signs of the zodiac in the space of a month; on the sixteenth of April it again disappeared. After this the Deluge immediately followed, in which all creatures which live on earth and creep on the ground were drowned, with the exception of Noah and the rest of the creatures that had gone with him into the ark.

About these things is written in Genesis, chapter 7.⁽²⁾

Rockenbach lived and wrote nearly a hundred years before Whiston. What were Rockenbach's sources? He did not let us know. He referred to them at the beginning of his treatise, claiming that it was based on information *ex probatissimis & antiquissimis veterum scriptoribus*—"from the most trustworthy and the most ancient of the early writers." We have already had occasion to quote from Rockenbach in connection with the comet that shone during the Exodus.⁽³⁾ There he refers only to Pliny, although he probably used other sources besides: Lydus, Servius, Hephaestion,

and Junctinus wrote about comets, and Servius mentions also the writings of Campester and Petosiris.

Although we may never be certain of the sources on which Abraham Rockenbach and other cometographers drew in mentioning a comet in connection with the Deluge, the great medieval rabbinical authority Rashi was probably among them.⁽⁴⁾ Rashi wrote concerning *Khima*, a celestial body mentioned in Job 9:9 and 38:31, and in Amos 5:8, that it is “a star with a tail,” or a comet. In the Talmud, *Khima* is associated with the Deluge, and this seems to have been the source of the cometographers’ assertion that a comet appeared in conjunction with that event.

The question now is, what was *Khima*, and what was its role in the Deluge? Was it really a comet as Rashi thought?

References

1. Herlicius wrote in 1619 (*Kurzer Discurs vom Cometen, etc.*): “*Man liest in den Historien dass im God. Jahr Alters Nohae, in welchem die Strafreife Welt mit der Suendfluth vordorben, ein Comet in der Fischen erschienen sey unter der Gubernation Jovis, welcher 29 Tagen alle Signa oder Zeichen des Zodiacs durchgangen, und aller Welt Erschienen sey.*”
2. *Anno a conditu mundi, millesimo, sexcentesimo, quinquagesimo sexto, postquam Noa annum aetatis sexcentesium attingit, triduo ante obitum Methusalem, Cometa in duodecatemorio piscium, a toto terrarum orbe, conspectus est, quid duodecim signa coeli, unius mensis spatio percurrit, dicimq; sexto Aprilis die rursus evanuit. Post hunc, diluvium statim secutum est, in quo omnia viventia humiq; serpentia animalia, Noa excepto, reliquisque creaturis cum Noa in arcam ingressis, suffocata sunt. De quibus Genesis cap. 7 scriptum est.*
3. *Worlds in Collision*, section “The Comet Typhon.”
4. “Rashi” is an abbreviation for Rabbi Isaac ben Solomon; he lived in the south of France in the eleventh century. His commentary to the Bible and to some parts of the Talmud is still regarded as the most authoritative in the field of rabbinical knowledge, which has great authorities in every one of the twenty centuries since the beginning of rabbinical learning. Till today Rashi’s commentary is supplied to many Hebrew editions of the Scriptures and Talmud, with supracommentary on Rashi by later authorities added as well.





Khima

In the Tractate Brakhot of the *Babylonian Talmud* it is said that the Deluge was caused by two stars that fell from Khima toward the earth. The statement reads:

When the Holy One . . . wanted to bring a flood upon the world, He took two stars from *Khima* and brought a flood upon the world.⁽¹⁾

I have already mentioned that Rashi, the medieval exegete whose authority is unsurpassed among the rabbis, says that in the quoted sentence Khima means a star with a tail, or a comet. This explanation found its way into the works of several gentile theologians.⁽²⁾ Should it be understood so that two large meteorites fell from a comet and falling on Earth caused tidal waves? Instances when meteorites fell while a comet was glowing in the sky are known, and the classic case is found in Aristotle.⁽³⁾ Should a meteorite equal in mass to the one which by its impact formed the Arizona crater fall into the ocean, tidal waves of a wide spread would result, possibly circling the globe. Then are we to understand the Deluge as a huge tidal wave rushing across the continents? This picture differs widely from the story in Genesis, according to which water was falling for a long period from the sky and the waters of the depths rose, covering the surface of the earth.

The Tractate Brakhot so explicitly points to the cause of the Deluge that before classifying the narrative in Genesis in its entirety as folkloristic imagery (which in part it most certainly is), and also before following Rashi's idea any further, we ought to inquire: Which celestial body is Khima? Is it correctly explained as a comet?

In the Old Testament Khima is mentioned in several instances. In Job, Chapter 9, the Lord is He who "removes the mountains . . . and overturns them . . . and shakes the earth out of her place . . . which commands the sun and it rises not . . . which alone spreads the heaven . . . which makes Aish and Kesil, and Khima, and the chambers of the south . . ." In the King James Version these names are translated as Arcturus, Orion, and Pleiades. Chambers of the South are usually explained as constellations of the south.

Khima and Kesil are also named in Job, chapter 38, here again in a text that deals with the violent acts to which the Earth was once subjected: ". . . Who shut up the sea with doors [barriers], when it brake forth, as if it had issued out of the womb? . . . [Who] might take hold of the ends of the earth, that the wicked might be shaken out of it? . . ." The Lord asks Job: "Canst thou bind the chains [feters] of Khima and loosen the reins of Kesil? Canst thou lead forth the Mazzaroth in its season? . . ." Davidson and Lanchester wonder at the meaning of this passage: like the King James Version they translate Pleiades for Khima and Orion for Kesil.⁽⁴⁾ Mazzaroth is left untranslated.

In Amos, chapter 5, once more, Khima and Kesil are mentioned in a verse that reveals the great acts of

the Lord who “makes Khima and Kesil, and turns the shadow of death into morning, and makes the day dark with night: that calls for the waters of the sea, and pours them upon the face of the earth. . . .”

Hieronymus, also known as St. Jerome, the fourth century author of the *Vulgate*, the Latin version of the Old Testament, translates Khima as Arcturus in one instance (Amos 5), as Pleiades in another (Job 38), and as Hyades in the third (Job 9):

| | KHIMA | KESIL | AISH |
|-----------|----------|----------|----------|
| Job 9:9 | Hyades | Orion | Arcturus |
| Job 38:31 | Pleiades | Arcturus | |
| Amos 5:8 | Arcturus | Orion | |

Similarly Kesil was translated by the *Septuagint*, the Greek version of the Old Testament that dates back to third century before the present era, as Hesperus, or the Evening Star, and in another instance as Orion. Aish, translated as Arcturus in the *Vulgate*, is rendered as Pleiades by the *Septuagint*:

| | KHIMA | KESIL | AISH |
|-----------|-----------|-----------|----------|
| Job 9:9 | Arcturus | Hesperus | Pleiades |
| Job 38:31 | Pleiades | Orion | |
| Amos 5:8 | not given | not given | |

Obviously the true meaning of these names was lost, because one and the same authority in various instances used different star constellations or planets for each of them: Kesil, Khima, Mazzaroth, Aish. Later interpreters groped in the dark; so Calmet, the eminent French commentator and exegete of the early eighteenth century translated Khima as Great Bear.⁽⁵⁾ Others rendered it as Sirius (Canis Major).

The interpreters were especially intrigued by the description in Job 38. The Lord asks Job whether he can bind the chains of Khima or loosen the reins of Kesil. “The word in the second clause is from a root always meaning to draw . . .”⁽⁶⁾ Which star is in chains? And which star is drawn by reins, as if by horses?

The identities of Khima and Kesil, Aish and Mazzaroth, were of lesser importance when it amounted to finding their meaning for their own sake in the poetical sentences of Amos and Job. But such identification, especially of Khima, grows in importance if the quoted sentence from the Tractate Brakhot may contribute to an understanding of the etiology of the Deluge, as the ancients knew or thought to know it.

In *Worlds in Collision* I have already explained that Mazzaroth signifies the Morning (Evening) star;

the Vulgate has Lucifer for Mazzaroth and the Septuagint reads: “Canst thou bring forth Mazzaroth in his season and guide the Evening Star by his long hair?” I have already shown why the Morning-Evening star was described as having hair or coma, and why Venus did not appear in its seasons.

Apparently the other members of the group were planets, too. And actually we could have started by the disclosure that in the rabbinical literature Khima is referred to as Mazal Khima.⁽⁷⁾ In Hebrew *mazal* means “planet.” Then which planet is Khima? If we can find out which of the planets is Khima, then we may know also to which planet the Talmud assigned the physical cause of the world inundation. As we have seen, the Biblical texts by themselves do not contain the means to determine which of the planets Khima and Kesil are.

“Were it not for the heat of Kesil the world could not endure the cold of Khima; and were it not for the cold of Khima, the world could not endure the heat of Kesil.” This sentence is found, too, in the *Babylonian Talmud*, in the Tractate Brakhot.⁽⁸⁾

Kesil means in Hebrew “fool.” From the biblical texts it is not apparent why one of the planets received this adverse name, or, why, more probably, the word “fool” was derived from the name of the planet.⁽⁹⁾

In the *Iliad* Ares-Mars is called “fool.” Pallas Athena said to him: “Fool, not even yet hast thou learned how much mightier than thou I avow me to be, that thou matchest thy strength with mine.”⁽¹⁰⁾ These words explain also why Mars was called fool: it clashed repeatedly with the planet-comet Venus, much more massive and stronger than itself. To the peoples of the world this prolonged combat must have appeared either as a very valiant action on the part of Mars, not resting but coming up again and again to attack the stupendous Venus, or it must have appeared as a foolish action of going again and again against the stronger planet. Homer described the celestial battles as actions of foolishness on the part of Mars. Thus Kesil, or “fool,” among the planets named in the Old Testament, is most probably Mars.

In Pliny we find a sentence which reads: “The star Mars has a fiery glow . . . owing to its excessive heat and Saturn’s frost, Jupiter being situated between them combines the influence of each and renders it healthy.”⁽¹¹⁾ The heating effect ascribed in the Talmud to Kesil is ascribed by Pliny to Mars, and the cooling effect of Khima to Saturn. By this sentence of Pliny we are strengthened in our identification of Kesil as the planet Mars; it corroborates the conclusion we just made with the help of the *Iliad*. But what is even more important, Pliny helps to identify the “planet Khima” : it is Saturn.

Cicero also wrote that “Saturn has a cooling influence,” whereas Mars “imparts heat.”⁽¹²⁾ Porphyry, an author of the third century, wrote similarly with Pliny and Cicero: “The power of Kronos [Saturn] they perceive to be sluggish and slow and cold. The power of Ares [Mars] they perceive to be fiery.”⁽¹³⁾

Porphyry’s contemporary Plotinus wrote: “When the cold planet [Saturn] is in opposition to the warm planet [Mars], both become harmful.”⁽¹⁴⁾ Other statements to the same effect are found in Vitruvius,⁽¹⁵⁾ and Proclus.⁽¹⁶⁾ In these sentences, as in those of Pliny and of the Talmud, Mars is regarded as being a fiery planet,⁽¹⁷⁾ Saturn as being a cold planet.⁽¹⁸⁾

The passage in the Book of Job (38:31) can now be read: “Canst thou bind the bonds of Saturn and loosen the reins of Mars?” The bonds of Saturn can be seen even today with a small telescope. The reins of Kesil I discussed in *Worlds in Collision*, section “The Steeds of Mars.” The two small moons of Mars, Phobos and Deimos, were known to Homer⁽¹⁹⁾ and are mentioned by Vergil.⁽²⁰⁾ They were regarded by the peoples of antiquity as steeds yoked to Mars’ chariot.

The passage in the Talmud that makes the planet Khima responsible for the Deluge means: “Two stars erupted from the planet Saturn and caused the Deluge.”

References

1. Tractate Brakhot (Seder Zerafim) chapter IX, Fol. 59a, transl. by Maurice Simon, ed. by I. Epstein (London, 1948).
2. Cf. for instance J. B. Wiedeburg, *Astronomische Bedenken ueber die Frage ob der vorstehende Untergang der Welt natuerlicher Weise entstehen, insbesondere durch Annaeherung eines Cometen zur Erde werde befoerdert werden.* (Jena, 1744), pp. 80, 157.
3. The meteorite fell at Aegospotami, near the Bosphorus. See Spyridon Marinatos, *Two Interplanetary Phenomena of 468 B.C.* (Athens, 1963).
4. A. B. Davidson suppl. by H. C. Lanchester, to Job 38:31 in *The Cambridge Bible* (Cambridge, 1926).
5. Augustin Calmet, *Commentaire litteral sur tous les livres de l’ancien et du nouveau Testament*, “Les XII petits prophets” (Paris, 1715).
6. *The Cambrdige Bible.*
7. Jacob Levy, *Woerterbuch ueber die Talmudim und Midrashim* 2nd ed. (Berlin, Vienna, 1924): entry “Khima.”
8. *Op. cit.*, Fol. 58b.
9. S. R. Driver to Amos 5:8 in *The Cambridge Bible* (Cambridge, 1918).
10. *Iliad*, Book XXI, line 400.
11. Pliny, *Natural History II. 34*: “*Saturni sidus gelidae ac rigentis esse naturae . . . tertium Martis ignei, ardentis a solis vicinitate . . . hujus ardore nimio et rigore Saturni, interjectum duobus ex utroque temperari Jovem salutarmque fieri. . .*”
12. *De Natura Deorum II. 46.*
13. L. Thorndike, *A History of Magic and Experimental Science* Vol. I (New York, 1920), p. 43.
14. Plotinus, *Is Astrology of Value?* transl. by K. Guthrie (London, 1918). [Similarly wrote the astrologer Dorotheus—see J. Haeg in *Hermes XLV* (1910), pp. 315-319. In *Babylonian astrology the conjunction of the two planets was deemed favorable* (J. Oppert, *Fragments mythologiques* (Paris, 1882), p. 37.)
15. *De Architectura IX. 1*, par. 16: “*Martis stella, itaque fervens ab ardore solis efficitur. Saturni autem . . . vehementer est frigida. Ex eo Iovis cum inter utriusque circumitiones habeat cursum, a refrigeratione caloreque earum medio convenientes temperatissimoque habere videtur effectus.*”
16. Proclus Diadochus, *In Timaeo* Vol. IV, p. 92: “The Stars” iii.1.: “Saturn and Mars are the extremes and in opposition to one another . . . one being the principle of cooling, the other of heating . . . Jupiter holds the center and brings to a happy mix the creative activities of the other two.” [Cf. also Proclus’ summary of the system of Philolaos in his *In Euclide I. 402. 21*:

“Cronos in fact sustains all humid and cold substances, and Ares all the nature of fire.”]

17. The other name for Mars in rabbinical Hebrew—Maadim—signifies “red” or “reddening.” Mars has a reddish color.
18. [These astrological qualities of the two planets are described at length in Ptolemy’s *Tetrabiblos* II.9. Cf. R. Klibansky, E. Panofsky, and F. Saxl, *Saturn and Melancholy* (London, 1964); also D. Cardona, “The Mystery of the Pleiades,” *KRONOS* Vol. 3 no. 4 (1978), pp. 24-44.]
19. *Iliad* XV. 119-120.
20. *Georgica* III. 91: “Martis equi biiuges.”





Saturnian Comets

Before searching ancient traditions for any possible association of Saturn with the Deluge, let us notice that the idea that Saturn may have anything to do with the origin of some of the comets of the solar system is not without a theoretical foundation. A group of short-period comets carries the name of “Saturnian family of comets” ; they revolve on ellipses that approach closely the orbit of Saturn. A larger family of short-period comets carries the name “Jovian” and Jupiter is regarded as having something to do with their origin: their orbits come close to the orbit of Jupiter.

The usual explanation for the Saturnian and Jovian families of comets is that they had originally traveled on extremely elongated or even parabolic orbits and, passing close to one of the large planets, were changed into short-period comets, traveling on ellipses—it is usual to say that they were “captured.” However, the Russian astronomer K. Vshekhsviatsky of the Kiev Observatory, one of the leading authorities on comets, has brought strong arguments to show that the comets of the solar system are very youthful bodies—only a few thousand years old—and that they originated in explosions from the planets, especially from the major planets Saturn and Jupiter or their moons. By comparing the observed luminosity of the periodic comets on their subsequent returns, he found it failing and their masses rapidly diminishing by loss of matter to the space through which they travel; the head of the comet emits tails on each passage close to the sun and then dissipates the matter of the tails without recovery. Thus Vshekhsviatsky concluded that comets of short duration originated in the solar system, were not captured from outside of that system—a point to which the majority of astronomers still adhere—and that they came into existence by explosion from Jupiter and Saturn, and to a smaller extent by explosion from the smaller planets, like Venus and Mars.⁽¹⁾

In order to originate in this manner from a planet the exploded mass must overcome the gravitational pull of the parent body; the larger the mass of the planet, the greater must be the initial velocity of the exploding matter, the velocity of escape. For this reason the idea of explosion of comets from the planets is preferred to the idea of their explosion from the sun. Due to the great mass of the sun the velocity of escape from there must be in the approximation of xxx kilometers in the first second, and from Saturn only 35 km. But even these velocities are rather high, so that Professor Vshekhsviatsky acknowledged that there must have been unusual circumstances which he did not try to determine, but the existence of which he claimed on the basis of the effects produced, namely the short-lived comets reaching to the orbits of Jupiter and Saturn every time these comets recede from the sun to their farthest points (*aphelia*).⁽²⁾

The sentence in the Tractate Brakhot that ascribes the cause of the Deluge to the cometary bodies that erupted from the planet Saturn no longer appears as fantastic as when we first understood the meaning of Khima in that sentence.

The explosion of cometary bodies from Saturn and Jupiter is claimed on the basis of purely astronomical observations and calculations; the circumstances of such explosions must have been admittedly extraordinary; the time when this happened must be measured in thousands of years, not tens of thousands or millions. Will we also be able to establish with the help of collective human memory what were the extraordinary conditions?

But should we not first, as intended, place ourselves on firmer ground by showing that the statement in the Tractate Brakhot is not a lone testimony unsupported in the traditions and beliefs of the ancient races of the world?

References

1. K. Vshekhsviaty, *Publications of the Astronomical Society of the Pacific* Vol. 74 (1962), p. 106.
2. [Su-ma Chien, the Chinese historian (ca. -145 to ca -80) wrote that the planet Jupiter, "if it is not in the place where it should be" may produce different types of cometary bodies. (*Les gouverneurs du ciel*, transl. by E. Chavannes). The origin of comets from conjunctions of planets was postulated by several Greek philosophers, among them Democritus and Anaxagoras. (Aristotle, *Meteorologica* I, 6; Diogenes Laertius; Seneca, *Quaestiones Naturales*.)]





Saturn and the Deluge

Following the rabbinical sources which declare that the Deluge was caused by two comets ejected by the planet Khima, and our interpretation of the planet Khima as Saturn, we begin to understand the astrological texts, such as certain passages in the *Tetrabiblos* of Ptolemy, which attribute to the planet Saturn floods and all catastrophes caused by high water.⁽¹⁾

The planet's presence in Aquarius especially brought expectations of heavy rains and flooding⁽²⁾ as is attested, among others, by the first-century Roman author Lucan.⁽³⁾ Many of the ancient astrologers were in agreement on this point.⁽⁴⁾ In a work entitled *Speculum astrologiae*, Junctinus ascribes inundations to the action of Saturn's comets.⁽⁵⁾ Cuneiform texts contain prophecies of a deluge taking place when a comet assumes a direction with its head towards the Earth.⁽⁶⁾

Philosophers of antiquity who were not astrologers also expressed their belief that Saturn is in some way related to moisture—among them the pre-Socratics Philolaus and Philodemus,⁽⁷⁾ and, somewhat later, Plato.⁽⁸⁾ The elder Pliny wrote in his *Natural History* that it is well known that heavy rains follow transitions of Saturn.⁽⁹⁾ Servius asserted that “Saturn is a god of rains When in the sign of Capricorn, he causes very heavy rains, especially in Italy”⁽¹⁰⁾ and again: “Saturn is the god of all that is humid and cold.”⁽¹¹⁾ Proclus recorded the beliefs of the Pythagoreans: “Again, in the heavens, Ares is fire, Jupiter air, Kronos water.”⁽¹²⁾ Nonnos referred to “ancient Kronos, heavy-kneed, pouring rain.”⁽¹³⁾ Hippolytus wrote of the beliefs of a member of the Peratae sect: “But water, he says, is destruction; nor did the world, he says, perish by any other thing quicker than by water. Water, however . . . they assert (it to be) Cronus.”⁽¹⁴⁾ We recognize that the astrological connection between Saturn and catastrophes created by high water has a very ancient origin.

In the Chaldean story of the Deluge, as told by Berossos, Kronos (Saturn) disclosed to the king Xisuthros that a universal flood would begin on the 15th of the month Dasios. Abydenos says: “Kronos announced to Sisithros that a flood would pour from above.”⁽¹⁵⁾

References

1. *Tetrabiblos* II. 8. 84. Similar statements may be found in Hephaestion I. 20.

2. A. Bouche-Leclercq, *L'astrologie grecque* (Paris, 1899), p. 96 and n. 1; cf. J. Geffcken, "Eine gnostische Vision," *Sitzungsberichte der Preussischen Akademie der Wissenschaften* (1899), p. 699.
3. Lucan, *Pharsalia*, transl. by R. Graves (London, 1956), Bk. I, 11. 640ff: "It is not as though this were the Watercarrier's month, and the cold and malicious planet Saturn had lighted his dusky fires aloft, thereby raising a truly Deucalionian Flood to overwhelm these lands."
4. *Catalogus Codicum Astrologorum Graecorum* X, 249, 2ff.
5. Junctinus, *Speculum astrologiae* p. 317a. Cf. F. Boll, *Sternglaube und Sterndeutung*, 4th ed. by W. Gundel (Leipzig, 1931), p. 114.
6. "Die Keilschriften prophezien bereits, dass eine Hochflut eintritt, wenn der Komet diese Richtung [mit dem Kopfe nach der Erde] einnimmt. F. Boll, *op. cit.*, p. 114; Cf. Jastrow, *Die Religion Babyloniens und Assyriens* (Giessen, 19??), Vol. II, p. 696, n.1.
7. Cf. Klibansky *et al.*, *Saturn and Melancholy*, p. 138, n. 39.
8. *Cratylus* 402b.
9. Pliny, *Natural History* II. 106: "Igitur (sidera) in suo quaeque motu naturam suam exercent, quod manifestum Saturni maxime transitu imbribus faciunt."
10. Servius, *Commentarii in Virgili Georgicas* I. 336: "Saturnus deus pluviarum est, unde etiam senex fingitur . . . Hic autem in Capricorno facit gravissimas pluvias, praecipue in Italia."
11. *Ibid.*, I. 12: "Quod Saturnus humoris totius et frigoris deus sit." Cf. Pauly's *Realencyclopaedie* XI. 1987-1988, where Kronos is described as representing rivers and water. The ninth-century Arab astrologer Abu Ma'sar wrote: "[Saturn] presides over works of moisture . . . lakes and rivers." (*Introduction to Astrology*, Bk. IV, quoted in Klibansky *et al.*, *Saturn and Melancholy*, p. 130.
12. Proclus Diadochus, *In Timaeo* 32b. [In his commentary to Euclid's *Geometry* (I. 402. 21), Proclus ascribes a similar conception to the pre-Socratic philosopher Philolaos.]
13. Nonnos, *Dionysiaca* VI, 175-178.
14. Hippolytus, *Refutatio Omnium Haeresium*, Book V, chapter 11 in *The Ante-Nicene Fathers*, Vol. V. Hippolytus lived between the years 170 and 236.
15. Cyril, *Contra Julianum* I. 5. Cf. Syncellus, *Chronicon* 28 and Eusebius, *Praeparatio Evangelica* IX. 12. Cf. also the account of Alexander Polyhistor in Cyril, *Contra Julianum*, *loc. cit.* [The traditions of the Hindus assign the Deluge to the end of the Satya yuga and to the reign of Satyavrata, who is acknowledged to be Saturn (E. Moor, *The Hindu Pantheon* [1864], p. 108). Cf. Sir W. Jones, "On the Gods of Greece, Italy and India," *Asiatick Researches* Vol. I (1799), p. 234: "The Satya, or (if we may call it) the Saturnian, age was, in truth, the age of the general flood. . . ." Brahma (i.e., the planet Saturn—see below, section "The Worship of Saturn," n. 5), is said to have warned Manu of the Deluge soon to engulf the world (*The Mahabharata*, XXXX); and when the waters of the deluge covered the earth, Brahma is described as floating over the expanse of the ocean (*Agneya Purana*, chapter IV; cf. S. Shastri, *The Flood Legend in Sanscrit Literature* [Delhi, 1950], p. 51). An ancient woodcut published by Athanasius Kircher (*China Illustrata* [Amsterdam, 1667], p. 158)

portrays Brahma (identifiable by his four faces, or *chatra mukha*) as seated on a rayed disk, apparently Saturn, that hovers over the waters of the Deluge. Cf. F. Maurice, *Indian Antiquities* (London, 1800), Vol. II, opp. p. 352. The woodcut illustrates the third avatar of Vishnu and, more specifically, may be inspired by the words of the *Padma Purana*: “then the lord . . . floated over the vast ocean, void of the sun and the moon. . . .” (Shastri, *The Flood Legend*, p. 41; compare also Psalm 29: “the Lord sitteth upon the flood”).].





The Light of the Seven Days

Isaiah in describing the days to come, when great changes in nature will take place, says that the earth will give its increase in abundance, and “the light of the moon shall be as the light of the sun, and the light of the sun shall be sevenfold, as the light of the seven days. . . .” ⁽¹⁾

One could think that “the light of the seven days” refers to the seven days of creation—however, the actual explanation appears to me to be different: the expression “the light of the seven days” refers, in my view, to the seven days preceding the Flood that are referred to in the verse: “For yet seven days, and I will cause it to rain upon the earth. . . . And it came to pass after seven days, that the waters of the Flood were upon the earth.” (Genesis 7: 4, 10) It is not explained in the text—after seven days of what? But the rabbinical tradition relates that for seven days before the Deluge “the people heard a great commotion in the heaven,” that signified “the end of the age.”

The Talmudic tradition that often reaches much farther into the past than better known sources, like the books of the Scriptures, reveals in this instance a memory not suspected at the reading of the seventh chapter of Genesis. But in view of what we have brought out until now, and what we intend to illuminate on the following pages, the blinding light preceding the Deluge by seven days is an interesting and important detail. The world was in a dazzling light, sevenfold stronger than the light of the sun; the light was so strong and so brilliant day and night alike, that the sun was entirely overpowered by it; and in the days of Isaiah, thousands of years later, the memory of the light of the seven days was vivid in tradition, so that the prophet could refer to it in desiring to describe the solar light of the messianic age. ⁽²⁾

Numerous Sanscrit texts assert that seven or even twelve suns shone just before the Deluge. “Being ignited, all of a sudden, the entire terrestrial sphere blazed forth.” Twelve suns shone with “dazzling radiance” and consumed the world. (*The Skanda Purana in Shastri, The Flood Legend in Sanscrit Literature*, p. 86). Cf. similar accounts in the *Matsya Purana*, ch. ii, the *Padma Purana*, ch. xxxvi, the *Vishnu Purana*, ch. iii, the *Kalika Purana*, ch. xxv, and in the *Mahabharata*, chapter “Matsyopakhyaana.”]].

The light of the seven days was not of solar origin. Of what origin was it? Was it caused by brightly illuminated clouds of ionized hydrogen, or protons, hurled throughout the solar system and poured on earth? In the latter case they could have arrived from the present distance of Saturn in about a week, considering that the proton particles—ionized hydrogen—arrive from the sun in the space of twenty-five

hours.⁽³⁾ This is the time which elapses from a flare-up on the sun (protuberance) to the display of the polar lights—the aurora borealis.

The light of the seven days served the population of the world as a warning of some extraordinary events.⁽⁴⁾

References

1. Isaiah 30:26.
2. [A memory of the light of the seven days may be preserved in the Babylonian account of “flaming torches, lighting up the land with their brightness” just prior to the arrival of the waters of the Deluge. (*The Epic of Gilgamesh*, transl. by A. Heidel, tablet XI).]
3. The distance of Saturn from the Sun is about 9.5 astronomical units. See below, section “Saturn’s Golden Age.”
4. [A warning of seven days’ duration is also a feature of several of the Sanscrit accounts. See S. Shastri, *The Flood Legend in Sanscrit Literature* (Delhi, 1950), p. 30.]





Hydrogen and Oxygen

The conflict between the larger planets resulted in long-stretched filaments ejected by a disturbed Saturn to cross the Earth's orbit. The hydrogen of the planet combined with the oxygen of the terrestrial atmosphere in electrical discharges and turned into water.

There are definite indications of a drastic drop in the atmospheric oxygen at the time of the Deluge—for instance, the survivors of the catastrophe are said in many sources to have been unable to light fires.⁽¹⁾

The consumption of the oxygen in the air by its conversion into water could not fail to have a marked effect upon all that breathes. The animal life that survived needed to accommodate itself to the changed conditions.

According to rabbinical sources, before the Deluge man was vegetarian; but the post-diluvian population did not continue the vegetarian habits of the “sinful” population of the earth. The Talmud and the Midrashim narrate that after the Deluge a carnivorous instinct was awakened in animal and man, and everyone had the impulse to bite.⁽²⁾

The fear of you and the dread of you shall be upon every beast of the earth and upon every bird of the air. . . . Every moving thing that lives shall be food for you; and as I gave you the green plants, I will give you everything.⁽³⁾

The prohibition against quenching the thirst for blood⁽⁴⁾ is an ordinance said to have been introduced immediately after the Deluge.

In a teleological program this result of the Deluge does not seem appropriate for a catastrophe brought about to chastize the human race and the animals, to cleanse them of their vices and make them better. Because of its non-program appearance the carnivorous urge must have been not a mythological motif, but a result of physiological changes. Most probably an anemia connected with the diminution of oxygen in the air was responsible for the new inclination.⁽⁵⁾

References

1. [Such were the accounts of the Sioux, Menomini, and other Indian tribes as

told by J. G. Frazer in his “Remarks” to Volume II of Apollodorus’ *The Library* in the Loeb series, p. 342. Cf. Skanda Purana, describing the deluged world in which “nothing could be seen . . . fire there was not, nor moon, nor sun.” (Shastri, *The Flood Legend in Sanscrit Literature*, p. 88). Even in the relatively slightly rarefied atmosphere of La Paz, Bolivia, “because of the reduced oxygen content . . . fires start with such reluctance that there is little work for the city’s fire department.” (*Area Handbook for Bolivia* [Washington, 1974], p. 55.).

2. *The Book of Enoch* 89:11: “After the deluge they began to bite one another.” According to Midrash Aggada to Genesis 10:8, Nimrod was the first to eat meat.
3. Genesis 9:2-3
4. Genesis 9:4ff.
5. [One might speculate that the diet of meat would be conducive to the production of the additional red blood cells needed by the body to absorb more efficiently the diminished amount of oxygen entering the lungs. In Tibet the high altitude and rarefied atmosphere is said to make it impossible to follow the vegetarian diet advocated by Buddhist teaching. Cf. *Science* Vol. 203, no. 4383 (March 23, 1979), p. 1230: “At high altitudes all animals hyperventilate—an involuntary mechanism of fast breathing in which carbon dioxide causes the *ph* of the blood to become alkaline and constricts blood vessels. This, in turn, reduces the blood flow to the brain and brain cells become starved of oxygen, eventually dying. An alkaline *ph* in the blood can also produce other fatal effects.”].





The Origin of the Oceans

It must have been at the very beginning of my occupation with the problems later developed in my books and in not yet published manuscripts, that I came upon the question of the origin of salts in seas and oceans. The common salt is a substantial ingredient of the oceanic content, or, said differently, the water of the oceans and seas contains a substantial solution of NaCl, or sodium chloride. Even though our blood and tissues abound in sodium chloride, man and animals are not adapted to drink salty water, and life on land could develop only thanks to the evaporation of the water from the surface of seas and oceans, or to distillation—the evaporating water is free from salts. Falling as rain or snow or dew, it feeds underground sources and also glaciers, and through them the brooks and rivers and lakes, and is delivered to our use usually through concrete tubes and metal pipes.

Of the salts of the seas sodium chloride is by far the most abundant. The provenance of it is, however, a riddle. It was, and still is, assumed that the salts in the oceans originated mainly through importation from land, having been dissolved from rocks by flowing rivulets and rivers, themselves fed by underground sources, and the same process working on the rocks of the seabed. Terrestrial formations are rich in sodium, and in eons of time, it is assumed, the sodium washed out of the rocks supplied its content to the oceans; the seas evaporate and the concentration of these salts grows. But the rocks are by far not so rich in chlorine, and hence the problem—from where did chlorine come to contribute its abundance to oceanic water? There is chlorine in source water, but usually not in significant amounts. The proportion of salts in the rivers is very different from their proportion in the seas. River water has many carbonates (80 percent of the salts), fewer sulphates (13 percent) and still fewer chlorides (7 percent). Sea water has many chlorides (89 percent), fewer sulphates (10 percent) and only a few carbonates (0.2 percent). The comparison of these figures makes it clear that rivers cannot be made responsible for most of the salts of the seas. Therefore it is also obvious that there is no proper way of calculating the age of the Earth by comparing the amount of salts in the seas with the annual discharge by the rivers; the most that can be done in this respect is to calculate the rich amount of carbonates in the rivers in their relation to the relatively poor concentration to these salts in the seas; but then there will be no explanation for the rich concentration of chlorides in the seas in comparison with their poor concentration in the rivers.

A part of the salts could be traced to the washing of lands and the floor of the seas; chlorine is known also to be discharged by volcanoes, but to account for the chlorine locked in the seas, volcanic eruptions, whether on land or under the surface of the seas, needed to have taken place on an unimaginable scale—actually, it was figured out, on an impossible scale. Thus it was acknowledged that the provenance of

chlorine in the salts of the seas is a problem unsolved.

Paleontological research makes it rather apparent that marine animals in some early age were more closely related to fresh-water fauna; in other words, the salinity of the oceans increased markedly at some age in the past.

The most obvious and permanent effect of a deluge of extraterrestrial origin on the Earth would be the increase in its water volume and of the place occupied by the seas. Presently four-fifths of the Earth are covered with water. A stupendous addition of water to the Earth should have decreased, not increased its salinity, if the water came down in a pure state. But if the Earth was showered by torrents of hydrogen and water some other ingredients of the Saturnian atmosphere could also have swept across the Earth's orbit.

In the Buddhist book on "The World Cycles," the *Visuddhi-Magga*, where the catastrophes that terminated the world ages are described, it is said:

But when a world cycle perishes by water . . . there arises a cycle-destroying great cloud of salt water. At first it rains with a very fine rain which gradually increases to great torrents which fill one hundred thousand times ten million worlds, and then the mountain peaks of the earth become flooded with saltish water, and hidden from view. And the water is buoyed up on all sides by the wind, and rises upward from the earth until it engulfs the heavens.⁽¹⁾

Volcanoes which were active during the cataclysm of the Deluge and during other cosmic upheavals vomited sulphur, chlorine, and carbonates, and contributed to the composition of the salts of the oceans. Carbonates fell on Earth in large quantities in some of the upheavals, certainly in the one which took place in the middle of the second millennium before the present era, at the very end of the Middle Kingdom in Egypt, an upheaval described in detail in *Worlds in Collision*. But a major portion of the chlorine in which the oceans are so rich must have come from an extraterrestrial source.⁽²⁾

My explanation of the origin of a large portion of the salts of the seas suggests that Saturn is rich not only in water but also in chlorine, either in the form of sodium chloride or in some other combination, or even atomic free. The last solution, of atomic free chlorine, appeared chemically and biologically somewhat difficult to contemplate, because chlorine is a very active element, seeking ties with other elements; biologically because it would be damaging to any plant life, yet there are other indications which point to the possibility of plant life on Saturn.

References

1. The *Visuddhi-Magga*, transl. by H. C. Warren in *Buddhism in Translations*

(Cambridge, Mass., 1896), Chap. xiii, p. 327.

2. [The knowledge that the water of the oceans came from the most part from Saturn and that the waters were salty was combined by the Greeks into a metaphor which has the sea being the “tear of Kronos.” This tradition originated with the Pythagorean school and may derive ultimately from Egypt. (Plutarch, *De Iside et Osiride*, ch. 32: “According to what the Pythagoreans say, the sea is the tear of Kronos.” Clement of Alexandria, *Stromata*, V. 8, 20f.: “This the Pythagoreans believed . . . comparing the sea to a tear of Kronos.” The same is found in a fragment of Aristotle in the edition of V. Rose (Teubner, 1886), no. 196. Cf. Porphyry’s *Life of Pythagoras* (Nauck ed., p. 39). Cf. also E. Lefebure, *Etudes Egyptologiques*, Vol. III: *Le Mythe osirien* (Paris, 1874), p. 125: . . . *et il faut sans doute regarder comme égyptienne cette croyance des Pythagoriciens rapportée par Plutarch, que la mer était une larme de Kronos. . . .*]





Saturn the God of Seeds

Saturn was called “the god of seeds” or “of sowing,” ⁽¹⁾ also “the lord of the fieldfruits.” ⁽²⁾

A Deluge destroying much faunal life must have caused a dissemination of plants: in many places new forms of vegetation must have sprouted from the rich soil fertilized by lava and mud; seeds were carried from all parts of the globe and in many instances, because of the change in climate, they were able to grow in new surroundings. The axis of the earth was displaced, the orbit changed, the speed of rotation altered, the conditions of irrigation became different, the composition of the atmosphere was not the same—entirely new conditions of growth prevailed.

Ovid thus describes the exuberant growth of vegetation following the Flood. “After the old moisture remaining from the Flood had grown warm from the rays of the sun, the slime of the wet marshes swelled with heat, and the fertile seeds of life, nourished in that life-giving soil, as in a mother’s womb, grew, and in time took on some special form.” “When, therefore, the earth, covered with mud from the recent Flood, became heated up by the hot and genial rays of the sun, she brought forth innumerable forms of life, in part of ancient shapes, and in part creatures new and strange.” ⁽³⁾

The innumerable new forms of life in the animal and plant kingdoms following the Deluge could have been solely a result of multiple mutations. ⁽⁴⁾ Although this seems a sufficient explanation of why and how Saturn came to be credited with the work of dissemination and mutation, the mention of another possibility should not be omitted.

If it is true that the Earth passed through the gases exploded from Saturn, it should not be entirely excluded that germs were carried together with meteorites and gases and thus reached the Earth.

The scholarly world in recent years has occupied itself with the idea that microorganisms—living cells or spores—can reach the Earth from interstellar spaces, carried along by the pressure of light rays. ⁽⁵⁾ The explosion of a planet is a more likely method of carrying seeds and spores through interplanetary spaces.

The new forms of life could be the result of mutations, a subject I have discussed in *Earth in Upheaval*. But the possibility that seeds were carried away from an exploding planet cannot be dismissed either.

References

1. Augustine, *De Civitate Dei* VII. 13f. [Augustine wrote: “*Saturnus . . . unus de principibus deus, penes quem sationum omnium dominatus est.*” Cf. Arnobius 4.9; Macrobius, *Saturnalia* I. 7. 25; Servius, *On Vergil’s Georgics* I. 21; Saturn was credited with the introduction of agriculture in Italy (Macrobius, *Saturnalia* VII. 21). In Greece Kronos was closely associated with the harvest of grain (H. W. Parke, *The Festivals of the Athenians* (London, 1977), p. 29. Among the Egyptians it was said that “Osiris is seed.” (Firmicus Maternus, *The Error of the Pagan Religions*, II. 6; cf. A. Erman, *Die Religion der Aegypter* (Berlin, 1934), p. 40; Gressman, *Tod und Auferstehung des Osiris*, p. 8ff. In Babylonia during the festival marking the drowning of Tammuz, grains and plants were thrown upon the waves. (Langdon, *Tammuz and Ishtar*, p. 13.)
2. Lydus, *De Mensibus* IV. 10.
3. Ovid, *Metamorphoses*, lines 418ff., transl. by F. J. Miller. Cf. Empedocles, fg. 60, 61, edited by J. Brun (Paris, 1966); cf. also Plato, *The Statesman*, 65.
4. [The effects of nearby supernovae on the biosphere have been the object of intensive study by geologists in recent years, in the attempt to account for abrupt changes in the history of life on this planet. Cf. D. Russel and W. Tucker, “Supernovae and the Extinction of the Dinosaurs,” *Nature* 229 (Feb. 19, 1971), pp. 553-554. Sudden extinctions were followed by the appearance of new species, quite different from those preceding them in the stratigraphic record. In a relatively brief interval whole genera were annihilated, giving way to new creatures of radically different aspect, having little in common with the forms they replaced. See N. D. Newell, “Revolutions in the History of Life,” *Geological Society of America Special Papers* 89, pp. 68-91; Cf. S. J. Gould and N. Eldredge, “Punctuated equilibria: the tempo and mode of evolution reconsidered,” *Paleobiology* 1977, Vol. III, pp. 115-151. Thus over the past two or three decades many geologists and paleontologists have found themselves increasingly drawn to the view that the observed abrupt changes in the biosphere, such as that which marked the end of the Mesozoic and is thought to have brought with it the extinction of the dinosaurs, among other animal groups, could best be explained by the exposure of the then living organisms to massive doses of radiation coming from a nearby supernova. The radiation would annihilate many species, especially those whose representatives, whether because of their large size or for other reasons, were unable to shield themselves from the powerful rays; at the same time new organisms would be created through mutations or “macro-evolution.” See Velikovsky’s comments in “The Pitfalls of Radiocarbon Dating,” *Pensée* IV (1973), p. 13: “. . . in the catastrophe of the Deluge, which I ascribe to Saturn exploding as a nova, the cosmic rays must have been very abundant to cause massive mutations among all species of life. . . .” Animals would suffer much more severely than plants—on plants the principle effect would be mutagenic. See K. D. Terry and W. H. Tucker, “Biologic Effects of Supernovae,” *Science* 159 (1968), pp. 421-423.]
5. E.g, F. Hoyle and Ch. Wickramasinghe, “Does Epidemic Disease Come from Outer Space?” *New Scientist*, 17th November, 1977, pp. 402-404.





The Worship of Saturn

Saturn, so active in the cosmic changes, was regarded by all mankind as the supreme god. Seneca says that Epigenes, who studied astronomy among the Chaldeans, “estimates that the planet Saturn exerts the greatest influence upon all the movements of celestial bodies.” ⁽¹⁾

On becoming a nova, it ejected filaments in all directions and the solar system became illuminated as if by a hundred suns. It subsided rather quickly and retreated into far-away regions.

Peoples that remembered early tragedies enacted in the sky by the heavenly bodies asserted that Jupiter drove Saturn away from its place in the sky. Before Jupiter (Zeus) became the chief god, Saturn (Kronos) occupied the celestial throne. In all ancient religions the dominion passes from Saturn to Jupiter. ⁽²⁾ In Greek mythology, Kronos is presented as the father and Zeus as his son who dethrones him. Kronos devours some of his children. After this act Zeus overpowers his father, puts him in chains, and drives him from his royal station in the sky. In Egyptian folklore or religion the participants of the drama are said to be Osiris-Saturn, brother and husband of Isis-Jupiter.

The cult of Osiris and the mysteries associated with it dominated the Egyptian religion as nothing else. Every dead man or woman was entombed with observances honoring Osiris; the city of Abydos in the desert west of the Nile and north-west of Thebes was sacred to him; Sais in the Delta used to commemorate the floating of Osiris' body carried by the Nile into the Mediterranean. What made Osiris so deeply ingrained in the religious memory of the nation that his cult pervaded mythology and religion?

Osiris' dominion, before his murder by Seth, was remembered as a time of bliss. According to the legend Seth, Osiris' brother, killed and dismembered him, whereupon Isis, Osiris' wife, went on peregrinations to collect his dispersed members. Having gathered them and wrapped them together with swathings, she brought Osiris back to life. The memory of this event was a matter of yearly jubilation among the Egyptians. ⁽³⁾ Osiris became lord of the netherworld, the land of the dead. A legend, a prominent part of the Osiris cycle, tells that Isis gave birth to Horus, whom she conceived from the already dead Osiris, ⁽⁴⁾

and that Horus grew up to avenge his father by engaging Seth in mortal combat.

In Egyptology the meaning of these occurrences stands as an unresolved mystery. The myth of Osiris “is too remarkable and occurs in too many divergent forms not to contain a considerable element of historic truth,” wrote Sir Alan Gardiner, the leading scholar in these fields;⁽⁵⁾ but what historical truth is it? Could it be of “an ancient king upon whose tragic death the entire legend hinged” ? wondered Gardiner.⁽⁶⁾ But of such a king “not a trace has been found before the time of the Pyramid texts,” and in these texts Osiris is spoken of without end. There he appears as a dead god or king or judge of the dead. But who was Osiris in his life? asked Gardiner. At times “he is represented to us as the vegetation which perishes in the flood-water mysteriously issuing from himself. . . .”⁽⁷⁾ He is associated with brilliant light.⁽⁸⁾

After a life of studying Egyptian history and religion Gardiner confessed that he remained unaware of whom Osiris represented or memorialized: “The origin of Osiris remains from me an insoluble mystery.”⁽⁹⁾ Nor could others in his field help him find an answer.

The Egyptologist John Wilson wrote that it is an admission of failure that the chief cultural content of Egyptian civilization, its religion, its mythological features again and again narrated and alluded to in texts and represented in statues and temple reliefs, is not understood.⁽¹⁰⁾ The astral meaning of Egyptian deities was not realized and the cosmic events their activities represent were not thought of.

* * *

The prophet Ezekiel in the Babylonian exile had a vision—the likeness of a man, but made of fire and amber who lifted him by the lock of his hair and brought him to some darkened chamber where the ancients of the house of Israel with censers in their hands were worshipping idols portrayed upon the wall round about. Then the angel of the vision told him: “Thou shalt see greater abominations that they do”—and he brought the prophet to the door of the gate of the Lord’s house—“and, behold, there sat women weeping for Tammuz.” Next he showed him also Jews in the inner court of the Lord’s house “with their back toward the temple of the Lord and their faces toward the east; and they worshipped the sun toward the east.”⁽¹¹⁾

The worship of the sun and the planets was decried by Jeremiah, a contemporary of Ezekiel. But what was this weeping for Tammuz?

Tammuz was a Babylonian god; one of the months of the year, approximately coinciding with July, in the summer, was named in his honor; and by this very name it is known in the present-day Hebrew calendar. Tammuz was a god that died and was then hidden in the underworld; his death was the reason for a fast, accompanied by lamentations of the women of the land. His finding or his return to life in resurrection were the motifs of the passion.⁽¹²⁾

Tammuz was a god of vegetation, of the flood, and of seeds: “The god Tammuz came from Armenia every year in his ark in the overflowing river, blessing the alluvium with new growth.” (13) In the month of Tammuz he was “bound, and the liturgies speak of his having been drowned among flowers which were thrown upon him as he sank beneath the waves of the Euphrates.” (14) The drowning of Tammuz was an occasion for wailing by women: “The flood has taken Tammuz, the raging storm has brought him low.” (15)

Of Tammuz it also is narrated that he was associated with brilliant light, (16) with descent into the nether world, visited there by Ishtar, his spouse. Tammuz’ death, his subsequent resurrection, or his discovery in the far reaches, but no longer brilliant, were the themes of the cult that was not just one of the mysteries, but the chief and paramount cult.

The Osirian mysteries, the wailing for Tammuz, all refer to the transformation of Saturn during and following the Deluge. Osiris was not a king but the planet Saturn, Kronos of the Greeks, Tammuz of the Babylonians. The Babylonians called Saturn “the Star of Tammuz.” (17) After the Deluge Saturn was invisible (the sky was covered for a long time by clouds of volcanic dust) and the Egyptians cried for Osiris, and the Babylonians cried for Tammuz. Isis (Jupiter at that time) went in search of her husband, and Ishtar (also Jupiter at that early time) went to the netherworld to find her husband Tammuz. For a time Saturn disappeared, driven away by Jupiter, and when it reappeared it was no longer the same planet: it moved very slowly. The disappearance of the planet Saturn in the “nether world” became the theme of many religious observances, comprising liturgies, mystery plays, lamentations, and fasts. When Osiris was seen again in the sky, though greatly diminished, the people were frenzied by the return of Osiris from death; nevertheless he became king of the netherworld. In the Egyptian way of seeing the celestial drama, Isis (Jupiter), the spouse of Osiris (Saturn) wrapped him in swathings. Osiris was known as “the swathed”—the way the dead came to be dressed for their journey to the world of the dead, over which Osiris reigns. Similar rites were celebrated in honor of Adonis, who died and was resurrected after a stay in the netherland (18), in the mysteries of Orpheus. (19)

Sir James G. Frazer, the collector of folklore, came to regard Osiris as a vegetation god (20); likewise he saw in the Babylonian Tammuz, an equivalent of the Egyptian Osiris, a vegetation god and, carried away by this concept, wrote his *The Golden Bough*, (21) built around the idea of the vegetation god that dies and is resurrected the following year.

A few peoples through consecutive planetary ages kept fidelity to the ancient Saturn, or Kronos, or Brahma, (22) whose age was previous to that of Jupiter. Thus the Scythians were called Umman-Manda by the Chaldeans (23) —“People of

Manda"—and Manda is the name of Saturn.⁽²⁴⁾ The Phoenicians regarded El-Saturn as their chief deity; Eusebius informs us that El, a name used also in the Bible as a name for God, was the name of Saturn.⁽²⁵⁾ In Persia Saturn was known as Kevan or Kaivan.⁽²⁶⁾

The different names for God in the Bible reflect the process of going through the many ages in which one planet superseded another and was again superseded by the next one in the celestial war. El was the name of Saturn; Adonis of the Syrians, the bewailed deity, was also, like Osiris, the planet Saturn; but in the period of the contest between the two major planets, Jupiter and Saturn, the appellation of the dual gods became Adonai, which means “my lords” ; then, with the victory of Jupiter, it came to be applied to him alone.⁽²⁷⁾

References

1. *Naturales Quaestiones* VII. 4. 2. [An astrological treatise ascribed to Manetho states that “In the beginning Kronos the Titan ruled the entire ether; his star the far-seeing gods called ‘the shining one.’” *Manethonis Apotelesmaticorum libri sex*, ed. C. A. M. Axtius and Fr. A. Rigler (Cologne, 1832), p. 64 (Bk. IV, lines 14-15). Cf. Proclus, *In Timaeo* (ed. E. Diehl, Leipzig, 1904), vol. III, p. 169.]
2. [Cf. Ovid, *Metamorphoses* I, transl. by M. Innes: “When Saturn was consigned to the darkness of Tartarus . . . the world passed under the rule of Jove.” Tacitus refers to “a storm during which Saturn was forcibly expelled by Jupiter and ceased to rule.” (“*qua tempestate Saturnus vi Jovis pulsus cesserit regnis.*”) *The Histories* V. 2.]
3. [For a graphic description of some of the Egyptian rites, see Firmicus Maternus, *The Error of the Pagan Religions* transl. by C. Forbes (New York, 1970), pp. 44f.]
4. Plutarch, *De Iside et Osiride*.
5. Gardiner, *Egypt of the Pharaohs*, (Oxford University Press, 1961), p. 424.
6. [This view was held by Kurt Sethe. See *Urgeschichte und aelteste Religion der Aegypter* (Leipzig, 1930), p. 73, n. 3.]
7. *Ibid.*, p. 426. [The connection of Osiris with water or flood-water is frequently stressed both in native Egyptian sources and in reports by classical and early Christian authors. Plutarch (*De Iside et Osiride* 33. 364f) wrote that the Nile is the “moist principle and power,” that the Nile is the “efflux of Osiris” (39. 366c, 32.363d, 38.366a) and that Osiris is Oceanus (34,364d). Cf. Griffiths, *Plutarch’s De Iside et Osiride*, pp. 36, 56f., 424. See also Origen, *Contra Celsum* 5.38; Hippolytus, (*Refutatio Omnium Haeresium* 5.7.23) reported that the Egyptians “say that Osiris is water.” Cf. also Sallustius, *De diis et de mundo*, 4. Nock in his commentary to his edition of Sallustius (p. xlvi, n. 44) compared a first century Greek papyrus (P. Leiden J. 384, col. vii, 23) in which it is written “I am Osiris, who is called ‘water.’” The drowning of Osiris, described by Plutarch, is attested in some of the earliest Egyptian

- hieroglyphic texts. See K. Sethe, *Die altaegyptische Pyramidentexte* 24D, 615D, 766D; cf. idem, *Denkmal Memphitischer Theologie* 8, 10b, 19ff., 62ff; H. Gressmann, *Tod und Auferstehung des Osiris*, pp. 4, 11-12, 39.].
8. [H. Brugsch, (*Astronomische und astrologische Inschriften altaegyptischer Denkmaeler* [Leipzig, 1883]) wrote of the identification of certain planets, among them that of Osiris, with the sun ("Die Planeten als Sonnen") and published an inscription he had copied at Philae: "*es sind Sonnen, welche leuchten tagtaeglich und welche strahlen in der Daemmerung, es sind (dies) der Sahu-Stern der Seele des Osiris und der Sothis Stern.*"].
 9. Gardiner, "Was Osiris and Ancient King Subsequently Deified?" *The Journal of Egyptian Archaeology* 46 (1960), p. 104.
 10. J. Wilson, "Egyptian Culture and Religion" in *The Bible and the Ancient Near East, Essays in Honor of William Foxwell Albright* ed. by E. Wright (New York, 1961), p. 307.
 11. Ezekiel, ch. 8.
 12. S. Langdon, *Tammuz and Ishtar* (Oxford, 1914), pp. 9, 22, 84f.
 13. H. Gressman, *The Tower of Babel* (New York, 1928), p. 28; cf. Langdon, *Tammuz and Ishtar*, p. 13.
 14. Langdon, article "Tammuz" in *The Encyclopaedia Britannica, XIIIth Edition* See also idem, *Babylonian Liturgies* (Paris, 1913), p. 96.
 15. Langdon, *Tammuz and Ishtar*, p. 15. Langdon adds that "As Damu he [Tammuz] is called *bel girsu (ummun mersi)*, 'lord of the flood.'" (*Ibid.*, p. 6 n.)
 16. Langdon, *Tammuz and Ishtar*, p. 15: "The shining ocean to thy perditions has taken thee. . . ." Cf. p. 21: "The shining crown from thy head is divested. . . ."
 17. E. F. Weidner, *Handbuch der babylonisches Astronomie* (Leipzig, 1915), p. 61; cf. A. Jeremias, *Handbuch der altorientalistischen Geisteskultur* (Leipzig, 1913), pp. 92, 137.
 18. Cf. C. Vellay, *Le Culte et les fetes d'Adonis-Thammouz dans l'orient antique* (Paris, 1904); Sir James G. Frazer, *Adonis, Attis, Osiris*, Vols. I-II (London, 1922).
 19. Cf. W. Guthrie, *Orpheus and Greek Religion* (London, 1935).
 20. This was also recognized by Hugo Gressman ("Tod und Auferstehung des Osiris," *Das Alte Orient* [1923], p. 12.
 21. See especially the volume entitled *Adonis, Attis, Osiris*.
 22. [That Brahma is Saturn was understood by Velikovsky as long ago as the early 1940's though he did not publish the idea until 1974 in the text of his lecture before the American Association for the Advancement of Science Symposium. See *Pensée* VII (1974), p. 10 and *KRONOS* III.2 (1977), p. 6. The identification of Brahma with Saturn is evidenced by the fact that the god is assigned a celestial sphere (cf. *The Ramayana*, transl. by R. Griffith, Vol. I [London, 1870], Canto XLV, p. 208; cf. also *The Kalika Purana*, ch. xxv). A celestial sphere should probably be interpreted as an orbit. In the *Mahabharata* it is further said that "the high-souled Brahma [is] seated in the highest (abode)" (quoted in Shastri, *The Flood Legend*, p. 10). *The Brhad-aranyaka Upanishad* places Brahman in the highest "world." In the cosmology of the *Yogabhasya* of Vyasa, the highest celestial sphere is that of Brahma. In the

Vishnu Purana the Brahmaloaka, which is the heaven of Brahma, is the seventh and highest heaven. In some sources the Brahmaloaka is referred to as Satyaloka. Cf. Tacitus, *The Histories* V. 4: "In the highest orbit and exerting the greatest influence moves the star Saturn." Many years ago F. Wilford reported the opinion of certain learned Brahmins who told him that while Shiva shines in the planet Jupiter, "Saturn is directed by Brahma." ("On Egypt etc. from the Ancient Books of the Hindus," *Asiatick Researches* III (1799), p. 382). Cf. E. Moor, *The Hindu Pantheon* 1864), p. 218. I believe Wilford is the unacknowledged source of Moor's assertion that Brahma is Saturn.

In China the planet Saturn was associated with the palace and with the Emperor. It was called "the planet of the Son of Heaven." (Se-ma Ts'ien, *Les memoires historiques*, ed. by E. Chavannes, vol. III, pt. 2, p. 367.].

23. Cyril I. Gadd, *The Fall of Nineveh* (London, 1926); cf. D. J. Wiseman, *The Chronicles of the Chaldean Kings in the British Museum* (London, 1956).
24. P. Jensen, *Die Kosmologie der Babylonier*, p. 114. Cf. *The Brihajatakam of Vahara Mihira*, transl. by Swami Vijnanananda (Allahabad, 1912), p. 38, n.2: "Saturn is Manda."
25. *Praeparatio Evangelica* IV.xvi: "Kronos [El] was deified in the star Saturn." This statement is quoted by Eusebius from Philo's redaction of the lost *Phoenician History* of Sanchuniathon. Some classical writers, among them Tacitus (*Histories* V.4) alleged that the Jews were worshippers of Saturn; cf. Augustine's refutation in *Contra Faustum Manichaeum* XX. 13.
26. *Dabistan* 31; *Bundahis*, E. West. P. Jensen, *Die Kosmologie der Babylonier*, p. 114.
27. Origen, *Contra Celsum*, V. 41.





Seventeen

In the story of the Universal Deluge it is said: “In the six hundredth year of Noah’s life, in the second month, on the seventeenth day of the month, the same day were all the fountains of the great deep broken up, and the windows of heaven were opened.”

⁽¹⁾ Five months later, according to the Book of Genesis, on the seventeenth day of the seventh month, the ark rested upon Ararat.

In Egyptian religious belief Osiris was drowned “on the seventeenth day of the month Athyr.” ⁽²⁾ The fast for Tammuz, commemorating his descent into the netherworld, began on the seventeenth of the month named for him. ⁽³⁾ Although the similarity of the Babylonian and Biblical versions of the story of the Deluge was repeatedly stressed, the significance of the number seventeen in the story of Tammuz in relation to the same number in the book of Genesis was not emphasized, or even noticed.

The feast of Saturnalia began “always on the 17th of December” and with time, in imperial Rome, when it was celebrated for three consecutive days, it began on the fifteenth and continued for two more days, until the seventeenth. ⁽⁴⁾

The connection between the number seventeen and the Deluge is thus not confined to the Biblical, Babylonian, and Egyptian sources—we meet it also in Roman beliefs and practices. The significance of the number seventeen in the mystery plays related to Osiris’ drowning and in the festivities of Saturnalia is an indication that these memorials were related to the Deluge.

References

1. Genesis 7:11.
2. Plutarch, *De Iside et Osiride*, ch. 13; cf. also ch. 42. [The coincidence of the Biblical date of the beginning of the Deluge with the date of Osiris’ disappearance, or drowning, was noted by the eighteenth-century scholar Jacob Bryant, who claimed, in addition, that in both accounts the month was the second after the autumn equinox (*A New System or An Analysis of Ancient Mythology*, second edition [London, 1775], p. 334. Bryant also believed that “in this history of Osiris we have a memorial of the Patriarch and the Deluge” (*ibid.*, p. 334, n. 76). The identity of the two dates has been noted by several other authors, among them George St. Clair. See his *Creation Records Discovered in Egypt* (London, 1898), p. 437. On the significance of the date seventeen in Egypt, cf. Griffiths, *Plutarch’s De Iside et Osiride*, p. 312. Cf. H. E. Winlock, “Origin of the Ancient Egyptian Calendar,” *Proceedings of the*

American Philosophical Society 83 (1940), p. 456 n.: “Throughout Coptic and Arab times at least, the night of June seventeenth was celebrated as ‘the night of the Drop’ when it was believed that a miraculous drop fell into the Nile, causing it to rise.”].

3. [According to Langdon, “In Babylonia the god Tammuz was said to have descended to the lower world on the 18th of Tammuz and to have risen on the 28th of Kislev (December).” (*Babylonian Menologies and the Semitic Calendars* [London, 1935], p. 121). Originally the date had been the seventeenth; but when “the reckoning of time was altered to the extent of making the day begin with sunrise instead of with the approach of night” (M. Jastrow, *The Religion of Babylonia and Assyria* [Boston, 1898], p. 78), the 18th day of the month began about twelve hours earlier and encroached upon the daylight hours of the seventeenth day, which were now counted as part of the eighteenth. According to rabbinical sources, the end of the 40 days of rain mentioned in the Genesis account came on the 27th of Kislev—the very same day as the 28th of Kislev in the Babylonian reckoning, when Tammuz is said to have risen.].
4. [Macrobius, *Saturnalia* I. 10. 2f. Cf. Cicero, *Ad Atticum* 13. 52. 1.]





Festivals of Light

The Deluge and the seven days of brilliant light immediately preceding it were a universal experience, and they left indelible memories. Many of the religious rites and observances of all creeds go back to these events of the past in which the celestial gods Saturn and Jupiter were the main participants. Among the most ancient of all such observances were festivals of light of seven days' duration, held in honor of Saturn. The "seven days of light" just before the Deluge overwhelmed the Earth are recreated in these feasts. ⁽¹⁾

Herodotos describes a nocturnal light festival held each year at Sais in commemoration of Osiris' death and resurrection. It was called the Feast of Lamps:

There is one night on which the inhabitants all burn a multitude of lights in the open air round their houses. . . . These burn the whole night. . . . The Egyptians who are absent from the festival observe the night of the sacrifice, no less than the rest, by a general lighting of lamps; so that the illumination is not confined to the city of Sais, but extends over the whole of Egypt. ⁽²⁾

In Rome the feast of light was named Saturnalia. According to tradition the Saturnalia had been established in honor of Saturn when, all of a sudden, after a lengthy and prosperous reign, "Saturn suddenly disappeared." ⁽³⁾ Macrobius wrote that in celebrating the Saturnalia the Romans used to honor the altars of Saturn with lighted candles . . . sending round wax tapers during the Saturnalia." ⁽⁴⁾ In his time the festival was celebrated for three consecutive days but, Macrobius wrote,

And yet in fact among the men of old there were some who supposed that the Saturnalia lasted for seven days . . . for Novius . . . says: 'Long-awaited they come, the seven days of Saturnalia' ; and Mummius too . . . says: 'Of the many excellent institutions of our ancestors, this is the best—that they made the seven days of the Saturnalia begin when the weather is coldest.' ⁽⁵⁾

Hannukah and Christmas are both feasts of light and, like the Saturnalia, both can be traced to the days of the Universal Deluge. The Hebrew tradition that Hanukkah was established to commemorate the "miracle with the oil" that was found undepleted and sufficed for seven days, is a poor rationalization. A better ground for a re-establishment of a holiday, so similar to the Saturnalia, in Judea, was in the fact that in the middle of the second century before the present era Rome conquered Greece,

and about the same time in the rebellion of the Hashmanaim (better known by the name of one of the sons, Judah Maccabi) against Hellenistic rule, the people of Palestine were drawing near the Roman world with its usages. It appears that the Romans fomented the revolt in the Hellenized provinces at the time of their conquest of Greece. Thus the feast of Hanukkah seems to be an adaptation of the Roman Saturnalia.⁽⁶⁾

The observation of this festival was later taken over by the festival of Christmas, which was originally observed for seven days, from the 25th of December until the first of the New Year.

References

1. [The earliest of the festivals of this type that we know of was the yearly seven-day-long celebration commemorating the inauguration of the temple of Ningirsu in Babylonia in the time of Gudea (before ca. 2000 B.C.). For this and other similar festivals, see P. Bourboulis, *Ancient Festivals of "Saturnalia" Type* (Salonica, 1964). Ningirsu was "he who changed darkness into light," the same as Ninib, or Saturn (M. Jastrow, *Die Religion Babyloniens und Assyriens*, ch. IV, pp. 56ff). In Athens the feast in honor of Saturn was called the *Kronia*. See H. W. Parke, *Festivals of the Athenians* (London, 1977), pp. 29-30. It would appear that the main idea behind the Saturnalia-type festivals, so widespread in antiquity, was a re-enactment of the conditions that existed during the Golden Age when Saturn reigned. The celebration of the Roman Saturnalia, which, according to Macrobius, pre-dates the founding of Rome by many centuries (VII. ??), was marked by a reversal of social relations, the release of the statue of Saturn that stood in the Forum from its bonds (Macrobius, *Saturnalia* VII. ??), the crowning of a mock-king (apparently representing Saturn) whose every command had to be strictly obeyed (Tacitus, *Annales* 13, 15; Epictetus, *D*, I. 25. 8; Lucian, *Saturn.* 2. 4. 9), and who was later sacrificed on the altar of Saturn. Some details of such a sacrifice are given in *Acta Sancti Dasii*, ed. by F. Cumont in *Analecta Bollandiana* XVI (1897). See also Cumont, "Le roi des saturnales," *Revue de Philologie* XXI (1897), pp. 143-153. Porphyry reports the existence of a similar festival on Rhodes during which a man was sacrificed to Kronos (*De Abstinencia* II. 54). A similar Persian festival was the Sacaia (Dio Chrysostom, *Orationes* IV. 66). A possible parallel in Mexico may be the festival Atemoztli, "Coming Down of the Waters," described in a manuscript reproduced in Kingsborough, *The Antiquities of Mexico*: "On the XXI of December they celebrate the festival of that god who, they say, was the one that uncovered the earth when it was annihilated by the waters of the Deluge."].
2. Herodotos II. 62, transl. by George Rawlinson. Cf. J. G. Frazer, *Adonis, Attis, Osiris*, second edition (London, 1907), pp. 300f.
3. Macrobius, *Saturnalia* I. 7. 24: subito non comparuisset. [It was then, according to Macrobius, that Italy came to be called Saturnia in honor of the

planet. Cf. Dionysius of Halicarnassus, *Antiquitates Romanorum* I. 6; Ovid, *Fasti*, VI. 1. 31.]

4. (*Saturnalia* I. 7. 31-32, transl. by P. Davies, 1969). Macrobius noted also the opinion of those who “think that the practice is derived simply from the fact that it was in the reign of Saturn that we made our way, as thou to the light, from a rude and gloomy existence to a knowledge of the liberal arts.” [Cf. above, “Tammuz and Osiris,” n. 9 on the Egyptian light festival in honor of Osiris.]
5. *Saturnalia* X.
6. Similarly, the way of praying with covered head appears to be a taking over of the Roman usage—the Greek custom was to pray with an uncovered head.





Saturn and Jupiter

The history of this pair, the ancient Kronos and Zeus, or Saturn and Jupiter, as reflected in many traditions all around the world, tells a story that has nothing in it resembling the sedate and uneventful circling of these bodies on their orbits that modern astronomy asserts as a fact.

Saturn and Jupiter are very much like the sun; were they not planets, they would be considered stars, like our sun.⁽¹⁾ Jupiter is nearly 330 times more massive than the Earth, and Saturn 80 times. Both planets are covered with gases which are in constant motion, like the gaseous atmosphere of the sun. The sun has nine satellites and numerous asteroids and comets; Jupiter has at least fourteen satellites and several asteroids and comets. Saturn has ten known satellites; and four or five comets constitute the Saturnian family (though these comets do not circle around Saturn itself, they are commonly regarded as related to the orbit of Saturn).

Were Jupiter and Saturn free from the bonds of the sun, they could be considered as stars or suns. Were two such stars set in space close to one another, they would constitute a double-star system, both stars circling around a common focus.

As told, the picture that emerges from comparative folklore and mythology presents Saturn and Jupiter in vigorous interactions. Suppose that these two bodies approached each other rather closely at one time, causing violent perturbations and huge tidal effects in each other's atmospheres. Their mutual disturbance led to a stellar explosion, or nova. As we have seen, a nova is thought to result from an instability in a star, generated by a sudden influx of matter, usually derived from its companion in a binary system. If what we call today Jupiter and Saturn are the products of such a sequence of events, their appearance and respective masses must formerly have been quite different.⁽²⁾

A scenario such as this would explain the prominence of Saturn prior to its cataclysmic disruption and dismemberment—it must have been a larger body than it is now, possibly of the volume of Jupiter. Interestingly, for certain reasons G. Kuiper assumed that Saturn originally was of a mass equal to that of Jupiter.⁽³⁾ At some point during a close approach to Jupiter, Saturn became unstable; and, as a result of the influx of extraneous material, it exploded, flaring as a nova which, after subsiding, left a remnant that the ancients still recognized as Saturn, even though it was but a fraction of the celestial body of earlier days. In Saturn's explosion much of the matter absorbed earlier was thrown off into space. Saturn was greatly reduced in size and removed to a distant orbit—the binary system was broken up and Jupiter took over

the dominant position in the sky. The ancient Greeks saw this as Zeus, victorious over his father, forcing him to release the children he earlier had swallowed and banishing him to the outer reaches of the sky. In Egyptian eyes it was Horus-Jupiter assuming royal power, leaving Osiris to reign over the kingdom of the dead.

If the descriptions of Saturn as a “sun” mean anything, Saturn must have been visible, in the time before its explosion, as a large disk. If this was the case the increased distance between the Earth and Saturn could have been the result of the removal of the Earth from its place or of Saturn from its place, or both. Saturn could be removed only by the planet Jupiter, the sole member of the planetary family more powerful than Saturn. And indeed, the myth says that Saturn was removed by Jupiter.

References

1. [In *Worlds in Collision* Velikovsky wrote of events that may theoretically take place in the future: “Some *dark star*, like Jupiter or Saturn, may be in the path of the sun, and may be attracted to the solar system and cause havoc in it.” (Emphasis added). While in 1950 both planets were assumed by astronomers to be covered by thick layers of ice, they are now known to be star-like in their composition and thermal properties. In the case of Saturn, H. Spencer Jones (*Life on Other Worlds* [Macmillan Company: New York, 1940], ch. 6) argued that Saturn must be coated with water ice or frozen ammonia. Spencer-Jones’ book was published in the same year in which Velikovsky drew very different conclusions about Saturn’s thermal history and structure. The astronomers’ conjecture was based on a simple calculation of the amount of heat reaching the planet: Saturn, being almost ten times farther away from the Sun than the Earth had to have a mean temperature in the neighborhood of -155 degrees Celsius. The reasons why Velikovsky concluded that Saturn’s temperature must be considerably higher than the accepted estimate were, first, in “the residual heat of the catastrophe in which Saturn was derailed from its orbit” and, second, “the radioactivity that resulted from the catastrophe must still be pronounced on Saturn.” (From the unpublished manuscript, *The Test of Time*). On top of all this, “based on its past history, Saturn can be regarded as a star and may have some of the mechanism that makes our sun burn with intense light.”

In 1966 Kellerman described his observations and measurements at a wavelength of 21.3 cm, which showed a temperature of 90 degrees Fahrenheit for the inner atmospheric layers. (*Icarus*) Revised textbooks, taking account of the findings, began to speak of “room temperature” on Saturn, recorded in the 21-centimeter band. (E.g., Fred Whipple, *Earth, Moon and Planets* third revised edition [Cambridge, Mass., 1968], p. 187). By 1972 measurements at radio wavelengths of 50 and 100 centimeters found “unusually high” temperatures—about 240 degrees F. and 520 degrees F. respectively. “Thus it appears that Saturn, like Jupiter, is not the entirely frozen wasteland it was once thought to be.” (D. McNally, “Are the Jovian Planets ‘Failed’ Stars?”

Soon it was realized that Saturn must have an internal energy source, and is in fact more like a star than like a planet, though it is not considered sufficiently massive to function as a true star. (*Science News* 101 [1972], p. 312. The article compares the view expressed only a few years previously by C. Sagan that Saturn could not be an abode of life because of atmospheric temperatures several hundred degrees below zero Fahrenheit. Cf. *Intelligent Life in the Universe*).

Measurements in the far-infrared and submillimeter ranges, published in 1977, indicate that the internal energy source on Saturn lies “within the range of 2.3 to 3.2 times the absorbed solar flux.” (R. F. Loewenstein *et al.*, “Far Infrared and Submillimeter Observations of the Planets,” *Icarus* 31 [1977], p. 315. Cf. *The Astrophysical Journal* 157, pp. 169ff.). In other words, Saturn gives off up to about three times the amount of energy it receives from the Sun.

At the beginning of 1980 analysis of measurements taken by Pioneer 11 during its flight past Saturn showed that the interior of the planet has a temperature exceeding 10,000 degrees Kelvin, which is considerably hotter than the surface of the Sun (less than 6,000 degrees Kelvin).]

2. A hypothesis that the protoplanet masses of Jupiter and Saturn were nearly the same was advanced by G. Kuiper. See *Sky and Telescope*, (March, 1959), p. 259.
3. *Sky and Telescope* (March, 1959), p. 259.





Nova

From time to time, once in a decade or once in a century, a dimly shining or invisible star flares with brilliant light; it may become brighter than any of the fixed stars, or any of the planets in the sky; it may be seen not only in the nocturnal sky, but in some cases in full daylight; it burns for weeks or months, then loses its brilliance, and finally becomes once more a hardly visible star. Such a blazing star is called a nova.

⁽¹⁾ The *stella nova* seen in 1572 in the days of Tycho de Brahe belonged actually to the supernova category. De Brahe observed that the nova did not belong to the solar system but was one of the fixed stars. It was brighter than Jupiter and Venus and was seen at midday—for months it remained visible to the naked eye. Another supernova was observed by Johannes Kepler in 1604. An earlier such event, recorded in the Chinese annals for the year 1054, gave rise to the Crab Nebula. Other observations indicate that a supernova also occurred in 1006.

Isaac Newton suggested a collision between two stars as the cause of the formation of a nova. The prevalent view is that a nova results from the interaction of two stars in a binary system when the two members disrupt one another on close approach. In such a case filaments of the disrupted star are torn out of its body and hurled in great spurts, to be absorbed by the companion star. The sudden transfer of matter is thought to set off the star's cataclysmic explosion.⁽²⁾

With the development of spectroscopy in the nineteenth century it was found by the displacement of the spectral lines that the gases of a nova move rapidly toward the observer, as also in all other directions; the star's atmosphere expands with a velocity reaching at times over three thousand kilometers per second.⁽³⁾

While the star's outer gases are hurled into space, much of the inner core remains.

References

1. [It is thought that as many as twenty novae occur in our galaxy each year, but only rarely does one become so prominent as to approach even a third magnitude brightness. A supernova in the part of our galaxy observable from the Earth may occur once in several hundred years: Kepler's nova (1604) was the last such event.]
2. [In the case of small novae the increase in brightness is about hundredfold. See J. S. Gallagher *et al.*, *Astrophysical Letters* Aug. 15, 1976.]
3. [More commonly the velocities range from 1,300 to 2,500 km/sec.]





“Star of the Sun”

Saturn is not a conspicuous planet in the sky. Were it not for its sluggish movement, an unaided eye would hardly distinguish it from the surrounding stars. In many ancient sources Saturn is called “sun.” The usual name for Saturn in Chaldean astronomy was Alap-Shamas, meaning “Star of the Sun.” ⁽¹⁾ Diodorus of Sicily reported that the Chaldeans called Cronos (Saturn) by the name Helios, or the sun, and he explained that this was because Saturn was the most conspicuous of the planets; ⁽²⁾ Hyginus also wrote that Saturn was called “Sol.” ⁽³⁾ In the Babylonian astrological texts the word Shamash (Sun) was used to designate Saturn: “We learn from the notes written by the astrologers that by the word ‘sun’ we must understand the ‘star of the sun,’ i.e., Saturn.” ⁽⁴⁾ Ninib was the Babylonian name for Saturn: “Ninib in various places is said to shine like the sun.” He was known as UT-GAL-LU, the “great sun of storms.” ⁽⁵⁾ The Greeks used to call Saturn *Phaenon*, “the shining one.” ⁽⁶⁾

If Saturn was always as inconspicuous as it is at present, what could have caused the races of antiquity, as if by common consent, to give to Saturn the appellative “sun” or “the shining one” ? “The astrologers certainly must have found it increasingly contrary to reason to associate the star that gives us light and life with one of the palest, and the slowest of the planets.” ⁽⁷⁾

The folk etymology of the Hebrews explained the name Khima as meaning “about a hundred (*ke'me-ah*) stars.” ⁽⁸⁾

The *Bhagavat Gita* contains the following description of a deity: “If the radiance of a thousand suns were to burst at once into the sky, that would be like the splendor of the mighty one . . . the shatterer of worlds.” ⁽⁹⁾

All that we have considered up to now indicates that Saturn once exploded in a nova-like burst of light. The date of this event I would be hard-put to specify, even approximately, but possibly it took place about ten thousand years ago. The solar system and reaches beyond it were illuminated by the exploded star, and in a matter of a week the Earth was enveloped in waters of Saturnian origin.

References

1. J. Menant, *La bibliotheque du Palais du Ninive* (Paris, 1890), p. 99.

2. He calls Saturn “*epiphanestaton*”—the most conspicuous (II. 30. 3-4). [J. Bidez, *Revue de Philologie* XXIX (1905), pp. 319-320 drew attention to the fact that one of the best manuscripts of the Platonic *Epinomis*, the Parisinus 1807A, has “Sun” where “Saturn” would be expected in the passage where the role of the planets is discussed. Bidez commented: “. . . La designation qui fait du Saturne ‘l’astre du soleil’ se trouve attestee par un temoignage nouveau, extremement remarquable a cause de son anciennete.” Cf. F. Boll, “Kronos-Helios,” *Archiv fuer Religionswissenschaft* XIX (1919), p. 344. The author cites also other examples. In 1869 a stele dedicated to “Kronos-Helios” was found in Beirut. See G. Colonna Ceccaldi, “Stele inedite de Beyrouth,” *Revue Archeologique* 23 (1872), Vol. I, pp. 253-256. On the solar aspect of Saturn’s cult in Roman Africa, see M. Leglay, *Saturne Africain* (Paris, 1966), pp. 183-187, 229.]
3. “*Secunda stella dicitur solis quam alii Saturni dixerunt. Hanc Eratosthenes a Solis filio Phaethonta apellatam dicit.* (Hyginus, *De Astronomia* II. 42, 8-10. Cf. A. Bouche-Leclercq, *L’astrologie grecque* (Paris, 1899), p. 93, n. 2.
4. R. C. Thompson, *The Reports of the Magicians and Astrologers of Nineveh and Babylon in the British Museum*, Vol. II (London, 1900), pp. xxv-xxvi (nos. 174 and 176). [Cf. M. Jastrow, “Sun and Saturn,” *Revue d’Assyriologie et d’Archeologie Orientale* VII (1910); and idem, *Die Religion Babyloniens und Assyriens* (Giessen, 1905), Vol. II, p. 483 n. 4; 578, n. 4.]
5. P. Jensen, *Die Kosmologie der Babylonier* (Strassburg, 1890), pp. 116, 140. [Cf. Jastrow, *Die Religion Babyloniens und Assyriens* Vol. I, pp. 57, 154.]
6. Cicero, *De Natura Deorum* II. 52. [Cf. Manetho, *Apotelesmaticorum libri sex* IV. 14. Cf. also J. Geffcken, “Eine gnostische Vision,” *op. cit.*, p. 699. “The Shining Star” was a designation for Saturn in Babylonia. See for instance, an inscription of Nabonidus in James B. Pritchard ed., *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 1950), p. 310.

In India the appellation of the sun, *arki*, was also applied to Saturn. R. Temple writes (*The Sirius Mystery* [New York, 1976], p. 180):

In Sanscrit again *arka* means “belonging or relating to the sun.” *Arkam* means “as far as the sun, even to the sun inclusively.” *Arki* has become a name for Saturn, thought at that time to be the most distant planet. *Arc* means “to shine, be brilliant,” and can mean “to cause to shine.” *Arkin* means “radiant with light.”

Arkaja, the name often applied to Saturn, designates it as an offspring of the Sun (*Markandeya Purana*).]

7. Bidez, *Revue de Philologie*, *op. cit.*, p. 320: “*Les astrologues trouverent sans doute de plus en plus deraisonnable de donner en appanage a l’astre d’ou nous vient la lumiere et la vie, une des plus pales et la plus lente des planetes.*”
8. Rabbi Samuel in Tractate Brakhot, Seder Zera’im of the *Babylonian Talmud*, IX, fol. 59.





Arrival of the Waters

Following the “seven days” when the world appeared to be ablaze in “the radiance of a thousand suns” the Deluge started.

First, according to the Hindu account, vast clouds gathered which “overshadowed the entire world.” ⁽¹⁾

“These ominous clouds . . . rumbling and shooting lightning, overspread the sky.” ⁽²⁾ They were “as vast as mountains.” “Some were dusky, some crimson, some white, some brilliant (in hue).” ⁽³⁾ Other sources describe them as yellow, or azure, or red. “Loud in roar and mighty in size they fill the entire sky.” ⁽⁴⁾ They were “fringed with lightning, meteors and thunderbolts.” ⁽⁵⁾ Then, “rumbling aloud with lightning [they] poured torrential streams thick like chariot wheels.” ⁽⁶⁾ They “rained with a sullen roar, inundating the three worlds with ceaseless downpour of torrents. . . .” ⁽⁷⁾ “And then there were seen on all sides the four oceans engulfing with tempestuous waves the whole surface of the earth.” ⁽⁸⁾ All creation was “smitten by the luminous dense floods.” ⁽⁹⁾

In the beginning of the deluge the nova in the sky shone through the splendor of the illuminated skies and through the sheets of rain, ever increasing in intensity. ⁽¹⁰⁾ The Biblical expression “the Lord sitteth upon the flood” ⁽¹¹⁾ was an apt description of the blazing nova above the waters of the Deluge. It has a Babylonian counterpart in the title of Tammuz as *bel girsu*: “lord of the flood.” ⁽¹²⁾ The nova blazed terrifically, but soon the light became diffused, the shadows grew ever dimmer, the world that was all splendor and light turned gloomier and gloomier; the outpouring waters grew ever thicker; the clouds of dust darkened ever more the sky, and finally the drama of what was taking place on earth went on in darkness.

The Deluge was not a peaceful though abundant rain filling the earth with water, rising ever higher. Ancient sources give a description of the Deluge that differs greatly from the pageant of showers pouring from above on a peaceful land and peaceful sea.

References

1. Skanda Purana in S. Shastri, *The Flood Legend in Sanscrit Literature* (Delhi,

- 1950), p. 87.
2. Agneya Purana in *ibid.*, p. 50.
3. Kalika Purana in *ibid.*, p. 103.
4. Vishnu Purana in *ibid.*, p. 50.
5. Skanda Purana in *ibid.*, p. 88.
6. Bhagavata Purana in *ibid.*, p. 61.
7. Kalika Purana in *ibid.*, p. 103.
8. Bhagavata Purana in *ibid.*, p. 61.
9. *Ibid.*, *loc. cit.*
10. Cf. the Babylonian expression in the wailings for Tammuz: “The shining ocean to thy perditions has taken thee.” (S. Langdon, *Tammuz and Ishtar* [Oxford, 1914], p. 15).
11. Psalm 29.
12. S. Langdon, *Babylonian Liturgies* (Paris, 1913), p. 96.





The Deluge in Rabbinical Sources

During the “seven days” when the world was flooded by sheets of light, and terrifying signs and commotion filled the heavens, “the Holy One . . . reversed the order of nature, the sun rising in the west and setting in the east.” ⁽¹⁾

But during the Deluge “the sun and the moon shed no light” ⁽²⁾ and for an entire year the planets did not follow their regular courses. ⁽³⁾ It may be that because of dust discharged by volcanoes the sky remained veiled for a long period, and this veil made any celestial orientation impossible for the few survivors; but quite possibly the statement refers to a change in the celestial orbits. The rabbinical sources add that the earth was quaking, and the sun was darkened, and the foundations of the cosmos were dislodged. The entire world was in volcanic activity; “amidst lightnings and thunders a very loud sound was heard in the entire world, never heard before.” ⁽⁴⁾

The Flood was caused by waters pouring from above, but also by waters drawn up from the ground. “All the fountains of the great deep were broken up, and all the windows of heaven were opened.” ⁽⁵⁾ The waters that came from the sky were heated. Many passages in the rabbinical literature refer to the heated water. ⁽⁶⁾

The rabbinical literature also refers to great tides and surges of water that covered the face of the earth. “The flood began to toss the ark from side to side. All inside of it were shaken up like lentils in a pot.” ⁽⁷⁾ It is also said that not one, but many arks or vessels were used as a means of escape, but they were ruined or capsized one after the other in the surging water. ⁽⁸⁾ Judged by this, one would think that there were ample signs of the impending catastrophe, and attempts to organize rescue by preparing boats or ships, all probably destined to fail. The Biblical account, in order to explain the survival of the human species and some land animals, made the ark of Noah the central theme of the story. There must have been many Noahs, and the Midrashim also say so—but probably none of them escaped with his boat the outrages of nature. Possibly, in some caves high in the mountains, in far separated regions of the earth, human beings survived the Deluge; but hardly any vessel or ark. The attempt to find the remains of an ark on Mount Ararat are probably as futile as looking for the ribs of Adam. Yet such attempts are made even in our time. ⁽⁹⁾

The duration of the flood is described differently—forty days, and also much longer. ⁽¹⁰⁾ Like the former catastrophe of the fall of man, this catastrophe of the Deluge, according to the Hebrew cosmogony, changed the nature of herb, animal and man.

The prosperity of the time before the great was gone, never to return; the world lay in ruins. The earth was changed; even the sky was not the same.

The continents changed their places in the former catastrophes, and once again in the catastrophe of the Deluge. The areas which are now the shores of the Mediterranean were the shores of an open ocean—or so one may conclude from the following statement: “Before the birth of Noah, the sea was in the habit of transgressing its bounds twice daily, morning and evening. Afterwards it kept within its confines.”

As volcanoes erupted, the sky was darkened, and the ocean swelled and rolled on a helpless planet that fluttered when caught in hydrogen clouds of cosmic origin.

References

1. Tractat Sanhedrin 108B of the *Babylonian Talmud*, ed. by I. Epstein (19xx). [Taken literally, this statement implies a reversal of the Earth’s rotation, or a “tippe-top” -type reversal of its poles. For a discussion of the latter possibility, see Peter Warlow, *The Reversing Earth* (London, 1982) and discussion by V. J. Slabinski and C. L. Ellenberger in *KRONOS* VII. 2 (1982), pp. 86-96; cf. also *KRONOS* VIII.3 (1983), pp. 84-89. In the electromagnetic model proposed by Velikovsky in *Cosmos without Gravitation* (1946) or such as that conceived by R. Juergens (“On the Convection of Electrical Charge by the Rotating Earth,” *KRONOS* II.3 [1977], pp. 12-30) and E. R. Milton, a disturbance of Saturn of the magnitude described here would almost certainly bring about drastic changes in the Earth’s rotational motion.].
2. L. Ginzberg, *The Legends of the Jews* (Philadelphia, 1928), vol. I, p. 162.
3. Midrash Rabba to Genesis 25:2.
4. Ha-Yewani Zerahiah, *Sefer Hayashar, The Book of the Righteous*, ed. and transl. by S. J. Cohen (New York, 1973), p.
5. Genesis 7:11.
6. The opinion of Rabbi Hisda to this effect is recorded in Rosh Hashanah 12A and Sanhedrin 108B. Cf. J. B. Wiedeburg, *Astronomische Bedenken* (Jena, 1744), p. 80, and sources in Ginzberg, *Legends* Vol. V, p. 178.
7. Ginzberg, *Legends*, vol. I, p. 162.
8. *Ibid.*, Vol. VI, p. 35.
9. E.g., the expedition recounted by D. Balsinger and C. Sellier, jr. in *In Search of Noah’s Ark* (Los Angeles, 1976). If there are some ancient fossilized structures that resemble an ark, as some explorers assert, then more probably it was the presence of these remains which caused the Biblical penman to relate the rescue ship to the mountainous crag of Ararat in the southern Caucasus.
10. It appears that the tradition of “a year” of the deluge led to confusion in calculations, and the traces of this confusion seem to be found in the double redaction of the story of the Deluge. The age of Noah and his contemporaries would indicate that the year was shorter; it could still have consisted of a number of months, but not of months of thirty days; and the days themselves

could have been shorter.





The Rings of Saturn

One instance of the Saturn myth can be verified with the help of a small telescope: Saturn is in chains. Instead of solving anything, this fact presents a new problem that demands a solution. How did the ancient Greeks and Romans know that Saturn is encircled by rings?⁽¹⁾ It is strange that this question was not asked before.⁽²⁾ The existence of these rings around Saturn became known in modern times only in the seventeenth century, after the telescope was invented. They were first seen, but misunderstood, by Galileo⁽³⁾ and understood by Huygens.⁽⁴⁾

If the myth did not by mere chance invent these rings, the Greeks must have seen them. The last case could be true if the Greeks or some other oriental people possessed lenses adapted for the observation of celestial bodies, or if the rings around Saturn were visible to the naked eye at some time in the past—today they are not visible without magnifying instruments. There are cases of exact observations by the Chaldeans which suggest the use of some accurate technical means.⁽⁵⁾ These means could consist of a sort of astrolabe like that of Tyche de Brahe who made most accurate observations of celestial bodies without the help of a telescope; also Copernicus, prior to Tyche de Brahe, made all his calculations of the movements of the planets before the telescope was invented. But neither Tycho de Brahe nor Copernicus saw the rings.

The statue of Saturn on the Roman capitol had bands around its feet,⁽⁶⁾ and Macrobius in the fifth century of our era, already ignorant of the meaning of these bands, asked: “But why is the god Saturn in chains?”

In the Egyptian legend Isis (Jupiter) swathes Osiris (Saturn). The Egyptian appellation for Osiris was “the swathed.”⁽⁷⁾

In the *Zend-Avesta* it is said that the star Tistrya (Jupiter, later Venus) keeps Pairiko in twofold bonds.⁽⁸⁾ Saturn is encircled by two groups of rings—one larger and one smaller, with a space in between. To see this a better telescope than that used by Galilei or that used by Huygens is needed; the twofold structure of the girdle was first observed in 1675.⁽⁹⁾

The rings of Saturn were known also to the aborigines of America before Columbus discovered the land; this means also before the telescope was invented at the beginning of the seventeenth century. An ancient engraved wooden panel from Mexico shows the family of the planets: one of them is Saturn, easily recognizable by

its rings. ⁽¹⁰⁾

Nor were the Maoris of New Zealand ignorant of them: “One of the great mysteries connected with Saturn is the still unanswered question of how the ancient Maoris of New Zealand knew about her rings—for there is evidence that they did have a Saturnian ring legend long before the days of Galileo.” ⁽¹¹⁾

In the myth it is said that Jupiter drove Saturn away and that on this occasion Saturn was put in chains. If these words mean what they say and are not a meaningless portion of the myth—in a dream, at least, there are no meaningless parts—then the knowledge of the ancients about the rings of Saturn could have been acquired because of better visibility: in other words, at some time in the past Saturn and Earth appear to have been closer to one another.

Originally I assumed that the rings of Saturn may consist of water in the form of ice, but since the ancient lore all around the world tells that it was Jupiter that put these rings around Saturn, ⁽¹²⁾ I considered that they might have some other components, too. Since the 1960’s spectroscopic study of the Saturnian rings has confirmed that they consist most probably of water in the form of ice. ⁽¹³⁾

References

1. [The rings of Saturn are referred to by Aeschylus, *Eumenides* 641: “He [Zeus] himself cast into bonds his aged father Cronus” ; cf. Lucian, *Astrology*, 21: “Moreover, it is not true, neither, that Saturn is in chains.” Neoplatonists like Proclus *In Timaeo*, tr. by Festugiere, vol. III, p. 255 and n. 4; *In Cratylō* 209.3f) and Porphyry (*De Antro Nympharum* 67.21ff.) sought a philosophical or mystical meaning in the tradition. Cf. also Clemens Alexandrinus, *Homilia*, VI. xiii in *Patrologiae Cursus Completus*, Series Graeca, J.-P. Migne ed., vol. II.207f; Dio Chrysostom, *Fourteenth Discourse* 21ff: “And yet the King of the Gods, the first and eldest one, is in bonds, they say, if we are to believe Hesiod and Homer and the other wise men who tell this tale about Cronus.” Cf. Hesiod, *Works and Days*, 169ff. Augustine, refuting those who asserted that the Jewish Sabbath was held in honor of Saturn, wrote: “*ita patres nostri longe fuerunt a Saturniacis catenis, quamvis pro tempore propheetiae sabbati vacationem observaverint.*” (*Contra Faustum Manichaeum* XX. 13. in Migne ed., *Patrologiae Cursus Completus*, Series Latina, Vol. XLII, p. 379). Cf. also Arnobius, *Contra Gentes* IV. 24 in *ibid.*, vol. III: “*Numquid paricidii causa vinctum esse Saturnum, et suis diebus tantum vinculorum ponderibus revelari?*” and Minucius Felix, *Octavius* XXI, in *ibid.*, vol. III, col. 304: “*Quid formae ipsae et habitus? . . . Saturnus compeditis.*” An epigram of Martial (III. 29) refers to the bonds of Saturn, comparing them to rings: “*Has cum gemina compede dedicat catenas, Saturne, tibi Zoilus anulos priores.*” “These chains with their double fetter Zoilus dedicates to you, Saturnus. They were formerly his rings.”—transl. by W. Kerr (London, 1919). The shrines to

- Saturn in Roman Africa portrayed the god with his head surrounded “by a veil that falls on each of his shoulders,” in a way reminiscent of the planet’s rings. See J. Toutain, *De Saturni Dei in Africa Romana Cultu* (Paris, 1894), p. 42 and figs. 1 and 2.].
2. [But cf. Th. Taylor in *The Classical Journal* 40 (1819), pp. 324-326, and A. de Grazia, “Ancient Knowledge of Jupiter’s Bands and Saturn’s Rings,” *KRONOS* II.3 (1977), pp. 65ff.]
 3. [When Galileo first saw the rings in July of 1610, he thought them to be two satellites on either side of Saturn, and this is what he also announced in his *Sidereus Nuntius*. Cf. A. Alexander, *The Planet Saturn*, (1962), pp. 84ff.]
 4. [Chr. Huygens, *Systema Saturnium* (1659); Cf. Alexander, *The Planet Saturn*, loc. cit.]
 5. P. Jensen, *Die Kosmologie der Babylonier*, p.
 6. Macrobius, *The Saturnalia*, I.8.5, transl. by P. V. Davies (New York, 1969): “Saturn, too, is represented with his feet bound together, and, although Verrius Flaccus says that he does not know the reason . . . Apollodorus says that throughout the year Saturn is bound with a bond of wool but is set free on the day of his festival.” Cf. *ibid.*, I.8.1.
 7. See below, section “Tammuz and Osiris” . Cf. A. S. Yahuda, “The Osiris Cult and the Designation of Osiris Idols in the Bible,” *Journal of Near Eastern Studies* III (1944), pp. 194-197.
 8. *The Zend-Avesta* xvi, transl. by J. Darmesteter (1883), p. 107. [The text of the Zend-Avesta reads: “Tistrya, bright star, keeps Pairiko in twofold bonds, in threefold bonds.” A third ring around Saturn was observed in 1980. Velikovsky also thought that Mithraic representations of Kronos with his body encircled by a snake (cf. F. Cumont, *The Mysteries of Mithra* [1903], figs 21-23) may attest to a memory of the rings of Saturn. Cf. the Hindu Sani (the planet Saturn) shown in an ancient woodcut reproduced in F. Maurice, *Indian Antiquities* (London, 1800), vol. VII, and described by the author as “encircled with a ring formed of serpents.” Tammuz, who represented the planet Saturn in Babylonia (E. Weidner, *Handbuch der Babylonisches Astronomie* [Leipzig, 1915], p. 61) was called “he who is bound.” See also Thorkild Jacobsen, *Toward the Image of Tammuz* (Harvard University Press, 1970), p. 85. and A. E. Thierens, *Astrology in Mesopotamian Culture* (Leiden, 1935). Ninib, who was also Saturn, was said to hold “the unbreakable bond” or “*der maechtigen Schlange*”—Jastrow, *Die Religion Babyloniens und Assyriens*, ch. xvii, p. 463.].
 9. The observation was made by G. D. Cassini.
 10. Kingsborough, *Antiquities of Mexico* (London, 1830), vol. IV, the fourth plate from the end of the volume. See fig.
 11. Guy Murchie, *Music of the Spheres* (Boston, 1961), p. 94. [A useful discussion of Maori astronomical ideas is provided in a monograph by E. Best, *The Astronomical Knowledge of the Maori, Genuine and Empirical*, New Zealand Dominion Museum Monograph no. 3 (Wellington, 1922), p. 35:

PAREARAU represents one of the planets. Stowell says that it

is Saturn; that Parearau is a descriptive name for that planet, and describes its appearance, surrounded by a ring. The word *pare* denotes a fillet or headband; *arau* means “entangled”—or perhaps “surrounded” in this case, if the natives really can see the *pare* of Saturn with the naked eye. If so, then the name seems a suitable one. . . . Of the origin of this name one says, ‘Her band quite surrounds her, hence she is called Parearau.’”].

12. [Regarding the process of formation of Saturn’s rings, Velikovsky thought that it might have been analogous to the formation of a disc-like ring of gaseous material around some stars in binary systems, as described by H. Friedman in *Science* 181, (Aug. 3, 1973), p. 396: “The gas enters into Keplerian orbits and accumulates in a disc somewhat resembling Saturn’s rings. . . .”].
13. In August 1965 Tobias Owen, writing in *Science*, (p. 975) reported that “the reflection spectrum from the ice block gave best match to the absorption observed in Saturn’s ring”—but that “the most likely alternatives” would be “ices of methane and ammonia”—both known ingredients of the Jovian atmosphere, methane being also in the composition of the Saturnian cloud envelope. See also Appendix 26. [As early as 1947 Kuiper (*The Atmospheres of the Earth and Planets* [1949]), concluded on the basis of spectral measurements in the infrared that “the rings are covered by frost, if not composed of ice.” Cf. A. Cook *et al.*, “Saturn’s Rings—A Survey,” *Icarus* 18 (1973), p. 317: “Although frozen H₂O is a major constituent, the spectral reflectivity indicates the presence of other materials.”].





Saturn's Golden Age

The age that man later called the Age of Kronos (Saturn) was remembered with nostalgia as an age of bliss. References to the Age of Kronos in the ancient lore are very numerous. [\(1\)](#)

Hesiod tells of

A golden race of mortal men who lived in the time of Kronos when he was reigning in heaven. And they lived like gods without sorrow of heart, remote and free from toil: miserable age rested not on them . . . The fruitful earth unforced bare them fruit abundantly and without stint. They dwelt in ease and peace upon their lands with many good things. . . . [\(2\)](#)

Similarly writes Ovid in the sixth book of his *Metamorphoses*:

In the beginning was the Golden Age, when men of their own accord, without threat of punishment, without laws, maintained good faith and did what was right. . . . The earth itself, without compulsion, untouched by the hoe, unfurrowed by any share, produced all things spontaneously. . . . It was a season of everlasting spring. [\(3\)](#)

Rabbinical sources recount that men lived under very favorable conditions before the Deluge, and that these contributed to their sinfulness: "They knew neither toil nor care and as a consequence of their extraordinary prosperity they grew insolent." [\(4\)](#)

The dominance of Saturn at some remote period in the history of the life of the peoples on Earth was of such pronounced and all-pervading character that the question arises whether the adventures of the planet going through many exploits could by itself be the full cause of the worship of the planet and the naming of the Golden Age "the Age of Kronos" (Saturn). Saturn exploded and caused the Earth to go through the greatest of its historical catastrophes, and this was completely sufficient to make of Saturn the supreme deity; but it appears that the Age of Saturn is a name for the epoch *before* the Deluge; after the Deluge Saturn, dismembered, almost ceased to exist as a planetary body and when at length it was reconstituted it was fettered by rings, and was far from being the dominant celestial body that would behoove it as the supreme deity of the epoch. The "Age of Kronos" is so glorious an age that it is hardly thinkable to connect it with the period after the Deluge. The wailing for Adonis, Tammuz of the Babylonians, or Osiris of the Egyptians, deplored

the end of its dominance, not the beginning of it.

Then why was Saturn the supreme deity by whose name the great and glorious age *before* the Deluge was named? Because it removed Uranus from its role of chief deity, and to the onlookers on Earth, emasculated him? If the distances between the Earth and Saturn and Uranus were then what they are now, then such occurrences could scarcely be observable: Uranus is only faintly visible in the night sky over Mesopotamia in a most translucent night. Saturn is clearly visible but is not, for an unaided eye, a spectacle in the sky; it was more voluminous and more luminous before the Deluge, but if it moved on an orbit not too different from the present one, and the Earth were moving approximately in the same quarters where it moves today, then the surprise still persists as to how a body on a 30-years-long orbit could make the inhabitants of the Earth on its one-year-long orbit, regard it the supreme of all celestial bodies in the sky.

The appellative “sun” employed for Saturn could be explained by its unusual brightness when it exploded as a nova for a short time, actually for seven days, before the beginning of the Deluge on Earth. Assuming the length of the day in those times to have been not too dissimilar from its present value, the velocity of the moving masses being on the order of 100 kilometers a second or 8,600,000 kilometers in a 24-hour period, and the Earth and Saturn being on the closest points on their reciprocal orbits, or in conjunction (which is another surmise), in seven days a distance of ca. 60 million kilometers would be covered. On present orbits the distance between Saturn and Earth varies from 1,279 million kilometers at superior conjunction to 1,578 million kilometers at opposition; the lesser of these distances is ca. 21 times greater than that above calculated. This means also that unless the velocity of the ejected water was an order of magnitude greater than 100 km per second, the distance between Saturn and Earth must have been substantially smaller than it is at present.

I have rather arbitrarily selected the figure of 100 kilometers a second for the motion of the exploded material; today the escape velocity, or the speed required for a projectile on the surface of Saturn to leave the gravitational attraction of the planet is but 35 kilometers a second. For Jupiter the escape velocity is 59 kilometers a second. Assuming that Saturn was of a mass equal to that of Jupiter, the same figure would apply to it too. With 100 kilometers a second we have almost double the velocity of escape. The arbitrariness of the assumption of such velocity for our calculations is obvious. But if the set of figures is not too far from what they actually were, the conclusion would be that the distance of the Earth from Saturn was but a twentieth part of what it is now; this would permit us to speculate whether the Earth could at some early period have been a satellite of Saturn. The distance 60 million km is commensurate with the distance of Mercury from the Sun, or 58 million km; Jupiter’s satellites revolve at distances up to 24 million km from the primary. Theoretically Saturn could have satellites as large as the Earth: the Moon is only one-fortieth of the Earth in volume, whereas Saturn is 760 times larger than our planet. ⁽⁵⁾

If such was ever the case, the “Age of Saturn” and the very unusual conditions under

which mankind lived in it, and Saturn's worship prior to the Deluge, would gain in meaning. The appellative "sun" used for Saturn would be understood as resulting not only from the great light it emitted for a short period when a nova, but also from its long-standing role of a primary for the revolving Earth.

If there is truth in the surmise, and nothing more it is than a surmise, that the Earth was once a satellite of Saturn, the latter must have revolved closer to the sun in order that the Earth should receive heat from it—Saturn exudes little heat⁽⁶⁾—and if the age of Kronos was a golden age, then it is also proper to assume that the conditions on the satellite Earth were not unfavorable for life. The geological record documents extreme climates for the past of the Earth—times when corals grew in the Arctic, and times when the Earth, partly even on the equator, was fettered by ice. Such climates require definitely abnormal conditions that could be created only by varying positions of our planet as an astronomical body. Therefore surmises as made in this section are not in conflict with geological and paleo-climatological records—yet it is not what could have taken place, but what took place, or the historical record, that is the proper goal for inquest. In the absence of direct indications we may only deal with the problem of the Earth as a satellite of Saturn as with a hypothetical construction, requiring further elucidation.

It is assumed by modern astronomy that the ninth planet, Pluto, was once a satellite of Neptune, which, having collided with Triton, another satellite of the planet, was thrown out of the ring and became an independent planet; the satellite Triton, however, as a consequence of the collision, reversed the direction of its revolution and became a retrograde satellite.⁽⁷⁾ Another instance of a postulated conversion of a planetary satellite into an independent planet is discussed by Van Flandern and Harrington in their paper "A Dynamical Investigation of the Conjecture that Mercury is an Escaped Satellite of Venus," *Icarus* 28 (1976), pp. 435-440.]. Thus the principle of a conversion of a satellite into a planet in its own right is not a phenomenon that is discussed here for the first time.

The Golden Age of Saturn or Kronos came to its end with the supreme god of that period, the planet Saturn, was broken up. The Age of Kronos was not the earliest age of which man retained some, however dim, memories—but farther into the past the dimness amounts almost to darkness.⁽⁸⁾

References

1. [On Kronos' golden age see Plato, *The Statesman*. cf. P. Vidal-Naquet, "Plato's Myth of the Statesman, the Ambiguities of the Golden Age and of History," *Journal of Hellenic Studies* 98 (1978), pp. 132-141. Cf. Porphyry, *De Abstinencia* IV. 2; Teleclides, quoted in Athenaeus, *Deipnosophistae* VI. According to Macrobius, in the reign of Saturn there was no distinction between freedom and slavery (*Saturnalia* I. 7. 26) and all wealth was held in common (I. 84). Cf. Pompeius Trogus in Justin, bk. 43: "Saturn is said to have

been so just that no one under him was a servant, nor did anyone have any private possessions, but all things were held in common and undivided, as if the inheritance of one belonged to all.” On Saturn’s reign in Italy, see Dionysius of Halicarnassus, *Antiquitates Romanorum* I. 36. 1; Vergil, *Fourth Eclogue* also, *The Aeneid* 11. 252 Silius Italicus 3. 84; 13, 63; 17. 380. Martial, *Epigrams* 63. Macrobius, *Saturnalia* VII. 26.].

2. Hesiod, *Works and Days*, transl. by Evelyn-White, 110.
3. Ovid, *Metamorphoses* Book I, tr. by Innes.
4. Ginzberg, *Legends*, I.
5. [The proportion of the Earth’s mass to that of Saturn is 1:90.]
6. [Analysis of the data collected by Pioneer 11 has led to an estimate of a temperature of ca. 10,000 degrees Kelvin in the interior of Saturn. There appears to be some net outflow of heat at the top of the atmosphere.]
7. [R. A. Lyttleton, “On the Possible Results of an Encounter of Pluto with the Neptunian System,” *Monthly Notices of the Royal Astronomical Society* 97, p. 108. Cf. the criticism of Lyttleton’s suggestion of R. S. Harrington and T. C. van flandern in “The Satellites of Neptune and the Origin of Pluto,” *Icarus* reprinted in *KRONOS* V. 2. (1979), p. 76. The alternative postulated by the authors involves a near-encounter between Neptune and a hypothetical planet of two to five Earth masses. The authors’ suggestion that Pluto’s newly-discovered moon may once also have been an independent satellite of Neptune could help solve the question of the origin of the Earth’s companion.]
8. [Similar traditions of a golden age existed among the Sumerians (S. N. Kramer, “Sumerian Myths and Epic Tales” in J. Pritchard ed., *Ancient Near Eastern Texts Relating to the Old Testament* [Princeton, 1950], pp. 37ff.), ancient Egyptians (F. Lenormant, *Les Origines de l’histoire* [Paris, 1880], vol. I, p. 58), Hindus (*The Laws of Manu*) and Chinese (*Les Memoires historiques de Se-ma Ts’ien*, transl. by E. Chavannes [Paris, 18xx], vol. I, pp. 17ff.) among others.].





Rainbow

After the Deluge the hope grew into faith that no such or similar destruction would again come to decimate mankind. The story is told that the Lord made a covenant with Noah, and the following were the terms of the covenant:

Then God said to Noah. . . . “I establish my covenant with you, that never again shall all flesh be cut off by the waters of a flood, and never again shall there be a flood to destroy the earth.” [\(1\)](#)

As a visible sign of the obligation not to repeat the catastrophe, a colorful rainbow appeared for the first time after the Deluge—it was a new and till then unknown atmospheric phenomenon. In this colored refraction of sunlight in small and suspended drops of water the rescued believed to see the divine promise not to repeat the flood:

And God said, “This is the sign of the covenant which I make between me and you and every living creature that is with you, for all future generations: I set my bow in the cloud, and it shall be a sign of the covenant between me and the earth. When I bring the clouds over the earth and the bow is seen in the clouds, I will remember my covenant.” [\(2\)](#)

The covenant, according to the moral conception of the Hebrews, was a reciprocal deed. It was kept only in its promise not to bring a paramount flood upon the Earth: the Earth and man continued to be shaped and reshaped in further catastrophes before the close of the age of creation that is the theme of the Book of Genesis.

References

1. Genesis IX. 8-11.
2. Genesis IX. 12-15. [According to Genesis II. 5-6 no rain fell on the newly created earth, which was watered only by a mist ascending from the ground and falling as dew. If this phenomenon persisted until the Deluge this would explain the novelty of the rainbow after the catastrophe.]

Pedro Sarmiento de Gamboa, the Spanish conquistador who traveled in the Andes in the sixteenth century, recorded in his *Historia de los Incas* a tale about Manco Capac, the first Inca, which has a curious resemblance to the Biblical story. Emerging from a cave after the re-appearance of the sun,

Manco Capac and his brothers “arrived at the mountain which is two leagues, approximately, from the town of Cuzco, and climbing to the top, they saw in it the rainbow, which the natives call *guanacuari*. And, interpreting it as a favorable omen, Manco Capac said: ‘Consider this a sign that the world will not again be destroyed by water’” (“*Tened aquello por senal que no sera el mundo mas destruido por agua!*” Chapter 12). The rainbow was depicted on the altar of the Coricancha in the temple of Viracocha in Cuzco. See R. T. Zuidema, “La Imagen del Sol y la Huaca de Susurpuquio en el Sistema Astronomico de los Incas en el Cuzco,” *Journal de la Societe de Americanistes* LXIII (1974-76), p. 218. If, as Dwardu Cardona has suggested, the reference to the rainbow in this passage is to the rings of Saturn—a suggestion with which I tend to concur—the “bondage” of Saturn in its rings may have been regarded as a guarantee of its future behavior.].





The Confusion of Languages

The sequence of events as presented in the Book of Genesis places the catastrophe of Babel next after the Deluge.

And the whole land was of one language and of one speech. . . . And they said, Go to, let us build us a city and a tower whose top may reach unto heaven. . . . And the Lord said, behold, the people is one, and they have all one language. . . . Go to, let us go down, and there confound their language that they may not understand one another's speech. So the Lord scattered them abroad from thence upon the face of all the earth.⁽¹⁾

The rabbinical sources explain that the purpose of the Tower was to secure a shelter for the city of Babel in case the Deluge should occur another time:

The men who were before us God has destroyed with a deluge; if he shall again think fit to be wroth with us, and seek to destroy us even with a deluge, we shall all perish to a man. But come, let us prepare bricks and burn them with fire, that they may withstand the waters and building them together with asphalt, let us make a high tower the top of which shall reach to heaven, in order that being delivered from the deluge we may find safety in the tower.⁽²⁾

This purpose of the builders is found also in an account of this catastrophe which the aborigines of Central America transmitted from generation to generation. Ixtlilxochitl, after narrating the story of the Deluge which brought to a close the first world age, Atonatiuh, and destroyed most of mankind, described the catastrophe which ended the second age or Ehecatonatiuh—"the sun of wind."

And as men were thereafter multiplying they constructed a very high and strong *Zacualli*, which means "a very high tower" in order to protect themselves when again the second world should be destroyed. At the crucial moment their languages were changed, and as they did not understand one another, they went into different parts of the world.⁽³⁾

The same author also gives another version of the same catastrophe:

When 1715 years had passed since the Deluge [men] were destroyed by

a violent hurricane (Uracan) which carried off trees, mountains, houses and people, and great buildings, although many men and women escaped, especially those that were able to take refuge in caves and places where this great hurricane could not reach. ⁽⁴⁾

Similarly wrote Gomara (ca. 1510-1560): “The wind which occurred at that time was so great and of such force that it overthrew all buildings and trees, and even broke mountains apart.” ⁽⁵⁾

Many of the sources which recount the destruction of the Tower of Babel maintain, in close accord with the Mexican account, that the catastrophe was caused by a violent wind. Thus the Sibyl is said to have prophesied:

When are fulfilled the threats of the great God
With which he threatened men, when formerly
In the Assyrian land they built a tower,
And all were of one speech, and wished to rise
Even till they climbed unto the starry heaven,
Then the Immortal raised a mighty wind
And laid upon them strong necessity;
For when the wind threw down the mighty tower,
Then rose among mankind fierce strife and hate.
One speech was changed into many dialects,
And earth was filled with divers tribes and kings. ⁽⁶⁾

In the *Book of Jubilees* it is said that “the Lord sent a mighty wind against the tower and overthrew it upon the earth.” ⁽⁷⁾

The Babylonian account, as transmitted by Abydenus, tells that once men “built a high tower where now is Babylon, and when it was already close to heaven, the gods sent winds and ruined the entire scheme. . . . and men, having till then been all of the same speech, received [now] from the gods many languages.” ⁽⁸⁾

Other accounts give the impression that a strong electrical discharge—possibly from an overcharged ionosphere—found a contact body in the high structure. According to a tradition known to the twelfth century traveler Benjamin of Tudela, “fire from heaven fell in the midst of the tower and broke it asunder.” ⁽⁹⁾ In the Tractate Sanhedrin of the Babylonian *Talmud* it is said: “A third of the tower was burnt, a third sank [into the earth] and a third is still standing.” ⁽¹⁰⁾

The Tower of Babel story was found in the most remote parts of the world prior to the arrival of missionaries in those places, thus before the Biblical account became known to the aborigines.

For instance, on the island of Hao, part of the Puamotu (or Tuamotu) islands in Polynesia, the people used to tell that after a great flood the sons of Rata, who

survived, made an attempt to erect a building by which they could reach the sky and see the creator god Vatea (or Atea). “But the god in anger chased the builders away, broke down the building, and changed their language, so that they spoke divers tongues.” [\(11\)](#)

The question of Biblical influence was discussed by the folklorist: “They [the natives of Hao] declared that this tradition existed already with their ancestors, before the arrival of the Europeans. I leave to them the responsibility for this declaration. All I can certify is that this tradition contains many ancient words which today are no longer understood by the natives.” [\(12\)](#)

Popol Vuh, the sacred book of the Quiche Mayas, narrates that the language of all the families that were gathered at Tulan was confused and none could understand the speech of the others. [\(13\)](#)

The Kaska (Indian) story makes the result into the cause. The Indians narrate that “a great darkness came on, and high winds which drove the vessels hither and thither. The people became separated. Some were driven away. . . . Long afterwards, when in their wanderings they met people from another place, they spoke different languages, and could not understand one another.” [\(14\)](#)

With this exception—the Kaska story may refer to any great upheaval and is actually an effect of large-scale migrations—the traditions of the peoples make the catastrophe the immediate cause of the confusion of languages and the dispersion as well.

While the account in Genesis, and that given by Abydenos and various other sources connect the story with a certain place in Mesopotamia, other traditions localize it in many different countries. [\(15\)](#) In each case the entire population of the world is said to have been affected. If the nature of the catastrophe was cosmic, the same occurrence could have taken place in different countries. In this case the existence of similar traditions in many corners of the globe is of no avail for tracing the migration of ancient tribes. The Arabic tradition makes South Arabia the scene of the upheaval, followed by confusion of languages and migrations. [\(16\)](#) Similar experiences could have been brought about by one and the same cause in many places.

It appears that after the Flood the plain of Mesopotamia became one of the few cultural centers of the world. Another flood would have caused the utter destruction of the human race, and this was feared because the memory of the Flood a few centuries earlier was very vivid. Observations of the movements of the heavenly bodies may have provided a warning of a new catastrophe and large structures were built for refuge. But when the event came, the structures were overwhelmed and destroyed by hurricanes and powerful electrical discharges.

In the rabbinical concept of the seven earths, molded one out of another in successive

catastrophes, the generation which built the Tower of Babel inhabited the fourth earth; but it goes on to the fifth earth where the men become oblivious of their origin and home:⁽¹⁷⁾ those who built the Tower of Babel are told to forget their language. This generation is called “the people who lost their memory.” The earth which they inhabited was “the fifth earth, that of oblivion (Neshiah)⁽¹⁸⁾

In the ancient Mexican traditions it is told that those who survived the catastrophe of the “sun of wind” lost “their reason and speech.”⁽¹⁹⁾

The characteristic of this catastrophe was its influence upon the mental, or mnemonic, capacity of the peoples. The description of it, as told by many tribes and peoples, if it contains authentic features, arouses the surmise that the earth underwent an electromagnetic disturbance, and that the human race experienced something that in modern terms seems like a consequence of a deep electrical shock.

The application of electrical current to the head of a human being often results in a partial loss of memory; also a loss of speech may be induced by the application of electrodes to specific areas of the brain.⁽²⁰⁾

References

1. Genesis XI. 1-9.
2. Quoted in Cosmas Indicopleustes, *Christian Topography* (Hakluyt Society: London, 1897). Cf. Josephus, *The Antiquities of the Jews*, I. 4. 2. and sources in L. Ginzberg, *The Legends of the Jews*, vol. V, pp. 199-200. [Some of the sources assert that the builders of the Tower feared a world conflagration. Cf. S. Bochart, *Geographia Sacra*, Lib. I, cap. xiv (Lugduni Batavorum, 1707): “. . . *Video quosquam asserere, illos futuri incendii metu de asylo sibi prospexisse, memores scilicet ‘affore tempus quo mare, quo tellus, correptaque regia coeli ardeat, et mundi moles operosa laboret.’* “].
3. Don Fernando de Alvara Ixtlilxochitl, *Obras Historicas* (Mexico, 1891), Vol. I, p. 12.
4. *Ibid.*, *loc. cit.* [Similarly, the sacred writings of the Burmese relate that “when the world is destroyed by wind . . . the wind begins to blow and gradually increases. At first it only raises sand and small stones; but at length it whirls about immense rocks, and the summits of mountains.” F. Buchanan, “On the Religion and Literature of the Burmas,” *Asiatick Researches* VII (1799), p. 244.]
5. F. L. de Gomara, *Conquista de Mexico* (Mexico, 1870), vol. II, p. 261. [The order of the “sun ages” of the ancient Mexicans is given differently by different authors: but the most reliable of the sources—the Vatican Codex, Ixtlilxochitl, and Veytia—all agree that Ehecatonatiuh, or “the sun of wind” was the second age, following after the “sun of water” or Atonatiuh.]
6. Quoted by Theophilus of Antioch, *To Autolytus* II. xxxi, transl. by M. Dods in *The Ante-Nicene Fathers*, Vol. II (Grand Rapids, 1962); Cf. Josephus,

- Antiquities* I. 109-121; Bochart, *Geographia Sacra* I. 13; *The Sibylline Oracles* III. 97-107 in R. Charles ed., *Apocrypha and Pseudepigrapha of the Old Testament* (Oxford, 1913), Vol. I, pp. 380f.
7. *The Book of Jubilees* 10.26 in Charles ed., *Apocrypha and Pseudepigrapha of the Old Testament*. Cf. also Midrash Rabba to Genesis, and sources in Ginzberg, *Legends* III. 35.
 8. Abydenus, quoted by Cyril, *Adversus Julianum* Bk. I, and by Eusebius, *Praeparatio Evangelica* IX, 14.
 9. Quoted in Bochart, *Geographia Sacra* I. 13. Cf. M. Adler, *The Itinerary of Benjamin of Tudela* (London, 1907).
 10. Tractate Sanhedrin XI (fol. 109A) of Seder Nezikin, transl. by H. Freedman, ed by I. Epstein (London, 1935), p. 748. [The tradition that fire from heaven destroyed the tower is also a feature of some of the Meso-American accounts, e.g., the legend recorded by Pedro de los Rios concerning the foundation of the pyramid of Cholula in Mexico. After the waters of the Deluge had receded, one of the survivors came to Cholula, where he began to build a large structure. "It was his purpose to raise the mighty edifice to the clouds, but the gods, offended at his presumption, hurled the fire of heaven down on the pyramid, many of the workmen perished, and the building remained unfinished." (J. G. Frazer, *Folk Lore in the Old Testament* Vol. I [London, 1918]. Frazer adds that "It is said that at the time of the Spanish conquest the inhabitants of Cholula preserved with great veneration a large aerolite, which according to them was the very thunderbolt that fell on the pyramid and set it on fire." Cf. E. B. Tylor, *Anahuac* p. 277. Another Mexican tradition, recorded by Diego Duran in 1579 (*Historia de las Indias de Nueva Espana y las Islas de Tierra Firme* I [Mexico, 1867], pp. 6ff.) tells of giants who built a tower that almost reached the heavens, when it was destroyed by a thunderbolt.]
 11. R. W. Williamson, *Religious and Cosmic Beliefs of Central Polynesia* (Cambridge, 1933), vol. I, p. 94.
 12. A.-C. Eugene Caillot, *Mythes, legendes et traditions des Polynesiens* (Paris, 1914), p. 16, n. 1. The tradition was among those collected by Caillot in 1912 or 1913; his publication contains the story in the original Polynesian and in a French translation.
 13. Brasseur de Bourbourg, *Histoire des nations civilises du Mexique* (1857-59), vol. I, p. 72. [Cf. also the Andean tradition recorded by Pedro Sarmiento de Gamboa in his *Historia de los Incas*, ch. 7. In common with other accounts, it places the confusion of languages after the Deluge.]
 14. "Kaska Tales," collected by James A. Teit, *Journal of American Folklore*, no. 30 (1917), p. 442.
 15. Many different traditions were collected by James G. Frazer in *Folk-lore in the Old Testament*, (London, 1918), Vol. I, ch. V. Cf. H. H. Bankroft, *The Native Races of the Pacific States*, Vol. V.
 16. D. Reiske, *De Arabum Epocha Vetustissima, Sail Ol Arem, etc.* (Leipzig, 1748). [The question of whether the Greeks transmitted an account of the same events was debated by several writers in antiquity, including Philo of Alexandria (*De Confusione Linguarum*), Cyril of Alexandria (*Contra*

Julianum, Bk. IV) and Origen (*Contra Celsum* IV. 21). These writers saw a link between the story of the revolt of the giants—the sons of Aloeus who piled Ossa upon Olympus and Pelion atop Ossa in a vain effort to reach the lofty dwelling of Zeus and make war on the gods—and the account of the construction of the tower of Babel in Genesis XI. 3-8. The earliest allusion to these events is in Homer's *Odyssey* (XI. 315-316); Homer ascribes the destruction of the giants to Apollo. Pliny *N. H.* II. 8. 30) and Macrobius (*Saturn.* I. 19. 7) identified Apollo with the planet Mercury. Apuleius wrote (*De Mundo*, 336) that Mercury and Apollo were alternate names for “Stilbon,” the planet Mercury.

Hesiod described the battle with the giants as an immense catastrophe involving the earth and heaven alike.

The boundless sea rang terribly around, and the earth crashed loudly: wide heaven was shaken and groaned, and high Olympus reeled from its foundations under the charge of the undying gods, and a heavy quaking reached Tartarus. . . . the cry of both armies as they shouted reached to starry heaven.

Then Zeus no longer held back his might; but straight his heart was filled with fury and he showed forth all his strength. From heaven and from Olympus he came forthwith, hurling his lightning: the bolts flew thick and fast from his strong hand, together with thunder and lightning, whirling and awesome flame. The life-giving earth crashed around in burning, and the vast wood cracked loud with fire all about. All the land seethed, and Ocean's streams and the unfruitful sea. The hot vapour lapped round the earthborn Titans: flame unspeakable rose to the bright upper air: the flashing glare of the thunder shone and lightning blinded their eyes, for all that they were strong.

It seemed as if Earth and wide Heaven above came together; for such a mighty crash would have arisen if the Earth were being hurled to ruin and Heaven from on high were hurling her down.

. . . Also the winds brought rumbling earthquake and duststorm, thunder and lightning, and the lurid thunderbolt, which are the shafts of great Zeus.

Seneca also referred to the same events in mentioning Jupiter's thunderbolts “by which the threefold mass of mountains fell” and a tradition held that this was the first occasion on which Jupiter used his bolts (Ovid, *Fasti* III. 438). The pagans disputed with the Jews and Christians whether Moses took the story from Homer or Homer from Moses, but the common origin of the two accounts was generally conceded. One early writer, Eupolemus, drew on both

sources in asserting that “the city of Babylon had been founded by those who saved themselves from the deluge: they were giants, and they built the famous tower.” (Eusebius, *Praep. Evang.*) From the viewpoint of sequential chronology, the link is plausible. The giants’ revolt is said to have occurred not long after Zeus had taken over from Kronos the dominion of the sky, and it marks the real beginning of Jupiter’s dominion. Cf. Bochart, *Geographia Sacra*, I. 13.]

17. This is told in allegorical form in the tale of the wanderings of Adam. The myth of Man (Adam) traveling through all the seven earths is a transparent allegory of the physical and human history of the earth. See *Sefer Raziel*; cf. Ginzberg, *Legends* I. 90ff., V. 117f.
18. *Midrash Rabba* to Genesis, Exodus; Ginzberg, *Legends* I. 114; *Zohar Hadesch Bereshit* 8a-8b, *Zohar Ruth* 97b, and other sources in Ginzberg, *Legends*, V. 143. [In *Tractate Sanhedrin* 109a it is said that the place where the Tower once stood retains the peculiar quality of inducing a total loss of memory in anyone who passes it.]
19. H. H. Bankroft, *The Native Races* (San Francisco, 1882), vol. III, p. 64.
20. The electro-convulsive therapy used in psychiatry for the treatment of certain mental cases is administered by passing current through electrodes on the forehead. Conducted through the brain, the electric discharge causes a period of confusion and a subsequent complete, though temporary, loss of memory of the events immediately preceding the discharge. A number of patients complain also of consequent disturbances of longer duration, and some of them suffer a patchy, retrograde amnesia. See the article by Siskind in *Archive of Neurological Psychiatry* (Chicago, 1941), p. 215, 223.





Mercury

It can be assumed with a fair amount of probability that the planet that caused the disturbances described above was the planet Mercury, the Greek Hermes, the Babylonian Nebo.

To each of the planets is ascribed a world age, and the ages of the other planets—Moon, Saturn, Jupiter, Venus, and Mars—are well discernible; the dominion of Mercury must be looked for in one of the world ages, and one of the world cataclysms was apparently ascribed to this lesser planet.⁽¹⁾ Mercury was a feared god long before Mars (Nergal) became one. As the name of Mount Sinai refers to Sin, the Moon, so the name of Mount Nebo in Moab where Moses died⁽²⁾ was called already in that early time by the name of the planet Mercury. Later in the seventh and sixth centuries before the present era, this god was much venerated, especially by the Chaldeans and other peoples of Mesopotamia, as the names of Nabopolassar and his son Nebuchadnezzar prove.⁽³⁾ In earlier times Mercury was known to the Sumerians as Enki.⁽⁴⁾

Equally pronounced was the position of Thoth, the planet Mercury of the Egyptian pantheon, the theophoric part of the name Thutmose.⁽⁵⁾ For the northern peoples, Mercury was Odin.⁽⁶⁾

It is characteristic that in many astronomical texts Mercury, the Greek Hermes, the Babylonian Nebo, the Egyptian Thoth, is portrayed as the planet-god which had in his dominion the physiological capacity of memory in man,⁽⁷⁾ as well as that of speech. According to Augustine, “speech is Mercury.”⁽⁸⁾

Direct information that confirms our assumption is provided by Hyginus. Hyginus wrote that for many centuries men “lived without town or laws, speaking one tongue under the rule of Jove. But after Mercury explained the languages of men (whence he is called *hermeneutes*, ‘interpreter,’ for Mercury in Greek is called Hermes; he, too, divided the nations) then discord arose among mortals. . . .”⁽⁹⁾

The Romans as well as the Greeks pictured Mercury with wings, either on his headgear or at his ankles,⁽¹⁰⁾ and with an emblem, the caduceus, a staff with two snakes winding. The double serpent (caduceus), the emblem of Mercury, is found in ornaments of all peoples of antiquity; a special treatise could be written about this subject; I found the caduceus all around the world.⁽¹¹⁾ Mercury, or Hermes of the

Greeks, was a messenger of the gods that speeded on his errand, sent by Jupiter. ⁽¹²⁾

Among the satellites that presently orbit each of the giant planets are bodies comparable in size to Mercury, or even larger. ⁽¹³⁾ Abraham Rockenbach, whose *De Cometis Tractatus Novus Methodicus* we had occasion to quote when investigating the causes of the Deluge, included in his treatise also the following entry:

In the year of the world one thousand nine hundred and forty-four, two hundred and eighty-eight years after the Deluge, a comet was seen in Egypt of the nature of Saturn, in the vicinity of Cairo, in the constellation of Capricorn, and within the space of sixty-five days it traversed three signs in the sky. Confusions of languages and dispersals of peoples followed. On this the text of the eleventh chapter of Genesis speaks in more detail. ⁽¹⁴⁾

From the annals of modern astronomy we know of cases when a comet traveling on an elongated orbit was “caught” by the planet Jupiter, by which is meant the change of the cometary orbit to one of a short period, with the sun in the focus of its orbit.

It is possible to reconstruct the planetary disturbances of that age with some approximation. In my understanding Mercury was once a satellite of Jupiter, or possibly of Saturn. In the course of the events which followed Saturn’s interaction with Jupiter and its subsequent disruption, Mercury was pushed from its orbit and was directed to the sun by Jupiter. It could, however, have been a comet and the entwined snakes of the caduceus may memorialize the appearance it had when seen by the inhabitants of the Earth. At some point a contact occurred between the magnetospheres of Mercury and the Earth, described in the traditions of various nations. ⁽¹⁵⁾

That the Earth was once a satellite of a giant planet is nothing more than a surmise; we dealt with it only as with a hypothetical construction, requiring further elucidation. But with a greater show of support derived from the mythological and folkloristic sources we have tried to demonstrate on the case of Mercury that once it had been a satellite of one of the giant planets and was “directed” by Jupiter closer to the sun. ⁽¹⁶⁾

The claim therefore is that Mercury has traveled on its present orbit for only some five or six thousand years. This view conflicts with both the nebular and the tidal theories of the origin of the planetary family, and with the assumption that the planets have occupied the same orbits for billions of years.

References

1. [Among the reasons which suggest that Mercury was the planet which caused

the catastrophe of the confusion of languages is the fact that the age of Mercury follows that of Saturn. In the Hindu conception of the world ages, Satya yuga, the Saturnian age, was brought to a close by a general flood. Cf. Sir William Jones, "On the Gods of Greece, Italy and India," *Asiatick Researches* I (1799), p. 234: ". . . The Satya, or (if we may venture to call it) the Saturnian age was, in truth, the age of the *general* flood" (emphasis in text). Mercury appeared soon after the beginning of the next age, the Treta yuga; and for at least a part of this age men lived under the aegis of Mercury. In Hindu astronomy the usual name for the planet Mercury was Budha. In the *Bhagavatamrita* it is said that "Budha [Mercury] became visible the 1002nd year of the Cali yug." According to John Bentley, "the 1002nd year of the Cali yug [astronomical era] corresponds . . . with "the 179th year of the Treta yug of the poets." "Remarks on the Principal Aeras and Dates of the Ancient Hindus," *Asiatick Researches* V (1799), pp. 320f. The *Bhagavatamrita* describes in mythical language the first appearance of Mercury. See W. Jones, "On the Chronology of the Hindus," *Asiatick Researches* II (1799), p. 122. Jones also placed "the ancient Budha, or Mercury . . . about the beginning of the Treta yug." In Hindu lore Budha, or Mercury, is said to have married Ila, the daughter of Satyavrata, the Manu of the Satya yuga, in whose days the Deluge occurred. This is but a way of saying that the time of Mercury's prominence was shortly after the Deluge, the age of Saturn, the Satya yuga. *The Matsya Puranam* ed. and transl. by Jamna das Akhtar (Delhi, 1972), ch. xi.

Among the descriptive epithets applied to Mercury in India, were *budha*—"mind, spirit, intelligence," *sarvagna*—"all-knowing," *shadhabhigna*—"possessor of the six sciences," *advayavadi*—"eloquent, unequalled in speech." See Fr. Paulinus, *Systema Brahmanicum* (Rome, 1791), pp. 156f. The presence of the god could induce forgetfulness. (*The Matsyapuranam* XI. 61).].

2. Deuteronomy 34: 1-5; cf. Jastrow, *Die Religion Babylonien und Assyriens*, p. 124, n. 3.
3. [Nebo was regarded as the son of Marduk, or Jupiter. His chief cult center in Babylonia was Borsippa, whose ziggurat, or stepped pyramid, was consecrated to Nebo. In the Talmud (Sanhedrin XI. 109a) the ruins of this structure were considered to be the remains of the Tower of Babel. (Cf. Obermeyer, pp. 314, 327, 346). It was of these ruins that R. Yochanan is reported to have said "a third of the tower was burnt, a third sunk [into the earth], and a third is still standing." The Talmud next quotes Rab as having said "The atmosphere of the tower causes forgetfulness."

Nebo was also thought of as the herald of the gods, and as presiding over all matters pertaining to the intellect. Cf. Jastrow, *Die Religion Babylonien und Assyriens*, Vol. I, pp. 121, 123, 238; Cf. the prayer of Assurbanipal: "For Nebo the perfect son, regulator of all things in heaven and earth, him that holds the tablet of wisdom, carrier of the stylus of fate. . . ." S. Langdon, *Sumerian and*

Babylonian Psalms (Paris, 1909), p. 129.].

4. ["The Sumerians believed that there was a time when all mankind spoke one and the same language, and that it was Enki, the Sumerian god of wisdom, who confounded their speech"—so concluded S. N. Kramer after publishing his translation of a Sumerian epic fragment. See S. N. Kramer, "The 'Bible of Tongues' : A Sumerian Version," *The Journal of the American Oriental Society* 88, pp. 108-111. The text of the tablet is translated by Kramer as follows:

The whole universe, the people in unison To Enlil in one tongue _ _ _ Enki _ _ _ the leader of the gods, Endowed with wisdom _ _ _ Changed the speech in their mouths (brought) contention into it, Into the speech of man that (until then) had been one.

Cf. K. Seybold, "Der Turmbau zu Babel," *Vetus Testamentum* 26 (197x), pp. 453-479; J. van Dijk, "La 'Confusion des langues' . Note sur le lexique et sur la morphologie d'Enmerkar, 147-155," *Orientalia* 39 (1970), pp. 302-310; B. Alster, "An Aspect of 'Enmerkar and the Lord of Aratta' ," *Revue d'Assyriologie* 67 (1973), pp. 101-109.

The Sumerian Enki was the same as the Babylonian Ea; See for instance M. Jastrow, *Die Religion Babyloniens und Assyriens* (Giessen, 1905), Vol. I, p. 62. The name Ea was written with the ideogram EN.KI. Students of Babylonian astronomy are well aware that "by 'Star of the god Ea' Mercury is meant." *Ibid.*, Vol. II, p. 667, note 2.].

5. Cf. P. Boylan, *Thoth the Hermes of Egypt* (Oxford, 1922). [Diodorus wrote (I. 17. 3) that when Isis took over the kingdom from Osiris, Hermes (i.e., Thoth) became her chief counsellor. This means that the planet Mercury was prominent in the period after Jupiter replaced Saturn as the dominant planet. Diodorus also wrote that it was by the Egyptian Hermes "that the common language of mankind was first further articulated" (I. 16. 1).

An Egyptian hymn calls Thoth the deity that "made different the tongue of one country from another." (J. Cerny, "Thoth as Creator of Languages," *The Journal of Egyptian Archaeology* 34 (1[48], pp. 121-122.) Another text tells that this god "distinguished (or separated) the tongue of country from country." (*Ibid.*, p. 121). Yet another recounts that he "distinguished the tongue of every foreign land." (*Ibid.*, *loc. cit.*) Cerny comments that the words "made different" or "distinguished" or "separated" are "past participles alluding probably to some lost myth or legend according to which Thoth differentiated the languages of the various countries. These epithets might even be cited as evidence of an Egyptian parallel to the Hebrew fable of Yahwe and the Tower of Babel." Cf. J. G. Griffith, *Plutarch's De Iside et Osiride*, pp. 263f. In Egyptian texts Thoth was called "lord of divine words" and "mighty in speech" ; according to E. A. W. Budge, "from one aspect he is

speech itself . . . Thoth could teach a man not only words of power, but also the manner in which to utter them. . . . The words, however . . . must be learned from Thoth.” Thoth was also known as “scribe of the gods” and “lord of books.” (*The Gods of the Egyptians* [London, 1904], vol. I, p. 401; cf. P. Boylan, *Thoth the Hermes of Egypt* [Oxford, 1922] and B. von Turayeff, “Zwei Hymnen an Thoth,” *Zeitschrift fuer Aegyptische Sprache* 33 [1895], pp. 120-125).

In the dialogue *Phaedrus* (sect. 274-275), Plato presents a story about the invention of letters by Thoth, and explores some of the implications of this new skill. It “will create forgetfulness in the learners’ souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves.” (transl. by B. Jowett)].

6. [See Tacitus, *Germania* IX, transl. by H. Mattingly (1948): “Above all they worship Mercury, and count it no sin to win his favor on certain days by human sacrifices.” Odin was the head of the Nordic pantheon. Matthew of Westminster (Flores ed., 1601, p. 82) transmits a speech by Saxon envoys to Britain ca. 450 A.D.: “*Deos patrios, scilicet Saturnum, Jovem atque ceteros, qui mundum gubernant, colimus, maxime autem Mercurium, quem lingua nostra Voden apellamus.*”—“We worship the gods of our fathers, that is, Jupiter, Saturn, and the rest of those that rule the world, but most of all [we worship] Mercury, whom in our language we call Voden.”

Of Odin it was said: “He spoke so well and so smoothly that all who heard him believed all he said was true.”—*Heimskringla: History of the Kings of Norway*, transl. by Lee M. Hollander (Austin, 1964), pp. 10-11. He was associated with Hugin or “thought” and Munin or “memory.”

One of the myths about Odin connects him with the multiplicity of languages. In the *Gylfaginning*, ch. XIX, it is said that the reason why Odin is known by many different names is “the fact that there are in the world so many different languages.”]

7. [*Hermes*. “The planet Mercury [is] the deity which presides over the rational energy,” wrote the neo-Platonist philosopher Porphyry (*On the Wanderings of Ulysses*, transl. by Th. Taylor [London. 1823], p. 259) and Proclus, the last great representative of that school, elaborated in his description of Mercury’s powers: “(Mercury) unfolds into light intellectual gifts, fills all things with divine reasons, elevates souls to intellect, wakens them as from a profound sleep. . . .” (*In Euclidi Elementa* lib. I, par. 14; cf. *idem, In Platonis Rem Publicam*, ed. Nauck, I. 255, II. 221). Proclus also described Hermes as “responsible for distinguishing and interpreting things, recalling to memory the sources of the intellect” (*In Platonis Rem Publicam* II. 224).

Nebo. See above, n. 3

Thoth. An Egyptian hymn assigns to Thoth control over man’s mnemonic

- powers, invoking him as the deity “that recalls all what had been forgotten.” (R. Hari, *Horemheb et le Reine Moutnedjemet* [Geneva, 1965]).]
8. *The City of God* VII. 14. 1. [Servius called Mercury “et orationis deus et interpres deorum” (*In Vergili Aeneidem* IV. 239). Arnobius (*Adversus Gentes* III. 32) argued that Mercury is simply speech and words exchanged in conversation. Cf. Hippolytus, *Refutatio* V. 2; Clement of Alexandria, *Homilia* VI. xv; Macrobius wrote in his *Saturnalia*: “*scimus autem Mercurium vocis et sermonis potentem.*” Proclus, (*Commentaire sur le Timee*, transl. by Festugiere, Vol. V, p. 237) asserted that “la faculte de langage [correspond a] Hermes. . . .” Cf. F. Buffiere, *Les Mythes d’Homere et la Pensée grecque* (Paris, 1956), pp. 289ff. A scholium to Aristophanes’ *Plutus*, Act. IV, scene I, and a scholium to Apollonius Rhodius’ *Argonautica* 1. 517 provide further details about Mercury’s association with language.]
 9. Hyginus, *Fabulae*, no. 143: “Phoroneus,” transl. by M. Grant in *The Myths of Hyginus* (University of Kansas Publications: Lawrence, 1960). Here Mercury is made directly responsible for the confusion of languages. “The meaning is clearly that Hermes invented one language for one people, another for another. The whole account reminds one of the Biblical Tower of Babel.” *ibid.*, p. 118.
 10. According to Servius (*In Vergili Aeneidem Commentarii* IV. 239) “*Mercurius ideo dicitur habere pennas, quia citius ab omnibus planetis in ortum suum recurrit unde et velox et errans inducitur, ut (Georgica I. 337) ‘quos ignis caeli Cyllenius erret in orbis.’*”
 11. The caduceus was an emblem of the Babylonian deity Ningishzida, and an astronomical tablet from Boghazkoi identifies Ningishzida with Nebo-Mercury (Weidner, *Handbuch der babylonischen Astronomie*, p. 61). Cf. H. Th. Bossert, *Altsyrien* (Tuebingen, 1951), p. 139, figs. 442 & 445. H. Schliemann found the caduceus at Mycenae. Ancient Mexican codices portray the worship of entwined snakes. See Lord Kingsborough, *The Antiquities of Mexico* (London, 1830), Vol. II, p. 4. Cf. H. B. Alexander, *Latin American Mythology (Mythology of All Races*, Vol. XI (1920), p. 72; cf. also Franz Boas, *Kwakiutl Culture as Reflected in Mythology*, (New York, 1935), p. 137.
 12. Homer, *The Odyssey* VI; Vergil, *The Aeneid* IV. 239.
 13. Jupiter’s satellite Ganymede is larger than Mercury, and Saturn’s biggest moon, Titan, is almost as large.
 14. *De Cometis Tractatus Novus Methodicus* (Wittenbergae, 1602), pp. 113f.: “*Anno mundi millesimo, nongentesimo, quadragesimo quarto. Anno post diluvium, ducentesimo octuagesimo octavo, Cometa in Aegypto naturam Saturni referens, circa Alcairum, in dodecatemorio Capricorni visus est, hicque spatio sexaginta quinque dierum, tria signa in coelo percurrit. Hunc confusiones linguarum, dissipationes gentium in toto terrarum orbe, sunt secutae. De quibus Genes. undecimo capite, prolixius textus dicunt.*” Cf. J. Hevelius, *Cometographia* (1668).
 15. [In Babylonian sources the destructive acts of Nebo are recorded: “The lofty one, furious . . . the word of him . . . causes the earth beneath to shudder, the word which in his glory he spoke. . . Waters have flooded the wide land.” S. Langdon, *Babylonian Liturgies* (Paris, 1913), p. 65.]
 16. Cf. R. S. Harrington and T. C. van Flandern, “A Dynamical Investigation of

the Conjecture that Mercury is an Escaped Satellite of Venus," *Icarus* 28,
(1976), pp. 435-440.





The Overthrow of the Cities of the Plain

The Book of Genesis portrays the age of the patriarchs as a time of great upheavals in nature in which the geology of the Jordan Valley underwent some drastic changes. The focus of these events was in the place now occupied by the Dead Sea. The Dead Sea, according to the Genesis account, was not yet in existence in the days of Abraham. In its place there was a fertile plain, known as the plain of Sittim, with five populous cities: Sodom, Gomorrah, Admah, Zeboiim, and Zoar. When Lot arrived in the region he “lifted up his eyes, and beheld all the plain of Jordan, that it was well-watered everywhere . . . even as the garden of the Lord, like the land of Egypt.” ⁽¹⁾

The nineteenth chapter of the Book of Genesis tells of a catastrophe in which these cities were overwhelmed, overturned, and swallowed by the earth:

The sun was risen upon the earth when . . . the Lord rained upon Sodom and upon Gomorrah brimstone and fire from the Lord out of heaven; And he overthrew those cities, and all the plain, and all the inhabitants of the cities, and that which grew upon the ground. . . .

And Abraham got up early in the morning to the place where he stood before the Lord; And he looked toward Sodom and Gomorrah, and toward all the land of the plain, and beheld, and, lo, the smoke of the country went up as the smoke of a furnace. ⁽²⁾

The description of this upheaval has always aroused wonder: “There is clearly something unnatural or extraordinary that is recorded,” one commentator wrote. ⁽³⁾

The great rift of the Jordan and the Dead Sea bear witness to a tremendous upheaval. “With the end of the Tertiary period, in an event of extreme violence . . . the entire Syrian land, from its south end to its north end, was torn apart and the ground in between sank into the depths.” So wrote Professor M. Blanckenhorn, the explorer of the region of the Dead Sea. ⁽⁴⁾ In his later work he advanced the age of the rift to the pluvial, or the beginning of the first glacial age. The origin of the Dead Sea occurred “in a great mountain movement, with collapse and dislocation, that took place at the beginning of the pluvial, in the first glacial period. . . . In these titanic events conditions were created for the existence of an inner sea.” ⁽⁵⁾

A period of dryness followed the first glacial, or pluvial period. In a new pluvial period, the second glacial epoch, the lake reached its greatest dimensions: the Dead

Sea spread to the northern side of the present Sea of Galilee, engulfing it together with the Jordan Valley between. At the time, as fossil snails show, the water was not yet saline.

The rift in which the Lake of Galilee, the Jordan, and the Dead Sea lie is the deepest depression on any continent. The surface of the Dead Sea is close to 400 meters below the level of the Mediterranean, and its deepest bottom is some 320 meters lower still. The shore falls steeply from the Judean mountains on the west; on the eastern side of the rift rise the Moabite mountains. The walls of the chasm show sharp broken strata that remained horizontal, which proves that the breaking down was instantaneous.⁽⁶⁾ The force which caused this slide movement must have been stupendous. The ground of the rift around the Dead Sea is covered with coagulated lava masses, taking the form of an immense herd of giant elephants with rough skin. These lava eruptions from fissures are ascribed to the second interglacial period.⁽⁷⁾ To the south end of the Dead Sea towers a big cliff of salt called Jebel Usdum (Mount of Sodom). “It is absolutely impossible that the salt sediment of a sea should precipitate in such a form.”⁽⁸⁾ “Only the rupture of the ground could create this site, singular in the entire world.”⁽⁹⁾

The destruction of Sodom and Gomorrah took place in historical times, according to my scheme in a catastrophe which caused also the end of the Old Kingdom in Egypt. The geologists refer the upheaval which tore Syria in two to the end of the Tertiary period—long before human history began.

Now the question is legitimate: how old is the Dead Sea?

References

1. Genesis 13:10. Tacitus wrote that the plain was “fruitful and supported great and populous cities.” (*Histories* V. 7). According to Strabo (*Geography* XVI. 2. 44) there were “thirteen inhabited cities in that region of which Sodom was the metropolis.”
2. Genesis 19: 23-25, 27-28.
3. J. Penrose Harland, “Sodom and Gomorrah,” *The Biblical Archaeologist Reader* (New York, 1961), p. 61.
4. M. Blanckenhorn, “Entstehung und Geschichte des Todten Meeres,” *Zeitschrift des Deutschen Palaestina-Vereins*, 19 (1896), p. 16.
5. Idem, *Naturwissenschaftliche Studien am Todten Meer und im tal* (Berlin, 1912); cf. R. Freund *et al.*, “The Shear along the Dead Sea Rift,” *Philosophical Transactions of the Royal Society of London, A*, Vol. 267 (1970), pp. 107-130.
6. Blanckenhorn, “Entstehung und Geschichte des Todten Meeres,” p. 26.
7. *Ibid.*, pp. 41-42.
8. *Ibid.*, p. 34.
9. *Ibid.*, p. 35.





The Age of the Dead Sea

There is a way of calculating the age of the Dead Sea. This interior lake contains concentrated solutions of salts. These salts flow into the sea with the waters of its tributaries. Thermal springs bring salt to the Sea of Galilee, and the Jordan carries them to the Dead Sea, which has no outlet. From the surface of the Dead Sea, in the deep hot rift, the water evaporates, leaving the salts behind. By calculating the amount of salts in the sea and the amount that reaches it annually by way of the Jordan and other streams, as well as from thermal springs on its shores, the approximate age of the Dead Sea can be determined. Such an attempt was partially made. The magnesium salts in the Jordan served as a basis for the calculation. It was reckoned that the present annual rate of influx of magnesium in the water of the Jordan alone, when related to the concentration of magnesium in the Dead Sea, should give a figure of approximately 50,000 years as the age of the sea.⁽¹⁾ The author of this estimate admitted that even this figure is probably too high; the salinity of the Jordan must have decreased with time, for the thermal sources carry more salt when they are young and their temperature is high.

In the above calculation, it was estimated that the Jordan carries six million tons of water daily to the Dead Sea and that it deposits 181 million tons of magnesium annually. However, on an average day more than double that amount evaporates from the Dead Sea,⁽²⁾ and its surface does not fall, other sources must be making up the difference.

The rivers Zerka (Callirhoe) and Arnon, which flow into the sea from the east, carry salt solutions from many springs. The shores of the Dead Sea abound in highly concentrated thermal springs which contain rich amounts of magnesium. These sources flow directly into the sea, bringing a richer influx of magnesium than the Jordan.⁽³⁾ In addition there are, on the shores of the Dead Sea, abundant vestiges of thermal springs with rich sediments of salts that are inactive at present.⁽⁴⁾ It is highly probable, too, that there are submarine sources in the Dead Sea which may provide magnesium, but they are indeterminable.⁽⁵⁾

When these factors are taken into consideration the age of the Dead Sea, computed on the basis of its magnesium content, must be drastically reduced.

A computation that takes, as its basis, the amount of sodium in the Jordan points to a recent date for the origin of the Dead Sea. The proportion of sodium to magnesium in the water of the Jordan is about 4:1; in the Dead Sea it is 1:2.⁽⁶⁾ If the Jordan were the

only source of the sodium for the Dead Sea the age of the Dead Sea would be only about 6,000 years. But the thermal sources on the western, eastern, and southern shores contain sodium too; so may the submarine sources, which cannot be evaluated. It is likely, therefore, that the sea has existed for only about four thousand years. When again the fact is taken into account that the thermal sources are usually more concentrated when they first break out and when they are at a higher temperature, it may well be asked why the age of this sea should not be reduced still more. It is probable that deeper levels of water have a greater salt concentration.⁽⁷⁾

Fifty thousand years as the age of the Dead Sea was an unexpectedly low estimate: the rift in which the Dead Sea is situated is considered to be the result of a catastrophe at the beginning of the first glacial period.⁽⁸⁾ Now a simple reckoning shows that the saline sea with the Jordan has not existed longer than five thousand years.

References

1. W. Irwin, "The Salts of the Dead Sea and River Jordan," *Geographical Journal* 61 (London, 1923), p. 434. [Yaacov K. Benter's 1961 publication arrived at a figure close to 12,000 years. See *Scientific American* Oct. 1983, p. 103.]
2. *Ibid.*, pp. 435-436; [cf. J. Neumann, "Tentative Energy and Water Balances for the Dead Sea," *Bulletin of the Research Council of Israel*, G, Vol. VII, nos 2-3 (1958); cf. also H. Haude, "Ueber Klimatische und menschliche Einwirkungen auf den Wasseraushalt des Toten Meeres in seiner Vergangenheit," *Zeitschrift des Deutschen Palaestina-Vereins*, 88 (1972), pp. 105-139.]
3. Blanckenhorn, "Entstehung und Geschichte des Todten Meeres," p. 29; cf. L. Lartet, *L'exploration geologique de la Mer Morte* (1874), p. 297.
4. R. Sachsse, "Beitraege zur chemischen Kenntiniss der Mineralien, Gesteine und Gewaesser Palaestinas," *Zeitschrift des Deutschen Palaestina-Vereins*, 20 (1897), pp. 25ff., esp. p. 33; cf. H. St. J. Philby, "The Dead Sea to 'Aqaba," *The Geographical Journal*, LXVI (1925).
5. Irwin, "The Salts of the Dead Sea," *op. cit.*, p. 438.
6. *Ibid.*, p. 434. Cf. H. Boyko, *Salinity and Aridity* (The Hague, 1966), p. 15.
7. The figures for magnesium according to Terreil, quoted by Irwin (p. 431), are: At the surface of the sea, at the north shore, magnesium constitutes 13.20 percent of solid salt; 120 meters below the surface, five miles east of Kasel Fesaka, magnesium amounts to 16.80 percent of the solid residue; and 300 meters deep at the same point, 15.99 percent. From the account of Tacitus (*Histories* V. 6) it would appear that the Dead Sea was already saturated with salts nineteen centuries ago.
8. Blanckenhorn, *Naturwissenschaftliche Studien am Todten Meer*, p. 115.





The Great Rift and the Jordan

The story of the violent changes that occurred in the Jordan Valley, the memory of which is connected with the time of the patriarchs and in which Sodom and Gomorrah were overturned, does not mention that the Valley of Sittim, where the cities were located, became an inner sea. Sulphur and brimstone fell from heaven, one of the best cultivated areas was overturned, fire from beneath and fire from above accomplished the desolation—all this is described; but not the appearance of a sea. However, when the Israelites under Moses and Joshua reached the area in their flight from Egypt, they found the lake there.⁽¹⁾ It seems to have appeared after a catastrophe later than the one that destroyed Sodom and Gomorrah.

But if there was no Dead Sea before the time of the Exodus, whither did the Jordan flow, assuming it was already in existence? The Jordan might not have existed at all, or it could have flowed into the open sea, the Mediterranean. It probably did not flow along the Rift over the Arabah into the Aqaba Gulf of the Red Sea, as no traces of marine life are found at the height of the watershed of Arabah. The barrier between the Dead Sea and the Aqaba Gulf is about 500 meters high. The watershed between the Jordan River and the Kishon River which flows into the Mediterranean, at Mount Gilboa, is 500 meters above the ocean level. The topographical shape of the region of the Beth Shan Valley, stretching from the Jordan towards the Esdraelon Valley, makes the flow of the Jordan into the Mediterranean a far more acceptable conjecture than a presumed flow of the Jordan over the slopes of the mountain of Hor into the Red Sea. Of course, it can be regarded as certain that the geography of the environs of the Red Sea and of the continents in general was quite different before and after the catastrophe that resulted in the formation of the Dead Sea.

The Great Rift, which begins in Syria between the Lebanon and Anti-Lebanon, runs along the Jordan Valley, the Dead Sea, the Arabah, the Aqaba gulf, the Red Sea, and continues through the continent of Africa as far as Zimbabwe, is generally regarded as the product of a grandiose revolution in the shell of the Earth: for many thousands of kilometers the Great Rift runs from Asia to Africa.

Prehistoric man witnessed the latest phases of widespread tectonic movements which convulsed East Africa and provoked great subsidences (of as much as 1500 feet or more) in the early Quarternary strata, whereby was occasioned the discharge of lava and erupted scoriae, modifying notably the courses of the rivers and the circumstances in which the lakes rose or fell in level, and even changing the outlines of these bodies of water.⁽²⁾

Changes in the watercourses and lakes took place along the entire length of the Rift. The deepest place in the Rift on land is the valley of the Jordan and the Dead Sea. It appears that the catastrophe which originated the Dead Sea, caused also the origin of the Great Rift.

Beyond the Red Sea, which stretches for several hundred kilometers and has not a single affluent river, the aquatic life of the African lakes and rivers belongs to the so-called Ethiopian zoogeographical region. According to Annandale “the explanation of the Ethiopian affinity of the fish fauna of the Jordan is that the Jordan formed at one time merely part of a river system that ran down the Great Rift Valley. The Jordan was one branch of this huge river system, the chain of lakes in East Africa represents the other; and together they opened into the Indian Ocean.” ⁽³⁾

Whatever the structural changes of the earth in the catastrophes before that which I describe here, there must have been some time when the Jordan streamed into the valley of Sittim (the name of the plain before the Dead Sea originated) and continued into the Mediterranean, most probably through the Jezreel Valley.

Legendary reminiscences from the patriarchal age indicate that the Jordan existed before the Dead Sea came into being. ⁽⁴⁾ It appears that the coming out of Paddan-aram to Canaan required the passage of a river. Today the way from Palestine to the north does not require the crossing of water. But if the Jordan did flow through the Esdraelon Valley into the Mediterranean, it had to flow in a direction opposite to the one in which it flows today.

Does there exist any reminiscence about the Jordan changing the direction of its flow?

It is not the story in the book of Joshua about the Jordan halting its flow—there it is told that the water was stopped at Adama, north of Jericho. ⁽⁵⁾ This indicates that the flow of the Jordan was already from north to south, as today. The existence of the Dead Sea is also mentioned at the time the Israelites approached Canaan, but it is described as recent: it is called “the sea of the plain.” ⁽⁶⁾

The blocking of the Jordan River by falling slices of the banks happened a number of times. ⁽⁷⁾ The stoppage referred to in the book of Joshua is described as a temporary blocking of the Jordan River in a time of frequent earthquakes, and not as a reversal of the flow.

But there are, in Scripture, references to the reversal of the flow of the Jordan:

When Israel went out of Egypt. . . The sea saw and fled: Jordan was driven back. The mountains skipped like rams, the little hills like lambs. What ailed thee, o thou sea, that thou fleddest? thou Jordan that

thou was driven back? Tremble, thou earth, at the presence of the Lord . . . Which turned the rock into a standing water, the flint into a fountain of waters. ⁽⁸⁾

Here the reversal of the flow of the Jordan is associated in time not only with the Exodus and the catastrophe of the Sea of Passage, but also with the appearance of a new inner sea ("standing water").

A river that changed the direction of its flow must have been regarded as a very remarkable phenomenon.

An inscription of Thutmose I reads: "Frontier northern, as far as that inverted water which goeth down in going up." ⁽⁹⁾ In order to explain this passage it was supposed that the Egyptians could not imagine that a river flows otherwise than from south to north, as does the Nile, and they wondered at a river flowing in another direction. The Euphrates flows from the north-west to the south-east; the Orontes north to south for part of its course, afterwards turning west and emptying into the Mediterranean. The explanation is obviously inadequate. There are many rivers in the world and they flow in all directions. The river that reversed its direction is the Jordan.

Prior to the Exodus, the Jordan Valley was on a higher level than the Mediterranean Sea. With the rupture of the tectonic structure along the river and the dropping of the Dead Sea chasm, many brooks in southern Palestine which had been flowing to the south must have changed their direction and started to flow towards Palestine, emptying into the southern shore of the Dead Sea. This occurrence served as a symbolic picture for the dispersed Children of Israel, who also will return to their homeland: "Turn again our captivity as the streams in the south." ⁽¹⁰⁾

The plain of Siddim became a sea. When Israel "wandered into the wilderness in a solitary way [the Lord turned] rivers into the wilderness, and the watersprings into dry ground; and fruitful land into barrenness; [but elsewhere he turned] the wilderness into standing water, and the dry ground into watersprings." ⁽¹¹⁾

The opening of the Great Rift, or its further expansion, accompanied by the overturning of the plain and the origin of the Dead Sea, was a catastrophe that ended an era. In my understanding the end of the Early Bronze Age or the Old Kingdom in Egypt coincided with these events.

References

1. Joshua 3:16; Numbers 34:12; Deuteronomy 3:17.
2. H. Alimen, *The Prehistory of East Africa* (London, 1957), p. 194.
3. See R. Washbourn, "The Percy Sladen Expedition to Lake Huleh, 1935," *Palestine Exploration Fund, Quarterly Statements*, (1936), p. 209.

4. Genesis 13:10, 11; cf. Genesis 14:3.
 5. Joshua 3:16.
 6. Joshua 12:3.
 7. J. Garstang, *The Foundations of Bible History* (1931), p. 137; cf. *Worlds in Collision*, section "Jericho," and my article "Jericho" in *KRONOS* II:4 (1977), pp. 64-69.
 8. Psalm 114.
 9. Breasted, *Ancient Records of Egypt*, Vol. III, par. 73.
 10. Psalm 126:4.
 11. Psalm 104:4, 33-35.
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The End of the Early Bronze Age

The Old Kingdom in Egypt, the period when the pyramids were built, a great and splendid age, came to its end in a natural disaster. “At the conclusion of the Sixth Dynasty . . . Egypt is suddenly blotted out from our sight as if some great catastrophe had overwhelmed it.” ⁽¹⁾ The second city of Troy came to an end at the same time the Old Kingdom of Egypt fell; it was destroyed in a violent paroxysm of nature. The Early Bronze Age was simultaneously terminated in all the countries of the ancient East—a vast catastrophe spread ruin from Troy to the Valley of the Nile. This fact has been extensively documented by Claude F. A. Schaeffer, professor at College de France, excavator of Ras Shamra (Ugarit).

Schaeffer observed at Ras Shamra on the Syrian coast clear signs of great destruction that pointed to violent earthquakes and tidal waves, and other signs of a natural disaster. Among the greatest of these took place at the end of the Old Kingdom in Egypt. At the occasion of his visit to Troy, then under excavation by Carl Blegen, he became aware that Troy, too, had been repeatedly destroyed by natural catastrophes at the same times when Ras Shamra was destroyed. The distance from the Dardanelles near which the mound of Troy lies to Ras Shamra in Syria is about 600 miles on a straight line. In modern annals of seismology no earthquake is known to have occurred covering an area of such an extent. He then compared the findings of these two places with signs of earthquakes in numerous other localities of the ancient East. After painstaking work he came to the conclusion that more than once in historical times the entire region had been shaken by prodigious earthquakes. As to the destruction that ended the Early Bronze Age, Schaeffer wrote:

There is not for us the slightest doubt that the conflagration of Troy II corresponds to the catastrophe that made an end to the habitations of the Early Bronze Age of Alaca Huyuk, of Alisar, of Tarsus, of Tepe Hissar [in Asia Minor], and to the catastrophe that burned ancient Ugarit (II) in Syria, the city of Byblos that flourished under the Old Kingdom of Egypt, the contemporaneous cities of Palestine, and that was among the causes that terminated the Old Kingdom of Egypt. ⁽²⁾

In the same catastrophe were destroyed the civilizations of Mesopotamia and Cyprus. What caused “the disappearance of so many cities and the upheaval of an entire civilization” ? ⁽³⁾ “It was an all-encompassing catastrophe. Ethnic migrations were, no doubt, the consequence of the manifestation of nature. The initial and real causes must be looked for in some cataclysm over which man had no control.” ⁽⁴⁾ Everywhere it was simultaneous and sudden.

The shortcoming in Schaeffer's work was in not making the logical deduction that if catastrophes of such dimensions took place in historical times, there must be references to them in ancient literary sources. If a cataclysm terminated the Early Bronze Age, decimated the population, but left also survivors, then some memory of the events must have also found its way to be preserved in writing—if not by survivors, turned to vagrancy and having to take care for the first necessities of life, then by the descendants of the survivors.

In my scheme the end of the Early Bronze Age or Old Kingdom in Egypt is the time of the momentous events connected with the story of the patriarch Abraham, and described in the Book of Genesis as the overturning of the plain.⁽⁵⁾ The cause of the catastrophe could not have been entirely unknown to the ancients. We must therefore become attentive also to other traditions connected with these events.

References

1. G. A. Wainwright, *The Journal of Egyptian Archaeology* 16 (1930), p. 43.
2. Claude F. A. Schaeffer, *Stratigraphie comparee et chronologie de l'Asie Occidentale* (IIIe et IIe millénaires) (Oxford University Press, 1948), p. 225.
3. R. de Vaux, "Palestine in the Early Bronze Age," *The Cambridge Ancient History*, Third ed., vol. I, pt. 2 (1971), ch. xv, p. 236. [According to J. Mellaart ("The Catastrophe at the End of the Early Bronze Age 2 Period," *The Cambridge Ancient History* third ed. [1971], Vol. I, pt. 2, p. 406) in the period after the catastrophe the number of settlements "is reduced to a quarter of the number in the previous period." Jacques Courtois, reporting the results of a survey in the valley of the Orontes, writes of the "extreme density of habitation of the plain in the Bronze Age, and particularly in the Early Bronze Age." (*Syria*, 50 [1973], p. 99). In eastern Arabia "a sharp downturn in settlements and activity becomes apparent" after ca. 2000 B.C. (Michael Rice, "The States of Archaeology in Eastern Arabia and the Persian Gulf," *Asian Affairs*, 64 [1977], p. 143). According to Kathleen Kenyon, "The final end of the Early Bronze Age civilization came with catastrophic completeness . . . Jericho . . . was probably completely destroyed. . . . Every town in Palestine that has so far been investigated shows the same break. . . . All traces of the Early Bronze Age civilization disappeared." (*Archaeology in the Holy Land* [London, 1960], p. 134). According to Ernest Wright, "one of the most striking facts about the Early Bronze civilization is its destruction, one so violent that scarcely a vestige of it survived. We do not know when the event took place; we only know that there is not an Early Bronze Age city excavated or explored in all Palestine which does not have a gap in its occupation between Early Bronze Age III and the Middle Bronze Age. To date this gap, we know that it must be approximately contemporary with a similar period in Egypt called the 'First Intermediate Period' between dynasties VI and XI (ca. 22nd and 21st centuries B.C.)." ("The Archaeology of Palestine" in *The Bible and the Ancient Near East, Essays in Honor of William Foxwell Albright*

The destruction can be traced also in Greece. “The destruction of the Early Helladic II town at Lerna in the eastern Peloponnese” is an example of “the widespread and violent destruction that occurred ca. 2300 B.C. in the Aegean and East Mediterranean” (Marija Gimbutas, “The Destruction of the Aegean and East Mediterranean Urban Civilization around 2300 B.C.,” *Bronze Age Migrations in the Aegean*, ed. by R. A. Crossland and Ann Birchall [London, 1973], pp. 129f.) For Lerna, see also J. Caskey, “The Early Helladic Period in the Argolid,” *Hesperia* 29 (1960), pp. 289-290. “The burning of the House of Tiles . . . was the end of an era at Lerna.” The settlement “came to a violent end.” Not only Lerna, but also “the tiled buildings at Tiryns and Asine were destroyed by fire.”

It is quite probable that the end of the Third Dynasty of Ur occurred at the same time. Thorkild Jacobsen wonders about “the reasons for the dire catastrophes that befell the city of Ur in the reign of Ibbi-Suen, the sudden collapse of its great empire, and the later utter destruction of the city itself at the hands of barbarian invaders. . . . How an empire like that of the Third Dynasty of Ur . . . could so quickly collapse is really quite puzzling.” (“The Reign of Ibbi-Suen,” *The Journal of Cuneiform Studies* 7 (1953), p. 36. Although Jacobsen refers to the text known as “Lamentation over the Destruction of Ur,” he does not treat it seriously. Yet this poem provides specific information about the causes of the disaster. It speaks of a “storm’s cyclone-like destruction” (99), of a “storm that annihilates the land” (178), “in front of the storm fires burned; the people groan” (188). It tells of the sun being obscured: “In the land the bright sun rose not, like the evening star it shone” (191). It describes earthquakes that shook the land: “the destructive storm makes the land tremble and quake” (199). “In all the streets, where they were wont to promenade, dead bodies were lying about” (217). “Mothers and fathers who did not leave their houses were overcome by fire; the young lying on their mothers’ laps like fish were carried off by the waters” (228-229). The city, prostrated by the storm “which overwhelmed the living creatures of heaven and earth,” fell prey to hostile tribes and was looted. See S. N. Kramer, “Lamentation over the Destruction of Ur,” *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 1950). Another lament, *Oh, Angry Sea*, transl. by R. Kutscher (Yale University Press, 1975), tells of the destruction of Ur, Larsa, Nippur, Sippar, Babylon and Isin by inundations sent by Enlil. I consider Enlil to be Jupiter.]

4. Schaeffer, *Stratigraphie comparee*, p. 537. In Alaca Huyuk there are unequivocal signs that an earthquake was responsible for the destruction (pp. 296f.). Cf. B. Bell, “The Dark Ages in Ancient History,” *American Journal of Archaeology* 75 (1971).
5. [The archaeological evidence uncovered in recent years strongly supports the conclusion that the cities of the plain flourished during the Early Bronze Age and that their destruction took place at the end of this period, more specifically

at the end of EB III. See H. Shanks, "Have Sodom and Gomorrah Been Found?" *Biblical Archaeology Review* VI:5 (Sept./Oct. 1980), p. 28. Cf. D. Cardona, "Jupiter—God of Abraham (Part III)," *KRONOS* Vol. VIII.1 (1982), pp. 69ff.]





Zedek

The time of the patriarch Abraham witnessed unusual behavior by the planet Jupiter. The fact that Jupiter displayed a burst of activity exactly in the time of Abraham must not appear a coincidence: it was in the times of great global catastrophes, when the world was threatened with destruction, that religious reformers gained prominence and contemporaries looked to a divine man for guidance.⁽¹⁾

Zedek was the name of Jupiter, and we read that in the days of Abraham the planet underwent some visible changes. Rabbinical sources relate that when Abraham was on an expedition against Cherdlaomer, king of Elam, and his allied kings—who had captured and despoiled Sodom, and taken Abraham’s nephew Lot into captivity—the star Zedek illuminated the night, thereby ensuring the expedition’s success.⁽²⁾

“When he returned from his victory over Cherdlaomer and the kings who were allied with him,” the book of Genesis relates, “the king of Sodom came out to greet him. And Melchizedek, king of Salem, brought out bread and wine; he was priest of the Most High.”⁽³⁾ Abraham ceded to Melchizedek the spoils of the war he had obtained in Syria from Cherdlaomer.

Ancient Salem was a holy place, and Palestine was a holy land from grey antiquity. Thus, in the documents of the Old Kingdom in Egypt, Palestine is named God’s Land (*Toneter*), or Divine (Holy) Land.⁽⁴⁾ Abraham lived at the end of the Old Kingdom in Egypt; and documents from that time already refer to Palestine as God’s Land. But in early times, it was an astral god.

The meaning of the name Melchizedek is “Zedek is [My] King.” Zedek, as said, is the name of the planet Jupiter, remaining so in the astronomy of the Jews in later ages. In the Talmud Zedek refers to Jupiter.⁽⁵⁾ Zedek also has the meaning of “righteousness” or “justice.” It is beyond the scope of this work to find which of the meanings—the name of the planet or a word in common usage—preceded and which followed. It is conceivable that this planet was worshipped in that remote time and that, in the days of the patriarch Abraham, the cult of Jupiter was prominent in the Salem of the high priest Melchizedek. Melchizedek, “priest of the most high,” was, it follows, a worshipper of Jupiter⁽⁶⁾.

References

1. For example, the time of the great catastrophes of the Exodus saw Moses

leading the Israelites from Egypt, to revelations and a covenant with God. And the time of the great upheavals of the eighth and seventh century before this era heard the voice of Isaiah. In later centuries, religious reformers found an especially large and responsive following when they announced the approach of the end of the world, or the beginning of the Kingdom of God on Earth. Numerous instances may be cited, but the best known became the foundation of the religion of a large part of the Old and New World.

2. Rabbi Berkjah, quoted in *Bereshit Rabba* XLIII.3, translated by A. Ravenna (Turin, 1978), p. 328.
3. Genesis 14:17-18. [Salem is considered to be the site of the later Jerusalem. Before Joshua's conquest of Jerusalem the king of that city bore the name Adonizedek, (Joshua 10:1,3), an indication of continuing Jupiter worship among the Jebusites.]
4. In *Ages in Chaos* I have brought extensive material for the identification of the Divine Land with Palestine.
5. Cf. W. M. Feldman, *Rabbinical Mathematics and Astronomy* (New York, 1931).
6. Melchizedek, the priest-king of ancient Salem, plays an important part in Christian catechism. [*The Epistle to the Hebrews* 5:6, 10; 6:20; 7:1ff. Cf. also F. Horton, *The Melchizedek Tradition* (Cambridge University Press, 1976).]





The Change in Jupiter's Motion

In the Tractate Shabbat of the Babylonian Talmud it is said that in order to teach Abraham the futility and meaninglessness of astrology, the Lord let the planet Zedek, or Jupiter, change its rising point from west to east:

“Go forth (i.e. cease) thy planet-(gazing), for Israel is free from planetary influence. What is thy calculation? Because *Zedek* (Jupiter) stands in the West? I will turn it back and place it in the East.” And thus it is written, *Who hath raised up Zedek from the East? He hath summoned it for his sake* (sc. for the sake of Abraham).⁽¹⁾

This statement of the rabbis contains some contradictory ideas. Nevertheless, it may preserve certain elements of ancient lore.

The Babylonians described Marduk, or Jupiter, as having an eastward motion, different from the other planets: “The earliest system from Babylon has, however, East and West reversed, and assigns to its chief god Marduk, as god of the planet Jupiter, a definite easterly direction; to Mercury, on the other hand, a westerly one.”⁽²⁾

“The Ra-mythology [of Egypt] is that which describes [Ra's] course from west to east.”⁽³⁾ Ra, rising in the west, was called “Harakhte, only god, king of the gods; he riseth in the west.”⁽⁴⁾ However, some hymns were addressed to “Ra when he riseth in the Eastern part of heaven.”⁽⁵⁾

Egyptian lore also knew of a “Horus of the West” and a “Horus of the East.”⁽⁶⁾ Horus was the planet Jupiter.

The expression found in Latin literature, Jupiter Dianus,⁽⁷⁾ or two-faced, could be interpreted as denoting two motions of Jupiter, and eastward and a westward. This conforms to the same expression applied to the Sun where, as I endeavored to show, it denotes easterly and westerly movements of the luminary.⁽⁸⁾

The celestial mechanics of the implied reversal of Jupiter's apparent motion remains unsolved. Jupiter apparently changed the place of its rising points without a similar and simultaneous change by the Sun and all the planets and stars. It might seem that in order for Jupiter alone to be subject to a change, a reversal of orbital motion is

required, an unlikely proposition from the point of view of celestial mechanics.

Earlier we asked in relation to Saturn's great prominence, was not the Earth at some early period a satellite of that planet?; and we may ask again, with the ascendance of Jupiter, was the Earth not in the domain of this successor to the celestial throne? Theoretically, if the Earth were revolving around Jupiter, a reversal of our planet's north and south geographical poles would cause Jupiter to appear to change the point of its rising.

References

1. Shabbat 156b, I Epstein ed., (London, 1935). Cf. Isaiah 41:2. "Zedek also has the meaning of "righteousness" or "justice" and therefore the sentence is often rendered incorrectly as: "Who raised up the righteous (man) from the east." Cf. Hommel, *JSOR* (1927).
2. H. Winckler, *Die Babylonische Geisteskultur* second ed. (Leipzig, 1919), p. 72.
3. L. Frobenius, *Das Zeitalter des Sonnengottes* (Berlin, 1904), p. 170.
4. J. Breasted, *Ancient Records of Egypt*, III. 18. Cf. E. Meyer, *Zeitschrift fuer Aegyptische Sprache* (1877), pp. 148ff
5. E.g., E. A. W. Budge ed., *The Egyptian Book of the Dead* (London, 1899), chapter XV (Papyrus Ani), p. 246.
6. S. Mercer, *Horus, The Royal God of Egypt* Grafton, Mass., 1942), pp. 48, 117.
7. Frazer, *Ovid's Fasti* (London, 1931), note to p. 388.
8. Cf. the ancient view, referred to by Macrobius (*Saturnalia* VIII) that the two faces of Janus symbolize the god's power over the two gates of the sky ("*et ideo geminum, quasi utriusque januae coelistis potentem*").





The Worship of Jupiter

“From Zeus let us begin; him do we mortals never leave unnamed; full of Zeus are all the streets and all the marketplaces of men; full is the sea and the heavens thereof . . . He it was who first set up the signs in heaven . . . Wherefore him do we men ever worship first and last.” ⁽¹⁾

In these words Aratus (fl. -310) pictured the place the planet-god Jupiter occupied in the thoughts of men. Nobody today in the streets and marketplaces mentions the planet Jupiter.

St. Augustine, seven centuries after Aratus, asked:

But since they call Jupiter king of all, who will not laugh to see his star so far surpassed in brilliancy by the star of Venus? . . . They answer that it only appears so because it is higher up and much farther away from the earth. If, therefore, its greater dignity has deserved a higher place, why is Saturn higher in the heavens than Jupiter? ⁽²⁾

Marduk, the great god of the Babylonians, was the planet Jupiter; ⁽³⁾ so was Amon of the Egyptians; ⁽⁴⁾ Zeus of the Greeks was the same planet; Jupiter of the Romans, as the name shows, was again the same planet. Why was this planet chosen as the most exalted deity? In Greece it was called “all-highest, mighty Zeus,” ⁽⁵⁾ in Rome “Jupiter Optimus, Maximus” ; ⁽⁶⁾ in Babylon it was known as “the greatest of the stars” ⁽⁷⁾; as Ahuramazda it was called by Darius “the greatest of the gods” ⁽⁸⁾; In India Shiva was described as “the great ruler” and considered the mightiest of all the gods ⁽⁹⁾; he was said to be “as brilliant as the sun.” ⁽¹⁰⁾ Everywhere Jupiter was regarded as the greatest deity, greater than the sun, moon, and other planets. ⁽¹¹⁾

Homer makes Zeus say that all the other gods together could not pull him down, but he could pull them along with the Earth. ⁽¹²⁾ “That is how far I overwhelm you all, both gods and men.” Commenting on this passage, Eustathius wrote that according to some ancient authorities Homer meant the orbits of the planets from which Jupiter could drive the rest of them, but they could not drive it. ⁽¹³⁾ This sentence of Homer is close to the truth. Jupiter is greater and more powerful than Saturn, its rival, together with Mars, Earth, Venus, and Mercury. Jupiter is more than a thousand times greater than the Earth or Venus in volume, and six thousand times greater than Mercury. ⁽¹⁴⁾

But it appears that one could not guess this from observation with the naked eye. Even through a very powerful telescope Jupiter looks like an inch-large flat disc, surrounded by its four larger satellites. ⁽¹⁵⁾

The ancients knew something unknown to the moderns when they asserted that Jupiter can overpower all other planets, the Earth included. ⁽¹⁶⁾

References

1. Aratus, *Phenomena*, transl. by G. R. Mair (London, 1955).
2. *The City of God*, VII. 15, transl. by M. Dods (Edinburgh, 1872).
3. Bartel L. van der Waerden, *Science Awakening*, vol. II (Leyden, 1974), p. 59; cf. P. Jensen, *Die Kosmologie der Babylonier* (Strassburg, 1890), pp. 131, 134. [Marduk was called “the great lord of the gods” and also “the Enlil of the gods.” See L. Legrain, *Royal Inscriptions and Fragments from Nippur and Babylon*, (Philadelphia, 1926), p. 38.]
4. [Herodotus II. 41; Diodorus Siculus I. 13. 2; Plutarch, *De Iside et Osiride*, IX;] *Amen*, used at the end of a prayer in Hebrew and in European languages that borrowed it from Hebrew, was the name of the Egyptian deity Jupiter. It is part of the names of many Egyptian kings—Amenhotep, Tutankhamen; of the same root is *amen*—“to believe.” It is beyond the scope of this work to find which of the words—as the name of the deity or as a word in vocabulary, precede, and which is derived.
5. *The Iliad* VIII. 22. [In Book II of the *Iliad* (lines 410f.) Agamemnon addresses the god thus: “Zeus, most glorious, most great . . . that dwellest in the heaven.” Plato wrote: “Zeus, the mighty lord, holding the reigns of a winged chariot, leads the way in heaven, ordering all and taking care of all.” (*Phaedrus* 246e, transl. by B. Jowett [1871]). The stellar aspect of Zeus is discussed by A. B. Cook, *Zeus, A Study in Ancient Religion* (Cambridge, 1914), pp. 751, 760.]
6. [“Optimus Maximus Caelus Aeternus Jupiter” was the planet’s appellative in its official cult. Cf. Cumont, *Astrology and Religion Among the Greeks and Romans*, p. 115. Seneca called Jupiter “exalted ruler of the sky, who sittest in majesty upon the throne of heaven.” Vergil termed him “the mightiest of all gods” *The Aeneid* 20, 243.]
7. Jensen, *Die Kosmologie der Babylonier*, p. 117. [Cf. Lehmann in *Zeitschrift fuer Assyriologie* II. 214ff. and M. Jastrow in *ibid.*, 353f.]
8. Herzfeld, *Altpersische Inschriften*, no. 6, quoted in A. T. Olmstead, *The History of the Persian Empire* (Chicago, 19xx), p. 255. [In the *Bundahis* (transl. by E. West, *The Sacred Books of the East*, Vol. V [1880], pt. I, p.), the planet Jupiter is called Ahuramazda. Also in the inscriptions uncovered by Th. Goell at Nemrud Dagh, Oromazdes (Ahuramazda) is equated with Zeus. Dio Chrysostom wrote that the Persian Magi considered Zeus “as being the perfect and original driver of the most perfect chariot. For the chariot of Helios, they claim, is relatively recent when compared with that of Zeus” (“The Thirty-sixth Discourse,” transl. by J. W. Cohoon [London, 19xx].)].

9. [For the identification of Shiva with Jupiter, see *Lippincott's Universal Pronouncing Dictionary of Biography and Mythology*, ed. by J. Thomas, 4th edition (xxxx), p. 2203. Cf. F. Wilford, "On Egypt, etc. from the Ancient Books of the Hindus," *Asiatick Researches* III (Calcutta, 1799), p. 382: ". . . Many of the Hindus acknowledge that Siva, or the God Jupiter shines in that planet [Jupiter] . . ." *The Skanda Purana* also tells of a special relationship between Brihaspati, the astronomical designation for the planet Jupiter, and Shiva.]
10. J. Dowson, "A Classical Dictionary of Hindu Mythology," seventh ed., (London, 1950), p. 296.
11. [The Incas of Peru regarded the planet Jupiter as "the guardian and ruler of the empire." See the seventeenth-century chronicle *De las costumbres antiguas de los naturales del Piru*, published in 1879. Cf. Jan Sammer, "The Cosmology of Tawantinsuyu," KRONOS.]
12. *The Iliad* VIII. 18-26.
13. *Commentarii ad Homerum Iliadem* 695. 5 (Leipzig, 1828), Vol. II, p. 184: "Others believe the golden chain to refer to the orbits of the planets . . . for when the planets come together on those orbits, many are the changes that universally arise."
14. Jupiter has about 70 percent of the mass of the solar system not contained in the Sun.
15. [Jupiter's four Galilean moons may have been known to the ancients. Marduk was said to be accompanied by four dogs. Cf. Jensen, *Die Kosmologie der Babylonier*, p. 131: "Die vier Hunden des Marduk. 'Mein Herr mit den Hunden.'" In Egyptian mythology Horus, or Jupiter, was often associated with his four sons. Cf. S. Mercer, *Horus, the Royal God of Egypt*, (1942).]
16. [A similar idea is expressed in *Enuma Elish*. Marduk, or the planet Jupiter, threatens to "alter the ways of the gods"—"I will change their paths." (Tablet VI). In Tablet VII it is said of Marduk: "For the stars of heaven he upheld the paths, he shepherded all the gods like sheep." (L. W. King, *The Seven Tablets of Creation* [London, 1902]). Cf. F.-X. Kugler, *Sternkunde und Sterndienst in Babel*, Vol. I (1907), p. 7.]





Jupiter of the Thunderbolt

Nobody who observes a thunderstorm would arrive at the conclusion that the planet Jupiter sends the lightning. Therefore it is singular that peoples of antiquity pictured the planet-god Jupiter as wielding a thunderbolt—this is equally true of the Roman Jupiter, the Greek Zeus, and the Babylonian Marduk.

Pliny wrote:

It is not generally known what has been discovered by men who are the most eminent for their learning, in consequence of their assiduous observations of the heavens, that the fires which fall upon the earth, and receive the name of thunderbolts (*fulminum nomen habeant*) proceed from the three superior stars (*siderum*), but principally from the one which is situated in the middle . . . and hence it is commonly said, the thunderbolts are darted by Jupiter.⁽¹⁾

Pliny knew the origin of lightning in the friction of clouds—he wrote that “by the dashing of two clouds, the lightning may flash out.”⁽²⁾ He did not confuse lightning with the thunderbolt that is discharged by the planets. He makes a distinction between “earthly bolts, not from stars,” and “the bolts from the stars.”⁽³⁾ Pliny knew that the Earth is one of the planets: “Human beings are distributed all around the earth and stand with their feet pointing towards each other . . . Another marvel, that the earth herself hangs suspended and does not fall and carry us with it.”

The planet-god Jupiter was frequently shown with a thunderbolt in his hand. The electrical discharge coming from Jupiter is described in many ancient texts. In the Orphic Hymn to Jupiter the Thunderer, he is described as he “who shak’st with fiery light the World.” “From thee proceeds th’etherial lightning’s blaze, flashing around intolerable rays.” “Horrid, untamed, thou rollest thy flames along. Rapid, etherial bolt, descending fire, the earth . . . trembles.”⁽⁴⁾ The earth does not quake when struck by regular lightnings. The bolt of Jupiter falls from the azure sky, not veiled by clouds.

The electrical discharge from a planet is described very clearly by Pliny: “heavenly fire is spit forth by the planet as a crackling charcoal flies from a burning log.”⁽⁵⁾ “It is accompanied by a very great disturbance of the air,” produced “by the birth-pangs, so to speak, of the planet in travail.”

Also Seneca discerns between “the lesser bolts” which seek “houses and undeserving homes” and the bolts of the planet Jupiter “by which the threefold mass of mountains fell.” [\(6\)](#)

In the Babylonian epic, the *Enuma Elish*, it is told how Marduk, or the planet Jupiter, “raised the thunderbolt, his mighty weapon. He mounted the chariot, the storm unequalled for terror. . . . With overpowering brightness his head was crowned.” He is also described as the planet-god “at whose battle heaven quaked, at whose wrath the Deep is troubled . . . in the bright firmament his course is supreme . . . with the evil wind his weapons blaze forth, with his flame steep mountains are destroyed. . . .”

[\(7\)](#) A hymn to Marduk tells that “by his warfare the heaven resounds; before his anger the deep is shaken; before his sharp weapon the gods draw back.” [\(8\)](#)

The Egyptian pharaoh Seti described Amon as “a circling star which scatters its seed in fire . . . like a flame of fire . . . irresistible in heaven and in earth.” [\(9\)](#)

Brihaspati, or the planet Jupiter in Hindu astronomy, is invoked in the Rig Veda as one who “in destroying enemies cleaves apart their cities Brihaspati strikes the enemy with his thunderbolts.” [\(10\)](#) Shiva is called “wielder of the thunderbolt.” [\(11\)](#)

In *Worlds in Collision* the overpowering of one planet by another in conjunctions was quoted from the Hindu astronomical books; the electrical power which manifests itself in conjunctions is called *bala*. Jupiter as the strongest planet is a *balin*. [\(12\)](#)

References

1. Pliny, *Natural History*, transl. by J. Bostock and H. Riley (London, 1865), Book. II, ch. 18.
2. *Ibid.*, ch. 43.
3. *Ibid.*, II. 53.
4. *The Mystical Hymns of Orpheus*, transl. by Th. Taylor (London, 1846). [In the Iliad Homer calls Zeus “Lord of the bright lightning” ; “even he [the ocean] hath fear of the lightning of great Zeus whenso it crashes from heaven.” (XX. 197f.) Hesiod recounts a battle among the planetary gods in which Zeus took an active part: “From heaven and from Olympus he came forthwith, hurling his lightning: the bolts flew thick and fast . . . whirling an awesome flame . . . It seemed as if Earth and wide Heaven above came together; for such a mighty crash would have arisen if Earth were being hurled to ruin and Heaven from on high were hurling her down.” It was in this battle the Zeus is said to have made use of his thunderbolts for the first time.].
5. *Natural History*, II. 18.
6. Seneca, *Thyestes*, transl. by F. J. Miller (1917), lines 1077ff.
7. King, *The Seven Tablets of Creation*, IV. 45f, 58.

8. Jastrow, *Die Religion Babyloniens und Assyriens*, Ch. XVII, p. 495. Jupiter was also known in Babylonia as Dapinu, “he of the dreadful glow” (Jensen, *Die Kosmologie der Babylonier*, p. 129). Marduk’s “word” causes “shuddering below” (Langdon, *Tammuz and Ishtar*, p. 112). Cf. idem, *Sumerian and Babylonian Psalms*, p. 41: “The word of Marduk is a flood which tears away the dikes.”
9. J. Breasted, *Ancient Records of Egypt* (Chicago, 1906), Vol. III, par. 117. The worship of Amon, as the planet Jupiter was called in the Theban cult, became supreme with the Eighteenth Dynasty. Cf. G. A. Wainwright, “The Relationship of Amon to Zeus and his Connection with Meteorites,” *The Journal of Egyptian Archaeology*, 16 (1930), pp. 35-38.
10. *Rig-Veda*, Mandala VI. 73, transl. by H. Grassmann, pt. I (Leipzig, 1876).
11. Dowson, *A Classical Dictionary of Hindu Mythology*, p. 296.
12. *Surya Siddhanta*, ch. VII (transl. by Burgess).





Where a Planetary Bolt Struck the Ground

We recognize in the change in Jupiter's motion the cause of great catastrophes in the solar system which affected also the Earth in the age of the patriarchs, or at the close of the Old Kingdom. In that period Jupiter became the supreme deity, having removed Saturn from its orbit. Classical historians, speaking of the destruction of the Cities of the Plain, told of "fire from the sky." Tacitus narrated that the catastrophe of Sodom and Gomorrah was caused by a thunderbolt—the plain was "consumed by lightning"—and he added: "Personally I am quite prepared to grant that once-famous cities may have been burnt by fire from heaven." ⁽¹⁾ Also Josephus asserted that the cities had been "consumed by thunderbolts." ⁽²⁾ Philo wrote that "lightnings poured out of heaven," ⁽³⁾ destroying the cities.

Since the time of Abraham was the period of Jupiter's domination that followed Saturn's and preceded that of Venus, we are led to the surmise that the thunderbolts which destroyed the plain with its cities originated from Jupiter, or from a magnetosphere or ionosphere overcharged by the nearby presence of the giant planet. Even today discharges leap between Jupiter and Io, one of its satellites. The charging of the Earth's atmosphere in the presence of Jupiter's huge magnetosphere prepared the way for a discharge: a planetary bolt struck the ground in the Valley of Sittim.

For a long time I thought that the destruction of Sodom and Gomorrah and other cities of the Plain resulted from an interplanetary discharge caused by Jupiter: classical historians speaking of this event told of "fire from the sky." The period was that of Jupiter's era of domination that followed that of Saturn and preceded that of Venus; and reference to the king and high priest Malki-zedek ("My King is Zedek," Zedek being the usual name of the planet Jupiter), in the days of the patriarch Abraham and of the destruction of Sodom and Gomorrah, seem to support my interpretation of the agent of the catastrophe. This very catastrophe caused the origin of the Dead Sea and also of the entire African Rift that extends from north of the River Jordan all the way through two thirds of the length of Africa. But, reading in 1960 of a reference to Professor Agrest, a Russian astronomer who thought that an atomic explosion had taken place, I saw some alluring points in it. If, as Prof. Agrest seems to assume, the three angels were extraterrestrial beings that followed Abraham from Mamre to Sodom and placed a time device in Sodom, the warning to Lot and his family to leave the place and not to turn their faces to the city they soon would flee, finds some parallels in the atomic age.

The observers of the first atomic explosion at Alamogordo, New Mexico were told,

as was Lot and his family, not to look at the fission, but the wife of Lot looked; she may have been blinded—in the legend she turned into a pillar of salt.

At Alamogordo the observers were impressed, actually overwhelmed, by the tremendous light effect, even with their eyes closed. Next rose a pillar of smoke as if from a furnace (Genesis XIX: 28): Abraham “looked toward Sodom and Gomorrah, and towards all the land of the plain, and beheld, and, lo, the smoke of the country went up as the smoke of the furnace.”

If the time of the event is asked to be determined, I would strongly question the implication that extraterrestrial visitors came to Earth as late as the end of the Old Kingdom of Egypt, for this is the time to which the age of the Patriarch Abraham belongs—and on this I would expand somewhere else.

Yet we are left with my original idea that goes back to the early forties—that the agent of the destruction was a bolt from Jupiter, or from the magnetosphere or ionosphere, overcharged by the nearby presence of the giant planet.

References

1. *Histories* V. 7, transl. by K. Wellesley (London, 1964).
2. *The Jewish War* IV. 480.
3. *Moses* II.53ff.





The Origin of Nitrate Deposits

The Dead Sea, for many centuries proclaimed to be dead and capable of yielding nothing, is today one of the greatest reservoirs of natural nitrate under exploitation in the world, competing with the deposits of Chile.

The deposits of nitrate in Chile are found in a narrow strip over 1400 miles in length, in the great desert in the northern part of the country. The origin of the nitrates is a problem that has not been solved.

This is a moot question on which no two geologists agree . . . One [theory] is that in prehistoric times the entire nitrate zone was a part of the Pacific Ocean, and that through volcanic disturbances that portion of the sea was cut off and the water evaporated by a very slow process. Fish skeletons found in the caliche furnish good proof of this assertion, as does the fact that the Pacific coast is rising gradually. This theory is, however, contradicted by the fact that no bromine exists there—a substance naturally looked for in deposits thus formed.”

Another theory attributes the origin of the *caliche* to an electrical process. A passage of an electric spark through the moist air produces a combination of nitrogen and oxygen resulting in nitric acid. Electrical storms—a frequent occurrence in the Andes—may have acted in this way and formed great quantities of nitric acid. . . . ⁽¹⁾

But thunderstorms occur in many other places all over the world, near and far from the sea, and yet there are no deposits of nitrates in these places.

“A later theory maintains that the deposits are an accumulation of land drainage brought down through ages from the highlands along the coast.” But how was it formed in the highlands of Chile? “Others explain the formation as the work of microbes, or as the result of the action of volcanoes discharging through their craters ammonia-charged steam there condensed.” But deposits of nitrates are not formed in other volcanic regions.

No explanation satisfied the chemists and geologists, and therefore new ideas were constantly launched. In the laboratory a very efficient method of building oxides of nitrates is applied: “passing air through a powerful electric arc, in which the nitrogen and oxygen of the air combine chemically to form oxides of nitrogen.” ⁽²⁾

Nature is a great laboratory too. The Dead Sea region was the scene of an interplanetary electrical discharge when a powerful electrical spark leaped down from above or sprang up from the earth.

A similar event created the Chilean deposits of nitrates, and the recollections of the Incas of Peru preserved the memory of this grandiose discharge. “Fire came down from heaven and destroyed a great part of the people, while those who were taking to flight were turned into stones.” [\(3\)](#)

References

1. Enrique Cuevas, transl. in P. G. Beery, *Stuff, The Story of Materials in the Service of Man* (1930), p. 41.
2. *Ibid.*, p. 43.
3. Christoval de Molina, *An Account of the Fables and Rites of the Yncas*, transl. and ed. by C. R. Markham (London, 1873). The chronicle is dated 1574. The event it refers to is said to have occurred “in Pucara, which is forty leagues from the city of Cuzco on the Collao road.





The Transmutation of Oxygen into Sulphur

In the building of saltpeter, or potassium nitrate, the nitrogen of the air took a major part. How was the oxygen of the atmosphere affected by the interplanetary discharges?

It has been observed since ancient times that lightnings are attended by an odor of sulphur. In the twelfth book of the *Odyssey*, Homer says:

“Zeus thundered and hurled his bolt upon the ship, and she quivered from stem to stern, smitten by the bolt of Zeus, and was filled with sulphurous smoke.” ⁽¹⁾

Again, in the *Iliad*: “When beneath the blast of father Zeus an oak falleth uprooted, and a dread reek of brimstone ariseth therefrom,—then verily courage no longer possesseth him that looketh thereon. . .” ⁽²⁾

And: “[Zeus] thundered horribly and let loose the shimmering lightning and dashed it to the ground in front of the horses of Diomedes, and a ghastly blaze of flaming sulphur shot up, and the horses, terrified, both cringed away against the chariot.” ⁽³⁾

The same observation is put into a scientific prose by Pliny: “Lightning and thunder are attended with a strong smell of sulphur, and the light produced by them is of a sulphurous complexion.” ⁽⁴⁾ The second part of Pliny’s sentence is also correct: pioneer work on electrical discharges in modern times was produced using globes of sulphur in rotation. Sulphur is one of the best insulators and static electricity, when accumulated on it, discharges in electrical sparks toward objects brought close to it.

Electrical discharges produced without the help of sulphur are also accompanied by the smell of it. This odor was referred to by Benjamin Franklin who, comparing lightning and electricity, wrote to the Royal Society in London that both phenomena are attended by a sulphurous smell. This he mentioned among twelve other properties which suggested that lightning is an electrical discharge. No importance was attributed by him or by anyone else since to this sulphurous smell. The smell of ozone is different from the smell of vaporized sulphur or sulphurous compounds, ⁽⁵⁾ and the supposition that the ancients were unable to distinguish between the two disregards the fact that besides the smell of ozone a sulphurous smell follows an electric discharge. ⁽⁶⁾

This suggests to me that sulphur is actually produced from the air by the passage of an electrical discharge. The quantity of sulphur must be detectable in a careful laboratory experiment.

Quite possibly the detection of sulphur produced by a strong electrical discharge, by means other than smell, has already been fulfilled. A very strong discharge of electricity passing through the air formed solid sulphur. The bolt of electricity that fell upon the plain of the Pentapolis was of a magnitude sufficient to cause a transmutation of elements on a great scale. It rained “brimstone and fire from the Lord out of heaven.” The overturned plain became full of sulphurous deposits—“the whole land thereof is brimstone, and salt [probably potash], and burning” ⁽⁷⁾—and when later in another great upheaval the plain became covered by the Dead Sea, sulphurous springs continued to flow into the valley of the Jordan and into the Dead Sea from submerged strata and from the springs on the shores.

At the end of the eighth century and the beginning of the seventh century before the present era, when every fifteen years Mars was approaching dangerously close to the Earth, Isaiah prophesied “the day of the Lord’s vengeance,” in which day “the streams [of Idumea] shall be turned into pitch, and the dust thereof into brimstone, and the land thereof shall become burning pitch.” ⁽⁸⁾ A curse upon man and his land was that “brimstone shall be scattered upon his habitation.” ⁽⁹⁾ “Upon the wicked he shall rain pitch, fire and brimstone, and a horrible tempest.” ⁽¹⁰⁾ This eschatological vision was alive with Ezekiel in the days of the Babylonian Exile. He spoke about “an overflowing rain, and great hailstones [meteorites], fire and brimstone.” ⁽¹¹⁾

These stories of sulphur raining from the sky and the fearful expectations built upon them could be taken as fictions of an imaginative mind, were not the smell of sulphur an indication of its presence in the air following the passage of a discharge, and were not also the presence of sulphur deposits around the Dead Sea, thrust in deep below the ocean level, a substantiation of the story of the cataclysm.

Is the atomic source of sulphur generated by a discharge in oxygen, or does the nitrogen of the air participate also in the building of sulphur? It seems more probable that two atoms of oxygen are smashed into one atom of sulphur. If the atomic weight of sulphur obtained by electrical discharge will be found to be more than 32 (that of sulphur is 32.06) it might be due to the presence of some atoms of oxygen of the atomic weight 17. This heavy oxygen is the product of a nitrogen atom transmuted by the bombardment of alpha particles. ⁽¹²⁾ We must reckon with the possibility that a proton from broken atoms of oxygen or ozone or nitrogen enters the new combination, or that electrons which cause the perturbation are able by themselves to change the atomic weight of the elements. ⁽¹³⁾

References

1. *The Odyssey*, XII.
2. *The Iliad*, XIV.
3. *Ibid.*, VIII. 133-136, transl. by R. Lattimore (Chicago, 1951).
4. *Natural History* 35.50, transl. by Bostock and Riley.
5. Elemental sulphur is odorless.
6. W. J. Humphreys, *Ways of the Weather* (London, 1942), p. 243.
7. Deuteronomy 29:23.
8. Isaiah 34:9.
9. Job 18:15.
10. Psalm 11:6.
11. Ezekiel 38:22.
12. Rutherford: $N^{14} + He^4 = O^{17} + proton^1$.
13. In the late 1940s I asked Dr. A. V. Grosse whether it would be possible to create, by a strong discharge, an atom of sulphur from two atoms of oxygen. His answer was that, as soon as there would be developed cyclotrons capable of releasing two billion electron-volts of energy, sulphur could be made from oxygen. [Cf. also the comments of Frederic B. Jueneman in *KRONOS VI.4* (1981), pp. 53-56.]





Jupiter, Gold, and the Birth of Athene

Pindar, speaking of the island of Rhodes, says that Zeus “rained down on the city with golden flakes of snow” at the time Athene was born from Zeus’ head, “shouting with a far-ringing cry, and all Heaven and Mother Earth shuddered before her.” ⁽¹⁾ Homer also says that “upon them [the people of Rhodes] wondrous wealth was shed by the son of Cronus.” Strabo, after quoting Homer, adds that other writers “say that gold rained on the island the time when Athena was born from the head of Zeus, as Pindar states.” ⁽²⁾

Gold-bearing gravel—with ingots in it—originated from outside of the Earth and, if we should look upon the Greek legend of Zeus and the golden rain in Rhodes as containing revealing elements, then the ingots came from Jupiter. ⁽³⁾ It could be meteoric gold, and as to the origin the ancients could err; but the event happened in human memory, actually during the Early Bronze Age, or at its end. ⁽⁴⁾

In 1866 a human skull was unearthed in the interior of Bald Mountain near Altaville, in Calaveras County, California. The skull of Bald Mountain was reported to have been found in the shaft of a gold mine, in a layer of auriferous (gold-bearing) gravel, beneath four layers of lava, each separated from the other by four layers of gravel. The skull did not differ in structure or dimensions from the skull of modern man; however, it was fossilized. ⁽⁵⁾ In the gold-bearing gravel of Calaveras were also unearthed fossilized bones of the mammoth, the great mastodon, the tapir, horse, hippopotamus, rhinoceros and camel, all extinct animals in pre-Columbian America. But geologically the layer in which it was found belongs to the Tertiary, and therefore a great embarrassment was in store for the geologists and evolutionists. They divide the strata according to the fossils found in them and hold that in the Tertiary there could have been no human beings, for it is an age before the advent of man. But we have seen in the case of the Dead Sea that the great upheavals ascribed to the end of the Tertiary took place at a much later time, actually in the time of the Patriarchs, which is the end of the Early Bronze Age period. The auriferous gravels of California and of the Ural Mountains had their origin at this same time.

The rain of gold on Rhodes is assigned by Pindar to the time when Athene was born from the head of Zeus. The expulsion of the protoplanet Venus from the body of Jupiter followed, by decades or by centuries, the contact of Saturn and Jupiter, and the fantasy of the peoples regarded Venus as a child of Jupiter, conceived to him by Saturn.

The ancient Persians called Venus Tishtrya, “a magnificent and glorious star which

Ahura Mazda [i.e., Jupiter] has established as master and overseer of all the stars.” (6)
Plutarch described the events in the following terms: “Then Horomazes [Ahura Mazda], having magnified himself to three times his size, removed himself as far from the sun as the sun is distant from the earth . . . and one star, *seirios* [i.e., Tishtrya, or Venus] he established above all others as a guardian and watcher.” (7)

References

1. Pindar, *The Seventh Olympian Ode*, transl. by L. R. Farnell (London, 1930), p. 35.
2. Strabo, *Geography*,
3. [On another occasion Zeus is said to have come to Danae, the mother of Perseus, in the form of a shower of golden rain. See Hyginus, *Fabulae* 63; Apollodorus, *The Library* II. 4. 1; Horace, *Odes*, III. 16. 1. Cf. L. Radermacher, “Danae und der goldene Regen,” *Archiv fuer Religionswissenschaft* 25 (1927), pp. 216ff. Cf. Pindar’s twelfth Pythian and seventh Isthmian odes. A fragment of a lost play of Sophocles (1026) designates Zeus as “*chrysmorphos*”—having the form of gold. Rains of gold are reported also in the Chinese chronicles. See Abel Remusat, *Catalogue des bolides et des aerolithes observees a la Chine et dans les pays voisins* (1819), p. 6. The Scythians are said by Herodotos (IV.) to have venerated certain golden objects which they believed had fallen from the heavens in early times. In the sacred texts of the Hindus it is said that “gold belongs to Brihaspati.” Brihaspati is the planet Jupiter. *The Maitrayani Samhita* I. 18. 6. Cf. S. Bhattacharji, *The Indian Cosmogony* (Cambridge, 1970), p. 318.]
4. [It is a remarkable fact that gold appears only in very recent geological formations. Sir Roderick Impey Murchison dedicated chapter XVII of his geological opus *Siluria* to this phenomenon: “On the Original Formation of Gold and Its Subsequent Distribution in Debris over Parts of the Earth’s Surface.” He argued, on the basis of his field observations in northern Russia, that gold is of *recent* origin:

Whatever may have been the date when the rock was first rendered auriferous [gold-bearing], the date of this great superficial distribution of gold is clearly indicated. For it contains in many places the same remains of extinct fossil quadrupeds that are found in the coarse drift-gravel of Western Europe. The elephas primogenius, or Mammoth, bos aurochs, rhinoceros tochorrhinus, with gigantic stags, and many other species, including large carnivores, were unquestionably before that period of destruction the denizens of Europe and Siberia.

The period of the distribution of gold in the late Pleistocene strata was that of the mass extinctions of the great quadrupeds at the end of the last ice age. next Murchison tried to determine the time when the rocks were first “impregnated

with gold.” He wrote:

Now, it would seem as if these rocks, in the Ural, have been chiefly impregnated with gold, in a comparatively recent period. In the first place, the western flank of the Ural chain offers strong evidence that this golden transfusion had not been effected in this region when the Permian deposits were completed.

No sign of gold was found in these older strata.

Nowhere does it [the Permian debris] contain visible traces of gold or platinum. Had these metals then existed in the Ural mountains, in the quantities which now prevail, many remnants of them must have been washed down together with the other rocks and minerals and have formed part of the old Permian conglomerates. On the other hand, when the much more modern debacles, that destroyed the great animals, and heaped up the piles of gravel above described, proceeded from this chain, then the debris became largely auriferous. It is manifest therefore that the principal impregnation of the rocks with gold—i.e., when the lumps and strings of it were formed—took place in the intervening time.

Sometime between the Permian and the last ice age some event resulted in the infusion of the rocks with gold. Murchison tried to fix the time more precisely:

We cannot believe that it occurred shortly after the Permian era, nore even when any of the secondary rocks were forming; since no golden debris is found in any of the older Tertiary grits and sands which occur in the Siberian flank of the chain. *If, then, the mammoth drift be the oldest mass of detritus in which gold occurs abundantly*, not only in the Ural, but in many parts of the world, we are led to believe that this noble metal, though for the most part formed in ancient crystalline rocks, or in the igneous rocks which penetrated them, was only abundantly imparted to them in a comparatively recent period—i.e., a short time (in geological language) before the epoch when the very powerful and general denudations took place which destroyed the large extinct mammalia.

In another work of his, *The Geology of Russia and the Ural Mountains*, Vol. I (London, 1845), p. 473, Murchison presented his conclusions about the geological events which accompanied the deposition of gold:

. . . We conclude that the [Ural] chain became (chiefly)

auriferous during the most recent disturbances by which it was affected, and that this took place when the highest peaks were thrown up, when the present watershed was established, and when the syenitic granite and other comparatively recent igneous rocks were erupted along its eastern edges.

Murchison, one of the founders of modern geology, insisted that it was during a major geological upheaval that gold became part of the rocks—it was the time of mountains being “thrown up” and molten rock flowing, before solidifying into granite. Murchison next wondered about the “agency” which deposited the gold in the mountains of the Ural and elsewhere. As a geologist he observed that “the material has been chiefly accumulated towards the surface of the rocks, and then by the abrasion and dispersion of their superficial parts, the richest golden materials have been spread out. . . .” (*Siluria*, p. 455).

This last observation is of fundamental importance, in that since the gold was deposited close to the surface, it could not have come from inside the earth.].

5. J. D. Whitney, *The Auriferous Gravels of the Sierra Nevada of California* (1880), pp. 268-269.
6. *Yasht* 8: 44.
7. *De Iside et Osiride*, ch. 47.





A Technical Note

I have been asked by the compilers of the Velikovsky archive to briefly explain the present condition of Velikovsky's unpublished manuscript entitled *The Dark Age of Greece*. Velikovsky worked on the manuscript of *The Dark Age of Greece* fairly intensively during the last years of his life, drawing in part on the library research of Edwin Schorr, a graduate student at the University of Cincinnati, whom he employed for this purpose in Princeton for several summers in a row in the mid-seventies. Readers of *Pensée* know Schorr under his *nom de plume* Israel M. Isaacson, which he used to protect himself from the wrath of his professors at Cincinnati. At the time that I began to work for Velikovsky in 1976, the manuscript was still "work in progress." While Velikovsky was writing and rewriting the main text, my task was to annotate the material, drawing in part on the voluminous notes and photocopies of articles prepared by Schorr and partly on my own research. In addition, Velikovsky and I co-authored certain sections; others, written solely by me, were to have been included in a supplement to the book. Subsequent to 1980, pursuant to Elisheva Velikovsky's wishes, I moved some of these contributions from the main text into footnotes and removed the rest from the manuscript altogether. Several of them were published in *Kronos* VIII.2 in 1983. Another planned supplement to *The Dark Age of Greece* was to have been Edwin Schorr's work on Mycenae, [*Applying the Revised Chronology*](#). This detailed study on the archeology of Mycenae was commissioned by Velikovsky and written specifically for this purpose. Although incomplete, it is an impressive work of scholarship that deserves publication.

Jan Sammer

In this edition Jan Sammer's annotations are distinguished from Velikovsky's text by being placed in square brackets and displayed in red letters. All such annotations should be understood as being by Jan Sammer, unless marked with the initials EMS, in which case they are by Edwin Schorr. In conformity with reliable information we have received with respect to Velikovsky's plan for the book, we have included Schorr's and Sammer's work as a supplement to *The Dark Age of Greece*.

The Editors



PREFACE

The task of my few words is to ask prominent scholars to reconsider their opinions about the dark age of Greece in the light of Velikovsky's present book. My personal difficulty is mainly caused by the fact that a short preface cannot be a scholarly treatise and therefore it is impossible to ask here all the questions which arise when Velikovsky's theory is applied to our special problem. And as I am not an archaeologist, but a Greek scholar, I am not able to control how far Velikovsky is right in questions of stratigraphy. Here I depend on his quotations of archaeological reports and it is not possible for me to decide how far his selection of passages from these reports is subjective. My difficulty is that now I have to accept the view that the period of Geometric style overlaps, at least partially, the Mycenaean and Minoan period. This is new for me, but I admit that it is not impossible that two different artistic approaches can exist at the same time.

But the most important problem in connection with the present book is how far this theory is dictated by the whole of Velikovsky's chronological system and how far his results in the present study are valid independently from it. Velikovsky puts the "true time of the events recounted in the Iliad in the second half of the eighth century and the beginning of the seventh. . . . The time in which the drama of the Iliad was set was -687; yet the poet condensed the events of more than one year into the tenth year of the Trojan siege, the time of the Iliad's action." Velikovsky came to this date because he identified the description of the battle between the gods in the Iliad with a cosmic catastrophe. His date for the conquest of Troy is unusually late. As Homer had to live after the events he describes, the space of the time between Homer and the classical Greek literature seems to me personally to be too short. But the main question is about the interrelation between Velikovsky's chronological system and the single historical facts. Or in other words: does this system solve the concrete difficulties in our approach to ancient history? The present book tries to solve such a serious problem, namely, does the so-called dark age of Greece really exist? Is the supposed span between Mycenae and classical Greece too long? Are we not in this case victim of a false Egyptian chronology, which was invented by Egyptian patriots in order to show that the Greeks were in comparison with the Egyptians mere children? Was the history of Egypt in reality much shorter than it is supposed today? If this could be shown, then the problem of the dark age of Greece would disappear. Only open-minded specialists can reject or accept Velikovsky's solutions. One thing is clear: the new book treats a real problem. It was not its author who created it. The whole complex of questions was re-opened by the decipherment of the Linear B script, when it was definitely shown that the Mycenaeans were Greeks, speaking a language which was an older stage of the linguistic substrate of the Iliad and Odyssey. It is a merit of the new book that it offers an original solution for a real problem. Will there be a sufficient number of good specialists who are prepared to

wrestle with the proposed solution?

Prof. David Flusser Hebrew University





The Reconstruction of Ancient History

The history of the ancient East is an interwoven nexus, embracing Egypt, Israel, Syria and Mesopotamia, known also as the Biblical lands. The interconnections extend to Asia Minor, to Mycenaean Greece, and to the Mediterranean islands—Cyprus, Crete, and the Aegean archipelago. The histories of many of these nations are, for most of their existence, devoid of absolute dates and depend on interrelations with other nations.

The chronologies of the Mycenaean civilization in Greece and of the Minoan civilization on Crete are built upon contacts with Egypt, for Egypt's chronology is considered reliable. In turn, the widespread Mycenaean and Minoan contacts and influences found in the archaeological sites of many countries are distributed on the scale of time by detailed study of Mycenaean and Minoan pottery and its development. This pottery is found in countries as far apart as Italy and the Danubian region.

Egyptian History

Although Egypt's chronology is used to determine the dates of other cultures, Egypt had no written account of its history, and the earliest surviving effort to put its past into a narrative is from the pen of Herodotus of the mid-fifth century before the present era, regarded by modern historians as largely unreliable.¹

Though various king-lists from earlier times have been preserved, it is the list of Manetho, an Egyptian priest of Hellenistic times, (third pre-Christian century) that served the historiographers as the basis for making a narrative out of the Egyptian past. The names read on monuments were equated, often by trial and error, with Manethonian dynasties and kings. The mathematics of history, it was agreed, could not be entrusted to Manetho, and is largely borrowed from the sixteenth-century European chronographers, notably Joseph Scaliger, and his sixteenth- and seventeenth-century emulators Seth Calvisius and others,² who dated in the same tables also various mythological motifs, such as the scandals among the Olympian gods or Heracles' heroic exploits.

With the reading of the Egyptian hieroglyphs achieved in the nineteenth century, some selected dates of Scaliger were used by Lepsius (1810-84) to date the monuments and thus the reigns of the kings of Egypt whose names were on the monuments. Lepsius was, for instance, of the view that Ramses II was the pharaoh of

the Exodus—and thus Biblical history, too, was drawn into a comprehensive scheme on which other histories could find their first foothold. Such was also the case with “Hittite” history because of a peace treaty of Ramses II with one of the Hittite kings (Hattusilis). Manethonian mathematics, or the number of years allotted to dynasties and kings, was soon disregarded.

*Astronomical Dating*³

Even before Young and Champollion first read the hieroglyphic texts in the 1820s, Biot and others decided that astronomical calendric calculations could be used to ascertain the dates of the Egyptian dynasties. It was known that the Egyptian civil year consisted of 365 days, approximately a quarter of a day short of the true sidereal year. Thus the calendric dates of the Egyptians would gradually have fallen out of their proper place in relation to the seasons, and made a complete circle in $365 \times 4 = 1460$ years.

With the decipherment of the multitudinous Egyptian texts, a few references to a star *spdt* were found, and were interpreted as recording the heliacal⁴ rising of the southern fixed star Sirius—and if from monuments it could also be learned in which months and on what day the star rose heliacally, events could be dated within the 1460-year-long “Sothic cycle.” This made it possible to build a chronology of Egypt around the few dates so fixed—and much work was spent in such an effort. With this as a basis, refinement could be achieved in various ways, most notably by trying to ascertain the length of the years of a king, usually relying on the highest year of his reign found recorded on monuments. Each king counted the years from his coronation—Egypt had no continuous timetable. However, in Egyptian texts no reference to calculating by Sothic observations was ever found.

Archaeological work in Egypt showed that besides the so-called pre-dynastic times, from which the data are incomplete, the historical past was twice interrupted for centuries when the land fell into neglect. The First Intermediate Period intervened between the epochs that received the names of the Old and Middle Kingdoms; the Second Intermediate Period between the Middle and New Kingdoms; the New Kingdom consists of the Manethonian dynasties Eighteen, Nineteen and Twenty—what follows is called the Late Kingdom.

Hebrew History

Hebrew history has a narrative that consists of the book of Genesis—the history of the world in which catastrophic events (the Deluge, the overturning of the Tower of Babel, the destruction of Sodom and Gomorrah) come to the fore, the latest of these coinciding with the beginning of the age of the Patriarchs which ends with the migration of the fourth generation to Egypt because of drought in Canaan. This part of the history is considered largely legendary. Following a sojourn in Egypt, the Exodus—the subject of the other four books of the Pentateuch—inaugurates the

historical period. The historical events until the Exile to Babylon are further narrated in the books of Joshua, Judges, Kings, Chronicles, and Prophets and the post-Babylonian period in the books Nehemiah, Ezra, and of the later prophets. Many non-Scriptural books with varying degrees of historical veracity add and take over where the Old Testament ceases its narrative.

It was agreed since the days of Josephus Flavius, the Jewish historian of the days of Emperor Vespasian, that the Exodus of the Israelites from Egypt took place after the Second Intermediate period, during the Egyptian New Kingdom, whether at its very beginning or several generations later. However, they disagree among themselves, some placing the Exodus under Thutmose III of the Eighteenth Dynasty, others under Amenhotep III or his heir Akhnaton of the same dynasty (the time of the el-Amarna correspondence), some placing it under Ramses II or Merneptah of the Nineteenth Dynasty (“Israel Stele”), and some as late as the Twentieth Dynasty (after Ramses III repelled the invasion of the Peoples of the Sea, supposedly in the first quarter of the twelfth century). So many various dates for the Exodus—a point that connects the Hebrew and the Egyptian histories—could be contemplated because these two histories as they are usually taught are remarkably out of contact for the entire length of the New Kingdom, and equally so for the rest of their histories, down to the time of Alexander of Macedon.

The Revised Chronology

My approach to the problem of the synchronization of ancient histories took the following form. Upon realizing that the Exodus was preceded and accompanied by natural disturbances described as plagues of darkness, of earthquake, of vermin, accompanied by hurricanes and followed by a disruption of the sea, by volcanic phenomena in the desert and then by the prolonged “Shadow of Death” of the years of wandering, I looked for similar descriptions in Egyptian literary relics and found them in a papyrus ascribed to a certain Ipuwer, an eyewitness and survivor of the events. Additional data I found in an inscription carved on a stone shrine found at el-Arish on the Egyptian-Palestinian frontier. Taking the latest possible date for the events described in the papyrus Ipuwer, namely, the collapse of the Middle Kingdom in Egypt on the eve of its being overrun by the Hyksos, the date was still centuries earlier than the earliest considered dates for the Exodus on the Egyptian time-scale.

If the parallels in texts elucidated by me are not a matter of coincidence, then the test would be in whether it would be possible, in leveling the two histories by synchronizing the end of the Middle Kingdom and the Exodus, to trace contemporaneity also in subsequent generations, not yet deciding whether the Egyptian history would need extirpation of “ghost centuries” or the Israelite history extension by the insertion of “lost centuries.”

The next clue in my work of reconstruction was in equating the Asiatic Hyksos (called Amu by the Egyptians) that overran Egypt, prostrated as it was by the natural disaster described in the Ipuwer Papyrus, with the Amalekites that the Israelites met

on their flight from Egypt. The autochthonous Arab sources, as preserved by medieval Moslem historians, refer to a several-centuries-prolonged occupation of Egypt by the Amalekites, evicted from the Hedjaz by plagues of earthquakes and vermin, while tidal waves swept other tribes from their lands.

I could establish that the period of the Judges, when the population was oppressed by the Amalekites and Midianites, was the time of the Second Intermediate Period in Egypt and that Saul, who captured the capital of the Amalekites (el-Arish being the ancient Hyksos capital Avaris) put an end to the Amalekite-Hyksos domination from Mesopotamia to Egypt. In Egypt the Eighteenth Dynasty came into existence, thus inaugurating the New Kingdom. Was it ca. -1030, the time the Biblical scholars would assign to Saul's capture of the Amalekite fortress, or ca. -1580, the time the Egyptologists would place the fall of Avaris?

King David fought the remnants of the Amalekites; his marshal Joab invaded Arabia, while Amenhotep I ruled in Egypt; Solomon accordingly had to be a contemporary of Thutmose I and of Hatshepsut; I could establish that this queen came to Jerusalem and had reliefs depicting her journey to the Divine Land carved on the walls of her temple at Deir el-Bahari. In Hebrew history and legend she lives as the Queen of Sheba who visited Solomon.

The next generation saw Thutmose III invade Judea, sack the palace and temple of Jerusalem, and impose a tribute on the now-divided country. The furnishings of the Temple, carried away by Thutmose, were depicted by him on a temple wall in Karnak. These depictions match the Biblical record of some of the Temple furnishings.

Amenhotep II was identified with the king whom an ancient epic poem portrayed as leading an enormous army against the city of Ugarit, only to be pursued to the Sinai Desert. He was further shown to be the alter ego of the Scriptural Zerah, whose enterprise started similarly and ended identically.

The last three chapters of the first volume of *Ages in Chaos* deal with the el-Amarna correspondence; if the reconstruction is correct then the time in Judah must be that of King Jehoshaphat and in Israel of King Ahab. It so happened that the books of Kings and Chronicles are especially rich in many details of the events that took place under these kings, and the numerous letters on the clay tablets of the el-Amarna archive present a perfect ground for comparison as to persons, places, names, and events. Scores of identifications and parallels are brought forth. Did Jehoshaphat and his generals and Ahab and his adversaries in Damascus exchange letters with Amenhotep III and his heir Akhnaton across the centuries?

At first we left the problem open, which of the two histories would require re-adjustment—is the Israelite history in need of finding lost centuries, or does the Egyptian history require excision of ghost centuries? Soon it became a matter of certainty that of the two timetables, the Egyptian and the Israelite, the former is out of

step with historical reality by over five centuries.

A chronology with centuries that never occurred made necessary the introduction of “Dark Ages” between the Mycenaean and the Hellenic periods in Greece. Thus the shortening of Egyptian history by the elimination of phantom centuries must have as a consequence the shortening of Mycenaean-Greek history by the same length of time.

The Greek Past

The theme pursued in this volume is the basic design of Greek history—the passage of the Mycenaean civilization and the intervening Dark Age of five centuries duration before the Hellenic or historical age starts ca. 700 years before the present era. This structure of the Greek past is subjected to a reexamination as to the historicity of the Dark Age.

Greek antiquity is conventionally divided into three periods—Helladic, Hellenic, and Hellenistic. The Helladic period in its later subdivision comprises the Mycenaean civilization. It ends not long after the conquest of Troy, regularly put about -1200. Its last generation is dubbed “the Heroic Age.” At this point five centuries of dark ages are inserted into Greek history. The Hellenic period embraces the Ionian and classical ages, and stretches from ca. -700 to the conquest of the East by Alexander of Macedon. With his march toward the Nile, the Euphrates, and the Indus (-331 to -327), the culture of Greece was spread through the Orient and was itself modified by oriental elements; this was the beginning of the Hellenistic Age. Mycenae can be regarded as the cultural center of the Late Helladic period; Athens of the Hellenic; and Alexandria of the Hellenistic. In this scheme, as just said, the five centuries of the Dark Age are inserted between the Helladic and the Hellenic or, in other nomenclature, following the Mycenaean and preceding the Ionian ages.

The Mycenaean Age in Greece and the contemporary and partly preceding Minoan Age on Crete have no chronologies of their own and depend on correlations with Egypt. Objects inscribed with the names of Amenhotep II, Amenhotep III and Queen Tiy of the Eighteenth Dynasty, found at Mycenae, were like a calendar leaf. Then excavations at el-Amarna in Egypt established the presence of Mycenaean ware in Akhnaton’s short-lived city. Such quantities of Mycenaean ware came to light in the course of the excavations that a street in el-Amarna was dubbed “Greek Street.” Since Akhnaton’s capital existed for only about a decade and a half, a very precise dating for the Mycenaean ware could be evinced, thus providing a link between Mycenaean history and the established Egyptian chronology. It was therefore concluded that the Mycenaean civilization was at its apogee in the days of Amenhotep III and Akhnaton of the Eighteenth Egyptian Dynasty.

The first and most important consequence was a radical recasting of Greek history. Since Akhnaton’s conventional date was the fourteenth and thirteenth centuries before the present era, Mycenaean ware was also ascribed to the same period. By the

end of the twelfth century before the present era, the Mycenaean civilization would have run its course. The Greek or Hellenic time does not start until about -700. The years in between are without history on Greek soil. There existed tenacious memories of the time of the tyrants who ruled in the late eighth and seventh centuries, but beyond that, there was complete darkness.

Thus by the 1890s the Hellenists were coerced by the evidence presented by the Egyptologists to introduce five centuries of darkness between the end of the Mycenaean Age and the beginning of the Hellenic. As we shall read on a later page, there was some consternation on the part of classical scholars when first the fact dawned on them that between the Mycenaean age and the historical Greek time there was a span, more in the nature of a lacuna, of several centuries' duration. In the end they accepted the Egyptian plan as being valid for Greece—still without having investigated the evidence on which the claim of the Egyptologists was founded.⁵

In *Ages in Chaos* we have seen that, with the fall of the Middle Kingdom and the Exodus synchronized, events in the histories of the peoples of the ancient world coincide all along the centuries.

For a space of over one thousand years records of Egyptian history have been compared with the records of the Hebrews, Assyrians, Chaldeans, and finally with those of the Greeks, with a resulting correspondence which denotes synchronism.

In Volume I of *Ages in Chaos* it was shown in great detail why Akhnaton of the Eighteenth Dynasty must be placed in the latter part of the ninth century. If Akhnaton flourished in -840 and not in -1380, the ceramics from Mycenae found in the palace of Akhnaton are younger by five or six hundred years than they are presumed to be, and the Late Mycenaean period would accordingly move forward by about half a thousand years on the scale of time.

Yet independently of the results attained in *Ages in Chaos*, the problem of blank centuries, usually termed “dark ages,” increasingly claims the attention of archaeologists and historians. Although the enigma of “dark centuries” reappears in many countries of the ancient East, in no place did it create such discomfort as in Hellenic history. There it is an inveterate problem that dominates the so-called Homeric question: The historical period in Greece, the Hellenic Age, is ushered in by the sudden and bright light of a literary creation—the Homeric epics, of perfect form, of exquisite rhythm, of a grandeur unsurpassed in world literature, a sudden sunrise with no predawn light in a previously profoundly dark world, with the sun starting its day at zenith—from almost five hundred years that divide the end of the Mycenaean Age from the Hellenic Age, not a single inscription or written word survived.

Against this set-up the Homeric Question grew to ever greater proportions. In the light of—or better to say—in the darkness of the Homeric problem, we will try to orient ourselves by scanning some early chapters of Greek archaeology, and having

done this, we should return to the problem of the deciphered Linear B script. Two timetables are applied simultaneously to the past of Greece, one built on the evidence of Greece itself, the other on relations with Egypt; thus instead of any new discovery reducing the question to smaller confines, every subsequent discovery enlarged the confines and decreased the chances of finding a solution.

References

1. [Cf. Ion Ghica, *Istoriile lui Erodos*, vol. II (Bucuresti, 1912)]
2. They wrote long before the Egyptian hieroglyphics were deciphered.
3. See my essay, "Astronomy and Chronology," Supplement to *Peoples of the Sea*, (New York, London, 1977); first published in *Pensée IVR* IV (1973).
4. By heliacal rising is meant the first appearance of a star after invisibility due to conjunction with the sun.
5. See my "Astronomy and Chronology," cited above.





The Setting of the Stage

A traveller afoot, steadily on the road, marching from Athens westward, crosses the Corinthian Isthmus and, by continuing to the south, may arrive at Mycenae before the sunset of the second day. He follows the rocky road uphill and reaches the fortification wall of the ancient citadel. Rampant stone lions in relief crown the gate of Mycenae. Inside the gate, immediately to the right, he is shown the shaft graves of the ancient kings. The place is deserted; no village occupies the site. Resting at the gate, the traveller has before him the Argive plain, the scene of some of the most celebrated events of the human past.

Before the historical age of Greece started, called also the Ionian or Hellenic Age, Greece had another civilization. It centered at Mycenae; it spread over Greece and over the Helladic islands; vestiges of it were found in many places of the ancient world. It was closely contemporaneous with the last phase of another civilization, the so-called Minoan, centered on the island of Crete to the south. These two great cultures left cities and palaces, ruined and deserted, and rich relics—pottery of exquisite forms, and gold and jewels—but no history known to modern man. Yet of Mycenae and of her heroes such a treasure of legend is preserved in Greek lore that some of the heroes of that kingdom in the Argive plain and their contemporaries are more familiar to us than leaders of other races and other times much more recent. Agamemnon, Menelaus, Nestor, Achilles, and Odysseus are better remembered and more widely known than most of the military leaders of the great wars of our own century. Heroes of other times and nations are too often not known at all.

Their names were . . . Ask oblivion!

“They had no poet, and they died.”¹

This is said not just of heroes but of whole civilizations.

Agamemnon and Menelaus were sons of Atreus, king of Mycenae; and legends were told about Atreus and Thyestes, brothers who quarreled over the throne, and about the sign in favor of Atreus that was seen in the sun retracing its course. These legends lived in Greek lore. Another cycle of legends centered on Thebes in Boeotia, and on the Argonaut expedition to Colchis on the Caucasian coast of the Black Sea, which preceded the Trojan War by several decades.

The world of these legends, cruel and heroic and treacherous, occupied the fantasy of the Greeks; and Greek tragic poets of the fifth century, Aeschylus, Sophocles, and Euripides, had an inexhaustible store of themes to draw upon.

There is hardly any problem in the entire history of literature that occupies the minds of scholars as much as the origin of the Homeric epics—the Iliad and the Odyssey—especially the question as to the time of their origin.

The Iliad tells of the events of the final stage of the siege of Troy by the host of the Achaeans under Agamemnon, king of Mycenae. The Odyssey tells of the long wanderings of Odysseus, one of the heroes of that siege, on his circuitous way home.

Tradition has it that Homer was a blind bard who lived and wandered on the Aegean coast of Asia Minor. Among the cities and islands that claimed to have been his birthplace were Smyrna, Chios, Colophon, Salamis, Rhodes, Argos, and Athens. Beyond this the tradition is very meager as to the personality of the poet and the events of his life. Several apocryphal writings pretending to tell something of him were composed in Greece, but had nothing to commend them. When did he live and create? In his great epics he described the Mycenaean world which supposedly ended almost five centuries before him; he shows a very great knowledge of that time—yet he knew the world of the seventh century, too.

There are those who argue that the author of the Iliad and Odyssey was not one man but a group of bards, or a succession of wandering poets, each of whom added of his inspiration to the epics; and sometimes it is also argued that there was no historical siege of Troy and that the story of the war is but the poet's creation. The Odyssey appears to be just a story of fancy. However, a war expedition in which many leaders, kings of cities in Greece, took part, and the capture of a fortress named Ilion or Troy, ruled by King Priam, could not be easily relegated, all and sundry, to the domain of fancy. Many Greek and Latin authors referred to it, though their source was invariably Homer. Among the early authors Aeschylus, Sophocles and Euripides wrote cycles of tragedies dealing with the personalities of the Homeric epics and with their families, and many other poets followed in the path of the ancient bard. Virgil's Aeneid, telling the story of the peregrinations of Aeneas, one of the defenders of Troy, is famed as emulation of Homer's Odyssey.

Through the classical period of Greece, through the Hellenistic age that followed, through the age of the Roman Empire, then through the Middle Ages, the Trojan War was the main event of the past, competing in this with the exploits of Alexander of Macedon, for whom Achilles of the Iliad served as the model. But in the nineteenth century, in the "age of reasonableness" that followed the "age of reason," the view prevailed that the Trojan War was part of the imagery of a poet and Troy itself had never existed.

However in the 1870s the skeptics were confounded by Heinrich Schliemann, an adventurer with rich imagination, who as a cabin boy went on a merchant ship bound for America that suffered shipwreck;²

he was a clerk in Holland, an importer in St. Petersburg, a man not to miss the

California goldrush. Having grown rich through the years of adventures, Schliemann went to Hissarlik, a low hill near the Dardanelles, on the Aegean shore of Turkey, after proclaiming that he would find Troy there. Schliemann's advance public announcement as to his intent to discover Troy was met partly with disbelief and sarcasm, but mostly with indifference. He dug, destroyed much valuable material and disturbed some of the archaeological sequence; but he discovered beneath the mound of Hissarlik the remains of seven cities, one beneath the other.³

He identified the second city from the bottom as the Troy of which Homer sang: it was a fortress, strong and rich in treasures, seemingly destroyed in a violent earthquake.⁴

Later scholars identified King Priam's city as the sixth from the bottom, still later as Troy VIIa.

In 1876 Schliemann, now crowned with success, went to the Argive plain in Greece, to Mycenae, to locate the tomb of Agamemnon, "king of men," the leader of the Achaeans at the siege of Troy. Soon he cabled to King George of the Hellenes that he had opened the grave of his predecessor among the five large shaft tombs which he discovered hewn in rock, with the skeletons of their occupants, with gold crowns and gold masks and much jewelry, gold vessels with oriental designs, and pottery. All kinds of voices were now heard. One scholar announced that the find and its treasures date from the Byzantine age (first millennium A.D); but in time the royal graves came to be accepted for what they were—of an era preceding the historical period in Greece—however not of Agamemnon and his house who supposedly lived in the thirteenth or early twelfth century, but of an age several centuries earlier. How was this figured out? In the buildings and tombs of Mycenae cartouches of Amenhotep II, Amenhotep III, and Queen Tiy, wife of Amenhotep III and mother of Akhnaton were found,⁵ and in Akhnaton's short-lived city Akhetaton, deposits of typical Mycenaean pottery were unearthed. The age of these pharaohs in the conventional timetable belongs to the first half of the fourteenth century. Schliemann was wrong again in his identification, but right in the main: here were for all to see rich relics of the Mycenaean civilization.

Schliemann made further diggings at Tiryns, in the Argive plain, and next intended to dig on Crete, but he did not come to terms with the owners of the land, for which he made a bargain offer.

At the beginning of this century Arthur Evans, having obtained a concession, dug at Knossos on Crete and brought to light the Minoan civilization—palaces and frescoes and paved courts, a silent world of bygone days. The Minoan civilization could be traced to various stages separated by definite interruptions—Early Minoan, Middle Minoan, and Late Minoan—and it was the Late Minoan age that ran parallel with the Mycenaean age. If anything, the Minoan civilization appeared as the dominant of the two. It was Evans' excavations on Crete that established the contemporaneity of

Mycenaean ware with that of the Late Minoan period. On Crete Evans also found tablets with incised signs of two scripts, called by him Linear A and Linear B. Later tablets with the Linear B script were found in large numbers at Pylos and at other ruined cities on the Greek mainland, and still later they were deciphered. But we are ahead of our story.

References

1. Don Marquis, quoting Pope.
2. Of this shipwreck Schliemann wrote to his sisters in Hanover an exciting account of miraculous escape from death. In his later autobiography he exposes his letter-report as more fantasy than truth.
3. In *Troy and Its Remains* (London, 1875) Schliemann distinguished four cities; in *Ilios, The City and Country of the Trojans* (London, 1880) he recognized seven.
4. This is the view of C. F. A. Schaeffer, argued in his *Stratigraphie comparée et chronologie de l'Asie occidentale (IIIe et IIe millenaires)* (Oxford University Press, 1948), p. 225. C. Blegen ascribed the destruction to a human foe.
5. J. D. S. Pendlebury, *Aegyptiaca* (Cambridge, 1930), pp. 53-57.





Why no Literary Relics from Five Centuries?

The Dark Ages left no literary remains, not even a single word on a sherd or a few characters on a clay tablet.

M. Bowra in his book *Homer and His Forerunners* puts the problem in straight terms:

There is no evidence whatsoever that the Mycenaean script continued anywhere in Greece after c. 1200. There is no trace of writing of any kind in the sub-Mycenaean and Protogeometric periods, or indeed before the middle of the eighth century, when the new and totally different Greek alphabet makes its first appearance. Now, this is surely not an accident. A single scratched letter from this period would be enough to show that writing survived; but not one has been found. This is undeniably a most remarkable phenomenon, for which it is hard to find either a parallel or an explanation. A society seems suddenly to have become illiterate, and to have remained so for centuries. How and why this happened we do not know. . . ¹

Bowra expresses his wonder at “this astounding state of affairs.” It “undermines any hope that the transmission of heroic poetry was maintained by a succession of written texts from the time of the Trojan War.”

On the one hand, “the Homeric poems contain material which is older than 1200.” On the other hand, Bowra states his conviction that we can be “reasonably confident that Homer worked in the latter part of the eighth century, since this suits both the latest datable elements in his details and his general outlook.” Is this not an impasse—the poet separated from his subject by almost five centuries, with an intimate knowledge of a vanished civilization and no art of writing in between?

Alan J. B. Wace challenged this view, and in his preface to Ventris’ and Chadwick’s *Documents in Mycenaean Greek* (1956) wrote that future discoveries and study would “undoubtedly make clear” whether the Dark Age was really dark:

The orthodox view of classical archaeologists is that there was a ‘Dark Age’ when all culture in Greece declined to barbarism, at the close of the Bronze Age and in the early period of the ensuing Iron Age. Even now, when it is admitted that the Greeks of the Late Bronze Age could

read and write the Linear B Script, it is still believed by some that in the transition time, the Age of Bronze to that of Iron, the Greeks forgot how to read and write until about the eighth century when they adapted the Phoenician alphabet. It is incredible that a people as intelligent as the Greeks should have forgotten how to read and write once they had learned how to do so.²

Then where are the documents, what is the testimony?

“. . . Letters or literary texts may well have been on wooden tablets or some form of parchment or even papyrus; some fortunate discovery will possibly one day reveal them to us.” A quarter century since this was written nothing has been found that would substantiate this hope, as nothing was found in the preceding eighty years of excavation in Greece. In the quoted passage the words “it is still believed by some that . . . the Greeks forgot how to read and write” refers to almost every classicist who agrees that the Dark Age left no written record because none was written.³

“There is no scrap of evidence,” writes Denys L. Page in *History and the Homeric Iliad*, “and no reason whatever to assume that the art of writing was practiced in Greece between the end of the Mycenaean era and the eighth century B.C. . . .”⁴

And one hundred pages later: “. . . The Iliad preserves facts about the Trojans which could not have been known to anybody after the fall of Troy VIIa.”⁵

Then back to the question one hundred pages earlier: “How did the truth survive through the Dark Ages into the Iliad?”⁶

References

1. Sir Maurice Bowra, *Homer and His Forerunners* (Edinburgh, 1955) pp. 1-2.
2. P. xxviii; cf. J. Chadwick, “The Linear Scripts” in *The Cambridge Ancient History*, vol. II, ch. XIII (1971) p. 26; V. R. d’A. Desborough, *The Greek Dark Ages* (London, 1972) p. 321.
3. The contention that during the Dark Ages the Greeks wrote only on perishables does not carry weight. In Mycenaean times, and again from the eighth century on, the Greeks left writing on imperishable materials, such as baked clay or stone, as well as on perishable ones, such as papyrus or wood. The view that *all* writing during the Dark Ages was on perishable materials, none of which was found, is thus rather difficult to uphold. In *The Local Scripts of Archaic Greece* (Oxford, 1961) p. 17, L. H. Jeffrey convincingly disputes the “perishables” theory.
4. (Berkeley, Ca., 1959) p. 122.
5. *Ibid.*, p. 221.

6. *Ibid.*, p. 120. Rhys Carpenter is among those who argue that an oral tradition stretching over centuries was not capable of preserving a detailed picture of Mycenaean Greece (*Folk Tale, Fiction and Saga in the Homeric Epics*); yet Denys Page and many other scholars state unequivocally that an accurate picture *was* somehow preserved.





Troy in the Dark Ages

The Dark Age enveloped Greece; it enveloped Troy too,

for the site is barren of deposits which might be referred to the period c. 1100-700 B.C. Not one sherd of proto-geometric pottery is known to have been found at Troy—not by Schliemann, or by Doerpfeld, or by Blegen himself. We are now in effect asking what happened at Troy during the Dark Ages of Greece, from the [beginning of] the 11th to the [end of the] 8th century B.C.: and this is the answer which we must accept—that there is nothing at Troy to fill the huge lacuna. For 2000 years men had left traces of their living there; some chapters in the story were brief and obscure, but there was never yet a chapter left wholly blank. Now at last there is silence, profound and prolonged for 400 years.¹

This observation of Denys Page, Professor of Greek at the University of Cambridge, is in the nature of amazement: out of a mound covering a ruined place, an archaeologist expects to extract stray objects that accumulated there in the space of centuries. In Troy there is “silence profound and prolonged” as if time itself had stopped.

But the same author stresses that “the Iliad preserves facts about the Trojans which could not have been known to anybody after the fall of Troy VIIa.”²

Thus not only did Homer know of the kingdom and people of Mycenae that were buried for centuries of the Dark Ages, but he knew also of the kingdom and people of Troy who, too, were dead, buried, and forgotten in the darkness of the Dark Ages.

The site of Troy was reoccupied late in the seventh century; but from the fall of Troy, now put by archaeologists ca. -1260, until Homer’s time, there was nothing on the surface of the mound that could disclose to the poet the many intricate details which he webbed into his epics.

It is realized that Homer knew the scene of the Aegean coast of Asia Minor of the eighth and seventh centuries; therefore, it was argued, he could not have lived in the days of the Trojan War (or shortly thereafter) in the 12th century. A poet having composed the poems in the twelfth century would not be able to introduce into them innumerable references to the Iron Age in Greece and the post-Phrygian Age in Asia Minor of the seventh century.

Was the site of Troy alone in Asia Minor an archaeological void for five hundred years, following that city's destruction at the end of the Mycenaean Age?

References

1. D. Page, "The Historical Sack of Troy," *Antiquity*, Vol. XXXIII (1959), p. 31.
2. *Ibid.*, p. 221.





The Dark Age in Asia Minor

Like Greece and the Aegean, Asia Minor has no history for a period of close to five centuries. Certain scholars disagree with this verdict, but it comes from the pen of one of the foremost authorities on archaeology and art of Asia Minor, Professor Ekrem Akurgal of the University of Ankara.¹

“ . . . Today [1961], despite all industrious archaeological exploration of the last decades, the period from 1200 to 750 for most parts of the Anatolian region lies still in complete darkness. The old nations of Asia Minor, like the Lycians and the Carians, the names of which are mentioned in the documents of the second half of the second millennium, are archaeologically, i.e., with their material heritage, first noticeable about 700 or later . . . Hence the cultural remains of the time between 1200 and 750 in central Anatolia, especially on the plateau, seem to be quite irretrievably lost for us.”

The huge land of Asia Minor for almost five centuries is historically and archaeologically void. The cause of the interruption in the flow of history about -1200 is assumed to lie in some military conquest; but the Phrygians, who are supposed to have been these conquerors, did not themselves leave any sign of their occupation of the country from before -750.

Thus the explanation that the end of the Anatolian civilization about 1200 was due to the incursion of the Phrygians is not supported by archaeological finds. According to Akurgal, the repeatedly undertaken efforts to close the hiatus by relics of Phrygian art “cannot be harmonized with the results of archaeological study. None of the Phrygian finds and none of the oriental ones found with them can be dated earlier than the eighth century.” “Such results compel us to exclude from the study of Asia Minor between 1200 and 750 any Phrygian presence and heritage.”

If there is no sign of Phrygian occupation for the period, are there possibly some vestiges of occupation by other peoples?

“It is startling,” writes Akurgal, “that until now in Central Anatolia not only no Phrygian, but altogether no cultural remains of any people, came to light that could be dated in time between 1200 and 750.” Nothing was left by any possible survivors of previous occupants, namely by Hittites, and nothing by any people or tribe that could have supplanted them. Also on the rim of Asia Minor the darkness of the Dark Age is complete: “In the south of the peninsula, in Mersin, Tarsus and Karatepe, in recent years important archaeological work was done . . . here, too, the early Iron Age, i.e.,

the period between 1200 and 750, is enwrapped in darkness.”²

Even after only a few decades of settlement a town should leave discernible relics for archaeologists; usually under such circumstances potsherds or a few beads, or a clay figurine, are found. Ash and kitchen refuse are ubiquitous finds wherever there was human habitation. But that on an area over 250,000 square miles in extent there should, as Akurgal claims, be found nothing, not even tombs, from a period counted not just by decades but by centuries, actually a period of almost five hundred years, is hardly less than miraculous.

References

1. Akurgal, *Die Kunst Anatoliens von Homer bis Alexander* (Berlin, 1961), pp. 5-7; cf. his *Phrygische Kunst* (Ankara, 1955), p. 112.
2. *Ibid.*, p.7.





The Homeric Question

The idea of a wide gap separating the Mycenaean Age from the historical age of Greece has gained almost universal acceptance since it was first advanced more than a century ago. Because no literary documents and almost no signs of culture could be found for that long period, it came to be known as the Dark Age.

Hellenists and historians in general use the term Dark Age for the twelfth, eleventh, tenth, ninth, and most of the eighth centuries, or the period that lies between the Mycenaean and Archaic ages, the latter being the opening of the Ionian period that in due course developed into the Classical period. The time from about -1200 to -750 is the Dark Age in continental Greece, on the Aegean islands and shores, and in the interior of Asia Minor. The reader may think that the term is bequeathed to us from ancient times, from Greek historians or philosophers of the classical period. The fact, however, is that no Greek historian, philosopher, or poet used the term Dark Age or dark centuries or any substitute for such a concept; nor did Roman writers, much occupied with the Greek past, have a concept of a Dark Age for the period following the Trojan War and preceding the historical age in Greece. The term, and the concept as well, are a creation of modern scholarship in Hellenic studies for the period from which we have neither history, nor literary remains.

If, as most scholars now believe, Homer lived and created at the end of the eighth or the beginning of the seventh century, and if the Trojan War took place just before the beginning of the Dark Age, he could hardly have omitted to refer in some direct or only indirect way to the more than four centuries of the Dark Age that separated him from the epic events he described. Why did no poet—and Greece had many—ever mention a lengthy Dark Age, if only in passing? Neither Herodotus, nor Thucydides,¹ nor Xenophon—the Greek historians—had anything to say about a four or five centuries' span that separated the Greek history from the Mycenaean. Greece had also many outstanding philosophers; then how are we to explain that a period—not covering just a few decades, but more than four centuries—is passed over in silence by Greek poets, philosophers and historians alike? Should not Aristotle or, much later, Diodorus of Sicily or Pausanias in their voluminous writings have devoted as much as a single passage to the Dark Age—if there was one? Neither the Roman writers, nor the chronographers of the Renaissance, applied themselves to the illumination of the Dark centuries, and it is only since the last decades of the nineteenth century that the term Dark Age in Greek history has been used.

Despite being separated by five centuries from the Mycenaean civilization of which he sings, Homer displays a surprising knowledge of details no longer existent in the

Greek world of his day:

We know from the archaeological evidence that Homer attempts to archaeologize, even to take us into the Mycenaean Age . . . yet in Homer's day there was no science of archaeology, no written history to assist the historical novelist. Where then did he get these details from the past?

So writes one author in the preface to his translation of the Iliad.²

As an example of such knowledge, the author cites Homer's description of Nestor's cup with doves on its handles, a description that fits a vessel actually disinterred in the Mycenaean strata which according to the conventionally written history were deposited some five centuries before Homer began to compose his epics.

The technique of metal inlay of the shield of Achilles—described by Homer in the Iliad—was practiced in Greece in the Bronze Age and “disappeared before its close, and apparently never returned there.” The boar's tusk helmet described by Homer was reconstituted by Reichel from slivers of tusk found in many Bronze Age graves. “It is difficult to imagine Homer transmitting a description of an object which we could not visualize . . . For four centuries at least no one could possibly have seen a boar's tusk helmet . . .”

On the other hand in Homer are found descriptions of objects “which cannot have found a place there before the 7th century.” One such object is the clasp which fastened the cloak of Odysseus when on his way to Troy. “It points to the second decade of the 7th century as the time of the composition of the Odyssey (unless it is an interpolation, the dates of which could not be much earlier or later than the first half of the 7th century).”

If the Mycenaean Age closed with the twelfth century and Homer composed at the end of the eighth, four and a half centuries constitute a hiatus, and separate the poet from the objects he describes.

The blending of elements testifying to the Mycenaean Age together with elements the age of which could not precede the seventh and certainly not the eighth century is a characteristic feature of the Iliad. Some scholars have expended enormous efforts in trying to separate passages of the epics and ascribe their authorship to different generations of poets, from contemporaries of the events to the final editor of the poems in the seventh century. But all these efforts were spent unprofitably, and their authors at the end of their labors usually declared their perplexity. The following evaluation is from the pen of M. P. Nilsson:

“To sum up. There is considerable evidence in Homer which without any doubt refers to the Mycenaean Age. . . The Homeric poems contain elements from widely

differing ages. The most bewildering fact is, however, that the Mycenaean elements are not distributed according to the age of the strata in the poems.” Nilsson continued: “The Mycenaean and the orientalizing elements differ in age by more than half a millennium. They are inextricably blended. How is it credible that the former elements were preserved through the centuries and incorporated in poems whose composition may be about half a millennium later?”³

References

1. [A passage from the first book of Thucydides’ *Peloponnesian Wars* (I.17) which tells of a period of political chaos and economic deprivation after the fall of Troy, is sometimes cited as a reference to the Dark Ages. That the end of the Mycenaean Age was followed by several decades of migrations and poverty is a fact that is discussed at some length below (section “[A Gap Closed](#)”). But Thucydides’ words cannot be construed as referring to a period of time longer than a century.]
2. E. V. Rieu, *The Iliad*, (London, 1953).
3. M. P. Nilsson, *Homer and Mycenae* (1933), pp. 158-59.





The Allies of Priam

I must admit that not so long ago I tended to consider the Trojan War as a legend, with more mythology in it than history: neither in its cause nor in its conduct did this conflict seem to reflect historical events. The cause of the war, according to tradition, was a seduction or abduction of the spouse of one of the Helladic chiefs; and this, we are told, raised the leaders of all Hellas to undertake a mobilization and campaign to the coast of Asia and to endure hardships for ten years, leaving their own spouses to be ravished or besieged by suitors in the meantime. And if Hissarlik is the site of Troy, there is the additional incongruity of a great war effort the goal of which was to capture a fortress occupying not much more than two acres of land (Troy VIIa)—so Carl Blegen, the last excavator of the site. And what of the participation of Ares, Athene, Zeus, and other divinities? The emphasis is on the courage and proficiency of a few single heroes who trace their descent, and in some cases even their parenthood, to various deities and other mythological figures (Thetis in the case of Achilles).

With the end of the siege of ten years' duration and the fall of Troy, the navy of the Achaeans—of which the second book of the Iliad gives a record enumerating the number of ships that carried the warriors from each of the cities¹—is as if no more existent. Victory and triumph are followed by only a few wretched returns home. Nothing is heard of the return to Greece of the Achaeans, victorious in war, as an organized force. We hear of single warriors, like Agamemnon, the leader of the expedition, returning only to find violent death waiting for him in his own town and house or, like Odysseus, spending another ten years striving to reach home by a round-about way. Those of the heroes who succeed in returning find their wives, some faithful, some unfaithful, some in cohort with their scheming lovers and having to be avenged by their children—but little is said of the continuing royal houses, whether of Agamemnon in Mycenae, or of Menelaus in Sparta, or of Odysseus in Ithaca, or of Nestor in Pylos.

Then in a matter of hardly half a generation a curtain descends on Achaean Greece, which presumably for close to five hundred years presents only a picture of void enveloped in primeval darkness. Nothing is known of the subsequent history of these city states, the personal tragedies having ended in family blood-baths. It is as if in the theater the curtain descended for the last time, the lights are extinguished, the hall hurriedly locked, and then five hundred years of impenetrable darkness. Yet a success of the protracted expedition, if undertaken, as some scholars have theorized, to protect the marine route through the Hellespont, across the Black Sea, and to the Caucasian coast, should have made the Hellenes, having forged their national unity in war, exploit the success by expansion of overseas trade and traffic.

The curtain of darkness descends also on Troy—and the void endures there almost as long as in Greece, though it is presumed that some wretched inhabitants settled in hovels, but not before centuries passed. Of the defenders of Troy, from among those who survived the siege, we read also very little—as if they evaporated into thin air—with the exception of Aeneas and his household; and he, like Odysseus, spends a decade or so in wanderings, before reaching Italy.

Strangely, in that substantial portion of the enormous literature on the Trojan War and Troy that I consulted, I scarcely ever found a discussion of the nationality of the people of Troy.²

In the Iliad they are regularly referred to as “the people of Priam,” their king, but this is not an ethnic designation.

Thus while it is known that the besiegers of Troy were Achaeans, also called Danaans, and it is generally accepted that they were Mycenaean Greeks—actually the last generation of them, sometimes designated as the Heroic Generation—the question of which race were the people of Priam was left unanswered by Homer. But at least let us look at Priam’s allies. Here some clear indications come to the fore; and if we are still not helped in our pursuit—which nation did the Achaeans fight at Troy?—at least we see a ray of hope that, by knowing the allies we may be guided to the proper time. By knowing the correct century of the events we may obtain an insight into the interplay of nations and races and perhaps come to realize the true reason for the conflict that summoned the Achaean host to the Troad, the region surrounding Troy.

Phrygians are named as allies of Priam;³ also Ethiopians are counted among his allies. The identification of both these nations carries indications as to the century to which the most famous war of ancient times needs to be ascribed.

Of the Phrygians it is told that their origin stems from Thrace, north of Macedonia, west of the Hellespont. The time of their migration to Asia Minor is not known. No Phrygian antiquities from before the first half of the eighth century have been found,⁴ and the opinion is expressed that Homer’s reference to the Phrygians is an anachronism. It seems that in one of the earliest waves of the eighth century migrations the Phrygians moved from Thrace over the Hellespont to Asia Minor.

Tradition has it that the first king in their new domicile was Gordias, and the story of his selecting the site for his capital Gordion is a well known legend.⁵

The son of Gordias, Midas, is even more than his father an object of legendary motifs—whatever he touched turned to gold, he had the ears of an ass—yet he was a historical figure as well who, according to the chronicle of Hieronymus, reigned from -742 to -696.⁶

Soon the Phrygians came into conflict with the Assyrians who opposed the penetration of newcomers into central Asia Minor; and Sargon II (-726 to -705), the conqueror of Samaria and of the Israelite tribes, moved westward to stop the penetration of the Phrygians.⁷ Altogether the Phrygian kingdom in Asia Minor had a short duration.⁸ Already the Körte brothers, the early excavators of Gordion, noted that of the royal mounds (kurgans) only three could be dated before the Cimmerian invasion of the early seventh century which put an end to the Phrygian kingdom, and probably the number of royal successions did not exceed this number.⁹ Little is known of its history besides the fact that ca. -687 Gordion was overrun by the Cimmerians.

The Cimmerians came from the north, traversing the coastal routes of the Caucasus; their original homeland is often thought to have been the Crimea in southern Russia. They occupied Gordion, displacing the Phrygians westward, toward the Lydian kingdom and the Aegean coast. While the displaced Phrygians may have continued to live for a time in the western confines of Asia Minor, the year -687 saw the end of their kingdom.

It appears that the Cimmerians did not tarry for any length of time in Phrygia; like the Scythians, a nomadic race from the steppes of Russia, who soon followed them on the coastal roads of the Caucasus, they were but transient conquerors. The time they came from their native land, -687 or soon thereafter,¹⁰ makes it quite certain that they were put on their migration by the natural events of that year—described at some length in *Worlds in Collision*:¹¹ by the world-wide upheavals, earthquakes, frightening apparitions in the sky, as well as by the changes in climate that made many accustomed pursuits and agricultural practices obsolete. -687 (or possibly -701) was also the year that Sennacherib met his famous debacle as described in the books of Isaiah, II Kings, and II Chronicles, while threatening Jerusalem with capture and its population with eviction and exile.

Phrygians as allies of Priam, in the hinterland of the Troad, in conflict with the Cimmerians, themselves pursued by the Scythians, would limit the period of the Trojan War to the years between -720 and -687.

After the passing of the Cimmerians, Phrygia was exposed to the occupation and influence of neighboring states, in particular to that of the Lydian Kingdom to the west, with its capital at Sardis. Lydia was ruled by Gyges, a great king who played a conspicuous role in the politics of the Near East. He was on friendly terms with Assurbanipal, grandson of Sennacherib, king of Assyria; then, feeling the threat of the growing Assyrian empire, he supported Egypt's rise to independence: he sent Ionian and Carian detachments to Psammetichus, king of Egypt, which enabled that country to free itself from the supremacy of Assyria.

The Homeric epics were created on the Asia shore of Asia Minor; it is most probable

that Homer was a contemporary of Gyges, king of Lydia.¹²

This view was also offered and supported with arguments by Emile Mireaux; moreover, Mireaux ascribed also the very events of the poems to the time of Gyges.¹³

The allies of Priam also included Ethiopians under Memnon;¹⁴ the Ethiopian allies of Priam must date in all probability to the period when the Ethiopians were one of the most honored nations, highly regarded for their military prowess. What is called here Ethiopians were actually Sudanese: in Egyptian history the Ethiopian Dynasty and their most glorious period is dated from ca. -712 to -663, when Ashurbanipal pursued Tirhaka to Thebes, occupied it, and expelled the Ethiopian from Egypt proper. The tradition concerning Memnon, the Ethiopian warrior who came to the help of Troy, would reasonably limit the time of the conflict also to the end of the eighth and the beginning of the seventh century.¹⁵ The possibility of an Ethiopian landing at Troy in the days of the Ethiopian pharaoh Tirhaka need not be dismissed because of the remoteness of the place: as just said, close to the middle of the seventh century, and possibly at an earlier date, Gyges, the king of Sardis, sent in the reverse direction Carian and Ionian mercenaries to assist the Egyptian king Psammetichus in throwing off the Assyrian hegemony.

Thus it seems that if the participants in the Trojan War all belong to the eighth-seventh century, Homer, who is thought to have lived at the end of the eighth century or the beginning of the seventh, must have been either a contemporary of the siege of Troy, or separated from it by one generation only.

A correct historical placement of the Trojan War may contain a clue to its real cause: we can surmise that the Helladic city-states, alarmed by rumors of hordes of Cimmerians, preceded by dispossessed Phrygians, pushing towards the Hellespont, united under the leadership of Agamemnon and moved across the Aegean sea to preclude the invasion of their land, should the migrating Cimmerians or displaced Phrygians attempt to cross the straits into mainland Greece. Troy was located in the vicinity of the Hellespont, crossed by armies in ancient times, by Alexander, by Darius I, and by other conquerors before them.

While the Greek expedition may have had some limited success, its forces were wrecked and dispersed in the natural upheavals that accompanied the fall of Troy.

References

1. See below, section "[Mycenaean City Names in the Iliad.](#)"
2. Cf. Strabo, *Geography* XII.8.7.
3. Actually, repeated reference to Phrygians as Priam's allies leaves the question open whether Priam's people were not Phrygians themselves.

4. Ekrem Akurgal writes that their “first archaeological traces appear in the middle of the eighth century.” *Ancient Civilizations and Ruins of Turkey*, (Istanbul, 1970), p. 14.
5. Arrian, *The Anabasis of Alexander*, II.3; Justin, XI.7; G. and A. Koerte, *Gordion* (Berlin, 1904) pp. 12ff.; R. Graves, *The Greek Myths* (London, 1955), no. 83.
6. [*Eusebius Werke*, ed. R. Helm (Leipzig, 1913), vol. VII, pp. 89, 92.] Modern historians usually calculate the date of Midas’ death as -676. It was under Midas that the Phrygian kingdom reached the peak of its power, as archaeology also attests. See R. S. Young, “Gordion: Preliminary Report, 1953” in *American Journal of Archaeology* 59 (1955), p. 16.
7. [According to Assyrian records, Sargon’s campaign against Midas and the Phrygians, which took place in -715, was the result of Midas’ conspiring with the king of Carchemish against Assyria. See M. Mellink, “Mita, Mushki, and the Phrygians,” *Anadolu Arastirmalari* (Istanbul, 1955). E. Akurgal, *Die Kunst Anatoliens*, p. 70; P. Naster, *L’Asie mineure et l’Assyrie* (Louvain, 1938), p. 37. Sargon’s expedition was, however, not altogether successful in pacifying the region, and continuing disturbances brought Sargon several more times to the defense of his northwestern frontier; he finally met his death there in battle in -705.]
8. [R. S. Young, the excavator of Gordion, estimated a period of “a half century” or more for the flourishing of Phrygian culture at the site—“The Nomadic Impact” in *Dark Ages and Nomads*, p. 54. No Phrygian presence can be recognized in the archaeology until the middle of the eighth century—and soon after the start of the seventh, about the year 676 B.C., the Phrygian kingdom was destroyed in the catastrophic Cimmerian invasion. This is also when Midas met his end (by suicide, according to Eusebius, (*Chron.* p. 92) and Strabo *Geography* I. 3. 21), and his capital Gordion was burned to the ground. The Cimmerian destruction level was found in 1956; see Young, *Gordion 1956: Preliminary Report*” in *American Journal of Archaeology* 61 (1957) p. 320. Cf. also idem, “The Nomadic Impact: Gordion” pp. 54f.]
9. [Gustav and Adolf Körte, *Gordion* (Berlin, 1904). Young, “The Excavations at Yassihuyuk-Gordion, 1950” in *Archaeology* 3 (1950) pp. 196-199. The non-royal tumuli were much more numerous. A royal tomb, perhaps of Gordias, was excavated in 1957—Young, “The Royal Tomb at Gordion,” *Archaeology* 10 (1957) pp. 217-219.]
10. In the *Odyssey* (XI.14) there is reference to the land of the Cimmerians; and if Homer knew of the presence of the Cimmerians in Asia Minor, then the scene is not earlier than -687.
11. Herodotus, Bk. IV.
12. The dates of Gyges’ reign are given as -687 to -652 by H. Gelzer and as -690 to -657 by H. Winckler.
13. E. Mireaux, *Les poèmes homériques et l’histoire grecque*, (Paris, 1948-49).
14. [In the *Odyssey* (III.111-2) Nestor recalls the death of his son Antilochos who died by the spear of “the glorious son of shining Dawn,” (Od. IV.185-202) which is the epithet reserved for Memnon. Later in the *Odyssey* the Ethiopian warrior is mentioned by name as “great Memnon.” (Od. XI. 522)

15. Those called here Ethiopians actually were the inhabitants of what is today Sudan. Cf. Mireaux, *Les poèmes homériques et l'histoire grecque*, vol. I, ch. iv.
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Aeneas

Following the fall of Troy Aeneas, son of Priam, a Trojan hero second only to Hector, fled the fortress; he lost his wife in the escape, himself carrying his aged father on his back and leading his young son by the hand. This is the way Virgil, in the first century before our era, imagined the beginning of Aeneas' travels; but already before Virgil, the fate of Aeneas was the subject of poetic tradition. Virgil's creation is regarded as the greatest of Roman epics; Virgil, however, studied the subject drawing on Greek authors.

Upon visiting Thrace and the islands of the Aegean Sea, and following a sojourn on Crete, Aeneas and his little band of companions landed at Carthage; there Queen Dido fell in love with him; his refusal to make Carthage his home and Dido his wife caused her, upon his departure, to take her own life.

Aeneas' further wanderings brought him finally to Latium in Italy, the land of the Latini. According to the Roman legendary tradition, he became the progenitor of the Romans through his son Ascanios, the first king to reign in the new capital of Latium, Alba Longa, of which Rome was a dependent city; or, in another version, through Numitos in direct descent from Ascanios. But a more popular tradition had Aeneas himself as the founder of Rome; the Greek historian Timaios (ca. -346 to ca. -250) followed this tradition. A still better known legend has Romulus for the founder of Rome; sometimes Romulus is made a descendant of Aeneas and Ascanios.

Rome was founded, according to Varro, in -753.¹

As to Carthage, the generally accepted view is that it was founded in the second half of the ninth century; Timaios placed its foundation in the year -814. Timaios was the first to fix the chronology of the Olympiads.²

Philistos, a Greek author, born in -435, placed Carthage's foundation "a man's life length" before the Trojan War; but Philistos' dating of the Trojan War is unknown. Philistos' date for the foundation of Carthage, sixty or seventy years before the fall of Troy, is thought to be in conflict with Timaios' date because the Trojan War would need to be placed in the middle of the eighth century, shortly before the foundation of Rome. But is there a conflict between the founding dates of Carthage in Timaios and in Philistos?

A refugee from Troy in the first half of the twelfth century could not find Carthage, a city built almost three centuries later by colonists from Phoenicia; and he could not be

associated with the founding of Rome either directly or by one of his descendants of several generations, the gap between -1183, the conventional year of Troy's fall, and -753, the traditional date of Rome's foundation, being more than four centuries wide.

References

1. Fabius Pictor gave -747 as the date of Rome's founding.
2. He was a native of Sicily, the history of which he wrote from the earliest times to -264; of that history, regarded as authoritative in antiquity, only single passages survived in authors who quoted him; Carthage is across the straits from Sicily.





Olympic Games in the Iliad

The recording of events in ancient Greece was by the years of the Olympiads, four years apart, the first year of the first Olympiad having been -776. An important contest at the Olympiads was among charioteers, each driving a four-horse team. Olympia was located in the district of Elis in the western part of the Peloponnesian peninsula.

Tradition has it that the Olympic games were initiated by Pelops, an immigrant from Phrygia in Asia Minor. Another account ascribes the founding of the festival to Heracles, as a celebration of his conquest of Elis.¹ In *Worlds in Collision* the identity of Heracles with the planet Mars was brought out from the statements of several ancient authors:² While the founding of the games was attributed to Heracles, or Mars, the festival also honored Athene, or the planet Venus. This is shown by the fact that the early games were held at eight-year intervals,³ typical for Venus festivals, since eight terrestrial years equal five synodical years of Venus. Later they were celebrated every four years, or two and a half synodical periods of Venus. The eighth century was a time when the planet Mars was prominent among the heavenly bodies and caused much destruction on earth. Nestor, the future king of Pylos, was but a young man at the time of the rampage of Heracles-Mars through the western Peloponnese—he himself saw all his elder brothers killed by the god and his native Pylos burned to the ground⁴—but by the tenth year of the siege of Troy, Homer tells, “two generations of mortal men had [already] perished: those who had grown up with him and they who had been born to these in sacred Pylos, and he was king in the third age.”⁵ This information permits the rough guess that some fifty to sixty years passed between the founding of the Olympic Games in Nestor’s youth and the Trojan War.

In the *Iliad* the aging Nestor recalls that soon after the rebuilding of Pylos his father Neleus sent from Pylos a team of four horses with a chariot to race for a tripod for a competition to be held at Elis. But the fine steeds were detained by the Elean king and their driver was sent home to Pylos empty-handed.⁶

. . . For in Elis a great debt was his [Neleus’] due: a four-horse team of racing horses and their chariot that would have contended in the games and raced to win the tripod.

That this passage from the *Iliad* is a reference to the Olympic Games was understood already in antiquity, as we gather from a discussion of it by the geographer Strabo.⁷ This means that Homer knew of the Olympic games and had Nestor refer to them as

an event that began to be celebrated several decades before the drama that is the subject of the *Iliad*. However, it is beyond dispute that the beginning of time reckoning by Olympiads was in the eighth century, more precisely in -776. The fact that these games are mentioned as taking place when Neleus, the father of Nestor, was a young man gives some indication of the time in which the Trojan War was fought.

References

1. Pindar, *Olympian Odes*, X 43ff.; Hyginus, *Fabula* 273.
2. *Eratosthenis catasterismorum reliquiae*, ed. C. Robert, 1878: "Tertia est stella Martis quam alii Herculis dixerunt." Cf. Macrobius, *Saturnalia* iii. 12. 5-6, reporting the opinion of Varro.
3. W. R. Ridington, *The Minoan-Mycenean Background of Greek Athletics* (Philadelphia, 1935), pp. 82-83.
4. Homer, *Iliad* XI. 688-692; Pausanias II.2.2; III.26.6 and V.3.1; Apollodorus II.7.3.; Diodorus Siculus IV.68.
5. Homer, *Iliad*, transl. by R. Lattimore (1951), Book. I, 250-252.
6. Homer, *Iliad* XI. 698-701.
7. Strabo, *Geography* VIII.3.30; Pausanias V.8.2





Troy and Gordion

When Schliemann dug through the strata of Hissarlik's hill, he discovered, on the second level from the virgin ground beneath, great walls of a fortress, and in the same level some treasures, all of which he attributed to Priam's Troy. His view was invalidated, and properly so, because a correlation with Egypt made it appear too early for Troy. The second level, Troy II, was shown to have been in existence during the Old Kingdom of Egypt, and thus long before the traditional date for Troy's fall. The end of Troy VI, identified by Wilhelm Doerpfeld as the Ilion of the siege, was found to have been contemporaneous with the mid-Eighteenth Dynasty of the Egyptian New Kingdom, and was therefore also too early for the Trojan War.

Carl Blegen identified forty-six layers of occupation of the mound of Hissarlik, the Troy of the excavators, but divided them between the nine strata of occupation classified by Doerpfeld. Troy VI was a well-built fortress; Blegen specified eight separate levels of occupation in this stratum alone. It ended in a violent earthquake. Blegen, however, looked for a fortress that fell not due to an earthquake, but in a siege and assault; thus he identified the Troy sung by Homer as Troy VIIa.

The sixth city of Troy is conventionally placed in the fourteenth-thirteenth centuries before the present era, a dating which ultimately depends on Egyptian chronology. Here an observation by Rodney Young, the excavator of the Phrygian capital Gordion,¹ needs to be cited:

“In their batter as well as their masonry construction the walls of the Phrygian Gate at Gordion find their closest parallel in the wall of the sixth city at Troy.” But a gulf of time separates these two constructions in the conventional timetable.

Though separated in time by five hundred years or thereabouts, the two fortifications may well represent a common tradition of construction in north-western Anatolia; if so, intermediate examples have yet to be found.²

Still today no intermediate examples have been found. As to the date of the Phrygian Gate and wall of Gordion, Young wrote:

The Phrygian Kingdom was . . . at the apex of its power toward the end of the eighth century, when it apparently extended as far to the southeast as the Taurus and was in contact with Assyria. This period of power was apparently the time of the adornment and fortification of its capital city.

This points to the eighth century for the erection of the city wall and gate.³ Eighth-century Gordion is similar to thirteenth-century Troy, yet intermediate examples of the peculiar way of building the gate and the wall beg to be found.⁴

References

1. Gordion, the capital of Phrygia, was excavated by the Koerte brothers at the beginning of this century. In 1950 Rodney Young led there a team and then returned for many seasons sponsored by the University of Pennsylvania Museum. The date of the Phrygian remains found at Gordion was ascribed to the late eighth and early seventh centuries before the present era.
2. R. Young, "Gordion 1953," *American Journal of Archaeology*, (1954). [The post-Hittite and pre-Phrygian levels at Gordion have not provided the much looked-for intermediate examples.]
3. [The Phrygian Gate of Gordion was uncovered in 1953 by a team from the University of Pennsylvania led by Rodney Young. It was in the form of a large double gateway with a central courtyard. Since it belonged to the Phrygian period, its date, like that of most of the Phrygian constructions at Gordion, was put sometime in the eighth century.]
4. [Whereas the Trojans had a long tradition of building in stone, the Phrygian gateway appears suddenly, without any other close antecedents; nevertheless, it displays technical skills that speak of a long period of development. This apparent contradiction is also noted by Young ("The Nomadic Impact: Gordion," p. 52): ". . . The planning of the [Phrygian] gateway and the execution of its masonry imply a familiarity with contemporary military architecture and long practice in handling stone for masonry. The masonry, in fact, with its sloping batter and its more or less regular coursing recalls neither the cyclopean Hittite masonry of the Anatolian plateau in earlier times, nor the commonly prevalent contemporary construction of crude brick. The closest parallel is the masonry of the walls of Troy VI, admittedly very much earlier. If any links exist to fill this time-gap, they must lie in west Anatolia rather than on the plateau." According to the revised chronology, the Trojan fortifications were standing and in use as late as the ninth century; the Phrygian fortifications at Gordion, dating from the late eighth, could well have been part of the same tradition of building in stone.]





The Lion Gate of Mycenae

The Lion Gate of Mycenae was the entrance to the city. Atop the gate, two lions rampant are carved in stone relief. Similar bas-reliefs of two lions rampant facing each other are found in a number of places in Phrygia in Asia Minor.¹



The Lion Gate of Mycenae



Arslantas, Rock-cut Phrygian tomb

“The resemblance in idea is complete,” wrote W. M. Ramsay in 1888.² He considered the scheme “so peculiarly characteristic of Phrygia, that we can hardly admit it to have been borrowed from any other country.” He found himself “driven to the conclusion that the Mycenaean artists either are Phrygians or learned the idea from the Phrygians.”³ “It is not allowable to separate them [the Phrygian and Mycenaean monuments] in time by several centuries.”⁴

“The Phrygian monuments,” in Ramsay’s view, belong to the ninth and eighth centuries.⁵

... The end of the Phrygian kingdom is a fixed date, about 675 B.C.”⁶ when the invasion of Asia Minor by the Cimmerians put an end to the Phrygian culture and art. Ramsay went on:

I do not think it is allowable to place the Mycenaean gateway earlier than the ninth, and it is more likely to belong to the eighth century.

The view to which I find myself forced is as follows. There was in the eighth century lively intercourse between Argos and Asia Minor: in this intercourse the Argives learned . . . to fortify their city in the Phrygian style with lions over the gate. Historically there is certainly good reason to assign at least part of the fortifications of Mycenae to the time when the Argive kings [the tyrants of the eighth century] were the greatest power in Greece [here follow the names of several authorities among the historians who hold the same view].⁸

On the other hand, the almost universal opinion of archaeologists rejects this hypothesis. . . .

Oriental influences found in the remains of Mycenae are “precisely what we should expect in a kingdom like the Argos of the eighth century,” when this kingdom had intercourse with Asia Minor, Phoenicia and Egypt. “I wish however to express no opinion here about the date of the Mycenaean tombs and about Mycenaean pottery, but only to argue that the fortifications of the Lion Gate belong to the period 800-700 B. C.”⁹

I quote this opinion of Ramsay with the special intention of showing how this viewpoint was invalidated.

The Egyptologist Flinders Petrie made the following reply:

“[A] matter which demands notice is Professor Ramsay’s conclusion that the lion gateway is of as late a date as the eighth century B.C. This results from assuming it to be derived from Phrygian lion groups, on the ground of not knowing of any other prototype. As however we now have a wooden lion, in exactly the same attitude, dated to 1450 in Egypt . . . it seems that the Phrygian designs are not the only source of this motive for Mykenae.”¹⁰

In Egypt of the latter part of the Eighteenth Dynasty a single instance of a rampant lion (not two rampant lions facing each other as at Mycenae and in Phrygia) made Petrie claim Egypt as a possible place of origin of this image rather than Phrygia. He had discovered heaps of Mycenaean ware in Egypt of the time of Akhnaton. He could not but conclude that these heaps coming from Mycenae must be dated to the fourteenth century.¹¹

Equally impressive was the discovery at Mycenae of a number of objects of Eighteenth-Dynasty date, such as objects bearing the cartouches of Amenhotep II, Amenhotep III, and Queen Tiy.¹²

Therefore Petrie decidedly opposed Ramsay in his estimate of eighth century for the Lion Gate and the fortification wall of Mycenae.¹³

Here is a case where evidence from Anatolia pointed to the eighth century;¹⁴ but the Egyptologist demanded of the classical scholar that he disregard this evidence in favor of the time scale of Egypt.

The debate between Ramsay and Petrie took place before Evans' archaeological work on Crete; there rampant lions were found engraved on Late Minoan gems,¹⁵ conveying the idea that Mycenae must have borrowed the image from there, from a period well preceding the Phrygian models.¹⁶ Yet one should not lose sight of the fact that Crete's chronology was also built upon relations with Egypt. In the section "[The Scandal of Enkomi](#)" we shall read how Evans objected to the chronological implications of Cypriote archaeology by stressing relations between the Egyptian and the Minoan (Cretan) chronologies on the one hand, and Minoan and Cypriote on the other. In *Ages in Chaos* it was shown in great detail why the end of the Eighteenth Dynasty of Egypt must be placed in the latter part of the ninth century. Thus even if Crete was the original source of the motif, Mycenae and Phrygia both deriving it thence, the dependence of Cretan chronology on that of Egypt constitutes the crux of the problem.¹⁷

Let us keep in mind that in the 1880s and 1890s classical scholars of the stature of W. M. Ramsay (1851-1939) questioned the inclusion of the Dark Ages of several hundred years' duration between the Mycenaean past and the Ionic age in Greece. And let us not overlook what was the supposedly crushing argument for wedging more than half a millennium into the history of ancient Greece.

References

1. Cf. especially the relief on the "Lion Tomb" at Arslan Tash near Afyonkarahisar (fig.)
2. Ramsay, "A Study of Phrygian Art," *Journal of Hellenic Studies* IX (1888), p. 369. [Ramsay, "Studies in Asia Minor," *Journal of Hellenic Studies* III (1882), p. 19—but see G. Mylonas, *Mycenae and the Mycenaean Age* (Princeton, 1966), p. 173.]
3. Ramsay, "A Study of Phrygian Art," pp. 369-370. [Earlier representations of two rampant lions facing each other are known from Crete; however, it is for the carving technique on stone on a monumental scale that Mycenae seems to be indebted to Phrygia. For a link to Assyria, see L. M. Greenberg, "The Lion Gate at Mycenae," *Pensée IVR* III, p. 26.]
4. *Ibid.*, p. 70.
5. [Emilie Haspels in *Highlands of Phrygia* (Princeton, 1971) dates the Phrygian reliefs at Arslan Tash to "the last third of the eighth century B.C., the period of the 'Phrygian City' of Gordion" (vol. I, p. 135; cf. vol. II, pl. 131-32). E. Akurgal, however, puts the same reliefs in the early sixth century, deriving them from Ionian, and ultimately Egyptian models—*Die Kust Anatoliens von Homer bis Alexander* (Berlin, 1961) pp. 86-90, 95. EMS].

6. Ramsay, "A Study in Phrygian Art," p. 351.
7. [Ramsay considered the Mycenaean relief "much more advanced in art" though "not necessarily later in date" than the Phrygian Lion Tomb: "Some Phrygian Monuments," *Journal of Hellenic Studies* III (1882) p. 257. For evidence of Phrygian influence on eighth-century Greece, see R. S. Young, "The Nomadic Impact: Gordion" in *Dark Ages and Nomads c. 1000 B.C.: Studies in Iranian and Anatolian Archaeology*, ed. by M. J. Mellink (Leiden, 1964), p. 54.]
8. U. v. Wilamowitz-Moellendorf, "Oropos und die Graer," *Hermes* XXI (1886), p. 111, n. 1, and idem, *Isyllos von Epidauros* (Berlin, 1886), p. n.1; B. Niese, *Die Entwicklung der homerischen Poesie* (Berlin, 1882), p. 213, n. 1. A. S. Murray and S. Reinach are also among those cited by Ramsay as concurring with his opinion (p. 370, n. 3).
9. Ramsay, "A Study of Phrygian Art," pp. 370-71.
10. Sir W. M. Flinders Petrie, "Notes on the Antiquities of Mykenae," *Journal of Hellenic Studies* XII (1891), pp. 202-03. [Petrie also attempted to fix the dates of many of the finds from the Mycenaean tombs by comparing them with objects from Egypt whose antiquity he considered to be well-established.]
11. Cf. J. D. S. Pendlebury, *Aegyptiaca* (Cambridge, 1930), pp. 111ff. [V. Hankey and P. Warren, "The Absolute Chronology of the Aegean Late Bronze Age," *Bulletin of the Institute of Classical Studies* (University of London) XXI (1974), pp. 142-152.]
12. Cf. Pendlebury, *Aegyptiaca*, pp. 53-57; Hankey and Warren, "The Absolute Chronology of the Aegean Late Bronze Age."
13. Boardman notes that monumental sculpture of this kind is unknown in Greece from the time the Lion Gate of Mycenae was built until the eighth century: "More than five hundred years were to pass before Greek sculptors could [again] command an idiom that would satisfy these aspirations in sculpture and architecture." *Greek Art* (New York, 1964), p. 22. [A few other 500-year enigmas appear at Mycenae. See below, Supplement, "Applying the Revised Chronology," by Edwin Schorr.]
14. [In *The Sea People* Sandars points out the stylistic similarity between the Lion Gate of Mycenae and the Lion Gate of Boghazkoi. EMS]
15. [Some of these gems were known even before Evans' digs—see for instance the intaglio in G. Perrot and C. Chipiez, *History of Art in Primitive Greece* II (London, 1894), pp. 214 and 246, depicting two rampant lions facing each other in a way similar to that on the Lion Gate. Cf. also the gems shown in *Corpus der minoischen und mykenischen Siegel*, ed. F. Matz and H. Bisantz (Berlin, 1964) nos. 46, 144, 145, 172.]
16. [N. Platon, ("Cretan-Mycenaean Art," *Encyclopaedia of World Art* IV [New York, 1958], p. 109) thought that "the technique of the execution [of the Lion Gate] is clearly inspired by Cretan sculpture." But the Cretan sculptures, unlike those in Phrygia, are miniatures, and Platon needs to assume "the effective translation of a miniature theme into a major sculptural creation" (R. Higgins, *Minoan-Mycenaean Art* [New York, 1967], p. 92). Sandars in *The Sea Peoples* points out the similarity of the monumental carving style of the Lion Gate of Boghazkoi in central Anatolia to the Lion Gate of Mycenae.]

17. [The discovery of Late Helladic IIIB pottery in strata excavated underneath the gate is used to establish the date of its construction.] But this pottery, too, is dated on the basis of relations with Egypt.





Olympia

The scholarly world without any further deliberation decided not to bring the Mycenaean Age down to the first millennium, but this decision did not eliminate the disturbing facts. At the same time another one-man battle was being carried on at the other end of the front. Greek antiquities, commonly regarded as belonging to the eighth and seventh centuries, were declared by a dissenting authority to date from the second millennium, to have been contemporaneous with the Mycenaean Age, and even to have partly preceded it.

According to the accepted view the Mycenaean ware came to an end in the second millennium, and the Dorian invasion subsequently brought a “primitive” art, a pottery with incised designs; later a pattern of painted geometric designs developed, reaching its full expression by the late eighth century. Thereafter new motifs were brought into Greek art—griffins, sphinxes and other oriental figures; this is the period of the orientalization of the art of Greece in the seventh century.

This scheme was accepted; and today, with only slight variations, it is the credo of archaeological art.

According to Dörpfeld in the second millennium two or three different cultures met in Greece.¹

Dörpfeld insisted that the geometric ware ascribed to the first millennium was actually contemporaneous with, and even antecedent to, the Mycenaean art of the second millennium, and that the “primitive” pottery was also of the second millennium.

The archaeological evidence for the contemporaneity of the geometric and Mycenaean ware and of all other products of these two cultures, and even of the partial precedence of the geometric ware, was the basic issue for Dörpfeld, who spent a lifetime digging in Greece. Observing that the Mycenaean Age is contemporaneous with the period of the Eighteenth dynasty, and that the geometric ware is contemporaneous with the Mycenaean ware, he referred the geometric ware also to the second millennium.²

This aroused much wrath.

A. Furtwängler, who during the excavations of Olympia in the western Peloponnesus, under the direction of Curtius, was the first to attach importance to bits of pottery, and who spent over a quarter of a century classifying small finds, bronzes, ceramics

and other products of art, and devised the system of their development, disagreed on all points.

Dörpfeld chose to prove his thesis on the excavations of Olympia, on which he and Furtwaengler had both worked since the eighties of the last century. In those early days Curtius, one of the excavators of Olympia, was strongly impressed by proofs of the great antiquity of the bronzes and pottery discovered under the Heraion (temple of Hera) at Olympia; he was inclined to date the temple in the twelfth or thirteenth century and the bronzes and pottery found beneath it to a still earlier period, and this view is reflected in the monumental volumes containing the report of the excavation.³

At that time Furtwängler was also inclined to disregard the chronological value of occasional younger objects found there.⁴

New excavations under the Heraion were undertaken by Dörpfeld for the special purpose of establishing that the finds, as well as the original Heraion, date from the second millennium.⁵ But the excavated bronzes and pottery strengthened each side still more in its convictions. Each of the two scholars brought a mass of material to prove his own point—Dörpfeld, that the geometric ware, which he had himself found together with the Mycenaean at such sites as Troy and Tiryns⁶ was contemporaneous with the Mycenaean ware and therefore belongs to the second millennium; Furtwängler, that the geometric ware is a product of the first millennium, and especially of the ninth to eighth centuries, and is therefore separated from the Mycenaean by *einer ungeheueren Kluft* (a tremendous chasm).⁷

Who but an ignoramus, argued Furtwängler, would place in the second millennium the geometric vases found in the necropolis near the Dipylon Gate at Athens?⁸ Were there not found, he asked, in this same necropolis, porcelain lions of Egyptian manufacture dating from the Twenty-sixth, the Saitic, Dynasty of Psammetichus and Necho?⁹

Were not also a great number of iron tools found beneath the Heraion in Olympia? The Mycenaean Age is the Late Bronze Age; the Geometric Age that of iron. It is true, claimed Furtwängler, that a few iron objects have been found in the Mycenaean tombs—but they only show that iron was very precious at the time these tombs were built.

Both sides linked the question of the date of the origin of the Homeric epic to the question at hand. Most scholars claimed that the epics originated in the eighth century. But, according to the dissident Dörpfeld, they originated five or six centuries earlier, in the Mycenaean Age, which is also the Geometric Age.

The dispute was waged with *ungehörigen persönlichen Beleidigungen* (outrageous

personal slander);¹⁰ and a quarter century after one of the disputants (Furtwängler) was resting in his grave the other, (Dörpfeld), then an octogenarian, filled two volumes with arguments. They vilified each other on their deathbeds, and their pupils participated in the quarrel. In the end the followers of Dörpfeld, the dissident scholar, deserted him and went over to the camp of his detractors.

But by that time he had already been completely discredited, and his obstinacy made him a target for further attacks by the younger generation of scholars properly trained in the science of archaeology, who are able at a glance to tell the exact age and provenance of a sherd. They have no doubt whatsoever that the Mycenaean Age came to a close ca. -1100 and that the real Geometric Age belongs to the ninth and eighth centuries, and for a long time now the issue has not been open to dispute.

But this does not mean that the facts ceased to perplex. According to E. A. Gardner, “fragments of geometrical vases . . . have been found on various sites in Greece together with late examples of Mycenaean pottery.”¹¹

When then did the Mycenaean Age end, ca. -1100 or ca. -700?

In this dispute between the two scholars, both were guided by the chronology of the Egyptologists, according to which the Eighteenth Dynasty ended in the fourteenth century, the Nineteenth came to a close before ca. -1200, and the Twenty-sixth Dynasty belongs to the seventh and early part of the sixth centuries. In their application of these undisputed facts to the past of Greece, both disputant scholars agreed that the Mycenaean Age belongs to the second millennium.

The Geometric Age did not follow the Mycenaean Age, but was of the same time or even earlier, argued one scholar (Dörpfeld), and was he wrong? The Geometric Age belongs to the first millennium, argued the other scholar (Furtwaengler), and was he wrong? Wrong was their common borrowing of dates for the Mycenaean Age from the Egyptologists.

In view of the fact that later generations of archaeologists followed Furtwaengler and not Dörpfeld, it is worthwhile to reproduce the assessment of the latter as an archaeologist by one who knew him and his work, herself a great figure in classical studies built on Mycenaean and Classical archaeology, H. L. Lorimer, author of *Homer and the Monuments* (1950). In her Preface to that book Lorimer writes:

I wish to record the debt which in common with all Homeric archaeologists I owe to a great figure, forgotten to-day in some quarters and in others the object of an ill-informed contempt. To Wilhelm Dörpfeld, the co-adjutor of Schliemann in his later years and long associated with the German Archeological Institute in Athens, scholars owe not only the basic elucidation of the sites of Tiryns and Troy which ensured their further fruitful exploration, but the

establishment of rigidly scientific standards in the business of excavation, an innovation which has preserved for us untold treasures all over the Aegean area. That in later years he became the exponent of many wild theories is true but irrelevant and does not diminish our debt. In his own realm his work, as those testify who have had access to the daily records of his digs, was as nearly impeccable as anything human can be. . .

This is an evaluation of Dörpfeld as an archaeologist from the hand of a scholar who did not follow the lonely scholar on his “wild theories.” The archaeological work that brought him to his theories regarding the sequence of pottery styles was impeccable; and his theories were wild mainly because he did not make the final step and free Greek archaeology and chronology from the erroneous Egyptian timetable. The contemporaneity of the Mycenaean and early Geometric wares, if true, contains the clue to the removal of the last argument for the preservation of the Dark Ages between the Mycenaean and Greek periods of history.

References

1. W. Dörpfeld, *Homers Odyssee, die Wiederherstellung des ursprünglichen Epos* (Munich, 1925), vol. I, pp. 304ff.
2. “This geometrical style is very old; it existed before and next to the Mycenaean art, nor was it replaced by it.” W. Dörpfeld, *Alt-Olympia* (Berlin, 1935) vol. I, p. 12.
3. *Olympia, Die Ergebnisse der von dem deutschen Reich veranstalteten Ausgrabungen*, ed., E. Curtius and F. Adler, 10 vols. (Berlin, 1890-97).
4. A. Furtwaengler, “Das Alter des Heraion und das Alter des Heiligtums von Olympia,” *Sitzungsberichte der Philosophisch-Philologischen Klasse der Königlich Bayerischen Akademie der Wissenschaften*, 1906, reprinted in *Kleine Schriften* (Munich, 1912).
5. [Dörpfeld distinguished three consecutive temples—the existing Heraion, built at the beginning of the ninth century, the original temple which, on the evidence of Pausanias (V.16.1) he dated to -1096, and an intermediate structure, which in his view was never completed. Today scholars find no basis for positing this intermediate temple and, furthermore, on the basis of the geometric pottery found beneath the first temple, discount the “erroneous tradition” (H. E. Searls and W. B. Dinsmoor, “The Date of the Olympia Heraeum,” *American Journal of Archaeology* 49 [1945] p. 73) of Pausanias which originally led Dörpfeld to his early dating of it. The Elean tradition recorded by Pausanias has the Olympia Heraion built “about eight years after Oxylus came to the throne of Elis.” (V.16.1) Elsewhere (V.3.6) he puts Oxylus two generations after the Trojan War. The tradition is “erroneous” only if the Trojan War is placed in the thirteenth or early twelfth centuries. If it was in fact fought in the late eighth, the tradition then would accord well with the

- findings of the archaeologists who place the first temple ca. -650 (A. Mallwitz, *Olympia und seine Bauten* [Munich, 1972] pp. 85-88; H.-V. Herrman, *Olympia, Heiligtum und Wettkampfstätte* [Munich, 1972] pp. 93-94; E. Kunze, “Zur Geschichte und zu den Denkmälern Olympias” in *100 Jahre deutsche Ausgrabung in Olympia* [Munich, 1972] p. 11).]
6. See below, section “A Palace and a Temple at Tiryns.” Only small quantities of Mycenaean ware were found at Olympia, and none beneath the Heraion.
 7. [Quite early on, Furtwängler had become convinced that none of the bronzes found at Olympia could be dated before the eighth century (“Bronzefunde aus Olympia,” *Abhandlungen Berl. Akad.*, 1879, IV; *Kleine Schriften*, Munich, 1912, I, pp. 339-421). In 1880 more bronzes were discovered in the black stratum beneath the floor of the Heraion (*Olympia*, vol. IV), and they seemingly confirmed a late eighth century date; this meant that the temple had to be somewhat more recent. Furtwängler later admitted that the evidence of several small finds, indicating a much more recent date of construction of the temple, had been rejected by him at the time because it diverged too radically from accepted views. In 1906 he published his influential study of the objects newly dug up from beneath the floor of the Heraion (“*Das Alter des Heraion und das Alter des Heiligtums von Olympia*,” *Sitzungsberichte der philosophisch-philologischen Klasse der königlich bayerischen Akademie der Wissenschaften*) in which he concluded that the Heraion and the pottery associated with it belong in the latter part of the seventh century.]
 8. [The Dipylon period, so named after the funeral vessels first discovered near the Dipylon Gate at Athens by the Greek Archaeological Society in 1873-74, was dated originally to the tenth or ninth centuries B.C. According to Schliemann, Dipylon ware was at one time “commonly held to be the most ancient pottery in Greece . . . When it was recognized that the Mycenaean pottery was of a higher antiquity, it was also found that the Dipylon graves must belong to a later time. . .” *Tiryns* (London, 1886) p. 87. Of course, Mycenaean pottery was “recognized” as being “of a higher antiquity” largely because of synchronisms with Egypt.]
 9. [The two porcelain lions were found in tombs excavated in 1891 near the Dipylon Gate, together with “vases of characteristic Dipylon ware,” according to E. A. Gardner, *Ancient Athens* (London, 1902) p. 157. However, cf. *Ramses II and his Time* (1978) in which monuments now attributed to the Twenty-sixth Dynasty are redated for the most part to the subsequent period of Persian domination.]
 10. Dörpfeld, *Alt-Olympia*, vol. I, p. 12.
 11. E. A. Gardner, *Ancient Athens* (New York, 1902) pp. 157-58.





“The Scandal of Enkomi”

The lengthening of Egyptian history by phantom centuries must have as a consequence the lengthening of Mycenaen-Greek history by the same length of time. On Cyprus, Aegean culture came into contact with the cultures of the Orient, particularly with that of Egypt, and unavoidably embarrassing situations were in store for archaeology.

In 1896 the British Museum conducted excavations at the village of Enkomi, the site of an ancient capital of Cyprus, not far from Famagusta, with A. S. Murray in charge.¹

A necropolis was cleared, and many sepulchral chambers investigated. “In general there was not apparent in the tombs we opened any wide differences of epoch. For all we could say, the whole burying-ground may have been the work of a century.”

“From first to last there was no question that this whole burying-ground belonged to what is called the Mycenaean Age, the characteristics of which are already abundantly known from the tombs of Mycenae . . . and many other places in the Greek islands and in Egypt.”

However the pottery, porcelain, gems, glass, ivory, bronze, and gold found in the tombs all presented one and the same difficulty. From the Egyptological point of view many objects belong to the time of Amenhotep III and Akhnaton, supposedly of the fifteenth to the fourteenth centuries. From the Assyrian, Phoenician, and Greek viewpoint the same objects belong to the period of the ninth to the eighth or seventh centuries. Since the objects are representative of Mycenaean culture, the excavator questioned the true time of the Mycenaean Age. But as the Mycenaean Age is linked to the Egyptian chronology he found himself at an impasse.

We shall follow him in his efforts to come out of the labyrinth. He submitted a vase, typical of the tombs of Enkomi, to a thorough examination. The dark outlines of the figures on the vase are accompanied by white dotted lines, making the contours of men and animals appear to be perforated. This feature is very characteristic. “The same peculiarity of white dotted lines is found also on a vase from Caere [in Etruria], signed by the potter Aristonothos which, it is argued, cannot be older than the seventh century B.C. The same method of dotted lines is to be seen again on a pinax [plate] from Cameiros [on Rhodes] in the [British] Museum, representing the combat of Menelaos and Hector over the body of Euphorbos, with their names inscribed. That vase also is assigned to the seventh century B.C. Is it possible that the Mycenae and Enkomi vases are seven or eight centuries older?”

Analyzing the workmanship and design of sphinxes or griffins with human forelegs on the vase, the archaeologist stressed “its relationship, on the one hand, to the fragmentary vase of Tell el-Amarna (see Petrie, *Tell el-Amarna*, Plate 27) and a fragment of fresco from Tiryns (*Perrot and Chipiez*, VI, 545), and on the other hand to the pattern which occurs on a terracotta sarcophagus from Clazomenae, [in Ionia] now in Berlin, a work of the early sixth century B.C.”

The connection between the Mycenaean and Aristonothos vases caused “a remarkable divergence of opinion, even among those who defend systematically the high antiquity of Mycenaean art.”

The problem of pottery which belongs to two different ages is repeated in ivory. The ivories of the Enkomi tombs are very similar to those found by Layard in the palace of Nimroud, the ancient capital of Assyria. There is, for example, a carving of a man slaying a griffin,

“the man being remarkable for the helmet with chin strap which he wears. It is a subject which appears frequently on the metal bowls of the Phoenicians, and is found in two instances among the ivories discovered by Layard in the palace at Nimroud. The date of the palace is given as 850-700 B.C.”

An oblong box for the game of draughts, found in Enkomi, “must date from a period when the art of Assyria was approaching its decline,” five or six centuries after the reputed end of the Mycenaean age.

“Among the Nimroud ivories (850-700 B.C.) is a fragmentary relief of a chariot in pursuit of a lion to the left, with a dog running alongside the horses as at Enkomi, the harness of the horses being also similar.” The style of the sculpture (of Nimroud) “is more archaic than on the Enkomi casket.” But how could this be if the objects found in Enkomi date no later than the 12th Century? Comparing the two objects, I. J. Winter wrote:

A hunting scene depicted on a rectangular panel from an ivory gaming board of ‘Cypro-Mycenaean’ style found at Enkomi, with its blanketed horses and chariot with six-spoked wheel, so closely resembles a similar hunting scene on one of the pyxides from Nimroud that only details such as the hairdo of one of the chariot followers or the flying gallop of the animals mark the Enkomi piece as a work of the second millennium B.C., separated by some four centuries from the Nimroud pyxis.²

A bronze of Enkomi repeats a theme of the Nimroud ivories, representing a woman at a window. “The conception is so singular, and the similarity of our bronze to the ivory so striking, that there can hardly be much difference of date between the

two—somewhere about 850-700 B.C.”

“Another surprise among our bronzes is a pair of greaves. . . It is contended by Reichel³ that metal greaves are unknown in Homer. He is satisfied that they were the invention of a later age (about 700 B.C.).”

Bronze fibulae, too, were found in the Enkomi tombs, as well as a large tripod “with spiral patterns resembling one in Athens, which is assigned to the Dipylon period,” and a pair of scales of a balance like the one figured on the Arkesilaos vase. But such finds are separated by a wide span of time from the twelfth century.

The silver vases of the Enkomi tombs “are obviously Mycenaean in shape.” “On the other hand,” there were found two similar silver rings, one with hieroglyphics and the other engraved on the bezel “with a design of a distinctly Assyrian character—a man dressed in a lion’s skin standing before a seated king, to whom he offers an oblation. Two figures in this costume may be seen on an Assyrian sculpture from Nimroud of the time of Assurnazirpal (884-860), and there is no doubt that this fantastic idea spread rapidly westward.”

Next are the objects of gold. Gold pins were found in a tomb of Enkomi. “One of them, ornamented with six discs, is identical in shape with the pin which fastens the chiton [tunic] on the shoulders of the Fates on the Francois vase in Florence (sixth century B.C.).” A pendant “covered with diagonal patterns consisting of minute globules of gold soldered down on the surface of the pendant” was made by “precisely the same process of soldering down minute globules of gold and arranging them in the same patterns” that “abounds in a series of gold ornaments in the British Museum which were found at Cameiros in Rhodes” and which were dated to the seventh or eighth century.

Among the pottery of “the ordinary Mycenaean and pre-Mycenaean type” gems were found. A scarab “bears the cartouche of Thi [Tiy], the queen of Amenophis [Amenhotep] III, and must therefore be placed in the same rank as those other cartouches of her husband, found at Ialysos [on Rhodes] and Mycenae, which hitherto have played so conspicuous a part in determining the Mycenaean antiquities as being in some instances of that date (fifteenth century).”⁴

As for the porcelain, it “may fairly be ranked” with the series of Phoenician silver and bronze bowls from Nimroud of about the eighth century. A porcelain head of a woman from Enkomi “seems to be Greek, not only in her features, but also in the way in which her hair is gathered up at the back in a net, just as on the sixth century vases of this shape.” Greek vases of this shape “differ, of course, in being of a more advanced artistic style, and in having a handle. But it may fairly be questioned whether these differences can represent any very long period of time.”

Murray surveyed the glass:

In several tombs, but particularly in one, we found vases of variegated glass, differing but slightly in shape and fabric from the fine series of glass vases obtained from the tombs of Cameiros, and dating from the seventh and sixth centuries, or even later in some cases. It happens, however, that these slight differences of shape and fabric bring our Enkomi glass vases into direct comparison with certain specimens found by Professor Flinders Petrie at Gurob in Egypt, and now in the British Museum. If Professor Petrie is right in assigning his vases to about 1400 B.C.,⁵ our Enkomi specimens must follow suit. It appears that he had found certain fragmentary specimens of this particular glass ware beside a porcelain necklace, to which belonged an amulet stamped with the name of Tutankhamen, that is to say, about 1400 B.C.

Murray comes to the conclusion that “Phoenicians manufactured the glass ware of Gurob and Enkomi at one and the same time.” Consequently

the question is, what was that time? For the present we must either accept Professor Petrie’s date (about 1400 B.C.) based on scanty observations collected from the poor remains of a foreign settlement in Egypt, or fall back on the ordinary method of comparing the glass vessels of Gurob with those from Greek tombs of the seventh century B. C. or later, and then allowing a reasonable interval of time for the slight changes of shape or fabric which may have intervened. In matters of chronology it is no new thing for the Egyptians to instruct the Greeks, as we know from the pages of Herodotus.

With this last remark the excavator at Enkomi came close to the real problem, but he shrank from it. He did not dare to revise Egyptian chronology; all he asked was that the age of the Mycenaean period be reduced. How to do this he did not know. He quoted an author (Helbig) who thought that all Mycenaean culture was really Phoenician culture, the development of which remained at a standstill for seven centuries.

In 1896 there was found in a tomb at Thebes in Egypt a bronze patera [a shallow vessel] which in shape and decoration has so much in common with the bronze Phoenician bowls from Nimroud that we feel some surprise on being told that the coffins with which it was found belong unmistakably to the time of Amenophis [Amenhotep] III or the first years of Amenophis IV [Akhnaton]. It is admitted that this new patera had been a foreign import into Egypt. Equally the relationship between it and the bronze Phoenician bowls is undeniable, so that again we are confronted with Helbig’s theory of a lapse of seven centuries during which little artistic progress or decline had been effected.⁶

It was necessary to assume a state of hibernation of almost seven hundred years.

The endeavor of the excavator of Enkomi was directed toward bringing the Mycenaean Age closer in time by five or six hundred years, so that there would be no chasm between the Mycenaean Age and the Greek Age. As curator of Greek and Roman antiquities of the British Museum, he constantly had before him the numerous connections and relations between Mycenaean and Greek art, which could not be explained if an interval of many centuries lay between them. He tried to disconnect the link between Mycenaean and Egyptian archaeologies and chronologies, but he felt that this was an unsolvable problem.

The proposal to reduce the time of the Mycenaean Age was rejected by the scholarly world.

Arthur J. Evans, at the time having just embarked on a long series of excavations at Knossos on Crete, came out against Murray's work, "so full of suggested chronological deductions and—if its authors [i.e., A. S. Murray and his collaborators] will pardon the expression—archaeological insinuations, all pointing in the same direction," namely, "a chronology which brings the pure Mycenaean style down to the Age of the Tyrants" of the eighth century, and makes it "the immediate predecessor of the Ionian Greek art of the seventh century B.C."⁷

Evans had to admit that "nothing is clearer than that Ionian art in many respects represents the continuity of Mycenaean tradition," but he built his argument on the manifold connections of Mycenaean art with Egypt of the Eighteenth Dynasty. Are not the flasks of the Enkomi tomb almost as numerous in Egyptian tombs of the Eighteenth Dynasty? A fine gold collar or pectoral inlaid with glass paste, found in Enkomi, has gold pendants in nine different patterns, eight of which are well known designs of the time of Akhnaton (Amenhotep IV), "but are not found a century later." The metal ring of Enkomi, with cartouches of the heretic Akhnaton, is especially important because "he was not a pharaoh whose cartouches were imitated at later periods," and so on.

One of the silver vases of Enkomi, Evans wrote, "is of great interest as representing the type of the famous gold cup of the Vapheio tomb."⁸ These cups, as their marvellous *repousse* designs sufficiently declare, belong to the most perfect period of Mycenaean art." This should establish that the theory of the latency of Mycenaean art for six or seven centuries after its flowering in the second millennium cannot help to solve the problem of Enkomi; the Enkomi finds date from the apogee of the Mycenaean Age.

Evans insisted that the material supplied by the Cypriote graves "takes us back at every point to a period contemporary with that of the mature art of the class as seen in the Aegean area," and this despite his own admission that a number of objects from Enkomi point to a later age, like the porcelain figures "which present the most remarkable resemblance, as Dr. Murray justly pointed out, to some Greek painted

vases of the sixth century B.C.” Nevertheless, he concluded with regret that “views so subversive” should come from so high an authority in classical studies.

Two scholars clashed because one of them saw the close connection between Mycenaean art and the Greek art of the seventh century, and the other saw the very same Mycenaean objects disinterred in the Egypt of Akhnaton, dated to the fourteenth century.

The Mycenaean Age has no timetable of its own independent of that of Egypt. I have referred to this question in the chapter dealing with Ras Shamra in *Ages in Chaos*.

If Evans had had some evidence, independent of Egypt, on which to calculate the ages of the Minoan and Mycenaean cultures, we would have needed to take into account all Minoan and Mycenaean chronological material, as we did with the Egyptian. But there is none.⁹

“The chronological scheme depends ultimately upon Egyptian datings of Aegean pottery,” wrote H. R. Hall,¹⁰ who served as curator of Egyptian and Assyrian antiquities at the British Museum.

“Using this Egyptian evidence as his guide, and checking the results of excavation with its aid, Sir Arthur Evans finds that the Bronze Age pottery and with it the general culture of Crete divides itself into three main chronological periods: Early, Middle, and Late, each of which again is divided into three sub-periods.”¹¹

The Mycenaean Age started at the same time as the Late Minoan Age.

Dr. Murray’s case was lost. He had built its defense on two points, one strong, the other weak. His strong point was this: he analyzed and made clear the close interrelation between Mycenaean culture and the early Greek culture of the seventh century. His weak point was his anxiety to disregard the connection between Mycenaean culture and the Egyptian world of the end of the Eighteenth Dynasty. But in el-Amarna of Akhnaton scattered heaps of Mycenaean ware were found.

It was asked, Which fact should be given greater weight by an unbiased judge: the close relation between Mycenaean and Greek cultures or the fact that Mycenaean ware was found in the city of el-Amarna (Akhet-Aton), which was built and destroyed in the fourteenth century?

The verdict in the matter of the age of Mycenae was unanimous: its period of greatest influence is dated between the fifteenth and the twelfth centuries.

This [Mycenaean] ware did not appear in large quantities in Egypt until about 1375 B.C., and little of it was received in the coastal countries

after the middle of the thirteenth century. Therefore, whenever a piece of it is found in place in an ancient city, it dates the context between about 1375 [the first year of Akhnaton according to the presently accepted chronology¹² and 1225 B.C.¹³

The verdict with regard to Enkomi was, in the words of Hall, as follows:

Excavations of the British Museum at Enkomi and Hala Sultan Tekke (near Larnaka on Cyprus) have brought to light tombs filled with objects of Minoan or Mycenaean art, now mostly in the British Museum, most of which cannot be later in date than the fourteenth and thirteenth centuries B.C. The Egyptian objects found in them are demonstrably of this date, and not later, being all of the late Eighteenth and Nineteenth Dynasties. Rings of Akhenaten [Akhnaton] and a scarab of Teie [Tiy, mother of Akhnaton] have been found here as at Mycenae, and fine Egyptian necklaces of gold also, which, from their style, one would adjudge to the Eighteenth or Nineteenth Dynasty. Probably, too, the greater part of the treasure of gold-work found in the tombs and now in the British Museum is of this early date. The golden tiaras and bands certainly seem to connect with those of the Mycenaean shaft-graves. But at the same time there are many objects of later date, such as a bronze tripod . . . which are demonstrably of the Dipylon period, and cannot be earlier than the tenth or ninth century.¹⁴

Thus, in effect the excavator of Enkomi is accused of having been unable to distinguish burials of different ages in a grave.¹⁵

He denied that the graves of Enkomi had been re-used.

Somewhere I came upon the expression, “the scandal of Enkomi.” I ask: Was the excavator to be blamed for something that was not his fault? The allegation that possibly objects dating from two different epochs were mixed up in Murray’s archaeological heaps does not meet his main arguments. His elaborated statements dealt with *simultaneous* relationships of *single* objects with Egypt of the fourteenth century and Assyria and Greece of the ninth and eighth centuries.

We learn from this case the fact which both sides admitted: the Greek culture of the seventh century has many interrelations with Mycenaean culture. The resulting chronological gap, as we have seen in Chapter I, had to be taken as a Dark Age.

“Cyprus no less than Greece itself passed through a long and tedious Dark Age.”
“Cyprus withdrew into herself, and life during this transitional age was dull and poverty-stricken, unenterprising and dim,” and after the Mycenaean Age came to its close elsewhere, “in Cyprus it was perpetuated.”¹⁶

A generation after the excavations at Enkomi. in 1896, other excavators opened more graves there and passed the following judgment:

The burials in the graves belong to the second or Bronze Age, its Late or third period, the second part (out of three) of this third period, more precisely to the subdivisions A (9 graves), B (10 graves) and C (8 graves) also a few belong to Late Bronze IA and IB. Thus the graves on the acropolis are “all intermingled with each other in a seemingly arbitrary way.”¹⁷

What does this mean? It means that simple and great questions are eclipsed by nomenclatures.

In recent years French and French-British campaigns at Enkomi¹⁸ have failed to solve the problems left by the British Museum excavations of 1896. The finds are still evaluated by Egyptian chronology.

References

1. Murray, “Excavations at Enkomi,” in A. S. Murray, A. H. Smith, H. B. Walters, *Excavations in Cyprus* (London: British Museum, 1900).
2. (*Iraq* 38 [19] pp. 9-10)
3. W. Reichel, *Homerische Waffen* 2nd ed. (Vienna, 1901), p. 59.
4. Since the beginning of the present century, the conventional date of the reign of Amenhotep III has been reduced to the end of the fifteenth and the first quarter of the fourteenth century.
5. Sir W. M. Flinders Petrie, *Illahun, Kahun and Gurob* (London, 1891) Plate 17. Compare also Plate 18 with two identical glass vases which are assigned to Rameses II. Murray, “Excavations at Enkomi,” in Murray, Smith and Walters, *Excavations in Cyprus*, p. 23, note. Since the above evaluation of the time of Tutankhamen by Petrie, the conventional date of this king, son-in-law of Akhnaton, has been reduced to ca. -1350.
6. Murray, “Excavations at Enkomi,” *loc. cit.*
7. Evans, “Mycenaean Cyprus as Illustrated in the British Museum Excavations,” *Journal of the Royal Anthropological Institute* XXX (1900) pp. 199ff.
8. Two gold cups with designs representing men hunting bulls were found in a beehive tomb at Vapheio in the neighborhood of Sparta.
9. The ancient Greek calculations of such past events as the time of Minos, of Heracles, of the Return of the Heracleidae, of the date of the Trojan War and other past events also depend on Egypt.
10. H. R. Hall, *Aegean Archaeology* (London, 1915), p. 2.
11. *Ibid.*, p. 3.
12. As was noted above, since the time of the Murray-Evans controversy the age of Akhnaton and of Tutankhamen has been reduced by a few decades. This point needs to be kept constantly in mind when one is examining the older

scholarly literature on these subjects.

13. G. E. Wright, "Epic of Conquest," *Biblical Archaeologist* III No. 3 (1940).
14. Hall, *Aegean Archaeology*, pp. 23-24. [The tripod mentioned by Hall is dated to the twelfth century by H. W. Catling *Cypriote Bronzework in the Mycenaean World* [Oxford, 1964] pp. 154-55). It was compared to a tripod found in a grave on the Pnyx in Athens, variously dated, but now assigned by the associated pottery to the eighth century B.C. By analogy to the Enkomi stand and other contemporary examples, Catling judged the Pnyx tripod to be a twelfth-century heirloom. Adding to the controversy, C. Rolley *Les trepieds a cuve cluee* [*Fouilles des Delphes* 5.3, Paris, 1977] pp. 126-29), who accepts the Egyptian-based date, now challenges Catling's assessment of the Pnyx tripod, assigning both it and a very similar example recently discovered in a contemporary grave on the island of Thera to the eighth century.—E. M. S.].
15. See also H. R. Hall, *the Oldest Civilization in Greece* (London, 1901), p. 16, and Evans in *The Journal of the Royal Anthropological Institute*, XXX (1900), p. 201, note 2.
16. S. Casson, *Ancient Cyprus* (London, 1937), pp. 64, 70.
17. E. Gjerstad and others, *The Swedish Cyprus Expedition, 1927-1931* (Stockholm, 1934), I. 575.
18. Claude F. A. Schaeffer, "Nouvelles découvertes à Enkomi (Chypre)," in *Comptes rendus, Académie des Inscriptions et Belles Lettres*, Paris, 1949; *Revue archéologique*, XXVII (1947), 129ff; *American Journal of Archaeology*, LII (1948), 165ff.





Tiryns

The same problem that caused the difference of opinions at Enkomi and at the Heraion of Olympia arose at other excavated sites. To demonstrate this on another case of Greek archaeology, I chose Tiryns, south-east of Mycenae. Tiryns was excavated by Schliemann and Doerpfeld in 1884-85. Along with Mycenae, it was an important center of Mycenaean culture. On the acropolis, foundations of a palace were discovered. Together with Mycenaean ware, and mixed with it,¹ geometric ware of the eighth century and archaic ware of the sixth century were found, among them many little flasks in which libations had been brought to the sacred place.²

According to Schliemann, Tiryns was destroyed simultaneously with Mycenae and the palace was burned down. But his collaborator Doerpfeld, who agreed with him as to the time the palace had been built, disagreed as to when it was destroyed, and their opinions differed by six hundred years.³

From Greek literature it is known that in early Greek times, in the eighth or seventh century and until the first part of the fifth century, there was a temple of Hera in Tiryns which was deserted when the Argives vanquished the city in -460. In later times Tiryns was occasionally visited by travelers coming to pay homage to the sacred place of bygone days.⁴

When the excavation of Tiryns was resumed in 1905 by a team headed by A. Frickenhaus and continued in the following years, special attention was paid to the question of the time in which the Mycenaean palace there was destroyed.

On the site of the palace and, in part, on its original foundations a smaller edifice was built, identified as the temple of Hera of Greek times. The excavators felt that many facts point to the conclusion that the Greek temple was built over the Mycenaean palace very shortly after the palace was destroyed by fire.⁵ The altar of the temple was an adaptation of the Mycenaean palace altar;⁶ the plan of the Mycenaean palace was familiar to the builders of the temple; the floor of the palace served as the floor of the temple.⁷

However, the Greek temple was built in the seventh century.⁸

After deliberating on the evidence, the excavators refused to accept the end of the Mycenaean Age in the second millennium as the time of the destruction of the palace, and decided that the palace had survived until the seventh century. In their opinion

the Mycenaean pottery was the refuse of an early stage of the palace; the terracotta figures and flasks of archaic (seventh-century) type were offerings of the pilgrims to the Greek temple of Hera. A continuity of culture from Mycenaean to Greek times was claimed; even the worship of Hera, they felt, must have been inherited.⁹

Frickenhaus and his team realized that their explanation required some unusual assumptions: for instance, that the inhabitants of the palace did not undertake any alteration for the entire period of more than half a millennium,¹⁰ and that in one part of the palace the refuse of centuries was preserved, while in another part life went on.¹¹

But the excavators knew no other explanation, because it was clear to them that “the fire of the palace was followed immediately by the erection of the temple.”¹²

A decade later, when the temple of Hera was found to be very similar in plan to a Mycenaean building excavated at Korakou, near Corinth, “grave doubts” were expressed about the correctness of the above interpretations of the excavators of Tiryns, who had been “involved in a number of difficulties, both architectural and chronological.”¹³

The critic (C. W. Blegen) agreed that the temple had been built immediately after the palace was destroyed, but he could not agree that the temple was a building of the seventh century.

How is it possible, if a Greek temple was established at the Mycenaean level in the megaron [the throne room] and if the open court before the megaron was used at its Mycenaean level from the seventh century B. C. onward,—how is it then possible that this same area was later covered over with almost purely Mycenaean debris?¹⁴

He therefore concluded that “the later building within the megaron at Tiryns is not a Greek temple” but “a reconstruction carried out toward the end of the Mycenaean Period after the destruction of the palace by fire.” He also denied the significance of the capital of a Doric column found during the excavation of the temple.

Although Blegen’s arguments seemed to carry weight when he denied that the Mycenaean palace had survived the Mycenaean Age by almost five centuries, they appeared without force when he asserted that the building erected on the foundations of the palace was not a Greek temple.¹⁵ Blegen’s view was also questioned by an eminent classicist, M. P. Nilsson.¹⁶

Because it is as inconceivable that the Greek temple was built in the thirteenth century as it is that the Mycenaean palace stood until the seventh century without

alterations, its floor not even showing signs of wear,¹⁷ Nilsson confessed his inability to draw a conclusion: “The time of the reconstruction being uncertain, the question whether or not the building is the temple of Hera remains unanswerable.”¹⁸

In a book on the architecture of the palace of Tiryns, another excavator of that city, K. Muller, arrived at the conclusion that the difference of opinions is irreconcilable, but he shared the view of the scholars who ascribe the palace fire to about -750 and consider the edifice a Greek temple.¹⁹

Most of the archaeologists agreed on the continuity of the culture and cult of both buildings,²⁰ but each of the attempts to bridge the chasm of almost five hundred years met with insurmountable difficulties. The answer would not be difficult if the Mycenaean Age were not displaced by this interval of time, pushed back into history, before its proper place.

References

1. [The late eighth-century pottery was found immediately above, or mixed with, Late Helladic IIIB/C wares on the citadel, in the lower town, on the plain and in a wall chamber: see W. Rudolph, “Tiryns 1968” in *Tiryns* ed. U. Jantzen (Maintz, 1971) p. 93. —EMS]
2. H. Schliemann, *Tiryns* (London, 1886).
3. See A. Frickenhaus, *Tiryns* vol. I, *Die Hera von Tiryns* (Athens, 1912), p. 34.
4. Pausanias was one of those pilgrims in the year 170 of the present era.
5. Frickenhaus, *Tiryns*, pp. 31-40. [K. Muller, *Tiryns III Die Architektur der Burg und des Palastes* (Augsburg, 1930), pp. 214ff., *Per Alin Das Ende der mykenischen Fundstaetten auf dem griechischen Festland* (Lund, 1962), p. 32. But see G. Mylonas, *Mycenae and the Mycenaean Age* (Princeton, 1966), pp. 48-52, who argues that the temple was built five centuries after the burning of the megaron. Cf. W. Voigt-Lander, *Tiryns* (Athens, 1972) p. 8; U. Jantzen, *Fuehrer durch Tiryns* (Athens, 1975) p. 333; H. Plommer in *Journal of Hellenic Studies* 97 (1977), pp. 81-82; J. W. Wright in *American Journal of Archaeology* 84 (1980), p. 242.]
6. Alin, *Das Ende der mykenischen Fundstaetten*, p. 33; Jantzen, *Fuehrer durch Tiryns*, p. 33; Frickenhaus, *Tiryns I* pp. 5f.; Muller, *Tiryns III*, pp. 137ff.
7. Frickenhaus, *Tiryns I*, p. ; [However, M. P. Nilsson (*The Minoan-Mycenaean Religion and Its Survival in Greek Religion* [Lund, 1927] pp. 475-77) thought the floor of the later structure may have been at a higher level, a conclusion which has recently been argued by Mylonas (*Mycenae and the Mycenaean Age*, p. 51.)]
8. Frickenhaus placed it in the middle of the seventh century (*Tiryns I*, pp. 31ff.)
9. Frickenhaus, *Tiryns I*, 31.
10. *Ibid.*, p. 35.
11. *Ibid.*, p. 36.

12. *Ibid.*, p. 38. But see Notes for the contrary view of Mylonas and others.
13. C. W. Blegen, *Korakou, a Prehistoric Settlement near Corinth* (American School of Classical Studies at Athens [Boston, 1921] p. 130.
14. *Ibid.*, p. 132. [At the same time, Blegen noted, “the debris and potsherds which we should expect from the seventh century and subsequently during the period when the temple was in use, have almost completely vanished.” Cf. Mylonas, *Mycenae and the Mycenaean Age*, p. 49.].
15. [Mylonas, (*Mycenae and the Mycenaean Age*, p. 52) and Jantzen, (*Fuehrer durch Tiryns*, p. 33) reaffirm Frickenhaus’ conclusion that the later building is a Greek temple. Per Alin (*Das Ende der mykenischen Fundstaetten*, p. 32) supports Blegen’s view].
16. *The Minoan-Mycenaean Religion and Its Survival in Greek Religion*
17. Rodenwaldt, quoted by K. Muller in *Tiryns III*. [However, see above, footnote 213 about the floor level. Rodenwaldt himself agreed with Blegen in placing the destruction of what he considered a rebuilt megaron in Mycenaean time: *Tiryns II*, p. 235, n.2. Cf. idem, “Zur der monumentalen Architektur in Griechenland,” *Athenische Mitteilungen* 44 (1919), pp. 179-180; “Mykenische Studien I” in *Jahrbuch des deutschen archaeologischen Instituts* 34 (1919) p. 95 and n.2. But cf. above, n. 6 about the floor level].
18. [Nevertheless, Nilsson inclined more to the view of Frickenhaus that the later building was indeed a Greek temple, and not a smaller megaron of Mycenaean time; he stressed the evidence for the cult of Hera: “the thousands of votive terracottas of a standing and seated goddess and others cannot be so lightly pushed aside as is done by Mr. Blegen” ; and he argued that “we know from votive deposits that there was a temple on the acropolis of Tiryns, if the building itself is not accepted as satisfactory evidence. . . Under these circumstances the doubt concerning the identity seems unreasonable.” Additional sacred objects were found by Muller in 1926 (*Tiryns III*, pp. 214ff.) in a refuse pit; they were assigned dates from the mid-eighth to the mid-seventh centuries. An attempt to explain them in the light of Blegen’s theory was made by Alin (*Das Ende der mykenischen Fundstaetten* p. 32)].
19. Muller, *Tiryns III*, pp. 207ff. [Time did not help to reconcile the divergent views. H. Lorimer, writing in 1950 (*Homer and the Monuments*, p. 435) admitted that at “Tiryns the circumstances are obscure” yet opted for Frickenhaus’ and Muller’s conclusion. “It appears certain,” she wrote, “that . . . the megaron remained intact and uninhabited until it perished in a conflagration probably ca. 750. It is difficult to conceive what purpose it could have served through the long post-Mycenaean period if not that of continuing to house the ancient cult.” But it was against exactly such a possibility that Blegen had brought arguments a quarter of a century earlier. In the same year W. B. Dinsmoor published *The Architecture of Ancient Greece* (New York, 1950), in which he advocated Blegen’s solution (p. 21 and n.1). More recently Per Alin (see above, n. 14) brought additional arguments in support of Blegen].
20. [However, G. Mylonas had argued that the later Greek temple was built long after the destruction of the Mycenaean megaron by new settlers who followed the plan of the by then five-hundred-years-old ruins. This view is also

followed by U. Jantzen in his *Führer durch Tiryns* (Athens, 1975), who nevertheless sees a continuation of the religious cult from Mycenaean into archaic times (p. 33).— EMS]





Mute Witnesses

The divergence of almost five hundred years in the archaeological age evaluations repeats itself with respect to many sites of the Greek past. Because two timetables are applied simultaneously to the past of Greece—one built on the evidences of Greece itself, the other on the evidences of relations with Egypt—a clash of opinions in matters of age appraisal is almost inevitable.

The theory that “a period covering the seventh century and extending, perhaps, into the eighth century, was the time in which pottery and other antiquities of the Mycenae class were produced for the home market of Greece and possibly in Greece itself” (Murray)¹ was pronounced an “archaeological insinuation” (Evans)²

The other attempt at synchronizing the geometric with the Mycenaean ware by ascribing them to the second millennium (Doerpfeld) was called “the naivete of complete ignorance” (Furtwängler).³

The separation of the Mycenaean Age from the Greek Age by five hundred years of Dark Age was paid for with an ever-growing mass of conflicting facts. Already in the shaft tombs of Mycenae some of the finds bore conflicting and unreconcilable evidence:

Nor . . . is the evidence of Greek excavation always as simple and convincing as it looks. It has been usual to regard all the contents of the acropolis-graves at Mycenae as dating more or less to the same period. But some of the objects from these graves can be shown, if we are not to throw aside all that we have learned of the development of early Greek art, to be of far later date than others.”⁴

The same author admitted that the graves in Greece were as a rule not re-used. This makes the presence of objects of two different epochs in the Mycenaean graves in Greece very enigmatic.⁵

The epochs, as usual, are separated by close to five hundred years.⁶

References

1. A. S. Murray, *Handbook of Greek Archaeology* (New York, 1892), p. 57.

2. Evans, *Journal of the Royal Anthropological Institute* 30 (1900), p. 200.
 3. Furtwängler, *Kleine Schriften*, vol. I, p. 456.
 4. H. R. H. Hall, *The Oldest Civilization of Greece* (London, 1901), p. 16.
 5. [Hall later retracted his opinion for the shaft graves of Mycenae, but the same 500-year enigma has since been found in other Late Helladic tombs throughout the Aegean. See J. N. Coldstream's article on hero cults in *Journal of Hellenic Studies* (1976). EMS]
 6. For many more 500-year enigmas, see, Israel M. Isaacson, "Applying the Revised Chronology," *Pensée IVR*, no. 4 (Fall 1994), 5-20.
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A Votive Cretan Cave

On Crete a long interval is thought to separate the last period of the Minoan civilization from the late Geometric period in art and history, which belong in the eighth century; six hundred years of Dark Age if Evans is right that the Minoan civilization came to its end in -1400, and four hundred years if Leonard Palmer is right in claiming that it endured to almost -1200. But if, as we maintain, the Minoan civilization continued until the eighth century or even until the later part of it, then, of course, the Minoan ware in its latest style must be found contemporary with the geometric ware and the same perplexing relations would be discovered on Crete as were discovered in continental Greece.

The Dictaeon Cave on Crete supplied the Cretan Collection in Oxford's Ashmolean Museum with many objects; the cave was a votive place in the Late Minoan III age and an abundance of bronze figures was stored there. J. Boardman published a study of the Cretan Collection and tried to classify the finds by their style and affiliation.¹

Of bronze figurines of men from the votive cave he wrote: "These Cretan figures have been dated, apparently by style, to Late Minoan III. they must be related in some way to the well-known Geometric type of mainland Greece which exhibits the same characteristics."²

Of the bronze figures of women from the same cave, the author says: "Although no such figures of women have been recovered from Late Minoan III deposits [elsewhere], it is likely that the cruder specimens from the cave are of this date, although Pendlebury³ thought some might be Geometric."⁴

The bronze male and female figurines divided the experts, with the Minoan and the Geometric ages contesting for them. Would the animal figures from the same assemblage make the decision easier?

"Again there is as yet no reason to believe that bronze animal votives were being made uninterruptedly from Minoan to Geometric times. It should then be possible to distinguish the early from the late, but it is not easy."⁵

Next came knives with human heads at the end of the handles. "The style of the head is exceptionally fine. . . . Its superficial resemblance to a group of Cretan Geometric bronzes is noteworthy, and although the shape of the blade and solid handle point to the latest Bronze Age, there is much in the style to be explained." The layers in which it was found "suggest a Middle Minoan III-Late Minoan I context" and this

“considerably complicates the problem to which no solution is offered here.”⁶

A “cut-out plaque from the cave . . . is of a woman with a full skirt. The dress and pose, with elbows high, seem Minoan, but the decoration of the small bosses is more Geometric in spirit.”⁷

Thus bronze figurines, rings and plaques perplex the art expert when he tries to determine the period from which they date, and the difference frequently amounts to more than half a millennium. Will not then the pottery—vases and dishes, the hallmark of their age—throw some light on the problem?

For the storage jars with reliefs, (*pithoi*) from the Dictaeon Cave, two authorities⁸ “imply a Geometric date.” But two other authorities⁹ “have them Minoan.”¹⁰

Then what is the verdict of the fifth expert, familiar with the opinions of the other four?

“It is tempting to see in these pieces the immediate predecessors of the finely moulded and impressed *pithoi* of seventh-century Crete, but for these the independent inspiration of mainland Greece or the islands can be adduced, and the cave fragments are best regarded as purely Minoan in date.”¹¹

The very same features tend to confuse the experts. Some Cretan vases have a very characteristic decoration on them and it could be expected that this would help solve the problem of the age, but it does not.

There are several Cretan examples of heads or masks being used to decorate the necks of vases. . . . The example from Knossos was published by Evans as Minoan, and the signs on the cheeks thought to be signs in a linear script. The technique and the decoration tell against this. The patterns are purely Geometric. . . . The outline of the features is common in Cretan Geometric.¹²

In other cases the confusion is still greater when a decision is to be made between the Minoan (or Mycenaean) of the second millennium, the Geometric of the eighth century and the Archaic (of the seventh-sixth centuries).

The case of the votive Dictaeon Cave and its contents was selected here to illustrate how the problem stands on Crete. The verdict drawn by the art expert quoted on these pages did not clarify the issue by its recourse to our ignorance of what transpired during the Dark Age:

After the collapse or overthrow of the major Bronze Age civilizations

of the Aegean world in the twelfth century B.C. Crete, with the rest of Greece, entered upon a Dark Age which the still inadequate archaeological record can illuminate but little and the literary record not at all.¹³

References

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2. *Ibid.*, p. 7.
3. J. D. S. Pendlebury, *The Archaeology of Ancient Crete: An Introduction* (London, 1939) p. 332.
4. Boardman, *The Cretan Collection*, p. 8.
5. *Ibid.*, p. 9.
6. *Ibid.*, p. 20.
7. *Ibid.*, p. 43.
8. F. Courby, *Les Vases grecques a relief* (Paris, 1922) pp. 42f. and Pendlebury, *The Archaeology of Crete*, p. 334.
9. J. Schaefer, *2 Studien zu den griechischen Reliefpithoi des 8.-6. Jahrhunderts v. Chr. aus Kreta, Rhodos, Tenos und Boiotien* (1957); Mustili, *Annuario della R. Scuola Archeologica di Atene XV-XVI* (1932-33) p. 144, n.5.
10. Boardman, *The Cretan Collection*, p. 57.
11. *Ibid.*, *loc. cit.*
12. *Ibid.*, p. 103.
13. *Ibid.*, p. 129.





Etruria

The Etruscans are thought to have arrived in northern Italy sometime before the end of the eighth century before the present era. In Etruria, between the rivers Arno and Tiber, are found vaulted structures erected by the Etruscans: they are of the type known as “false vaulting.” O. W. von Vacano in his *Etruscans in the Ancient World* (1960) comments with wondering:

. . .The Mycenaean corridor design and *tholos* [circular domed tomb] structures are related to the vaulted buildings which make their appearance in the orientalizing period in Etruria—and here it is even more difficult to solve, even though the connection itself is undisputed.¹

The Etruscan vaulted chambers impress one by their similarity to Mycenaean architecture. Other Etruscan structures of the seventh-sixth centuries also show such similarity.

The remains of the city walls of Populonia, Vetulonia and Rusellae, consisting of huge stone blocks which have a ‘Mycenaean’ look, do not date further back than the end of the sixth century B.C.: their gateways may well have had arches rounded like the entrance doors to the *Grotta Campana*, on the outskirts of Veii, which dates from the second half of the seventh century B.C., and is one of the earliest painted chamber-tombs of Etruria.²

A dilemma no less serious is posed by a vase fashioned by a Greek master who signed it with his name, Aristonothos (fig.); between -675 and -650 he studied in Athens, then migrated to Syracuse (Sicily) and later to Etruria (Tuscany). The vase was found at Cerveteri, in southern Etruria. “There is an obvious link between the design of the Aristonothos crater and another earthenware vessel, scarcely less often discussed and more than five hundred years older, the vase known from the principal figure decorating it as ‘the Warrior Vase of Mycenae.’”³

It becomes ever clearer that the end of the Mycenaean Age, put at ca. -1200, is placed so not by a true verdict.

References

1. Von Vacano, *The Etruscans in the Ancient World*, p. 81. [After the

monuments of Mycenae and Tiryns received, on the basis of Egyptian chronology, dates in the second millennium, some scholars attempted to age the Etruscan tombs by five hundred years to make them contemporary with their Mycenaean counterparts: so “striking” was the similarity, so “evident” the relation of the two architectural styles, that if the Mycenaean tombs belong in the second millennium, one expert argued, the ones found in Etruria “are probably not of inferior antiquity.” (G. Dennis, *The Cities and Cemeteries of Etruria* [London, 1878], vol. I, p. 265, n.2; cf. p. 368, n. 6.) But what of the contents of the tombs, which invariably consisted of Etruscan products of the eighth century and later? The surmise that this situation reflected “a reappropriation of a very ancient sepulchre” (Dennis, *op. cit.*, p. 154) was unanimously rejected by experts (e.g., A. Mosso, *The Dawn of Mediterranean Civilization* [New York, 1911], p. 393). There was no reason to suppose that the tombs had been built by anyone but the people who used them; and these people first arrived on the scene in the middle of the eighth century. The relation of these eighth-century tombs to the five-hundred-years-earlier structures of Mycenaean Greece has remained a puzzle. *The Dawn of Mediterranean Civilization* (New York, 1911) pp. 392-93; A. N. Modona, *A Guide to Etruscan Antiquities* (Florence, 1954), p. 92; S. von Cles-Reden, *The Buried People: A Study of the Etruscan World*, transl. by C. M. Woodhouse (New York, 1955), p. 180; A. Boethius and J. B. Ward-Perkins, *Etruscan and Roman Architecture* (Baltimore, 1970) p. 78 and pl. 47. The oldest is the Grotta Regolini Galassi, dated to ca. B.C.]

2. *Ibid.*, p. 82; cf. Cles-Reden, *The Buried People*, p. 122. [Numerous other Etruscan cultural traits reflect Mycenaean models, something that would be not unexpected if, as the revised timetable postulates, the two cultures were contemporary, yet most difficult to account for if, as the conventional scheme requires, five hundred years of darkness intervened. (a) *Columns*. The types of columns used in Etruscan buildings derive from columns of Knossos and Mycenae, and have nothing in common with the Doric columns of seventh and sixth-century Greece. (S. von Cles-Redden, *The Buried People: A Study of the Etruscan World*, transl. by C. M. Woodhouse [New York, 1955], p. 35.) But it is presumed that no Mycenaean or Minoan structures were left standing in Etruscan times. Where, then, did the Etruscans find the models for their wooden columns? (b) *Frescoes*. The famous Etruscan frescoes, such as those that decorate the tombs near Veii, display an “obvious reminiscence of Crete”—however not of Crete of the Dark Ages, but rather of Minoan Crete (von Cles-Redden, *op. cit.*, p. 143). But had not the Cretan palaces with their frescoes been destroyed many centuries earlier? (c) *Burials*. The sepulchral slabs used in some Etruscan tombs, especially those bearing reliefs of men and animals, resemble those found by Schliemann at Mycenae (Dennis, *op. cit.*, p. lxxix, n. 9). Also Etruscan burial customs appear to be derived from Mycenaean models (S. von Cles-Redden, *op. cit.*, p. 150.)]
3. Von Vacano, *The Etruscans in the Ancient World*, p. 81. See I. M. Isaacson, “Applying the Revised Chronology,” *Pensée* IX (1974), p.p. 5ff.





Sicily

In Mycenaean times Sicily had a prosperous civilization that carried on a busy commerce with the Helladic city-state of mainland Greece and the Minoan empire of Crete. This civilization disappears from view about the same time that the chief Mycenaean centers were destroyed, and five centuries of darkness are said to descend on the island.¹ Not till the beginning of the seventh century is the gloom dispelled by the arrival of the first Greek colonists.

The earliest of the Greek settlements was at Gela on the southern coast, founded by migrants from Crete and Rhodes at a date fixed by the ancient chronographers as - 689. Tradition also claimed that Gela's founder was Antiphemos, one of the Greek heroes returning from Troy: and Virgil has Aeneas, the Trojan hero, sail along the southern coast of the island and admire flourishing Gela and two other Greek settlements which by all accounts did not come into existence till the beginning of the seventh century.² Besides furnishing further proof our dating of the Trojan War, these traditions are especially important in linking the Greek colonization of Sicily with the closed of the Mycenaean age, and help explain the many survivals of Mycenaean culture in the Greek colonies of seventh century Sicily.

A little to the north of Agrigento, somewhat west of Gela on Sicily's southern coast, are found tholos tombs of the Mycenaean type.³ Inside of one of the tombs were found gold bowls and seal rings manufactured in a style that derives from Mycenaean gold work.⁴ Yet neither the tombs nor the objects found inside them can be dated before the end of the eighth century. It is a puzzle how "splendid gold rings" with incised animal figures, so reminiscent of Mycenaean objects and having nothing in common with contemporary Greek prototypes could have been manufactured by Greek colonists in the seventh century if "a real Dark Age"⁵ of five hundred years' duration did in fact separate them from the latest phase of the Mycenaean civilization. In Sicily the time between the end of the Mycenaean age and the beginning of Greek colonization is an absolute void, with a total lack of archaeological remains: even the Protogeometric and Geometric pottery which elsewhere is claimed to span the Dark Age, is absent; only late Geometric ware appears with the arrival of the Greeks.⁶ The decorative motifs used by the Greek colonists are once more under strong Mycenaean influence; a detailed comparison of the motifs in use in the seventh century with those on Mycenaean ware caused much amazement among art historians, but not even a suggestion of how the motifs could have been transmitted through the Dark Ages.⁷ Moreover, Minoan influences were identified in the shape and decoration of pottery discovered at Gela, presenting the same problems.

All the evidence we have examined argues against a long gap between the Mycenaean age in Sicily and the arrival of the Greek colonists in the seventh century. Then why is it necessary for historians to postulate a five hundred year long Dark Age between the two epochs? Of the sherds found on the island some were fragments of “exactly the same pottery as that found in Egypt in the ruins of Tell el Amarna, the capital of Pharaoh Amenophis IV [Akhnaton] (1372-1355 B.C.)” .⁸ It was the erroneous timetable of Egypt which caused the historians to remove the Mycenaean civilization of Sicily into the second millennium, severing its links to its Hellenic successor.

References

1. L.B. Brea, *Sicily Before the Greeks* (New York, 1966), p. 130
2. *The Aeneid* Book III, lines 671-673
3. P. Griffo and L. von Matt, Gela: *The Ancient Greeks in Sicily* (Greenwich, Connecticut, 1968), p. 47; Brea, *Sicily Before the Greeks* p. 174.
4. Brea, *Sicily Before the Greeks* p. 175; cf. G. Karl Galinsky, *Aeneas, Sicily and Rome* (Princeton, 1969), p. 86; E. Langlotz, *Ancient Greek Sculpture of South Italy and Sicily* (New York, 1965), p. 15.
5. Brea, *Sicily Before the Greeks* p. 130.
6. T.J. Dunbanin “Minos and Daidalos in Sicily,” *Papers of the British School at Rome*, vol. XVI. New Series, vol. III (1948), p. 9.
7. Galinsky, *Aeneas, Sicily and Rome*, p. 83
8. Langlotz, *Ancient Greek Sculpture of South Italy and Sicily* , p. 15.





Mycenae and Scythia

“According to the account which the Scythians themselves give,” reported the fifth-century Greek historian Herodotus, “they are the youngest of all nations.”¹ It was the great disturbances and movements of people of the eighth and seventh centuries before the present era that brought these nomadic tribes from the depths of Asia to the doorstep of the civilized nations of the ancient East—Assyria, Egypt and Greece. Formerly the Scythians dwelt east of the Araxus²—their first settlements in southern Russia date to the end of the eighth century, about the time also that the Assyrians clashed with them in the vicinity of Lake Urmia.³ In the course of the decades that followed the Scythians attained the peak of their power, menacing Egypt and helping to bring about the downfall of Assyria. Later the powerful Chaldean and Persian empires succeeded to confine them to the steppes north of the Caucasus.

The appearance of the Scythians on the scene of the ancient East coincides in revised scheme with the final years of the Mycenaean civilization; the accepted timetable, however, needs to place their arrival fully five centuries after the last of the Mycenae citadels had been abandoned.

The tombs of the Scythian kings in the Crimea were built in a way “surprisingly reminiscent of Mycenaean constructions,”⁴ the burial chamber consisting of “enormous blocks of dressed stone set to overlap each other so as to meet in the center in an impressive vault.”⁵ To explain the use by the Scythians of the corbelled vault of the type common in the Mycenaean period, it was suggested that there must have been a continuing tradition going back to Mycenaean times, despite the lack of even a single exemplar between the twelfth and seventh centuries. “I have no doubt,” wrote the historian Rostovzeff, “although we possess no examples, that the corbelled vault was continuously employed in Thrace, and in Greece and in Asia Minor as well, from the Mycenaean period onwards. . . .”⁶ We, on the contrary, must begin to have doubts about a scheme which needs to postulate a five hundred year tradition of work in stone for which not a thread of evidence exists. Stone constructions of the type, had they existed, would have survived.

Gregory Borovka in his *Scythian Art* writes of “the striking circumstance that the Scytho-Siberian animal style exhibits an inexplicable but far-reaching affinity with the Minoan-Mycenaean. Nearly all its motives recur in Minoan-Mycenaean art.”⁷

Solomon Reinach, long ago, called attention to certain striking resemblances between Scythian and Minoan-Mycenaean art.⁸ For instance, the design of animal bodies in ”

‘flying gallop’ in which the animal is represented as stretched out with its forelegs extended in a line with the body and its hind legs thrown back accordingly, is at once characteristic of Minoan-Mycenaean art and foreign to that of all other ancient and modern peoples; it recurs only in Scythia, Siberia and the Far East.”

Another example of great similarity in style is in “the Siberian gold and bronze plaques depicting scenes of fighting animals.” Borovka supplies his description with illustrations. “How often are the animals depicted with the body so twisted that the forequarters are turned downwards, while the hind quarters are turned upwards? Can the agonized writhings of a wounded beast or fury of his assailant be more simply rendered?”⁹

”Other motives of the [Scythian] animal style, too, reappear in Minoan and Mycenaean art. We may cite the animals with hanging legs and those which are curled almost into a circle. Conversely, the standard motif of the Minoan-Mycenaean lion, often represented in the Aegean with reverted head, reappears again in Scythian and Siberian art.”

The similarity first observed by Reinach and elaborated upon by Borovka is very unusual. But what appeared to them most surprising was the fact that two such similar art styles should be separated not only by a vast geographical distance, but also by an enormous gulf in time.

”How are we to explain this far-reaching kinship in aim between the two artistic schools? It remains, on the face of it, a riddle. Immediate relations between Minoan-Mycenaean and Scytho-Siberian civilizations are unthinkable; the two are too widely separated in space and time. An interval of some 500 years separates them. . . Still, the kinship between the two provinces of art remains striking and typical of both of them.”¹⁰

References

1. Herodotus, *The Histories*, Bk. IV, ch. 5.
2. The Araxus may be either the Oxus, which flows through today’s Afghanistan, or the Volga.
3. In the reign of Sargon II (-722 to -705). T. T. Rice, *The Scythians* (London, 1975), p. 44.
4. E. g., Altan Oba (“The Golden Barrow”) and Tsarskij Kurgan (“Royal Barrow”). See Rice, *The Scythians*; E. H. Minns (*Scythian and Greeks*, Cambridge, 1913, p. 194) also considered the plan of the tombs to be of Mycenaean derivation.
5. Rice, *The Scythians*, p. 96.
6. M. Rostovzeff, *Iranians and Greeks in South Russia* (Oxford, 1922) p. 78.

Similar “Mycenaean type” constructions of the Scythians were found in Bulgaria (at Lozengrad), and in Asia Minor (Pontus. Caria and Lycia)—*Ibid.*, p. 77. R. Durn in *Jahrhefte der k. Arch. Instituts zu Wien*, X (1907), p. 230.

7. (London 1928), p. 53.
8. S. Reinach, “La représentation du galop dans l’art ancien et moderne” in *Revue archéologique*, 3e série, tome XXXVIII (1901) fig. 144 bis “Lion au galop sur une rondelle en bois mycénienne.” p. 38: “Il a déjà été question d’une rondelle de bois mycénienne, découverte en Egypte, sur laquelle est figuré un lion bondissant, l’arrière-train soulevé avec une telle violence que les rattes de derrière viennent toucher le front (fig. 58). Nous reproduisons ici cette figure (fig. 144 bis) pour la rapprocher d’une plaque d’or sibérienne représentant un cheval attaqué par un tigre. Cheval et tigre offrent également ce singulier motif des membres postérieurs rejetés vers le dos et l’enclosure (fig. 114).”
9. Borovka, *Scythian Art*, pp. 53-54.
10. Borovka, *Scythian Art*, p. 54 Similar observations were made by Minns (*Scythian and Greeks*, p. 260), who termed a Scythian depiction of a deer with its head turned around “a Mycenaean survival.” He also compared an ibex on a casket from Enkomi, Cyprus to similar Scythian depictions.





Pylos

Pylos in Messenia, on the western coast of the Peloponnese, was the capital of Nestor, the elderly statesman in the league headed by Agamemnon, king of Mycenae, against Priam, king of Troy, and his allies.¹ In 1939 Carl Blegen came to Messenia to search the countryside for signs of the ancient city of Pylos with Nestor's famous palace, celebrated by Homer. Blegen selected for his first dig a prominent hilltop, a short distance from the sea, which seemed to him eminently suitable to be the site of a royal palace; and in fact, as soon as he began to lift the earth from his first trench, extensive structures began to appear, and much pottery of Mycenaean time. He soon arrived at the conclusion that the palace was Nestor's: the building he excavated had been occupied, in his estimate, in the second part of the thirteenth century before the present era—the preferred time for the Trojan War.²

Already early during the work of excavation Blegen unearthed scores of tablets written in the Linear B script, and soon there were hundreds of them. Linear B had been first discovered on Crete by Sir Arthur Evans, who found tablets with incised signs of two scripts, which he termed Linear A and Linear B. The profusion of tablets found in Pylos made the archaeologists question whether the script was Minoan or had its origin on the mainland of Greece; and when subsequently more tablets inscribed with these characters were found in other sites of the Greek mainland—at Mycenae and at Thebes—the name Mycenaean became rather regularly applied to the script.

For over a decade after their discovery the tablets were neither published nor read;³ but when read—and the story will be told on subsequent pages—they were found to contain no literary text: they were regularly archive notes, dealing with taxation or conscription, or human and animal census or storage inventory. Nevertheless, interesting parallels could be drawn with the Homeric epics: Pylos is mentioned at the head of nine other towns that profess allegiance to it—both in Homer and on the tablets;⁴ again, a seven-town coastal strip mentioned in the Iliad finds a parallel in a strip of seven coastal settlements referred to on one of the tablets. And to Blegen's great satisfaction Pylos was found repeatedly mentioned on the tablets retrieved from the palace he identified as Nestor's.⁵

Nestor's name, however, was not found.

The tablets, originally not fired but only dried, would have disintegrated long ago, were it not for the fire that destroyed the palace and baked the tablets. A great conflagration raged over the structure; it came rather suddenly, since most furniture,

pottery, the contents of the storage rooms and archives were not removed: but humans all fled.⁶

Blegen placed the destruction not long after the Trojan War, at the close of the Mycenaean Age.⁷

However, no signs of warfare, siege, re-occupation by people of another culture or occupation in general were found.⁸

The palace presented Blegen and his collaborators with problems not unlike those that were to occupy him later at Troy. In the report of the excavations Blegen wrote: “In some places . . . in the upper black layer . . . were found, along with the usual Mycenaean pottery, a few glazed sherds of Late Geometric Style, as in so many other parts of the site, where similar deposits were encountered.”⁹

References

1. Iliad XI. 689. Odyssey III.3f.
2. C. W. Blegen and M. Rawson, *The Palace of Nestor at Pylos in Western Messenia*, vol. I (Princeton, 1966) vol. I, pt. 1, pp. 3ff.
3. They were published in 1951 (*The Pylos Tablets: A Preliminary Transcription*) and the decipherment was completed by 1953. See below, section “Linear B Deciphered.”
4. Iliad II. 591-94; Blegen and Rawson, *The Palace of Nestor*, vol. I, pt. 1, p. 419.
5. *The Palace of Nestor*, loc. cit.
6. *Ibid.*, p. 424.
7. *Ibid.*, p. 422.
8. *Ibid.*, p. 422.
9. *The Palace of Nestor*, p. 300.





Linear B Deciphered

For a long time the Linear B script did not disclose its secret to those who worked on its solution. Nor was the decipherment facilitated by the manner in which Sir Arthur Evans published the texts of the Linear B tablets—not all at once, but seriatim. When Blegen discovered the Linear B tablets on the Greek mainland in the ruins of the ancient palace in Pylos, they were ascribed to the Heroic Age of Troy, the final stage of the Mycenaean Age that ended abruptly.

Yet even after the Linear B tablets were found on the mainland of Greece their language was not thought to be Greek. The reason for that was, first of all, in the accepted chronological scale: the Ionian age, according to conventional chronology, was separated from the Mycenaean Age by five hundred years. Greek writing appears for the first time in the eighth century. Efforts to read the tablets made by classical philologists were unsuccessful, and whatever clue was tried out, the result was negative.

One of the most important and far-reaching theses of the reconstruction of ancient history is in the conclusion that the so-called Dark Ages of the Greek and Anatolian histories are but artifacts of the historians, and never took place. The Mycenaean Age ended in the eighth century and was followed by the Ionic times, with no centuries intervening, the break in culture being but the consequence of natural upheavals of the eighth century and of the subsequent migrations of peoples. Consequently the Ionic culture must show great affinity with the Mycenaean heritage; and therefore I have claimed that the Linear B script would prove to be Greek; but this was not a view that had many supporters.

In 1950 the eminent authority on Homeric Greece, Helen L. Lorimer, in her treatise *Homer and the Monuments* wrote of this script and of the efforts to read it: “The result is wholly unfavorable to any hope entertained that the language of the inscriptions might be Greek.”

Nevertheless, on the occasion of addressing the Forum of the Graduate College of Princeton University on October 4, 1953, I formulated my expectations:

I expect new evidence from the Minoan Scripts and the so-called Hittite pictographs. Texts in the Minoan (Linear B) script were found years ago on Crete and in Mycenae and in several other places on the Greek mainland. I believe that when the Minoan writings unearthed in Mycenae are deciphered they will be found to be Greek. I also claim that these texts are of a later date than generally believed. “No ‘Dark

Age' of six centuries' duration intervened in Greece between the Mycenaean Age and the Ionian Age of the seventh century."

The address was printed as a supplement to *Earth in Upheaval*, but the last passage in the address was quoted from my *Theses for the Reconstruction of Ancient History*, published eight years earlier, in 1945.¹

When speaking to the Princeton Forum in October 1953 I did not know that a young English architect was by then on the verge of publishing the solution to the riddle of the Linear B script. Only six months passed since my addressing the Graduate Forum, and the April 9, 1954 front page news of *The New York Times* made known the exciting performance of decoding Linear B by Michael Ventris. The ancient script "that for the last half century and longer has baffled archaeologists and linguists has been decoded finally—by an amateur." Ventris, an architect and "leisure-time scholar of pre-classic scripts," served as a cryptographer during World War II. The script that had been tried without avail in a variety of languages—Hittite, Sumerian and Basque among others—was found by Ventris to be Greek.²

Ventris as a boy attended a lecture by Sir Arthur Evans on the Minoan tablets with unread scripts and, like Schliemann who since boyhood was determined to find Troy and the tomb of Agamemnon, was intrigued to decipher the script of which he heard Evans speak. Thus the greatest discoveries in the world of classical studies were made by non-specialists, a merchant and an architect.

But Ventris was not immediately on the right path. In 1949 he had sent out a questionnaire on Linear B to leading authorities on Aegean questions; he privately distributed the replies in 1950 as *The Languages of the Minoan and Mycenaean Civilizations* (known as the "Mid-Century Report"). None of his queried correspondents came upon the right trail.

In 1962 Leonard R. Palmer testified as to the stand the Hellenic scholars and Ventris himself had taken prior to the achievement; in his book *Mycenaeans and Minoans*, Palmer wrote: "Evans ventured no guess at the possible affinities of the Minoan language. That it was Greek never entered his head." Also Blegen, who was the first to find the tablets on Greek soil, "was 'almost certain' that the language of his tablets was 'Minoan' . . . Nor did the possibility that the Linear B tablets concealed the Greek language occur to Michael Ventris." He "guessed that the language was related to Etruscan . . . This wrong diagnosis was maintained by Ventris right up to the final stages of his decipherment." "It figures in the so-called 'Mid-Century Report,' which records what could be deduced by the most eminent living authorities from the archaeological and other evidence available at the time preceding the decipherment of the script. The remarkable fact stands out that not one of the scholars concerned suggested that the language could be Greek."

But a few years more and Ventris found the true solution. Even then loud voices of

skepticism and opposition made themselves heard.³

But the method being perfected disclosed more and more Greek words and names which could not result from a mistaken decipherment. The entire field of early Greek civilization experienced the greatest shock since the discovery of Troy. To the even greater surprise of the scholarly world the names of the deities of the Greek pantheon, supposedly “created” by Homer and Hesiod, were found on the deciphered Linear B tablets.

The reading of these tablets in the Greek language raised the question: How could a literate people in the fourteenth century become illiterate for almost five centuries, to regain literacy in the eighth century? Thus the problem already answered in *Ages in Chaos* was brought into relief, and a heretical idea crept into the minds of a few scholars: is there some mistake in the accepted timetable? In the last century a Dark Age of five centuries’ duration between the Mycenaean and the Ionian ages was forced upon the scholars of the Greek past by students of Egyptology, and in three quarters of a century this notion, first bitterly opposed, became as bitterly defended by the new generation of classical scholars, only to be confronted with the riddle of the Mycenaean tablets written in Greek more than five hundred years before the oldest known Greek inscription in alphabetic characters adapted from the Hebrew-Phoenician script.

Ventris died young, in an auto accident, soon after his triumph. One of the most tantalizing riddles of classical archaeology was solved, but not without creating some puzzling situations. The Homeric Question, instead of being solved, grew now to astonishing, one would like to say, Homeric, proportions.

References

1. In this publication, distributed only to a limited number of large libraries in Europe and America, I stated, without any elaboration, the findings to which I had come in the work of reconstruction of ancient history, thus outlining the projected *Ages in Chaos* and its sequel volumes.
2. Cf. J. Chadwick, *The Decipherment of Linear B* (Cambridge, 1958).
3. E.g., that of Prof. Beattie in *Journal of Hellenic Studies* 76 (1956), pp. 1ff.





The Greek Pantheon

When the texts in Linear B were read the so-called Homeric problem did not approach a solution but, contrariwise, grew more urgent, more enigmatic, more perplexing.

Since antiquity it had been believed that “Homer and Hesiod were the first to compose Theogonies, and give the gods their epithets...”¹ Therefore reading the names of Greek gods and goddesses on the Linear B tables from Knossos on Crete and Pylos on the mainland was something of a shock to classical scholars.² Hera, Artemis and Hermes were worshipped in Pylos. Zeus and Poseidon were worshipped in Pylos and Knossos. Athene was deified in Knossos; Dionysus’ name was found on a Pylos tablet.³

With Greek gods and goddesses spelled by their names on the tablets, it was conducive to recognize Apollo in a figure on a vase, singing among the Muses, or Poseidon in a figure depicted driving a chariot over the sea, or Zeus with Europa in the depiction of a bull carrying a woman. The Minotaur and centaurs were recognized as likely Mycenaean images.⁴

Not less unexpected were the names of Achaean heroes known from the Homeric epics when found on the Pylos and Knossos tablets, and a “wealth of Trojan names,” too. Ajax (called by his patronymic “Telamonian”) and his brother, Telamonian Teucer, have namesakes in Homer; “and between them they killed two Trojans with tablet names Pyrasos and Ophelostas, and a third Simoeisios, whose father’s name, Anthemos, occurs at Knossos.” Hector’s name and Priam’s name, and that of Tros, are found in Pylos. Achilles’ name is found both a Knossos and at Pylos, and Kastor’s at Knossos.⁵

In Homer Laodokos’s father is Antenor and on a Pylos tablet Laodokos holds land in a village or suburb where Antenor is mayor. In Homer Laodokos is from Pylos, where the tablet with his name was found.

Aigyptos of the *Odyssey* has a namesake on a Knossos tablet; admittedly, there was no contact with Egypt during the Dark Ages and until the seventh century, and how could a bard of one of those centuries, if the epos was not yet completed in the Mycenaean Age, come upon calling a hero after the river Nile, asked T. B. Webster. The name Neritos in met in both, the *Iliad* and the *Odyssey*, and it was thought to be a misnomer for some Greek term, corrupted in the later versions of the epics to look as a private name, but the name was found on a table as that of a sheep owner.

“Unfortunately the establishment of Neritos as a good Mycenaean name does not help the difficult geographical problem of Ithaca’s location.”

The campaign of the Seven against Thebes and the sack of the city by the Epigoni are alluded to by Homer. “Mycenaean names in the story are Amphiaros (Knossos), Adrastos, Eteocles, Polyphontes (Pylos).” One of the sons of Eteocles in Pylos was called Alektryon, a name known from the *Iliad* (XVII.602). In Pylos a man was called Theseus and men at Knossos bore the names Selenos and Iakchos known from the *Odyssey*. The name Aeneas is read on a tablet from Mycenae. Phegeus’ name, found in the *Iliad* (V.10f) is found also on a tablet from Mycenae. The Trojan Pedasos (*Iliad* VI.21) had a namesake at Knossos.

Not less amazing are the attributes and adjectives accompanying the names as used by Homer and found on the tablets. “The evidence of the tablets” is “that such formulae as Telamonian Ajax were Mycenaean titles.”⁶ Nestor of Homer “has Mycenaean titles”;⁷ Agamemnon’s title *wanax* is “certainly Mycenaean”;⁸ “king of men” is a title most probably “remembered from Mycenaean poetry” half a millennium before Homer.⁹

“The epithet *hippocharmes* (chariot-fighter), which is applied to Troilos in the *Iliad* and to Amythaon (a name found on the Pylos tablets) in the *Odyssey*, has been recognized as derived from the Mycenaean word for chariot.”¹⁰

If five hundred years separate Homer from the tablets, is it not a cause for wonder that the poet should know these names and titles and use them for his epics?

References

1. Herodotus II.53
2. [M. Ventris and J. Chadwick wondered that the tablets “unexpectedly reveal the worship of gods and goddesses known from classical sources” — *Documents in Mycenaean Greek* (Cambridge University Press, 1956), p. 275]
3. [M. Ventris and J. Chadwick, *Documents in Mycenaean Greek*, second ed. (Cambridge University Press, 1973), pp. 279, 286-288. Cf. G. Mylonas, *Mycenae and the Mycenaean Age* (Princeton, 1966), pp. 159-160; F. R. Adrados, “Les Institutions religieuses mycéniennes” — III “Les dieux et leur culte” in *Minos XI* (1972), pp 183-192; A. Heubeck, *Aus der Welt der fruehgriechischen Lineartafeln* (Goettingen, 1966, pp. 96-106.)]
4. These and the following examples are from T. B. L. Webster, *From Mycenae to Homer* (London, 1958)
5. *Ibid.*, p. ; [D. H. H. Gray, “Mycenaean Names in Homer,” *Journal of Hellenic Studies* 78 (1958), pp. 43-48; D. Page, *History and the Homeric Iliad* (University of California Press, 1959), pp. 197-199.]

6. Webster, *From Mycenae to Homer*, p. 286
 7. *Ibid.*, p. 218.
 8. *Ibid.*, p. 121; [Page, *History and the Homeric Iliad*, pp. 188 and 209, n. 48.]
 9. Webster, *From Mycenae to Homer*, p. 107.
 10. *Ibid.*, p. 103; [Page, *History and the Homeric Iliad*, pp. 190 and 209, n. 55
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Mycenaean City Names in the Iliad

Most notable among the passages in the Iliad traceable to Mycenaean times is the so-called Catalogue of Cities and Ships.¹

It is an enumeration, in the second book of the Iliad, of the contributions in ships made by various cities and towns of the Achaeans or Greeks of the Heroic Age to the expedition against Troy. There are scores of localities in the list and many of them, actually about half, did not survive into the modern Ionian Age; then how could the Greek poet, separated from the Mycenaean Age by dark centuries, have had such an extensive and detailed knowledge of these localities?

Archaeological research has already identified the ruins of quite a few sites which had not been rebuilt and were not known in the classical period of Greece; and it is safe to assume that future digging will reveal more of the cities of this list. By assuming that the oral delivery from one generation to another can account for the survival of the epics, it is also necessary to assume that a long list of localities, many of them small, many of them no more extant, was capable of surviving by means of such oral tradition. But would generations of bards carry over centuries of the Dark Ages the multitudinous names of towns and villages of which nothing was extant for century upon century? It is conceivable that a few names of ancient palace cities would defy time and survive in the memory of bards. But to assume that almost a hundred names of localities that were but abandoned mounds in the time when the Iliad was put to writing survived in that manner implies nothing short of a miracle. In the view of Denys Page, "There is no escape from this conclusion: the names in the Catalogue afford proof positive and unrefuted that the Catalogue offers a truthful, though selective, description of Mycenaean Greece."² At the same time, "there is no scrap of evidence, and no reason whatsoever to assume, that the art of writing was practiced in Greece between the end of the Mycenaean era and the eighth century B.C."³

Yet "it is inconceivable that such a list should have been first compiled during or after the Dark Ages."⁴ But is it a solution that bards transmitted all those names?⁵

And where did the bards sing? Was not the land without palaces and with hardly any houses of occupation?

Denys Page continues on the subject with growing wonderment: "Descriptive epithets are attached to some fifty of the place names. . . . Many of the epithets are distinctive, not generally applicable. One place is a meadowland, another is rocky; one place is rich in vineyards, another is famous for its sheep; one place is rugged, another has

many flowers; one place is on a riverbank, another on the seashore.” “Let us ask,” Page continues, “how could an Ionian poet living in the 10th or 9th or 8th century B. C. know how to describe so many places—some of them very obscure places—all over Greece? How could he know that there were many doves at Messe (if anyone could still find the place); and vineyards at Hine (if it had not yet been swallowed up by the lake); that Aegylips was rugged, Olosson white, Enispe windy, Ptellos a meadowland, Helos on the coast?”⁶

And is it thinkable that the bards came to Greece from the Aegean coast of Asia Minor towards the end of the Dark Ages? But Asia Minor together with its Ionian coast was also immersed in a Dark Age; nor was there recovered a palace in which a bard upon return from Greece could sing of those Mycenaean cities, towns and hamlets—so impoverished was the Greek region of Asia Minor during the Dark Ages, with the highland of Anatolia being quite empty of any human habitation.⁷

The problem of the Mycenaean heritage in the Homeric poetry is staggering and remains unresolved through hundreds of volumes dealing with it; it is the despair of anyone endeavoring to solve it within the framework of the accepted chronological timetable.

References

1. See R. Hope Simpson and J. F. Lazenby, *The Catalogue of the Ships in Homer's Iliad* (Oxford University Press, 1970). [Several scholars claim the Catalogue to be a compilation of the late eighth or early seventh centuries. See Rhys Carpenter, *Folk Tale, Fiction, and Saga in the Homeric Epics* (Berkeley, 1946). J. Chadwick held a similar view. Here again is the five-hundred year controversy.]
2. Page, *op. cit.* [A. R. Burn, *Minoans, Philistines and Greeks: B.C. 1400-900* (London, 1930), p. 10: “The Catalogue . . . has all the appearance of being a genuine document dating from before the Dorian invasion and the Ionian migration. . . .”].
3. Page, *op. cit.*, p. 123.
4. Page, *History and the Homeric Iliad* p. 122. Cf. G. S. Kirk, *The Language and Background of Homer* (Cambridge, 1964), p. 175. [Kirk writes: “. . . Much of the substance of the Catalogue of Achaean contingents in the second book of the Iliad, which gives a complex and largely accurate survey of the Mycenaean geography, disrupted by the Dorian invasion, can hardly have been completed more than a generation or so later than the final upheaval. . . .” But cf. Chadwick (*Minos* [1975], pp. 56-58).]
5. Cf. Rhys Carpenter, *Folk Tale, Fiction, and Saga in the Homeric Epics* (Berkeley, Ca, 1946).
6. Page, *History and the Homeric Iliad*, p. 123. [Carpenter (*Folk Tale, Fiction, and Saga in the Homeric Epics*, pp. 178-79) denies the possibility of such

accurate transmissions and argues instead that the Catalogue points “to the situation in early archaic classical times when Pheidon had extended his rule over Argos, when a league of towns was forming in Boeotia. . . .” His view that Homer wrote about *recent* events does not in fact contradict the assertions by Page and others that the Catalogue refers to Mycenaean times. Cf. also Chadwick in *Minos*” (1975) pp. 56-58.]

7. See above, section “[The Dark Age in Asia Minor](#).”





The Mycenaean Dialect

When Mycenaean Linear B was deciphered by Michael Ventris, it was thought to be an archaic form of Greek, preceding Homer by almost five centuries. A name was proposed for it—"Old Achaean." However, a closer examination of Mycenaean resulted in a startling conclusion expressed by A. Tovar:

"But contrary to what we expect from Greek documents of the fourteenth and thirteenth centuries B.C., the Mycenaean dialect is not seen to be closer to proto-Greek than are Homer or Thucydides. If sometimes Mycenaean shows very primitive features, it also sometimes appears more advanced than the dialects of the first millennium."¹

John Chadwick, who collaborated with Ventris in the decipherment of Linear B, writes: "Since 1952 important new work has modified the general view and this has entailed a shift of emphasis, and the abandonment of the name proposed for this dialect, 'Old Achaean.'"²

The Mycenaean Linear B dialect was found to be best preserved in the southern (Arcado-Cyprian) group, and to be distinct from the Ionian-Attic dialect; the theory that Mycenaean was the mother tongue of all Greek dialects conflicts with the fact expressed in these words: "But Mycenaean presents many dialectal phenomena of quite recent aspect and is in some traits as far from 'common [early] Greek' as the dialects known a millennium later."³

Against the view of E. Risch that Mycenaean was the proto-language of all Greek dialects, Tovar writes: "The weak point in Risch's argument is that it ignores the fact that against the innovations which appear in Mycenaean (and Arcado-Cyprian), Ionic shows many old forms." E. Benveniste, too, expressed his criticism of the view of Mycenaean as proto-Greek, or "Old Achaean":

It must be admitted that according to the hypothesis maintained by Risch during this period [the 450 years between the last Mycenaean texts and the first literary testimony in eighth-century Greek] a remarkable conservation of Mycenaean was upheld in its Arcado-Cypriote dialect and a profound evolution of Mycenaean in its Ionian dialect took place. Is it not more plausible to assume that in the epoch of our tablets the Ionian (not represented in the tablets) already substantially differed?⁴

Four hundred and fifty years passed between the last Mycenaean texts and the first literary testimony. Is not the confusion discussed here a result of this erroneous premise? If the true figure is something like sixty years and not five hundred, all perplexities disappear.

References

1. A. Tovar, "On the Position of the Linear B Dialect," *Mycenaean Studies*, ed. by E.L. Bennet, Jr. (University of Wisconsin Press, 1964).
2. J. Chadwick, *Decipherment*, p. 78.
3. Tovar, p. 146.
4. E. Benveniste in *Etudes myceniennes* (Paris, 1956) p. 263.





Cadmus

The classical Greek alphabet, its order of letters, and their form, were borrowed from the Hebrew-Phoenician alphabet; alpha, beta, gamma, delta, are but Grecized aleph, beth, gimel, daleth of the Hebrew language.¹

In early times Greek was also written from right to left, as Hebrew is still written today.

Cadmus, the legendary hero who came to Greece from Phoenicia and founded Thebes in Boeotia, is credited with the introduction of the Hebrew or “Phoenician” alphabet to the Greek language; in its Hellenized early form the alphabet is called Cadmeian. As Herodotus tells the story,

The Phoenicians who came with Cadmus . . . introduced into Greece, after their settlement in the country, a number of accomplishments, of which the most important was writing, an art till then, I think, unknown to the Greeks. At first they used the same characters as all the other Phoenicians, but as time went on, and they changed their language, they also changed the shape of their letters. At that period most of the Greeks in the neighborhood were Ionians; they were taught these letters by the Phoenicians and adopted them, with a few alterations, for their own use, continuing to refer to them as the Phoenician characters—as was only right, as the Phoenicians had introduced them.²

However, Cadmus, the founder of Thebes, preceded by several generations the Trojan War; on this the Greek tradition is unanimous. Tradition also has it that the Cadmeian alphabet originally consisted of sixteen letters and that four additional characters were introduced later, about the time of the Trojan War.³

The Theban cycle of legends deals with the time preceding the Trojan War. Thebes in Boeotia was outside of the Mycenaean dominion. No contingent from Thebes participated with the other Greek cities in the Trojan War for, according to tradition, Thebes as a city had been reduced shortly before the new war started. With the conventional date of the Trojan War in the beginning of the twelfth century, Cadmus needed to be placed in the fourteenth: his dynasty comprised several generations of rulers before the Epigoni conquered and ruined the Boeotian Thebes; some of the Epigoni later participated in the siege of Troy.

This order of events in the semi-historical, semi-legendary Greek past conflicts with

the fact that the Cadmeian alphabet has not been found in Greece before about the middle of the eighth century. Furthermore, because of certain characteristics in their form, the earliest Cadmeian letters bear the best resemblance to the Hebrew-Phoenician letters of the ninth century—as exemplified by the Mesha stele.⁴

But in Greece no inscription in Cadmeian letters was found that could be attributed to even so early a time as the ninth century. Therefore among the classical epigraphists a protracted debate was waged between those who claimed a date in the ninth century as the time the Cadmeian alphabet was introduced into Greece and those who claimed the seventh century.⁵ Yet independently of the question whether the Cadmeian letters originated in the ninth or in the seventh century,

it is generally agreed that the fourteenth century is out of the question;⁶ but even should we follow the proponents of the earlier date—that of the mid-ninth century, we still would be at pains to harmonize dates so far apart as the ninth and fourteenth centuries, the date assigned to Cadmus. If the tradition about Cadmus, the originator of the Greek alphabet, has any historical value,⁷ and if Cadmus lived in the ninth century, his descendants, participants in the Trojan War, could not have flourished about -1200.

References

1. *Aleph* means “ox” in Hebrew; *beth* means “house” etc. The corresponding letter names have no meaning in Greek.
2. Herodotus, *The Histories* V. 58 (transl. by A. de Selincourt, 1954).
3. [There were three traditions, each of which placed him at a different period—three, six or nine generations before the Trojan War. See R. B. Edwards, *Kadmos, the Phoenician* (Amsterdam, 1979), pp. 165f.—EMS]
4. King Mesha of Moab was a contemporary of King Ahab of Samaria. See *Ages in Chaos*, vol. I, Sections, “Mesha’s Rebellion,” and “The ‘Great Indignation.’”
5. At that time the Cadmeian alphabet had not been found in Greece before the seventh century. However, since this debate between Carpenter and Ullman, an inscription of the middle of the eighth century has come to light, the earliest known inscription in Greek employing the Cadmeian letters.
6. Cf. the debate between Rhys Carpenter (“The Antiquity of the Greek Alphabet,” *American Journal of Archaeology* 37 [1933] pp. 8-29) and B. Ullman (“How Old is the Greek Alphabet?” in *American Journal of Archaeology* 38 [1934] pp. 359-381). Cf. P. Kyle McCarter Jr., *The Antiquity of the Greek Alphabet and Early Phoenician Scripts* (Ann Arbor, 1975). [Cf. also Carpenter’s reply: “The Greek Alphabet Again” in the same journal, vol. 42 (1938) pp. 58-69. While Carpenter defended a date ca. -700 for the adoption of the alphabet by the Greeks, Ullman argued for “the eleventh or twelfth century or even earlier as the time for the introduction of the alphabet

into Greece.” A. Mentz (“Die Urgeschichte des Alphabets,” *Rheinisches Museum für Philologie* 85 [1936] pp. 347-366) judged Ullman’s proposed dates to be too *low* and suggested ca. -1400 as the date for the adoption of the alphabet, based on the Cadmus tradition. W. Dörpfeld, (*Alt-Olympia II* (Berlin, 1935) pp. 401-409), V. Berard *Les Phéniciens et l’Odyssée* (Paris, 1927-28) held similar views. Cf. also Livio C. Stecchini, “The Origin of the Alphabet,” *The American Behavioral Scientist* IV. 6 (February, 1961), pp. 2-7].

7. [M. C. Astour has suggested (*Hellenosemitica* [Leiden, 1967] p.) that Linear B, the administrative script of the Myceneans and Minoans, was what the later Greeks remembered as *phoinikeia grammata*, or “Phoenician letters,” introduced by Cadmus. There appears to be little justification for such a view since the Linear B script had, as far as is known, no connection to Phoenicia, whereas the Greek alphabet was directly adapted from the ninth-eighth century Hebrew-Phoenician script. Herodotus’ statement on the subject could not be less ambiguous. In the same book, Astour vigorously defends Cadmus’ Phoenician origin (pp. 147ff.) Cf. J. Rason, “La Cadmée, Knossos et le lineaire B,” *Revue archeologique* (1977) p. 79].





Seismology and Chronology

Independently of my effort to construe a synchronical history starting with the common event that overwhelmed and vexed all nations of the globe—the great catastrophe that ended the Middle Kingdom—a similar effort was made by Claude F. A. Schaeffer, Professor at College de France. The reader of *Ages in Chaos* is familiar with his work of excavating Ras-Shamra (Ugarit) from the chapter carrying this title. He observed in Ras-Shamra on the Syrian coast obvious signs of great destruction that pointed to violent earthquakes, tidal waves, and other signs of a natural disaster. At the occasion of his visit to Troy, excavated by C. Blegen, Schaeffer became aware that Troy was destroyed by the elements—and repeatedly so—at the same times when Ras-Shamra was destroyed.

The distance from the Dardanelles, near which the mound of Troy lies, to Ras-Shamra is about six hundred miles on a straight line. In modern annals of seismology no earthquake is known to have affected so wide an area. Schaeffer investigated the excavated places in Asia Minor, and the archaeologists' reports, and in every place found the same picture. He turned his attention to Persia, farther to the East—and the very same signs of catastrophes were evident in each and every excavated place. Then he turned his attention to the Caucasus—and there, too, the similarity of the causes and effects was undeniable. In his own excavations on Cyprus he could once more establish the very same series of interventions by the frenzied elements of nature. He was so impressed by what he found that during the next few years he put into writing a voluminous work, *Stratigraphie comparée et chronologie de l'Asie occidentale (IIIe et IIe millénaires)*, published by Oxford University Press in 1948. In over six hundred pages supplemented by many tables, he presented his thesis.

Several times during the third and second millennia before the present era the ancient East was disturbed by stupendous catastrophes; he also found evidence that in the fourth, as well as in the first millennium, the ancient East went through great natural paroxysms, but their description Schaeffer reserved for future publications. In the published work covering the third and second millennia, Schaeffer discerned five or six great upheavals. The greatest of these took place at the very end of the Early Bronze, or the Old Kingdom in Egypt. At each of these occurrences, life was suddenly disturbed and the flow of history interrupted. Schaeffer also indicated that his acquaintance with European archaeology made him feel certain that Europe, too, was involved in those catastrophes; if so, they must have been more than continental—actually global in dimension.

Thus Schaeffer, like myself, came to the conviction that the ancient world was disturbed by repeated upheavals. We even arrived at the same number of

disturbances, a common realization of their grandiose nature, and the same relative dating of these events. However, we came to the same conclusions travelling by entirely different routes. In this there was a considerable assurance of our having closely approached the historical truth.

A reader unequipped to follow Schaeffer through his large and technical volume may well let the the last chapter (*Resume et Conclusion*) impress him by its questions and answers. In concluding his book Schaeffer epitomized: “Our inquiry has demonstrated that these repeated crises which opened and closed the principal periods . . . were caused not by the action of man. Far from it—because, compared with the vastness of these all-embracing crises and their profound effects, the exploits of conquerors and all combinations of state politics would appear only very insignificant. The philosophy of the history of antiquity of the East appears to us singularly deformed”—namely, by describing the past of nations and civilizations as the history of dynasties, rather than as a history of great ages, and by ignoring the role physical causes played in their sequence.

As to the chronology—in his printed work Schaeffer follows with certain reservations, the accepted timetable. In correspondence, however, he envisaged the possibility of shortening the Egyptian history, but not to the extent claimed in *Ages in Chaos*. Then how can we be in agreement as to the times of the catastrophes?

The answer lies in the fact that both of us relate these catastrophes to the termination of the (identical) great periods in history. In other words, we are in agreement as to the relative chronology, not the absolute one.

At the end of his long discourse, Schaeffer also made clear his stand even before he became aware of my work. He wrote: “The value of absolute dates adopted by us depends, understandably, to an extent on the degree of precision obtained in the field of study of the historic documents that can be used for chronology and that derive from those collected in Egypt, Palestine, Asia Minor, Mesopotamia, and Persia.”

Thus the absolute dates used in his work are dependent on chronology that in its turn depends on historical documents. But he adds: “On the other hand, thanks to the improvement of archaeological methods, today we no longer depend so completely on epigraphic documentation for an absolute chronology.”

I regard myself very fortunate that the task of presenting the archaeological evidence from the lands of the Middle and Near East was performed by a scholar of great stature, Claude F. A. Schaeffer. The almost superhuman enterprise of unravelling the manifold ramifications of the recent tribulations of this planet was not committed all to one scholar.





Celestial Events in the Iliad

The eighth century, starting with -776, was together with the beginning of the seventh a period of great natural upheavals. Populations migrated, partly to Asia Minor, and other populations descended from the north. The siege of Troy might therefore have been an effort of the Greeks to plant a foothold on the coast of Asia Minor. The true time of the events recounted in the Iliad was the second half of the eighth and the beginning of the seventh centuries before the present era.

In *Worlds in Collision* an effort was made to recognize in the description of *theomachy* and of the natural phenomena that accompanied the battle of the gods, the events that took place in the sky and on earth between -747 and -687.¹

The Trojan War was waged to the accompaniment of blows exchanged by the planetary gods—Earth (Hera), Moon (Aphrodite), Venus (Athene), Mars (Ares) and Jupiter (Zeus).

These celestial phenomena could not have taken place in the sky over Troy alone: the entire world had to witness the events, if they were not mere creations of the bard. That they were not can be deduced from the fact that these very events, witnessed in all parts of the world, are also described in sacred epics from Finland (*Kalevala*), Lapland and Iceland (*Edda*), from Mexico, Peru, India, the South Sea Islands, China and Japan, and, of course, by the poets and dramatists, annalists and astronomers, of the Near and Far East. It would require repeating close to two hundred pages of *Worlds in Collision*, actually the entire part II (Mars) of that book, should we desire here to evidence and illuminate this in some detail.

Perturbations in the celestial sphere, or Theomachy, in which Mars endangered the Earth at nearly regular intervals during this century, preoccupied the minds of men and repeatedly intervened in human history. Pestilence also broke out, and many references in the cuneiform literature ascribe its cause to Nergal (Mars). Earthquakes, overflowing, change of climate, evidenced by Klimasturz, did not spare a single land. These changes moved entire nations to migrations. Calendars were repeatedly thrown out of order and reformed—and the reader will find abundant material in the second part of *Worlds in Collision* and also in *Earth in Upheaval*, where no human testimony, but only the testimony of nature was presented; and this material could be multiplied by any dedicated researcher.

It appears, however, that in the Iliad Homer telescoped into a few weeks events that took place in the space of several decades. At least some of the events may be placed in a chronological order with the help of ancient Israelite sources: namely, on the day

when King Ahaz was interred the motion of the Earth was disturbed so that the Sun set before its appointed time;²

at the time of the destruction of Sennacherib's army in the days of Hezekiah, son of Ahaz, another disturbance occurred with the contrary effect: the Sun appeared to return several degrees to the east before proceeding on its regular westward path. It is asserted in the rabbinical literature that the second disturbance rectified the effects of the first—and this is also the meaning of the sentence in Isaiah 38:8: “So the sun returned ten degrees by which degrees it was gone down.”³

In Greek legendary tradition the first event took place in the days of the two brothers, Atreus and Thyestes, contesting the throne of Mycenae—when, according to Seneca, the Sun set earlier than usual.⁴

Yet a certain compression or amalgamating of two events, separated in time, must have taken place, for another version of the story tells of a reversal of the sun's motion. This version is recorded by Apollodorus and several other authors.⁵

The event described as the reversal of motion of the sun took place, as illuminated *Worlds in Collision*, on March 23rd, -687.⁶

The fixing of the event to the early spring of -687 is made on the strength of the information from Hebrew sources that the event took place on the night of Passover, during the second campaign of Sennacherib against Judah, the ninth campaign of his reign. The exact date for the last of this series of catastrophes⁷ is provided by the records of the astronomical observations of the Chinese, where we learn that in the year -687, on the 23rd of March, “during the night the fixed stars did not appear, though the sky was clear. In the middle of the night stars fell like rain.”⁸

This date is also confirmed by Roman sources—Romulus found his end during a celestial-terrestrial catastrophe connected with the planet Mars:

Both the poles shook, and Atlas lifted the burden of the sky . . . The sun vanished and rising clouds obscured the heaven . . . the sky was riven by shooting flames. The people fled and the king [Romulus] upon his father's [Mars'] steeds soared to the stars.⁹

Romulus was a contemporary of Hezekiah;¹⁰ and the 23rd of March was the most important day in the Roman cult of Mars.¹¹

We must not forget that the Romans and the Greeks worshipped their gods *in* the planets, not as gods *of* the planets. Invocations to the gods, such as the Homeric

Hymn to Ares (Mars) are addressed directly to the planet as an astral power.¹²

The siege of Troy under Agamemnon followed by less than one generation the natural disturbances of the days of his father Atreus, when this king of Mycenae competed with his brother Thyestes for the crown of the realm and the Sun was disrupted in its motion.

Atreus and Thyestes, being contemporaries of Ahaz and Hezekiah, and Agamemnon, son of Atreus, a contemporary of the latter king of Jerusalem, it seems that the time in which the drama of the Iliad was set was the second half of the eighth century, and not later than -687;¹³ yet the poet condensed the events separated by decades into the tenth year of the Trojan siege, the time of the Iliad's action.¹⁴

Thus we come to realize that it was a rather late time; clearly Homer could not have lived before the events he described; and therefore Homer's time cannot be any earlier than the end of the eighth century. But more probably he wrote several decades after the Trojan War, when the events of the war had become enveloped in a veil due to a certain remoteness in time, and obtained a halo of heroic, god-like exploits. The Odyssey, describing the wanderings of Odysseus after the Trojan War, requires, too, a distancing between the poet and the Trojan War, on the assumption that both Homeric poems were the product of one author. If not of one, then we must assume that two poets of unique genius lived close in time to one another.

Placed in its true time, the Trojan War may obtain some historical plausibility; and, as we have seen, its mythological parts also serve, instead of obfuscation, to the elucidation of some complex chronological problems. With *theomachy* displayed on the celestial screen, the story in the Iliad gains, rather than loses, its historical validity.

References

1. See *Worlds in Collision*, section "When Was the Iliad Created?"
2. Tractate Sanhedrin 96a; Pirkei Rabbi Elieser 52. Cf. L. Ginzberg, *The Legends of the Jews*, (Philadelphia, 1929) vol. VI, p. 367, n. 81.
3. Cf. II Kings 20:9ff.; Hippolytus on Isaiah, and sources cited above, fn. 1.
4. Seneca, *Thyestes*: "Not yet does Vesper, twilight's messenger, summon the fires of night . . . the ploughman with oxen yet unwearied stands amazed at his supper hour's quick coming."
[Cf. Plato *The Statesman* 269a.]
5. Apollodorus, Bk. II, ch. xii; cf. scholium to the Iliad II.106; Euripides, *Electra* 699-730; *Orestes* 996-1012; Plato, *The Statesman* 268e.
6. See *Worlds in Collision*, section "March 23rd." [See also Iliad II 413ff. where an expected delay in the setting of the Sun during the siege of Troy is mentioned.]

7. The other dates are -747, and -701; -776 is also connected with celestial events between Venus and Mars that did not, however, directly affect the Earth. See *Worlds in Collision*, p.
8. E. Biot, *Catalogue general des étoiles filantes et des autres meteors observés en Chine après le VIIe siècle avant J.C.* (Paris, 1846). The statement is based on old Chinese sources ascribed to Confucius. “The night was bright” adds the Tso Chuen commentary (J. Legge, *The Chinese Classics* vol. 15, p. 80).
9. Ovid, *Fasti*, transl. by J. Frazer, Vol. II, lines 489ff.
10. Augustine, *The City of God*, Bk. XVIII, Chap. 27.
11. W. W. Fowler, “Mars” in *Encyclopaedia Britannica*, 14th ed.
12. W. H. Roscher, *Ausführliches Lexikon der griechischen und römischen Mythologie*, s.v. “Ares.”
13. If to harmonize the involved chronological problems the debacle of Sennacherib’s army needs to be placed fifteen years earlier (not in -687 but in -701), and the first invasion in -715, and the beginning of Hezekiah’s reign in -729, then I would need to change the date for the last global catastrophe from -687 to -701 or -702. [See also *Worlds in Collision*, pp. 245-253. “. . . The time of the birth of the Iliad must be lowered to -747 at least, and probably to an even later date.”]
14. At least two conjunctions between Venus and Mars are described in the Iliad, in the Fifth and Twenty-first Books. See *Worlds in Collision*, pp. 252f.





Changes in Land and Sea

The celestial phenomena that pervade the narrative of the Iliad and even dominate it in books five, twenty and twenty-one, were accompanied also by terrestrial changes—Earth, called Hera, participated in the strife among the gods. In the Iliad these terrestrial disturbances are narrated too: earthquakes shook the Trojan plain amid the battle of the celestial gods.

Then terribly thundered the father of the gods and men from on high; and beneath did Poseidon cause the vast earth to quake and the steep crests of the mountains. All the roots of many-fountained Ida were shaken and all her peaks, and the city of the Trojans, and the ships of the Achaeans. And seized with fear in the world below was Aidoneus, lord of the shades . . . Lest above him the earth be cloven by Poseidon, the Shaker of the Earth, and his abode be made plain to view for mortals and immortals . . . So great was the din that arose when the gods clashed in strife.¹

Strabo of the first century before the present era and Pliny of the first century of this era were well aware of the physical changes that the area of western Asia Minor and of the Aegean islands did undergo. Some of these changes are ascribed to the time of the Trojan War or the time closely preceding or following it; but others may refer to earlier upheavals.²

Strabo cited Democles “who recalls certain great earthquakes some of which long ago took place about Lydia and Ionia as far north as the Troad, and by their action not only were villages swallowed up, but Mount Sipylus was shattered—in the reign of Tantalus. And lakes arose from swamps, and a tidal wave submerged the Troad.”³

Pliny described the changes in land and sea distribution. “Land is sometimes formed . . . rising suddenly out of the sea. Delos and Rhodes, islands which have now been long famous, are recorded to have risen up in this way. More lately there have been some smaller islands formed,” and he names them: Anapha, Nea, Halone, Thera, Therasia,⁴ Hieria, and Thia, the last of which appeared in his own time.⁵

Pindar said that “the isle of Rhodes was not yet to be seen in the open main, but was hidden in the briny depths of the sea” ; then it was born in the darkness—the sun was absent. When the sun finally lighted the earth again, a plot of land was seen “rising from the bottom of the foaming main.”⁶

Under the heading *Lands Which Have Been Separated by the Sea* Pliny mentions:

“The sea has torn Sicily from Italy,⁷ Cyprus from Syria, Euboea from Boeotia,” and other similar instances.

Under the heading *Islands Which Have Been United to the Main Land* Pliny mentions Antissa which was added to Lesbos, Zephyrium to Halicarnassus, and the like in other places.

Lands Which Have Been Totally Changed Into Seas: the sea has totally carried off certain lands, and first of all, if we are to believe Plato, for an immense space where the Atlantic Ocean is now extended. More lately we see what has been produced by our inland sea; Acarnania has been overwhelmed by the Ambracian Gulf, Achaia by the Corinthian, Europe and Asia by the Propontis and Pontus. And besides these, the sea has rent asunder Leucas, Antirrhium, the Hellespont and the two Bospori.”⁸

Pliny tells about *Cities Which Have Been Absorbed by the Sea:* Pyrrha and Antissa, Elice and Bura [on the Gulf of Corinth]⁹ from the island of Cea the sea suddenly tore off 30,000 paces “with many persons on them.” In like manner it carried off Eleusina in Boeotia, and half of the city of Tyndaris in Sicily.

And not to speak of bays and gulfs, the earth feeds on itself: it has devoured the very high mountain of Cybotus with the town of the Curites; also Sipylus in Magnesia, and formerly in the same place, a very celebrated city, which was called Tantalus.¹⁰

These descriptions by Pliny have corroborating references in other classical authors.¹¹

Minor changes they were not: the Bosphorus tearing Asia apart from Europe, like the breaking of the Mediterranean into the Ocean at Gibraltar were major changes. Smaller changes where single cities were engulfed or isles born could have been the after-effects of the cataclysms, which for hundreds of years still agitated the distorted strata of the earth; even today they have not completely subsided. Some of these changes occurred earlier and some later, but for the most part they occurred in historical times; the memory of them survived, and the same testimony comes from all quarters of the globe.

In the effort to regard the fantastic events in the sky as pure invention or flights of poetic imagination, the terrestrial changes described by Homer were also kept out of the discussion. Actually, Carl Blegen rejected Wilhelm Doerpfeld’s identification of Troy VI with the Troy of the siege because he found that the walls and structures of Troy VI had been destroyed by an earthquake apparently oblivious of the fact that the

Iliad contains a description of an earthquake at the final stage of the siege.¹²

Thus Blegen became besieged by contradictions, derived from misinterpreting the Iliad and from following an erroneous chronology as well. To the confusion of the Furtwängler-Dörpfeld debate,¹³ a misreading of the Iliad brought more confusion, and made the tragedy complete.

References

1. *The Iliad*, transl. by A. T. Murray (1925), Bk. XX.56-67.
2. [For geological and archaeological evidence, see I. Velikovsky, *Earth in Upheaval* (New York, 1955). Cf. Claude F. A. Schaeffer, *Stratigraphie Comparée* (Cambridge, 1949). See also above, "[Seismology and Chronology](#)."]]
3. Strabo, *Geography*, transl. by H. L. Jones (1949), I. 3. 17; [Tantalus' reign is traditionally placed two generations before Atreus and Thyestes i.e., three generations before Agamemnon. Strabo goes on to tell of many other changes that occurred in the region of the Mediterranean, among them the opening up of the strait at the Pillars of Heracles, or Gibraltar.]]
4. [The story of Thera and Therasia is told at greater length by Strabo: "For midway between Thera and Therasia fires broke forth from the sea and continued for four days, so that the whole sea boiled and blazed, and the fires cast up an island which was gradually elevated as though by levers and consisted of burning masses—an island with a stretch of twelve stadia in circumference. After the cessation of the eruption, the Rhodians, at the time of their marine supremacy, were first to venture upon the scene. . . ."—*Geography* I.3.16. On the great volcanic eruption on Thera in Late Minoan times, cf. the bibliography collected by S. Hiller, "Die Explosion des Vulkans von Thera," *Gymnasium* 82 (1975), pp. 32-74.]]
5. Pliny, *Natural History*, transl. by J. Bostock and H.T. Riley (London, 1853), II.89.
6. Pindar, "Seventh Olympian Ode," transl. by J. E. Sandys (Loeb Classical Library, 1919).
7. [Diodorus Siculus IV. 85: "Some say that great earthquakes occurred, which broke through the neck of the land and formed the straits [of Messina], the sea parting the mainland from the island." Cf. also Ovid, *Metamorphoses* XV, 290-91; Seneca, *Quaestiones Naturales* VI. 29.]]
8. Pliny, *Natural History* II. 94.
9. Cf. Strabo, *Geography* I.3.18; Pausanias II.25; Aristotle, *Meteorologica* I.6, II.8; Diodorus XV.49; Seneca, *Quaestiones Naturales* VI.23,26; VII.5,16.
10. Pliny, *Natural History* II. 93.
11. Cf. in addition to the works cited above Lucretius, *De Rerum Natura* Bk. VI *passim*, Ovid, *Metamorphoses* Bk. XV.
12. C. W. Blegen et al., *Troy, Settlements VIIa, VIIb and VIII*, vol. IV (Princeton,

1958).

13. See above, section "[Olympia.](#)"





A Gap Closed

A chronology with centuries that never occurred made necessary the introduction of “Dark Ages” between the years -1100 and -750 in many areas of the ancient world; these upper and lower figures are already pulled together on the chronological timetable, and still some 400 years are unaccounted for—thus it is spoken of the “mysterious spell of Dark Ages.”¹

But when the hinges of history are fastened at correct levels the ghost centuries vanish and the chasm is shown to be imaginary.

Yet it cannot be denied that there was some interruption between the Late Bronze and Early Iron Ages in Greece and elsewhere; no smooth and evolutionary transition took place from the Mycenaean to the Ionian Age. There were great migrations in the eighth century and in the first part of the seventh. What kind of interruption, then, occurred in the entire ancient East?

In his book *Discontinuity in Greek Civilization*, (1966) Rhys Carpenter stands before observations made by a number of investigators in the archaeology of Greece and the Helladic islands and, after reviewing the evidence on the mainland in its various regions and on the islands, one by one, he comes to the conclusion:

“Despite the fact that there is no indication that the late Myceneans were driven out by any human intervention, they abandoned the south Aegean islands even as they deserted the central Peloponnese. For some reason and for some cause over which they had no control they found life in Greece and in the southern Aegean so unendurable that they could not remain.”²

And Carpenter asks: “What caused them to evacuate their towns and villages?” From here on he gropes in the dark and asks, was it a pestilence or a famine, was it a change of climate? and he continues: “In the seventh book of his *History* Herodotus recounts that Crete was so beset by famine and pestilence after the Trojan War that it became virtually uninhabited until its resettlement by later inhabitants. Could Herodotus by any chance have had access to a true tradition?”³

There is a rather vague reference to the Dorian wandering: the Dorians migrated from Thrace and, moving presumably along the Adriatic coast, crossed into the Peloponnese and occupied Sparta, becoming the progenitors of this severe and puritan tribe. In the absence of any other known cause for the cessation of the Mycenaean world, the Dorian invasion was considered as the most probable. But the

Minoan civilization on Crete, which in the later stage showed much affinity with the Mycenaean, was also terminated; and the Dorian invasion was made to continue over the sea to Crete.

It was not the Dorians who dispossessed the original population of eastern and central Greece: “The Dorian Greeks,” writes Carpenter, “seem to have moved into a depopulated land.” (p. 16) “...The Dorians had nothing whatever to do with the collapse of Mycenaean civilization, since they did not enter the Peloponnese until long after the collapse had already taken place.”⁴ It was some natural event: “A ‘time of trouble’ was occasioned by climatic causes that brought persistent drought with its attendant famine to most mainland Greece; and it was this unbelievable condition of their native abode that forced the Mycenaeans to emigrate, ending their century-long prosperity.” But was there any specific cause for the climatic change?

Carpenter surveys the available evidence: G. Welter, in a monograph on the island of Aegina, maintains that it became uninhabited after the Mycenaean Age. V. R. d’A. Desborough holds that the island of Melos had been abandoned by its Mycenaean inhabitants. Discussing the island of Kos, Desborough “was puzzled at finding ‘no clue as to the cause of its final desertion’ in Late Mycenaean times.” There must have been some serious disaster, ‘he decides. . .’ It can hardly be supposed that there was a complete depopulation, and yet there is no clear evidence of continuity into the Protogeometric period.”⁵

Carpenter stresses here, too, “a definite instance of interruption of cultural continuity.”⁶

In his search for climatic changes and physical upheavals Carpenter comes to cite three cases, during the Libyan and Ethiopian dynasties in Egypt, when unseasonal and excessive flooding took place in Egypt: in the eighth century, under the Libyan king Osorkon II, the Nile rose, breaking all the dykes;⁷ in the days of Shabaka, the Delta was repeatedly flooded and earth was heaped against the towns to protect them;⁸ and in the sixth year of Taharka, “the land was like the sea.”⁹

But how could these instances in Egypt of the eighth and early seventh centuries help to understand what happened in Greece at the end of the Mycenaean Age if this end occurred shortly after -1200?

Carpenter goes on:

Even more spectacular, but somewhat insecure chronologically, is the inference from circumstantial evidence that the Hungarian plain, an immense tract of comparatively low-lying land in which a number of large rivers converge, must have become almost totally submerged early in the first millennium B.C. How else shall we explain the fact

that the rich and active phase of the Hungarian Bronze Age known to archaeologists as Bronze IV and dated by Alberg as lasting from about 1000 to about 850 B.C. (the drought period in Greece!) met, in Alberg's words, 'an unexpected and sudden end... after which the country is without any discoverable sign of occupation and seems deserted'?¹⁰

The words in Carpenter's preface to his 1966 book reveal that were he to follow Plato, quoted by him, he would have been led to the realizations familiar to readers of *Worlds in Collision* and *Earth in Upheaval*. I quote from Plato's *Timaeus* in Carpenter's translation. The speaker is an Egyptian priest and the listener is Solon, one of the Seven Wise Men of antiquity.

. . . All this, though told in mythic guise, is true, inasmuch as a deviation of the celestial bodies moving past the earth does, at long intervals, cause destruction of earthly things through burning heat. . .

So this is the reason why among us here oldest traditions still prevail and whenever anything great or glorious or otherwise noteworthy occurs, it is written down and preserved in our temples; whereas among you and other nations that chance to be but recently endowed with the art of writing and civilized needs, at stated turn of years there has recurred like a plague brought down upon you a celestial current, leaving only an unlettered and uncivilized remnant; wherefore you have to begin all over again, like children, without knowledge of what has taken place in older times either in our land or in yours. . . .¹¹

As set forth at great length in *Worlds in Collision*, part II, the world in the eighth and seventh centuries before the present era was going through a series of natural catastrophes, with frightening apparitions in the sky, disturbances in the position and direction of the terrestrial axis, drastic changes in climate, and subsequent mass movements of populations. The Cimmerians descended from Russia into Asia Minor and engulfed the Phrygian kingdom. Dorians presumably reached Crete, Latins were pushed from their homeland into Italy by newly arrived tribes—these were only a few of the migrating hordes that then moved in many directions all around the globe. The Minoan civilization of Crete did not succumb to the Dorians; it succumbed to the ravages of nature, and if the Dorians reached the devastated island, it was only because in desperation they looked for any room to move into, and there was nobody able or willing to defend the island from invaders.

Digging on Crete Arthur Evans arrived at the conclusion that each of the various stages of civilization on the island had come to its end in enormous natural paroxysms until the last of the stages found its end in the overturned palaces and

cities, not to be rebuilt again.¹²

The interruptions in the flow of Minoan civilization had baffled Evans until the day when he experienced an earthquake on Crete. Now he understood the nature of the agent of the destruction that he observed in the ruins of the palaces: the agent was not an enemy reaching the island; and from that moment Evans filled his volumes on Knossos (*The Palace of Minos*) with the evidence of seismic catastrophes that terminated the great ages of Minoan civilization.¹³

Spyridon Marinatos detected a devastation ascribed by him to an overwhelming wave coming from the north and sweeping over the mountainous island and carrying also ashes of volcanic eruptions.¹⁴ “A normal earthquake, however, is wholly insufficient to explain so great a disaster.”¹⁵

That climate changed, and repeatedly so, between the eighth and seventh centuries is well documented, and since the works of the Scandinavian scientists A. Blytt, R. Sernander¹⁶ and others, and also of H. Gams and R. Nordhagen¹⁷ of Germany, no effort needs to be spent to prove the point anew. The change was global, as the work of Helmut de Terra in Mexico¹⁸ and the inquiry of C. E. P. Brooks and F. E. Zeuner¹⁹ amply document. Of the changes in nature many eloquent descriptions were left by their contemporaries, by Assyrian annalists and Hebrew prophets, and also in many other documents of the literate peoples of the world.

Migrations were the consequences of destruction of domiciles, subsequent plagues, and of changes in climate that made agricultural experience dependent on former climates inapplicable. The climate in Europe that changed in the eighth century to dry and warm changed soon again to wet and cold.²⁰ This double change is documented equally well in the New World (Helmut de Terra).²¹

The upheavals of nature continued through the major part of the eighth century and climaxed in the last great cosmic disturbance which I was able to date on March 23rd, -687.²²

The Mycenaean age came to its end in the catastrophic events of the eighth and seventh centuries—thus there were no Dark Ages between the Mycenaean Age and the Greek or Ionian Age. Whether the catastrophic changes that accompanied and followed these upheavals were by themselves enough to cause the end of the Mycenaean Age, or whether the migrations and invasions contributed, the great Mycenaean age came to its close not before the eighth century was over. There were no dark ages in between.

Certain changes did take place between the end of the Mycenaean and the beginning of the Ionian ages—but they are better understood not by assuming four or five

hundred intervening dark years, but by the very fact of dislocations created by catastrophes. Cities with their palaces crumbled; surviving populations migrated and were partly replaced by new settlers—in the case of Greece by the Dorian invaders, the returning Heraclid Greeks who at an earlier date had migrated northward.

These upheavals of nature were responsible for the break in continuity that is found in Greece, in Asia Minor and in many other places. There was a disruption in occupation of lands and a discontinuity in civilizations. But there were no Dark Ages and the four centuries inserted between the Mycenaean and Greek periods are unreal. Thus we have the explanation of the fact that so much in common is found in the late Mycenaean and early Greek ages, and also an explanation of the fact that no literary relics and scarcely any archaeological ones are found from the four or five centuries of the presumed Dark Ages, and yet that, on the other hand, there *was* some break in continuity.

References

1. M. J. Mellink, "Archaeology in Asia Minor," *Journal of American Archaeology* vol 63, no. 1 (January, 1959).
2. R. Carpenter, *The Discontinuity in Greek Civilization*, (Cambridge University Press, 1966), p. 58.
3. *Ibid.*, p. 59; Herodotus VII. 171.
4. P. 52. [V. R. d'A. Desborough emphasizes that the abandoned sites were not occupied by any other race: "Nowhere is there any evidence of settlement by new peoples." This fact "has very serious consequences for the traditional conception of the Dorian invasion." See *The Last Mycenaeans and Their Successors* (London, 1964), pp. 251-252. Cf. idem, "History and Archaeology in the Last Century of the Mycenaean Age," *Incunabula Graeca* XXV.3 (1968), pp. 1076-77; E. Vermeule, "The Decline and End of Minoan and Mycenaean Culture" in *A Land Called Crete* (Northampton, Mass., 1967), p. 86; A. Andrewes, *The Greeks* (London, 1967), p. 33.]
5. Carpenter, *Discontinuity in Greek Civilization*, p. 58; Desborough, *The Last Mycenaeans and Their Successors*, pp. 157-58..
6. Carpenter, loc. cit.
7. *Ibid.*, p. 72. [J. R. Breasted, *The Ancient Records of Egypt*, (Chicago, 1906), IV, Sec. 743. Cf. J. Vandier, *La famine dans l'Egypte ancienne* (1936), p. 123. The date of this inundation, calculated by Carpenter, is -776, the very year assigned to the first Olympiad; however, the basis of this calculation is the accepted chronology of the Libyan Dynasty, which is questionable. The description of the inundation may actually refer to a later upheaval.]
8. Carpenter, loc. cit.; Herodotus (II. 137) describes the construction of massive earthworks during the reign of Sabacon (Shabaka); these were evidently flood control measures.
9. Carpenter, loc. cit.; cf. the Coptos Stele of Taharka in V. Vikentiev, *La haute crue du Nil et l'averse de l'an 6 du roi Taharqa* (Cairo, 1930).

10. Carpenter, *Discontinuity*, p. 74.
 11. Carpenter, *Discontinuity*, p. vii; the quoted passages are from *Timaeus* 22 C-D and 23 A-B; cf. *Worlds in Collision*, section “Phaethon.”
 12. Evans, *The Palace of Minos at Knossos* (1921-1935); cf. *Earth in Upheaval*, section “Crete.”
 13. *Earth in Upheaval*, section “Crete.”
 14. Marinatos, “The Volcanic Destruction of Minoan Crete,” *Antiquity* XIII (1939), pp. 425ff. [For a review of the extensive literature, cf. Hiller, “Die Explosion des Vulkans von Thera,” *Gymnasium* 82 (1975), pp 32-74. L. Pomerance has suggested that the collapse of Thera and the resulting tsunami devastated not only Crete, but the entire East Mediterranean basin at the end of the Late Helladic IIIB ceramic phase—*The Final Collapse of Santorini (Thera)*, *Studies in Mediterranean Archaeology* vol. XXVI (Göteborg, 1970).]
 15. Marinatos, “The Volcanic Destruction of Minoan Crete,” p. 429.
 16. R. Sernander, “Klimaverschlechterung, Postglaziale” in *Reallexikon der Vorgeschichte* ed. Max Ebert, VII (1926).
 17. “Postglaziale Klimaänderungen und Erdkrustenbewegungen in Mitteleuropa,” *Mitteilungen der geographischen Gesellschaft in Muenchen*, vol. XVI, no.2 (1923), pp. 13-348.
 18. *Man and Mammoth in Mexico* (London, 1957).
 19. Brooks, *Climate through the Ages* 2nd edition (New York, 1949); Zeuner, *The Pleistocene Period* (London, 1945).
 20. [Carpenter dated the change to a dry climate to before -1200; he posited “a northward shift of the Saharan drought zone into southern Europe,” (p. 10) with the resulting famine causing the abandonment of large areas, no longer able to sustain the large populations characteristic of late Mycenaean times. The shift was reversed, in his view, in the eighth century, with the return of a wet climate. Carpenter’s inability to explain the cause of these shifts has invalidated his thesis in the eyes of many of his colleagues—cf. H. E. Wright, “Climatic Change in Mycenaean Greece,” *Antiquity* 42 (1968), p. 126. For a recent review of the physical evidence for Carpenter’s thesis, see R. A. Bryson, H. H. Lamb and D. L. Donley, “Drought and the Decline of Mycenae” in *Antiquity* 48 (1974), pp. 46-50. Cf. P. Betancourt, “The End of the Greek Bronze Age,” *Antiquity* 50 (1976), pp. 40-45. Cf. also J. Camp, “A Drought in the Late Eighth Century B.C.” in *Hesperia* 48 (1979). The shifts in the Earth’s climatic zones, if real, would have been a direct consequence of shifts in the inclination of the terrestrial axis in the eighth and early seventh centuries, as documented in *Worlds in Collision* (esp. sections “Poles Uprooted” and “A Hemisphere Travels Southward”) and in *Earth in Upheaval*.]
 21. *Man and Mammoth in Mexico*, p. 76.
 22. *Worlds in Collision*, section “March 23rd.”
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Competing for a Greater Antiquity

The date of Trojan War is traditionally placed in the beginning of the twelfth century before the present era: this tradition goes back to Eratosthenes, a Greek scholar in the employ of Ptolemy III Euergetes in the third pre-Christian century. He calculated that the last year of the ten-year-long siege of Troy fell in the year that in the modern calendar corresponds to -1183.¹

This date is still upheld today by many scholars—a very unusual case of adherence to a chronological computation made over twenty-two centuries ago, and dealing with an event presumably nine hundred years earlier.² In antiquity some other, differing calculations were made, too,³ but that of Eratosthenes survived until our time as the conventional date of Troy's fall. Only in recent years has a trend showed itself among the Homeric scholars to remove the date in question by a few decades into the past⁴—into the thirteenth century: with the chronological scheme arranged according to the timetable of Egyptian history, certain advantages were seen in moving the Trojan War to greater antiquity than the inroad of the Peoples of the Sea into Egypt, computed to have taken place in -1174.⁵ Eratosthenes, however, did not connect in any way the events that took place in the days of Ramses III with the Trojan expedition.

Was there any special intent in Eratosthenes' effort to place the Trojan War more than nine centuries before his own time? If his motive was to prove that the Greeks were an ancient nation, then his reasoning should be viewed as tendentious. This is, in fact, the case.

When the Greeks under the leadership of Alexander of Macedon subjugated Mesopotamia and Egypt, and soon thereafter established there Greek dynasties of Seleucus and Ptolemy, and introduced the Greek language and Hellenistic civilization, the erudites in what was once Babylonia and equally so in Egypt felt an urge to prove to their conquerors that they, the conquered, belonged to cultures more exalted, because more ancient. Berosus, a Chaldean priest who flourished in Babylon in the first part of the third century, wrote his famed *Babyloniaca*, or, us History of Babylonia and Chaldea, and in it he stretched the history of his land and nation to a gargantuan length. In order to do so he ascribed unnatural lengths of reign to earlier kings and also invented kings (his list largely disagrees with the cuneiform king-lists).⁶

Manetho—a Greek-writing Egyptian, and a contemporary of Berosus—composed

under Ptolemy II Philadelphus the story of his nation, and a few passages from it are preserved by Josephus; his genealogies of kings and dynasties are preserved in the writings of the Fathers of the Church, Pamphilius, Eusebius, and Julius Africanus.⁷

The regnal years ascribed to single Manethonian dynasties (30 in number until shortly before the arrival of Alexander in Egypt) are excessively long: kings are often invented—no monumental confirmation of the existence of many of them was ever found; complete dynasties were invented by him, too. Like Berosus, Manetho tried to impress the Greek masters with the fact that his nation was already ancient when the Greeks only began to emerge from their barbarous state.

Such an attitude toward the Greeks was already expressed almost three centuries earlier in the narrative of the priest of Sais to Solon as told in the *Timaeus* by Plato. Because of written records stored in their temples, the Egyptians were aware of the past of their land, “so this is why among us here oldest traditions still prevail, and whenever anything great or otherwise noteworthy occurs, it is written down and preserved in our temples, . . . [but] you and other nations that chance to be but recently endowed with the art of writing and civilized needs at stated turn of years there has recurred like a plague brought down upon you, a celestial current, leaving only an unlettered and uncivilized remnant, wherefore you have to begin all over again like children, without knowledge of what has taken place in older times in our land or in yours. . . .”⁸

The same pride in the antiquity of the nation is found also in the narrative of another priest of Sais, a hundred years later, who gave the following account to Herodotus: From their first king until Sethos, the king-priest who was about to meet Sennacherib in battle when the latter’s host was destroyed by a natural cause, 341 generations passed. Calculating three generations to a century, Herodotus found that it would comprise 11,340 years⁹—quite a long time if we should consider that from the foundation of Rome to the present day not even a quarter of such time has passed.

When the Egyptians came under foreign domination they experienced an even greater need to impress their masters with the excellence of their culture and its duration, in order not to be counted as barbarians; they wished to provoke and sustain a feeling of admiration on the part of the subjugators. Such claims could produce in the Greeks a feeling of their own inadequacy and inferiority—they had, since their first contacts with the Egyptians, developed for them a feeling of respect bordering on awe, whereas to the Persians, despite the magnificence of their court and bearing, the Greeks applied the name “barbarians.” With excessive claims as to national antiquity the orientals were combatting their own feelings of shortcomings as politically subordinate nations.¹⁰

Eratosthenes was a contemporary of Manetho and Berosus. Born in Cyrenaica, he was of Greek origin. In his calculations of the time of the Trojan War he was evidently guided by the same motive as Berosus and Manetho, namely, to show the

antiquity of his nation; the date of -1183 for the end of the Trojan War served that purpose.¹¹

The “Dark Age” inserted between the Mycenaean and Ionic ages originated in the old calculations performed by Eratosthenes as to the time of the Trojan War, and on the reliance of modern historians of Greece on Egyptian chronology and order of dynasties as offered by Manetho; both them lived in Egypt in the Ptolemaic age in the third century before the present era. It is not excluded that Eratosthenes based himself on Manetho.¹²

However, neither Eratosthenes, nor before him Homer, nor any other Greek historian or philosopher ever referred to such a Dark Age;¹³ it is a creation of modern historians. But they found support for its historical existence in the Egyptian chronology built on Manetho’s list of dynasties—the Mycenaean Age was dated by the archaeologically documented contacts of Mycenaean sites with Egypt. Thus Eratosthenes found support in Manetho and Manetho in Eratosthenes.¹⁴

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1. Eusebius, *Chronicle* in Eusebius, *Werke* (Leipzig, 1913), vol. VII, p. 60. Cf. J. Forsdyke, *Greece Before Homer* (London, 1956) pp. 28ff.
2. [A. R. Burn, *Minoans, Philistines, and Greeks: B.C. 1400-900* (London, 1930) pp. 52-54: “It cannot be too strongly emphasized that the traditional date of the Trojan War, 1194-84, adopted by Eratosthenes and more or less tentatively accepted in so many modern books, is absolutely worthless” being based on Eratosthenes’ “wild overestimate of the average length of a generation.” Cf. idem, “Dates in Early Greek History,” *Journal of Hellenic Studies* 55 (1935) pp. 130-146. Cf. also D. Page, *History and the Homeric Iliad* (University of California Press, 1959) p. 96, n. 159: ” (the date) given by Eratosthenes is nothing but a guess proceeding from flimsy premises which could not possibly have led to a scientific calculation.” Another writer adds: “sober historical judgement must discard the ancient chronological schemes *in toto*; they are nothing more than elaborate harmonizations of myths and legends which were known in later times and have no independent value whatever for historical purposes.” (G. Starr, *The Origins of Greek civilization: 1100-650 B.C.* (New York, 1961) p. 67.)
3. Herodotus, for instance, put the Trojan War a little more than 800 years before his time, or ca. -1250. Appian dated it after the founding of Rome, traditionally put at -753 or -747.
4. C. Blegen et al., *Troy*, vol. IV (1958) pp. 10-13 and idem, “The Mycenaean Age. The Trojan War, the Dorian Invasion, and Other Problems,” *Lectures in Memory of Louise Taft Semple* (Princeton, 1967) p. 31. Cf. also G. Mylonas, *Mycenae and the Mycenaean Age* (Princeton, 1966) p. 215.
5. See I. Velikovsky, *Peoples of the Sea*, (Doubleday: New York, 1977).

6. P. Schnabel, "Die babylonische Chronologie in Berossos Babyloniaca," *Mitteilungen, Vorderasiatisch-ägyptische Gesellschaft* (1908). See also F. Cornelius, *Berosus und die Altorientalische Chronologie*, *KLIO* 35 (1942) pp. 1ff.
7. See the volume *Manetho* in the Loeb Classical Library.
8. Transl. by Rhys Carpenter in *Discontinuity in Greek Civilization* (Cambridge University Press, 1966) p. vii.
9. Herodotus II. 142.
10. Isaac Newton (*The Chronologyes of Ancient Kingdoms Amended*, [London, 1728]) recognized this hidden intent of Berossus and Manetho and therefore refused to give them credence as chronographers. Cf. Frank Manuel, *Isaac Newton, Historian* (Harvard University Press, 1963).
11. [Eratosthenes allegedly relied on the Spartan king-lists to establish his chronology; in part he may have been influenced also by Manetho. But since the date he gives is identical to that computed by Ctesias, it is acknowledged that it was Ctesias' writings which actually formed the basis of Eratosthenes' system. Since antiquity scholars have questioned the reliability of Ctesias. Cf. the opinion of Plutarch in his *Life of Artaxerxes*; also Forsdyke, *Greece Before Homer*, pp. 68-79.]
12. [Eratosthenes became librarian of the Library of Alexandria in -240, and must have had access to Manetho's writings.]
13. V. R. d'A. Desborough, *The Greek Dark Ages* (London, 1972) p. 321; A. M. Snodgrass, *The Dark Age of Greece* (Edinburgh, 1971) pp. 1-21.
14. [As early as the fifth century, writers like Hekataeus and Herodotus (II.145) put the Trojan War into the 14th-12th centuries—they, too, were misled by the Egyptians. See for example the above-mentioned story told to Herodotus by a priest of Sais.]





Summing Up

Having started on a journey that first took us to Mycenae, but then also to Tiryns, Olympia, Pylos and a number of other ancient sites on the mainland of Greece and the Peloponnesos, also on Crete, Cyprus, the Troad and the interior of Asia Minor, we found at all sites one and the same embarrassing problem: close to five hundred years between conflicting evidences or discordant views. The list of archaeological sites discussed could be enlarged to encompass almost every excavated place in the area, with hardly any of them standing a chance of escaping the very same perplexing state of affairs.¹

What I call here “the perplexing state of affairs” often took the form of a dispute—to which of the two ages, separated by nearly half a millennium, does a stratum, a building, or a tomb belong? The holders of conflicting views are usually at equal disadvantage in meeting archaeological facts that, with the conventional chronological scheme not questioned, point simultaneously to two widely separated ages. Was Tiryns’ palace rebuilt in the Mycenaean or in the Ionic Age—in other words, in the Bronze Age or in the Iron Age? And if the first alternative is selected, how could it be that for almost five hundred years the building lay abandoned, unoccupied by any of the twenty intermediate generations, since they left nothing of their own, no relic whatsoever? The alternative situation is equally beset with perplexing evidence.

Are the Mycenaean lions, carved in the peculiar position of standing erect on their hind legs facing a pillar that divides them, contemporary with similar Phrygian monumental sculptures, and if not, how does one explain the many centuries’ gap? How is it that the wall of the Phrygian Gate at Gordion is built like that of Troy VI, if some five hundred years separate them? In what way does one explain the affinity of Mycenaean art of the pre-twelfth century with the art of Scythia, the Danubian region, and Etruria of the eighth and seventh centuries? Was the great strife between Furtwaengler and Doerpfeld ever resolved? Because two timetables are applied simultaneously to the past of Greece, a clash of opinions is almost inevitable.

How is it that Greece and the entire Aegean area of the Mycenaean Age suddenly became depopulated, with scarcely any traces of human activity surviving? And if such was the case, how is it that so many details of Mycenaean life, habits and armaments were well known to Homer who knew equally well the life, habits, and armaments of the eighth and seventh century, though a Dark Age of several centuries’ duration intervened?

When the decipherment of the Mycenaean Linear B script, to the surprise of many

Hellenist scholars proved the language to be Greek, the so-called Homeric problem did not approach a solution but, contrariwise, grew more urgent, more enigmatic, more perplexing. The historians were startled because the Minoan-Mycenaean inscriptions are ascribed by them at the latest to the twelfth century, and the earliest Greek texts were of the eighth century. How could a people that was already literate forfeit its literacy so completely for over four hundred years?

The very fact that none of the Greek philosophers, historians, geographers, statesmen or poets ever referred to a Dark Age preceding the Ionic Age and separating it from the Mycenaean Age, should have been enough to cast doubt on the soundness of the overall construction.

Wherever we turn—poetry, arms, architecture, arts—the same Nemesis disturbs the excavator, the explorer and the critic, and from all sides the very same problem in various forms mockingly stares in the face of all of them, whatever their persuasion.

Where lies the root of all this confusion, a root hidden from sight and discussion? The Mycenaean Age in Greece and in the Aegean, as well as the Minoan Age on Crete, do not have an absolute chronology of their own, and this is not disputed. As I have already stressed on several occasions on preceding pages, the dating depends on contacts with other countries that have an absolute chronology of their own, and Egypt was selected for that purpose.²

When a cartouche of Queen Tiy was found at Mycenae, that stratum was dated accordingly to ca. -1400. When in the short-lived city of Akhet-Aton, built by Akhnaton and abandoned in the same generation, Mycenaean ware was found in profusion, the ware was regarded as contemporary with Akhnaton, and was dated to the fourteenth century. We have already dwelt on the subject, but it needs repetition in the light of what was brought to discussion all through the foregoing chapters and sections. In an extended examination of the Egyptian chronology its structure was put on a scale and found wanting. Now it is clear that if there is a miscalculation in Egyptian datings, the error must have spread through more than one land and vitiated more than one nations' chronology.

The problem is once more thrown to Egypt. In *Ages in Chaos* we have seen that, with the fall of the Middle Kingdom and the Exodus synchronized, events in the histories of the peoples of the ancient world coincide all along the centuries.

For a space of over one thousand years records of Egyptian history have been compared with the records of the Hebrews, Assyrians, Chaldeans, and finally with those of the Greeks, with a resulting correspondence which denotes synchronism.

In Volume I of *Ages in Chaos* it was shown in great detail why Akhnaton of the Eighteenth Dynasty must be placed in the latter part of the ninth century. If Akhnaton flourished in -840 and not in -1380, the ceramics from Mycenae found in the palace

of Akhnaton are younger by five or six hundred years than they are presumed to be, and the Late Mycenaean period would accordingly move forward by about half a thousand years on the scale of time. If the ages of Amenhotep III, of Tiy and of Akhnaton, need to be reduced by about five hundred years, classical studies could take a deep breath.

Actually, when in the eighties of the nineteenth century, the Hellenists were coerced, upon the evidence presented by Egyptologists, to introduce those five dark centuries, they did it only after a period of protest and resistance. But now that three generations of historians have lived with those dark centuries as a historical reality, it is even more difficult to part with them. Nevertheless, sooner or later, they will have to part with the phantom centuries, and have the history of Greece and the development of its writing as a normal process without a four-hundred-year gap.

The conclusion at which we have arrived is this: between the Mycenaean and the Ionian Ages there was no Dark Age, but one followed the other, with only a few decades intervening. The natural catastrophes of the eighth century and of the beginning of the seventh brought an end to the civilization that centered at Mycenae in Greece, to cities and citadels and kingdoms; even the profile of the Greek mainland changed and many islands submerged and others emerged. These changes moved entire nations to migrations in the hope that beyond the horizon fertile lands, not damaged by unchained forces of nature, awaited the conquerors. This explains the break in continuity—the change is not due to some intervening dark ages that left no vestige of themselves, but to the paroxysms of nature and the migrations.

Classical studies have been troubled by many unresolved situations, archaeological and cultural. The field has been plagued by the presence of the Dark Age—a presence only schematic, never in effect. It engendered and continues to engender an ever-growing scholarly literature. If it can be shown that the Egyptian timetable is off its hinges, the bondage of these studies and their dependence on Egypt may terminate.

The removal of the Dark Age from the historical sequence unshackles what was for centuries shackled and releases the scholarly endeavor from travelling on the same circular paths with no exit from the modern version of the Cretan Labyrinth. Moreover, it rehabilitates scholars accused of ignorance or negligence, their having been guilty only of not perceiving that the problems they dealt with were not problems at all, as soon as unreal centuries are stricken out.

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by

Edwin M. Schorr

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INTRODUCTION

In the work of reconstruction of ancient history and replacement of the conventional scheme by a synchronized version, *The Assyrian Conquest* belongs, in chronological order, after *Ages in Chaos: From the Exodus to King Akhnaton*, and before *Ramses II and His Time* and *Peoples of the Sea*. By offering it to the readers I fill the gap left by publishing the Reconstruction not in the chronological order, and rely on the indulgence of the readers, many of whom urged me to come out with what reaches maturity or a stage satisfactory for presentation.

The period of the Theban Dynasty (labeled “Eighteenth”)—the subject of the first volume of *Ages in Chaos*—was followed by two and a half centuries during which the ancient East lived in the shadow of Assyrian domination. During this period the world experienced repeated outrages of nature, the theme of Part II (“Mars”) of *Worlds in Collision* and to a great extent also of *Earth in Upheaval*, dedicated to the evidence from the domain of the natural sciences.

The Assyrian military state thrust its sword into all four directions—to the north across the Caucasus into Scythia; to the east into Elam; to the west into Asia Minor, dislodging the Chaldeans and closing in on Phrygia and Lydia, but with the greatest tenacity to the south, into Syria, Phoenicia, Israel, Judah, Egypt, even the Sudan, in ancient times called Ethiopia, or Kush.

Although a military state, Assyria developed sculptural art of great power. The hunting scenes with portrayals of lions, wounded or dying, yet still attacking, are unequalled in power of expression in ancient or modern art. The Assyrians, troubled like the rest of the nations by the fear of a repetition of the close cosmic encounters in the disarranged planetary family, excelled in observing the events taking place in the sky. Repeated displacements of orbital planes and even small variations in planetary positions and motions, and abrupt changes in the position and direction of the earth’s axis, and the changes in the times of the equinoxes and solstices—all were registered on clay tablets, numbering in the tens of thousands. Despite this cultural progress at home, the Assyrians carried on wars of unusual brutality, and often wantonness.

In the double shadow of the brutality and wantonness spread by excesses of nature and the Assyrian weapons, the peoples on the land bridge between present Iraq—the home of Assyria and Babylonia—and Egypt, namely the Syrians, Phoenicians, Israelites and Judeans, acted each in line with their cultural instincts. The Syrians emulated the Assyrians, the Phoenicians heroically defended their maritime cities, but then retreated to build new colonies overseas; yet in parts of the Lebanon of today the

proclivity for trade still survives, attesting to the persistence of a national character. To the south, in Israel and Judah, the said double shadow gave birth to a unique brand of prophets, actually a blend of religious reformers and social revolutionaries, who vigorously opposed the priests, the sacrifices, and even the Temple worship as long as the poor were exploited by the rich, and widows, orphans, and the downtrodden were not protected. Further, they were statesmen, trying to select the proper political orientation for the state, going with their message or warning to the people in the market places and in hamlets, but also mounting the steps to the kings' palaces, and even abusing the kings, unafraid of the throne as they were unafraid of the altar. Finally they were poets, since equal poetic prose can be searched for in the old ages and the new, but will not be found. Miracles they did not perform, neither miraculous healings; their prophecies were limited to forebodings of political developments, and to their threatening with the arrival of more natural disasters to be brought about by renewed dislodgements in the spheres, but consistently ascribed to the Creator of man and watcher over his deeds and even over the thoughts of his soul, as if righteousness would keep nature in bonds.

The narrative of this volume comes to its close when the Assyrian conquest ended in a conquest of Assyria and extirpation of that state. There followed not quite a hundred years of Chaldean domination—the theme of *Ramses II and His Time*. After that Persia ruled the ancient world for over two hundred years (-546 to -332)—the theme of *Peoples of the Sea*.

The main and singular purpose of this composition, through all its volumes, was and is to replace what are ages in chaos by a revised, or synchronized, chronology and history. In this respect the present volume is pivotal.

The generations from the Exodus to King Jehoshaphat or, in Egyptian history, from the fall of the Middle Kingdom to King Akhnaton, were shown in the first volume of this reconstruction to be synchronical by mere juxtaposition of events and personalities: it is brought to light by moving in relation to one another the Egyptian and Israelite histories, a generation after generation, along the entire period, and always at the same interval of ca. 540 years, thus setting the two chronological columns at a synchronical level. At first we left the problem open, which of the two histories would require re-adjustment—is the Israelite history in need of finding lost centuries, or does the Egyptian history require excision of unreal ones? Jehoshat and his generals and Ahab and his adversaries in Damascus could not have exchanged letters with Amenhotep III and his heir on the throne, Akhnaton, across the centuries. Soon we realized that of the two time tables, the Egyptian and the Israelite, the former is out of step with historical reality by over five centuries.

The Assyrian Conquest is pivotal because the procedure no longer is a mere relative shifting of two chronologies. As I will show, the order of the dynasties, past the conclusion of the Eighteenth (Theban) Dynasty, needs to be altered.

The present volume dealing with the period characterized by Assyrian contest for the

domination of the lands of the ancient East completes the narrative part of the reconstruction of ancient history from the end of the Middle Kingdom to the spread of Hellenistic culture after the fall of the Persian Empire.





When the House of Akhnaton Died Out

Stormy and unsettled was the period of the eighth and seventh centuries before the present era. The world was uneasy and in a tumultuous state. Terrifying portents were seen in the sky and were accompanied by great perturbations of nature—among them earthquakes and changes of climate. The nations of the ancient East were in turmoil. Peoples of the steppes of the north crossed mountain barriers and transgressed the boundaries of states. Civilian unrest flared up in many places and armies marched along military roads, engaging one another in strife and wars.

A few decades before this uproar, in the second part of the ninth century, the glorious Theban (Eighteenth) Dynasty of Egypt came to an end and the house of Akhnaton degenerated and was extirpated.

For only a short time did Akhnaton's residence city, Akhet-Aton, enjoy the sounds of agitated life, with messengers and ambassadors coming and going. Soon the place was abandoned by men and desert sands swept over it and buried it, to make place at last for the few poor settlements of el-Amarna. With Akhet-Aton left to decay, Thebes, the old southern residence, once more was made the capital of the land. Two heirs of Akhnaton in quick succession occupied the throne, each reigning for a short while, before dying young. The younger was Tutankhamen, whose tomb was discovered in 1922. Never before had such riches in gold, jewels and furniture been found in the vault of a dead person. He was buried by the last king of the Eighteenth Dynasty, the old Ay, the granduncle of the last two reigning youths.

This much is known: the religious reform of Akhnaton was abolished, his line died out, and his palace and his city were abandoned; but history professes not to know the personal fate of Akhnaton and of the epigoni that followed on the throne of Egypt, nor what happened during the anarchy which followed or which may also have preceded the end of this glorious dynasty.

In *Oedipus and Akhnaton* I undertook the task of reviving the pageant of this era and of illuminating the personal fate of its heroes. I showed also how the tragic fate of the house of Akhnaton gave rise to a legendary cycle that reached to the shores of Greece, took hold of the imagination of generations of poets, and survived in its legendary form till our own days.⁽¹⁾

Paintings on a wooden chest found in the tomb of Tutankhamen show the young king in war against the Ethiopians and Syrians. It appears that in the fraternal war his elder

brother Smenkhkare, deprived of his throne, called to his assistance foreign troops; in this war both young princes died. Smenkhkare was buried clandestinely by his sister-spouse, who also placed a song of love, cut into gold foil, at the feet of the dead. His burial was violated by the emissaries of Ay, brother of Queen Tiy, mother of Akhnaton. Ay, assuming the royal power, officiated at the splendid funeral of his protege Tutankhamen. Having reached the throne in his old age, Ay did not occupy it for long. The exact order of events that ended with Ay's elaborate and beautiful sarcophagus being smashed to smithereens, we do not know; but the Eighteenth Dynasty was terminated by invasion. Ay was not followed on the throne by any kin of his—the House of Akhnaton was followed by foreign rule.

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The Sequence of Dynasties

With the close of the Amarna period we have reached, according to our revised scheme, the latter part of the ninth century. The eighth century and the beginning of the seventh were the periods of Libyan and Ethiopian dynasties in Egypt. The conventional scheme assigns the Amarna period to the earlier part of the fourteenth century and has the Nineteenth Dynasty, that of Seti and Ramses II, and the Twentieth Dynasty, that of Ramses III, the last great emperor of Egypt, succeed before the Libyans and Ethiopians ruled Egypt.

The transition of power from the Eighteenth to the Nineteenth Dynasty is regarded as an obscure period of Egyptian history. The circumstances under which the Nineteenth Dynasty was established are said to be unknown. This Dynasty is one of the most famous successions of pharaohs—Ramses I, Seti I, Ramses II, and Merneptah. Still another name is preserved, that of Haremhab. He belonged neither to the Eighteenth nor to the Nineteenth Dynasty; he was not a descendant of Akhnaton, nor was he an ancestor of the Ramessides. He is supposed to have ruled Egypt during an interregnum. It is not apparent why he was “chosen to be king” and to administer Egypt. Nothing is known of his end. The idea so often expressed that Haremhab was a successor of Ay is baseless. We shall encounter Haremhab later in this volume—but he lived one hundred and fifty years after Ay.

On the pages to follow I shall endeavor to show that the Libyan and Ethiopian dynasties followed closely the Eighteenth Dynasty and preceded the Nineteenth and the Twentieth. This result of the present reconstruction is probably the most unexpected of all. Yet in *Peoples of the Sea* (1977) the time of Ramses III and with him the entire Twentieth Dynasty have already been shown to belong into the fourth century; and the volume *Ramses II and His Time* (1978) has carried the task of identifying the Nineteenth Dynasty as synonymous with the Twenty-sixth, that of Necho I, Psammetichus, Necho II, and Apries.

The so-called Nineteenth Dynasty will be found to have been displaced not only by the five hundred and forty years of error in the dating of the Eighteenth Dynasty, but also by an additional one hundred and seventy years—the duration of the Libyan and Ethiopian dominations over Egypt: and the total error will be found reaching the huge figure of seven hundred years.

Since the pharaohs of these dynasties waged wars and maintained peaceful relations with the kingdoms and peoples of the north, the transfer of these Egyptian dynasties to a time much more recent carries an enormous tide into the histories of the entire ancient East, including Asia Minor and Greece.

The evidence of the present volume will lead us to the conclusion that the Libyan Dynasty that superseded the Eighteenth started not about -945, but more than a century later: the Libyan Dynasty has been allotted a longer span of time than it actually occupied. In the chapter dealing with the sack of the Temple of Jerusalem, it was demonstrated that the biblical Shishak, its plunderer, was Thutmose III of the Eighteenth Dynasty, and the objects of his loot, depicted on the bas relief at Karnak, were identified as the vessels, utensils, and furniture of the Temple. His heir Amenhotep II was identified as the Biblical Zerah who invaded Palestine in the days of King Asa at the beginning of the ninth century. Thus they could not have been the Libyan kings Shoshenk and Osorkon. These Libyans reigned later, and the entire duration of that dynasty was shorter than is conventionally assumed.

But we shall also show that Osorkon could not have reigned in the beginning of the ninth century and that Shoshenk could not have been the biblical Shishak because he was the Biblical Pharaoh So referred to in the Scriptures during the closing days of Samaria, in the time of King Hezekiah.

The Libyan Dynasty endured for about one hundred and twenty years and the Ethiopian rule for close to fifty years, the latter being repeatedly interrupted by Assyrian conquests of Egypt. Thus in our view the only Dynasty correctly placed in the conventional scheme is the Ethiopian.

With one period, namely the Ethiopian, torn out of a dislocated order of events and kept in its proper place in time, it happened that causes became consequences and consequences changed to causes, and descendants became ancestors, turning progenitors into offspring.

Before we shall deal with the major problem of identifying the historical time of the origin of the Nineteenth Dynasty, we shall be concerned in a few of the following sections with a comparatively minor re-adjustment—returning Shoshenk and Osorkon of the Libyan Dynasty from the tenth and ninth centuries to their proper places in the eighth century.





The Libyans in Egypt

The period of Libyan domination in Egypt, the Twenty-second Dynasty, is said by Manetho to have lasted for a hundred and twenty years:⁽¹⁾ “But the accepted chronology,” wrote Sir Alan Gardiner, “finds itself compelled to legislate for fully two centuries. . .”⁽²⁾

What is the basis for beginning the time of the Libyan Dynasty of Egypt, that of Shoshenks and Osorkons, as early as -945 or even earlier and for stretching the period for over two hundred years? The end of the period is well established, because ca. -712 the Libyan rule was supplanted by the Ethiopian domination,⁽³⁾ and the latter stands firmly fixed in time in relation to Biblical and Assyrian sources.

The beginning of the Libyan Dynasty was dated to -945 because a synchronical link was claimed to exist between the Biblical references to Pharaoh Shishak who conquered Palestine in the fifth year after Solomon, and Shoshenk Hedjkheperre of the Libyan dynasty. The placing of Shoshenk Hedjkheperre in the second half of the tenth century did not follow from the Egyptian material, But from the supposed synchronism of Rehoboam, who followed Solomon on the throne in Jerusalem, and Shoshenk Hedjkheperre. In *Ages in Chaos* I have pointed out that this alleged synchronism is not supported by the available evidence, and I was able to show that the conqueror of Jerusalem and sacker of its temple was not a Libyan king but Thutmose III of the Eighteenth Dynasty. In the Chapter entitled “The Temple in Jerusalem” I compare Thutmose’s depiction of the booty taken by him with the Biblical description of the vessels and furnishings of Solomon’s Temple to arrive at a positive identification of the sacker of Jerusalem’s temple.⁽⁴⁾

Now to bring Shoshenk Hedjkheperre to the head of the Libyan Dynasty is unnecessary; actually he will be shown to belong to the end of the period of Libyan domination in Egypt, and to be the Pharaoh So of the Scriptures.⁽⁵⁾

During the greater part of the eighth century, when the Libyan Dynasty of Osorkons and Shoshenks ruled over Egypt, the kings of this country vied with the kings of Assyria for influence in Palestine and Phoenicia. Elibaal, king of the Phoenician port-city of Byblos, had an Egyptian artist carve a statue of Osorkon I and cut an inscription on its chest: “Statue of Elibaal, king of Gebal (Byblos) made . . .”⁽⁶⁾ Since the conventional chronology made Osorkon a contemporary of Asa, who ruled over Israel in the early ninth century before the present era, Elibaal needed also to be placed in the ninth century—nearly a hundred years too early, according to the

conclusions reached in this work. Abibaal, another king of Byblos, ordered a statue of Shoshenk Hedjkheperre to be carved and inscribed in his name;⁽⁷⁾ for this reason Abibaal was placed in the tenth century as a contemporary of that king. Placing Elibaal and Abibaal in the tenth and early ninth centuries respectively created problems for epigraphists concerned with the history of the Hebrew script. The inscriptions on the sculptures are in Hebrew characters, and were the subject of much discussion in connection with the development of the Hebrew alphabet. The epigraphists, who must take directives from the archaeologists, tried to reconcile the dates derived from these inscriptions with the characters on the stele of Mesha, the king of Moab, who in the middle of the ninth century revolted against Ahab, king of Israel, and with the ivories from Samaria belonging to the same period—and were rather puzzled. The inscriptions of Elibaal and Abibaal are written in a script that appears to bear the closest resemblance to the eighth-century ostraka from Samaria; yet the conventional historians have them *precede* the stele of Mesha. Evidently, the order of the Libyan kings on the throne of Egypt is not properly put together, and Elibaal and Abibaal belong to the eighth century, just as do Osorkon I and Shoshenk Hedjkheperre, their contemporaries in Egypt.

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1. W. G. Waddell, *Manetho* (Loeb Classical Library, 1940).
2. *Egypt of the Pharaohs*, (Oxford University Press, 1961), p. 334. Actually, at least 220 years must be allotted to the Twenty-second Dynasty on the conventional time scale.
3. A. Spalinger, “The Year 712 B.C. and its Implications for Egyptian History,” *Journal of the American Research Center in Egypt* 10 (1973), pp. 95-101. [For criticism of the monumental evidence traditionally used to assign long reigns to some Libyan kings, see Helen K. Jaquet-Gordon, “The Illusory Year 36 of Osorkon I,” *The Journal of Egyptian Archaeology* 53 (1967), pp. 63-68, and R. Caminos, “An Ancient Egyptian Donation Stela,” *Centaurus* 14 (1969), pp. 42-46. The first author showed that because of a faulty reading by Flinders Petrie of the year formula on a stela of Osorkon I, this king had been wrongly credited with a thirty-six year reign; in fact it is unlikely that he reigned beyond the fifteen years recorded by Manetho—the highest date mentioned on his documents is twelve years. In a note Jaquet-Gordon contended that the reign of Osorkon I’s successor on the throne, Takelot I, needs to be similarly reduced, for a stela “on the basis of which a 23-year reign has been meted out to him does not in fact belong to him at all.” She suggested that Takelot only reigned the seven years which are attested on his genuine monuments. The attribution of the stela was definitively clarified by Caminos in an article published two years later, removing an error which “has particularly affected king-lists and discussions of the Libyan period in Egypt.” As a result of the two adjustments the Libyan period becomes shorter by a total of thirty-five years. This did not, however,

produce a lowering of the absolute date for the beginning of the Dynasty, which is still held to be firmly tied to the supposed synchronism between Shoshenk Hedjkheperre and Rehoboam. But the shortening of the individual reigns within the Dynasty is putting the entire scheme under increased strain.]

4. [Cf. E. Danelius, “Did Thutmose III Despoil the Temple in Jerusalem?” *Society for Interdisciplinary Studies Review* II:3 (1977/78), pp. 64-79, and Velikovsky’s response in *Ibid.*, p. 80.]
5. See below, section “Pharaoh So.”
6. P. Montet, *Byblos et l’Egypte* (Paris, 1928-29), pl. 36-38.
7. *Ibid.*, p. 53, fig 17 and p. 56, fig. 18. Cf. my *Ramses II and his Time* (1978), Chapter III: “The Tomb of Ahiem.”





Libyan and Ethiopian Art & Culture

EVIDENCE FROM LANGUAGE, ART, AND RELIGION

In conjunction with the attempt to bring the period of Libyan and Ethiopian domination in Egypt into correct alignment — within the framework of the history of that land and in proper synchronism with the histories of foreign countries — I shall select several examples from the fields of language, art, and religion to demonstrate that the revised chronology does not contradict the natural evolutionary process we would expect to find in these various fields. To the contrary, the evidence in all these fields will argue *for* the new version of history. Paradoxical finds will no longer be paradoxical and enigmatic solutions will be easily understood. We shall elucidate, on such examples, the close following of the Libyan and Ethiopian dynasties upon the Eighteenth and their precedence in relation to the Nineteenth Dynasty.

On the other hand, the comparison of language, art, and religion of the Eighteenth Dynasty with examples from the same three fields under the Nineteenth Dynasty exhibits a veritable gulf, or break in tradition. With the beginning of the Nineteenth Dynasty, “Egypt was a changed world” . The author of this evaluation, Sir Alan Gardiner, explained: “it is impossible not to notice the marked deterioration of the art, the literature, and indeed the general culture of the people. The language which they wrote approximates more closely to the vernacular and incorporates many foreign words; the copies of ancient texts are incredibly careless, as if the scribes utterly failed to understand their meaning.” [\(1\)](#)

Considering that, in the conventional chronology, between the end of the Eighteenth Dynasty (King Ay) and the beginning of the Nineteenth (counted from Ramses I) only some fifteen to twenty years are available (and Haremhab is supposed to fill them) — and even taking into account the revolutionary tendencies of Akhnaton — a break in all aspects of cultural development marking the transition between the two dynasties, the Eighteenth and the Nineteenth, is more than enigmatic.

THE LITERARY STYLE OF THE LIBYAN PERIOD

The oracular stele of Thutmose IV, father of Amenhotep III and grandfather of Akhnaton, is a famous relic. Thutmose, when still a prince in his teens, visited the oracle of the Great Sphinx at Gizeh. There he fell asleep and heard in his dream that he, not the eldest among his brothers and not in the line of succession, was destined to follow his father Amenhotep II on the throne. The oracle required Thutmose, upon

his ascent to the throne, to clear the Sphinx of the desert sand that had swept in around it; when pharaoh, Thutmose fulfilled his vow and also erected a stele with a description of both the oracular dream and his freeing of the Sphinx from the sand. This stele was found between the paws of the Sphinx when in modern times the sand, that had again buried the huge figure above its paws, was removed under the supervision of archaeologists.

A. Erman, an eminent Egyptologist, tried to prove that the stele is a product of a late dynasty, possibly the Libyan. He presented the evidence of literary style, epigraphy, and spelling, concluding that the stele must have originated between the tenth and sixth centuries, and not in the fifteenth which was the accepted time of Thutmose IV.

⁽²⁾ “Our Sphinx stele is thus to be regarded as a restored inscription, but obviously a careless and free restoration. The time at which it was completed cannot be estimated exactly; it is not in any case later than the Saitic period, but can be placed equally well in the 21st or 22nd [Libyan] dynasty.” ⁽³⁾

Erman’s position was disputed by another equally eminent Egyptologist, W. Spiegelberg, who presented the argument that the “late style and spelling” are actually not late and that, furthermore, the texts of the Saitic period are conspicuous for their classical style; additionally, no marked difference is evident between the texts of these two periods. “The good archaizing texts of the Saitic period are conspicuous in their use of correct ‘classic’ orthography.” ⁽⁴⁾

Spiegelberg concluded that, because of this similarity in the art of writing in these two periods, separated by half a millennium and more, Erman’s argument was unfounded and the stele must have been carved in the days of the pharaoh whose name it bears, Thutmose IV.

Is it not strange that the style and epigraphy of two periods, thought to be separated by such a large span of time, are so similar as to engage two specialists in such a dispute?

The Eighteenth Dynasty and the Libyan period in Egypt produced very similar literary works. In no language, ancient or new, would four to seven hundred years have passed without very considerable changes: one need think only of the metamorphosis of English between the time of Geoffrey Chaucer and that of Oscar Wilde. It was no different with the Egyptian language; and most likely, the two epochs under consideration show so little change simply because there was so little time difference. Thus the conflicting opinions are much less conflicting if only scores of years, not five centuries, separate the time of Thutmose IV from the beginning of Libyan rule.

THE ART OF THE EIGHTEENTH AND LIBYAN DYNASTIES

The Libyan Dynasty, following directly upon the Eighteenth, perpetuated not only its

literary style, but many of its artistic traditions as well. In some instances, the resemblance was so close that experts mistakenly attributed a work of art to the wrong Dynasty; and while the difference in time actually amounted to not more than a few decades, on the conventional time scale many centuries were involved — centuries which could not have passed without profound changes in the mode of execution of statues, bas-reliefs, and paintings.

Metal sculpture: One such instance is the Carnarvon statuette of Amun, a rare *chef-d'oeuvre* discovered by Howard Carter at Karnak in 1916. When first exhibited in 1922 it was described by Carter as a “Statuette of the God in the Likeness of Thotmosis III” . “This attribution has never been challenged by any of the scholars who have published illustrations of the specimen,” wrote Cyril Aldred in 1956, ⁽⁵⁾ “and the present writer must include himself among those who accepted without cavil a dating to the Tuthmosid period.” But a more detailed examination of the statuette convinced Aldred that “a date in the Eighteenth Dynasty is untenable” . The statue was not of the Eighteenth Dynasty. It was not even Ramesside. “There is, in fact, nothing in this statuette which does not belong to the style of the Third Intermediate Period [the Libyan and Ethiopian dynasties] and everything is in favour of such a date. . . . If a more precise dating within the Third Intermediate Period be insisted upon, then the writer is inclined to place this statuette of Amun early in the Twenty-second Dynasty, since it shows the stylistic features of such metal sculpture in fully developed form. . . .”⁽⁶⁾

Conventional chronology puts almost six hundred years between the the time of Thutmose III and the early Libyan (Twenty-second) Dynasty kings. Were the changes in the execution of the sculptures so minute in this span of time that they could not be detected by an art expert? Or was the elapsed time much shorter, a century perhaps, as the revised chronology implies?

In trying to explain how a blunder of this magnitude was possible, Aldred goes on to discuss the history of metal sculpture in Egypt. Metal sculpture, introduced under the Eighteenth Dynasty, experienced a setback under the Nineteenth Dynasty, but becomes plentiful again in the Libyan period. With the time of Libyan domination immediately following on the Eighteenth Dynasty, there was no interruption between the introduction of the technique under the Eighteenth Dynasty and its greatest florescence in Libyan times.

We can cite another instance of misattribution of a sculpture in metal. A bronze figurine of Anubis, dated to the Libyan period in 1963, was only three years later re-dated by half a millennium to the Eighteenth or early Nineteenth Dynasties.⁽⁷⁾

Sculpture in stone: Problems not unlike those involved in the dating of metal sculpture arose in the attribution of monumental sculpture in stone. In a private communication, the late Egyptologist Walter Federn brought to my attention the case of the sphinxes erected at Karnak in the temple of Mut. According to Federn:

"In the temple of Mut at Karnak stand more than a hundred statues of the lion-goddess Sekhmet. The majority date from [the time of] Amenhotep II, and can be so identified by their inscriptions. Many were dedicated also by Shoshenk I, and are without the inscriptions characteristic of the others; they are notable for their somewhat careless execution. . . . It is remarkable also that one statue, which is the largest of all, and which was formerly taken to be the oldest of them, originates rather from Shoshenk I." (8)

Was the completion of the Sekhmet sphinxes interrupted for more than six centuries? Why did Seti the Great or Ramses II not complete the work, if, as is generally thought, they followed the Eighteenth Dynasty? It was the Libyan kings who completed the decoration of the temple begun by Amenhotep II, only a few decades after his death; and they did so in a style hardly distinguishable from the original work.

Chalices: Chalices, or drinking vessels with relief decorations, are unique objects; they seem to have been made "by the same group of men over no long period of time" . (9) Some of them definitely belong to the Libyan period (Twenty-second Dynasty) because the names of Libyan kings, such as "Shoshenk" , are inscribed on them. These come from Memphis, at the apex of the Delta; but another group of somewhat finer workmanship originates in the town of Tuna in the vicinity of Hermopolis, almost directly across the river from Tell el-Amama. The style of the uninscribed chalices from Tuna recalled so strongly the el-Amarna style of art that several experts ascribed to them a late Eighteenth Dynasty date. The case was argued most forcefully by Ricketts in an article he published in 1918. (10)

In the decoration of one chalice Ricketts found "an almost Asiatic richness of design, a certain lack of severity" which tended to confirm his impression that it belonged "to an age of experiment, even of cross-influences, such as the later years of the Eighteenth Dynasty" . (11) Another cup which he examined made him even more secure in his attribution: it was "yet richer in aspect and, with its sparse figures, more certainly in the temper of the Eighteenth Dynasty" . (12) A "spirited fowling scene" on a third chalice, so familiar from Eighteenth Dynasty painted tombs, strengthened his case still more. (13)

The arguments presented in 1918 for a late Eighteenth Dynasty date for some of the chalices were at first accepted by most scholars; and when Sotheby, the renowned art dealer, listed them in his 1921 catalog, he also labeled them as such.

Soon, however, several art experts expressed their unhappiness at such an early attribution, chiefly because of the similar, though somewhat inferior, chalices from Memphis, which could be dated securely to Libyan times on the basis of inscriptional evidence. It was unthinkable that there could have been a gap of over four centuries

between the two groups. It was difficult to imagine that the art of manufacturing the objects died out under the Nineteenth, Twentieth, and Twenty-first Dynasties, only to be revived under the Twenty-second or Libyan Dynasty. Scholarly opinion swung toward a Libyan date for all the chalices. Ricketts' paper of 1918, so carefully argued on the basis of artistic analogies, was termed "misleading"⁽¹⁴⁾ - yet no real reasons were adduced to invalidate the Eighteenth Dynasty attribution of the objects discussed by him.

The solution to the dilemma becomes obvious when the Egyptian dynasties are placed in their correct sequence. The chalices were made as Ricketts deduced, during the Amarna period — the late Eighteenth Dynasty. They continued to be manufactured under the Libyan Dynasty that followed, even while exhibiting the same decline in artistic standards which characterized all Egyptian art in the wake of the civil war and foreign invasion that precipitated the end of the house of Akhnaton. And if they were made, as Tait argued, "by the same group of men over no long period of time", they appear to have been manufactured in the space of two or three consecutive generations.

SURVIVALS OF THE CULT OF ATON IN LIBYAN AND ETHIOPIAN TIMES

The Eighteenth Dynasty saw, toward its end, the worship of Aton. Akhnaton in his religious reform — or heresy as it is usually called — instituted Aton as the supreme god. His heirs, Smenkhkare and Tutankhamen, having worshipped Aton in their earlier years, reverted again to the worship of Amon, and the circumstances of these religious vacillations are described in my *Oedipus and Akhnaton*. These kings, however, reigned for a few years only and died in their youth; they served as prototypes for Polynices and Eteocles of the Theban cycle of tragedies.

Under the Libyan Dynasty not only the worship of Amon, but even the worship of Aton survived. Amon was a deity through long periods of Egyptian history, but the worship of Aton was very characteristic for the end of the Eighteenth Dynasty only.

A stele,⁽¹⁵⁾ now in the Cairo Museum, shows a priest in office under king Osorkon II, one of the later Libyan pharaohs. The priest is described in the text as "Prophet of Amonrasonter in Karnak who contemplates Aton of Thebes", a somewhat peculiar description which H. Kees remarked upon. He noted that it is "as if the priest had lived in Amarna times!"⁽¹⁶⁾

At the beginning of this century James H. Breasted drew attention to the fact that the Ethiopian temple-city Gem-Aten, known from the annals of the Nubian kings, carries the same name as Akhnaton's temple at Thebes, and that the two must be in some relation, despite the great difference in age. A relief in a Theban tomb shows Akhnaton with his family worshipping in the temple of Gem-Aten. "The name of the

Theban temple of Aton therefore furnished the name of the Nubian city, and there can be no doubt that Ikhenaton [Akhnaton] was its founder, and that he named it after the Theban temple of his god. . . . We have here the remarkable fact that this Nubian city of Ikhenaton survived and still bore the name he gave it nearly a thousand years after his death and the destruction of the new city of his god in Egypt (Amarna).” (17)

Recently, Alexander Badawy discussed the worship observed by Akhnaton at the Gem-Aten ("Meeting of the Aten") which stood at Amarna. It is thought that the king used to come to meet the Aton “daily in the eastern open courts of the Gem-Aten” . (18) “Music and singing, rattling of sistra, presentation of incense and flowers gave a festive note of jubilation to the daily liturgy of Aten. “(19)

The Gem-Aten (or Gempaton) of the annals of the Nubian kings was found by F. Addison at Kawa in 1929.

The further excavations of Griffith and Macadam at the site uncovered “two documents of Amenophis III which attested the foundation by this king of the historical Gempaton” . (20) Breasted’s conclusion that the later Ethiopian temple went back to the Amama period was now confirmed by archaeology. (21)

This only underlines the “remarkable fact” that the city carried, through the many centuries that supposedly elapsed between the Amama period and Ethiopian times, a name recalling a heretical cult and, moreover, remained unnoticed throughout this period in contemporary documents. After Akhnaton’s time the name Gem-Aten is first referred to in an inscription of Tirhaka in one of the side-chambers of the Gebel-Barkal temple (22) — yet “its earlier history is totally unknown” . (23) Between the Amama period and the time of Tirhaka, the accepted chronology inserts almost 700 years — but we know that in fact only little more than a century elapsed, the period of Libyan domination; and we have seen that the cult of Aton persisted through the Libyan period.

Possibly the cult of Aton was perpetuated for a time by priests who fled south when, about - 830, the tide turned back in favor of the religion of Amon and the Libyan kings from the Delta were pushing toward Thebes. In any case, the religion of Atenism did not survive into Ethiopian times. When Piay (Piankhy) invaded Egypt about - 725 he did so under the guidance of Amon — but even then, ironically, Amon’s chief sanctuary in Ethiopia retained the name it had received from Akhnaton a century earlier.

THE TOMB OF MENTUEMHAT

The Ethiopian period, following the Libyan, came between the Eighteenth and the Nineteenth Dynasties, and its art shows affinities with both. This can be seen for instance in the decoration of the tomb of Mentuemhat, governor of Thebes in the time

of Tirhaka and Assurbanipal.

In 1947 the Brooklyn Museum purchased “a fragment of limestone relief of exceptional quality” ⁽²⁴⁾ It was evaluated by John D. Cooney of the Egyptian Department as a product of the late Eighteenth Dynasty. The bas-relief contains scenes already known from paintings in the Eighteenth Dynasty tomb of Menna in the Theban necropolis (tomb no. 69) — a peasant girl sitting on a chair and taking a thorn out of the foot of another girl sitting opposite her; and a second scene of a woman with a child in a sling at her breast arranging fruits in a basket (Plate XIV). Both scenes, of exquisite bas-relief technique, have so many identical details with the paintings of the tomb of Menna that Professor Cooney was not acting inconsiderately when he assumed he purchased objects of art of the late Eighteenth Dynasty.

However, “only a few months later,” Professor Cooney narrates, “two other fragmentary reliefs were offered to the Museum” and were assessed by him as dating from the seventh century. ⁽²⁵⁾ They were also purchased at a price appropriate for art of the Saite period, or the seventh and early sixth centuries, which is by far below the value of comparable art pieces of the Eighteenth Dynasty. The two fragments contained a scene depicting musicians and scribes with certain details that “made a Saite date completely certain” ⁽²⁶⁾ (Plates XIII and XVI).

Of the first acquisition Cooney wrote: “I was so convinced of the early date of the relief with peasant scenes that I failed even to consider a relationship between it and the Saite pieces.” ⁽²⁷⁾ Yet when, at the suggestion of a colleague (W. Stevenson Smith), he compared all three reliefs he found that the limestone and the heights and divisions of the registers were the same in all of them; the conclusion became unavoidable that all three had been made in the seventh century, and actually were recognized as being derived from the same tomb (Theban tomb no. 34) — that of Mentuemhat, the governor of Thebes under Tirhaka the Ethiopian. ⁽²⁸⁾

Because of the artistic similarities between the scenes in the tombs of Menna and Mentuemhat, Professor Cooney had to assume that the Eighteenth Dynasty example was still accessible and artistically influential after more than seven hundred years had elapsed. “The lucky preservation of the Eighteenth Dynasty original,” wrote Cooney, “which served as model to the Saite sculptor provides an ideal chance to grasp the basic differences between the art of these periods separated by a span of almost eight centuries.” ⁽²⁹⁾ Actually, however, between the time of Menna and the time of Mentuemhat not 800, but ca. 200 years passed, only a fourth of the span noted by Cooney.

Upon having surveyed some of the problems in language (style and trends) and art (including religious art), in comparing the Eighteenth Dynasty with the Libyan and Ethiopian dynasties, the conclusion is irresistible that the logical development of Egyptian culture requires re-ordering the sequence of the dynasties as they are

presently known from Manethonian heritage to modern scholarship.

At the same time, the obvious rift between the language, art, and religion of the latter part of the Eighteenth Dynasty and the language, art, and religion evident at the inception of the Nineteenth Dynasty is extremely difficult to explain given the proximity of the two dynasties in the conventional scheme of Egyptian chronology.

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Jeroboam II and Osorkon II

The conventional timetable has Ahab, the king of the Northern Kingdom of Israel, as a contemporary of one of the kings of the Libyan Dynasty, usually Osorkon II. And almost regularly reference is made to archaeological evidence called to substantiate this synchronism; it is worded thus: "Osorkon II. He was a contemporary of Ahab, for in his palace at Samaria an alabaster vase bearing the name of Osorkon II was found."

[\(1\)](#)

In the chapters VI to VIII of *Ages in Chaos*, dealing with the el-Amarna period, it is demonstrated that Ahab was a contemporary of the later kings of the Eighteenth Dynasty, Amenhotep III and IV (Akhnaton), and that over sixty-five letters on clay tablets addressed by him to these kings are still in existence, in originals, as written by the royal scribes, found in the ground of el-Amarna. Having been a contemporary of these pharaohs, the synchronization of Ahab with Osorkon II of the Libyan Dynasty cannot but be grounded in error. To expose the error of the quoted sentence, we have to check the records of the excavators.

During the years 1908-1910 the Harvard University archaeological expedition at Sebastieh, ancient Samaria, uncovered the foundation of a palace. It was tentatively identified as the palace built by Omri and enlarged by Ahab.

Like the unearthed portions of the city wall of Samaria, the palace was built on virgin rock. The biblical passage about Omri building his capital on an unoccupied hill was regarded as confirmed. The floor of the palace was covered with layers containing the remains of later structures; but no vestige of earlier structures was found under the floor, nor were any signs of settlement prior to the time of Omri, except for a neolithic encampment, unearthed on the site of Samaria.

On the floor of the palace numerous small Egyptian objects were found, among them scarabs (signets). The carvings on the scarabs are mostly decorative designs, but on one of them a cartouche, or royal name, was found engraved. The cartouche was that of Thutmose III. Since there was no plausible explanation for the presence of the cartouche of Thutmose III in the palace at Samaria, presumably built about six centuries after this pharaoh had died, the excavators suggested: "This may be a local imitation of an Egyptian scarab." [\(2\)](#) As we have seen in the first volume of *Ages in Chaos*, Thutmose III reigned only a few decades before Omri; the cartouche apparently is genuine.

A jar with the cartouches of Osorkon II was found near the palace of Samaria and it

was brought forth as an evidence for the contemporaneity of Osorkon II and Ahab. Scores of ostraca were also found in Samaria. Ostraca, or potsherds inscribed with ink, were less expensive than burnt clay tablets or papyri; they were used when it was not expected that the writing would be preserved in an archive. Wine and oil when delivered were accompanied by these shards.

The ostraca of Samaria are inscribed with the names of persons or towns that delivered oil or wine to the king's palace; they are dated "in the ninth year," "in the tenth year," "in the seventeenth year," of the king, but the name of the king is not mentioned.

In various books and articles it is asserted that the jar of Osorkon, contemporary of Ahab, was found in the *same* debris as the ostraca,⁽³⁾ and it has been concluded that the ostraca of Samaria refer to the ruling years of Ahab. But is it true that these inscribed shards were found in the same debris as the Osorkon jar? And then, is it true that the ostraca of Samaria date from the reign of Ahab?

The report of the excavation gives the location precisely:

The southern wall of the Osorkon House [so-called because of Osorkon's jar] was built in part over the foundations of the north wall of rooms 406, 407, and 408. The foundations of the assumed northern part of the Ostraca House must have been destroyed previous to the construction of the Osorkon House.⁽⁴⁾

It follows that Osorkon's jar came to its location later than the ostraca came to theirs. This nullifies the argument that the jar must be of the same age as the ostraca. Thus even had the ostraca been inscribed during Ahab's reign, Osorkon's jar found its place at a definitely later date. But of what age are the ostraca?

The archaeologists at first reasoned thus: Since Osorkon II is known to have been a contemporary of Omri and Ahab, and since Omri reigned but twelve years, and the ostraca mention the seventeenth year of the king, they must have been written in the days of Ahab. It follows that the ostraca of Samaria are about the same age as the Mesha stele of the middle of the ninth century.⁽⁵⁾

A comparison of the Hebrew signs of the Samaritan ostraca with the Hebrew characters of the Mesha stele shows a definite change in the writing of single letters. The same characteristics found in the Samaritan letters reappear in the Shiloah inscription of King Hezekiah, dating from close to -700. "How to explain that the characters of the ostraca, a quarter of a century older than the stele of Mesha, are more directly related to the later characters of the Shiloah inscription?"⁽⁶⁾ This compelled the researchers to advance the hypothesis that the Hebrew letters passed through a retrograde stage of development before resuming their progress, or that in

Moab the development was slower than in Samaria.

In subsequent excavations at Samaria ivories with Hebrew letters were unearthed. These letters were found to be of the same type as those on the stele of Mesha and to have therefore originated in the ninth century. They are of a more archaic type than the characters of the ostraca of Samaria.⁽⁷⁾

The conclusion has now for some time been generally accepted that the Samaritan ostraca were written not in Ahab's time, but in the time of one of the last kings of Samaria. Of the kings of Israel after Ahab, only Jeroboam II and Pekah reigned for more than seventeen years. The scholarly opinion arrived at an almost unanimous conclusion that the ostraca were written in the days of Jeroboam II (ca. -785 to -744).

⁽⁸⁾ This conclusion appears to be correct.

The house that sheltered the jar of Osorkon II in Samaria was built on the ruins of the house that sheltered the inscribed potsherds. Since the ostraca were written in the days of Jeroboam II, one of the last kings of Israel to reign in Samaria, every ground for making Pharaoh Osorkon II a contemporary of Ahab because of the findings in Samaria vanishes. Judged by these findings, Osorkon II was not only later than Ahab, but also later than Jeroboam II.

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3. "La date des ostraca de Samarie est fixée par les circonstances de la trouvaille et cette date est confirmée par la présence dans les mêmes débris des fragments d'une vase au nom d'Osorkon II (874-853), contemporain d'Achab." *Syria*, VI (1925). This statement, compared with the record of the excavators, is not exact. James W. Jack, *Samaria in Ahab's Time* (Edinburgh, 1929), p. 42, also says that Osorkon's jar was found "in the same debris" as the ostraca.
4. Reisner, Fisher, and Lyon, *Harvard Excavations at Samaria*, I, 131.
5. See *Ages in Chaos*, Vol. I, Chap. VII.
6. Dusaud, *Syria* VI (1925), 332: "Comment expliquer que l'écriture des ostraca, d'un quart de siècle plus ancienne que la stele de Mesa, se rattache plus étroitement à l'écriture cependant plus récente de l'inscription de Siloe?"
7. F. L. Sukenik, "Notes on the Hebrew Letters on the Ivories," in Crowfoot and Crowfoot, *Early Ivories*. Cf. J. L. Starkey, in *Lachish*, Vol. I: "The Lachish Letters" (London, 1938), p. 13.
8. W. F. Albright, *Archaeology and the Religion of Israel*, p. 41, and idem in *Ancient Near Eastern Texts*, ed by J. B. Pritchard (Princeton, 1950), p. 321.





Revolutions in Egypt and Israel

The revolt of Jehu, whose horses tread the dead body of Jezebel, thrown out of a window of the palace in Jezreel (Gubla), was a signal for a change not just in religious allegiance, but equally so in political orientation. The palace revolution in Egypt and the lowering of Egypt's standing in international politics prompted Jehu's pro-Assyrian revolt, which met no true opposition in Israel nor in Judea: at Jezreel he killed the kings of both kingdoms, related by marriage.

At home Jehu started as a cruel tyrant by eliminating all the progeny of Ahab in Jezreel and in Samaria—baskets full of heads of the royal sons were carried to him from Samaria; next he ordered the priests of Baal and his worshippers killed. But against Hazael, king of Damascus, Jehu proved himself a poor opponent.

While the house of Judah and the house of Israel went through a series of revolutions and fraternal wars, the Assyrians, who already in the days of Shalmaneser III towered over other nations of Western Asia, did not cease their penetration into the region of Syria and Palestine, the bridge to Egypt and Ethiopia. The Assyrian expansion which had started under Ashurnasirpal (ca -883 to -859), the father of Shalmaneser III, took a more aggressive form under Shalmaneser, whose inroads into Syria, Phoenicia, Israel, and Judah can be read in the el-Amarna tablets as those of Burraburiash, King of Hatti. At Qarqar he fought a coalition in which also Ahab of Samaria participated, backed by a brigade of Egyptian (Musri) troops.

But besides this direct contact with Egyptian troops, Shalmaneser did not dispatch any military forces past the line Tyre-Qarqar-Damascus, instead employing local princelings in an effort to disrupt the Egyptian colonial domain. The rebellion of Mesha, a vassal king of Moab, against Ahab, the king of Samaria, and the intrusion of desert tribes from across the Jordan toward Jerusalem in the days of Jehoshaphat resulted from this disruptive policy, with the king of Damascus changing more than once his political orientation.

Shalmaneser fought also on several other fronts—he claims to have defeated, among others, Sopalulme of Hattina. We may identify this Sopalulme with Suppiluliumas, King of Hatti, author of one, possibly two, el-Amarna letters—a collection of hundreds of diplomatic missives exchanged between the pharaohs Amenhotep III, and Akhnaton after him, and the independent kings of Asia Minor and Mesopotamia, and also the vassal kings of Syria, Phoenicia, Israel, and Judah. As was shown in the chapters dealing with the letters of el-Amarna, Shalmaneser of the Assyrian texts is Burraburiash of that correspondence. Burraburiash wrote insulting letters to Akhnaton and demanded gifts in objects of gold, ivory, and other objects of art in

quantities amounting to a tribute.⁽¹⁾

On an obelisk Shalmaneser let himself be portrayed in low relief with his entourage, while a kneeling person kisses the ground near his feet. The text names the person Jehu, king of Judah. It is often assumed that the figure represents a messenger of Jehu.

In those days the Lord began to cut Israel short:
and Hazael smote them in all the coasts of Israel.
From the Jordan eastward, all the land of Gilead,
from Aroer, which is by the river Arnon,
even Gilead and Bashan.

At the same time we read in Shalmaneser's detailed annals that he carried on war against Damascus, and though the Assyrian king claimed victory, from the very fact that Shalmaneser's ally Jehu was such a loser, one would conclude that Hazael was much on the offensive.

Under Jehu and his son Jehoaz, Israel was so oppressed by Hazael that Jehoaz' army was reduced to ten chariots, fifty horsemen, and ten thousand footmen. Hope of relief came only in the days of Joash, son of Jehu. The Second Book of Kings gives this vivid picture:

Now Elisha was fallen sick of the sickness whereof he died. And Joash the king of Israel came down unto him and wept over his face. . . . And Elisha said unto him, "Take bow and arrows." And he said to the king of Israel, "Put thine hand upon the bow." And he put his hand upon it: and Elisha put his hands upon the king's hands. And he said, "Open the window eastward." And he opened it. Then Elisha said, "Shoot." And he shot. And he said, "The arrow of the Lord's deliverance, and the arrow of deliverance from Syria."

"And Jehoash slept with his fathers, and was buried in Samaria with the kings of Israel; and Jeroboam his son reigned in his stead." The sepulcher of the kings of Israel has not been found, even though Samaria was excavated.

Joash's son, Jeroboam II, one of the later kings of Israel and the last of the house of Jehu, reigned forty-one years in Samaria in the palace built by Omri and Ahab. "He restored the coast of Israel from the entering of Hamath unto the sea of the plain." After many years of "affliction" that beset Israel (II Kings 14: 26), the enlargement of the state toward the north (Hamath is a hundred miles north of Damascus) and toward the south ("sea of the plain" is known today as the Dead Sea), constituted the high point in the history of Israel, only a few decades before the extinction of the state and the final eviction of its people from its land.

“ . . . And all that he [Jeroboam] did and his might how he warred, and how he recovered Damascus and Hamath . . . are they not written in the book of Chronicles of the kings of Israel?” (II Kings 14: 28).

The Book of Chronicles incorporated in the Old Testament is not the book referred to in this and several other passages of the Book of Kings. It obviously dealt with the records of the Kings of Israel, whereas the existing Book of Chronicles is a short survey, predominantly of the events in the Kingdom of Judah. Were it extant, such a record, especially of the reign of Jeroboam II, who ruled longer and more successfully than other kings of Israel in the last century of the kingdom, would now be of inestimable value also for the exact synchronization of the political history of Israel with that of neighboring countries, Egypt and others.

References

1. This tribute was also found near Kalah, the capital of Shalmaneser. Only a few miles from Kalah, in the early 1950's , a mound was opened, containing Fort Shalmaneser. It was excavated by Mallowan. In large storage rooms were found ivories with Egyptian motifs in great profusion; one of the rooms, ninety feet long, was found filled to the ceiling with objects of art, mainly ivory—the very objects described in an inventory sent by Akhnaton to Buraburiash.





The Last Kings of Israel

Amos, one of the earliest tribunes, called prophets in Judah and Israel, whose words are preserved in writing, lived and spoke, or “saw his words” (Amos 1:1) in the days of King Jeroboam II of Samaria and of King Uzziah of Jerusalem. A herdsman of Tekoah (south of Bethlehem) and gatherer of sycamore fruits, Amos felt the call two years before the *raash* in the days of Uzziah. His are only nine chapters, together not even as many pages. But the Decalogue is even shorter: verbosity is not a sign of inspiration. The Midrashim tell that Amos was a stammerer.⁽¹⁾ Amos’ career was also very short—he was put to death by King Uzziah. He was a firebrand from the hour he heard the call to carry his fivefold message to near and to far: a haranguer in the service of the downtrodden, a religious zealot of monotheism in a world of passionate pagan worship; a statesman or geopolitician with hardly more than a cluster of listeners; a prognosticator of a natural upheaval to come; a visionary of a compassionate reconciliation of Man with his Creator, and above all, of Israel with his Maker, after the dire things he foretold would come to pass.

The upheaval of nature, or “commotion” which shook the nations of the ancient East in the middle of the eighth century before the present era brought, amid the devastation and dislocations caused by nature, political revolutions that swept away long-established dynasties.

Following the earthquake of -747, king Uzziah ceded effective control of Judah to his son Jotham.

It was in the same year, even the very day of the catastrophe according to rabbinical sources,⁽²⁾ that marked the beginning of the prophetic career of Isaiah. In a flash of an intense experience Isaiah understood that the upheaval that the nation witnessed on that day was to be one of many, and that they would not cease “until the cities be wasted without inhabitant, and the houses without man, and the land be utterly desolate.” (6:11) He spoke to Judah, depicting the catastrophe that had taken place: “Your country is desolate, your cities are burned with fire” (1:7)—for the Lord “hath stretched forth his hand” against his people “and hath smitten them: and the hills did tremble, and their carcasses were torn in the midst of the streets.” And he warned of new disasters to come: “For all this his anger is not turned away but his hand is stretched out still.” (5:25)

In the northern kingdom the “commotion” brought an end to the house of Jeroboam II; it perished by the sword, as Amos had prophesied. (7:9) Jeroboam’s son Zachariah reigned only six months when “Shallum the son of Jabesh conspired against him before the people, and slew him, and reigned in his stead.” (II Kings 15:10) But

within a month the throne was wrested away from the usurper by Menahem, son of Gadi.

In Assyria a revolution also brought a usurper to power—Tiglath-Pileser III, a military man of unusual abilities, climbed the throne and brought about a resurgence of Assyrian power, following several decades of weakness.

Already in his second year the new king marched his armies to the west, and also came up against Israel, demanding of Menachem a heavy indemnity in return for not destroying the land. A thousand talents of silver was the price, and Menachem collected the metal from all the “men of wealth” in Israel. (II Kings 19: 20)⁽³⁾

For ten years Menahem reigned in Samaria. “And Menahem slept with his fathers; and Pekahiah his son reigned in his stead.” Pekahiah’s reign was short: two years later “Pekah, son of Remaliah, a captain of his, conspired against him and smote him in Samaria in the palace of the king’s house.” (II Kings 15:25) Pekah’s seizure of power meant a victory for those who wished to put an end to the heavy exactions of the Assyrian king and the position of vassalage that had become Israel’s lot under Menachem and his son.

While Tiglath-Pileser was absent on campaigns in the north and east,⁽⁴⁾ Pekah concluded an alliance with Rezin king of Damascus (Isaiah 7: 4) and set out against Judah. Ahaz, son of Jotham, was new on the throne in Jerusalem when the armies of Pekah and Rezin marched against his kingdom and laid siege to the city. At this crisis Isaiah, the prophet, called on the young king—Ahaz was but twenty years old when he began to reign—and met him on a road next to a field, away from the palace; and he comforted him, saying: “Take heed and be quiet; fear not, neither be fainthearted”—for the Lord would bring the Assyrians to destroy the power of Damascus and of Israel. (Isaiah 7:4)

Though Jerusalem was not taken, the Book of Chronicles reports that “a hundred and twenty thousand” of the men of Judah perished in the war; Ahaz’s son, Maaseiah, was among those killed. Pekah also “carried away captive of their own brethren two hundred thousand, women, sons and daughters” and brought them, together with much spoil, to Samaria. But a prophet named Oded protested that the children of Judah should stay as bondmen and bondwomen in Samaria and threatened the victors with the Lord’s fierce wrath. And certain princes of Israel “stood up against them that came from the war” and forced them to release the captives. They were clothed, fed, and returned, “the feeble of them upon asses . . . to Jericho, the city of palm trees.” (II Chronicles 18: 5-15)

Meanwhile Ahaz “sent messengers to Tiglath-Pileser king of Assyria, saying: “I am thy servant and thy son; come up and save me out of the hand of the king of Syria and out of the hand of the king of Israel, which rise up against me.”” He also sent to the king of Assyria gold and silver for presents. And Tiglath-Pileser “hearkened unto

him: for the king of Assyria went up against Damascus, and took it.” (II Kings 16: 7-9) In his own annals Tiglath-Pileser III records his war against Damascus, and how he killed Rezin and devastated the country. “The sixteen districts of Aram [Syria] I destroyed [and turned into] mounds [as if] left by a flood.” ⁽⁵⁾ Following Pekah’s defeat, “Hoshea, son of Elah, made a conspiracy against Pekah, the son of Remaliah, and smote him, and slew him, and reigned in his stead.” ⁽⁶⁾

References

1. Of Moses it is said that he was *kvad pe*, “heavy of speech,” that is, with a speech impediment.
2. *Seder Olam*, 20.
3. Cf. the recently published stele of Tiglath-Pileser III in which “Menachem of Samaria” is listed among those who sent tribute to Assyria. See L. D. Levine, *Two Neo-Assyrian Stelae from Iran* (Royal Ontario Museum Art and Archaeology Occasional Paper, 23 [Toronto, 1972], pp. 11-24). The text of I Chronicles 15: 19 calls the invading king “Pul” ; this may have been Tiglath-Pileser’s name in Babylonia.
4. [After about -737].
5. Luckenbill, *Records of Assyria*, I. 815-819.
6. The Assyrian version is almost identical: according to an inscription of Tiglath-Pileser III, the people of Israel “overthrew their king Pekah and placed Hoshea as king over them.”





Pharaoh So

Hoshea began to reign in Samaria in the twelfth year of Ahaz, king of Judah. When Tiglath-Pileser died, Hoshea made some moves towards greater independence. “Against him came up Shalmaneser [V] king of Assyria” (II Kings 17:3); Hoshea submitted and became a tribute-paying vassal. But in his sixth year, weary of the heavy oppression, Hoshea sought protection of the king of Egypt.

And the king of Assyria found conspiracy in Hoshea: for he had sent messengers to So king of Egypt, and brought no present to the king of Assyria, as he had done year by year: therefore the king of Assyria shut him up, and bound him in prison.⁽¹⁾

Who was pharaoh So, to whom the king of Israel gave allegiance? He was not identified by the historians: many efforts were made and no acceptable assumption made.

Since most of the eighth century before the present era Egypt was dominated by the kings of the Libyan Dynasty, and the time when Hoshea dispatched messengers to So, king of Egypt, was about -726, the simple solution is to identify one of the Shoshenks as the biblical So, king of Egypt. And further, since on the walls of the Amon temple at Karnak a bas-relief with Israeli cities depicted as tributaries to Shoshenk Hedjkheperre of the Libyan Dynasty is a well-known and much discussed archaeological relic, the identification of the pharaoh So should be simple. Then why was not this identification made?

It was not made because Shoshenk of the Karnak relief was already identified in the conventionally written history with Shishak, the plunderer of Solomon’s temple and conqueror of Judah over two hundred years before the time of king Hoshea of Samaria.

The Karnak temple has on its walls also a relief of Thutmose III of the Eighteenth Dynasty with the captured cities of Palestine shown as men with shields covering the body, inscribed with the names of the cities. Shoshenk’s relief with its scores of similar men symbolizing cities imitates the relief of Thutmose. But whereas the names of cities claimed by Thutmose are all identifiable names, mainly in Judea, the cities listed by Shoshenk are only partly identified, and those are sites in Samaria and Galilee, not in Judea.⁽²⁾ With the reliefs of Thutmose (Shishak of the Book of Kings) we occupied ourselves in detail in the fourth chapter of *Ages in Chaos*.

Thutmose left also a description of his campaign accompanying the reliefs; besides, he pictured the booty he brought back from the campaign and presented to the temple of Amon. We have identified this booty, object upon object, with the description of the furnishings and the utensils of the temple of Solomon, and found the designs, the metals, whether gold or silver or brass, from which they were made, and the number of individual objects in the booty (such as the number of golden targets), all in agreement between the biblical and hieroglyphic accounts. Nevertheless it was thought that Thutmose III's booty was from a pre-Israelite Canaan.

On the other hand, Shoshenk left no record of any campaign in Palestine; next to his relief in Karnak there is only a brief mention of tribute from Syria (*Kharu*) received by Shoshenk. Therefore it was also repeatedly said that the relief does not convey anything beyond the fact that cities in the northern part of Palestine were claimed as paying tribute to Shoshenk and that on the basis of his relief we could not learn anything about a military conquest of Palestine.⁽³⁾ While the text seems to show that there was an "oral or written request" from Palestine for the pharaoh to intervene,⁽⁴⁾ there is nothing to suggest that Shoshenk ever acted on it—nevertheless, all historians agreed that Shoshenk's relief serves as a counterpart to the biblical record of the events in the fifth year after Solomon's death when the pharaoh Shishak invaded Judea, took Jerusalem and other fortified cities, and carried away the treasures of the Temple built by Solomon. An omission to refer to such facts on the part of Shoshenk did not provoke the question of the truth in the identification of Shoshenk and Shishak.

Since, in accordance with the conventional scheme, Shoshenk of the Karnak relief was made to Shishak (this in violation of the way Hebrew letters are transcribed in hieroglyphics) there was no way to identify pharaoh So as another Shoshenk of which there were more than one in the Libyan Dynasty: the name Shoshenk could not be transcribed as both, Shishak and So. Thus the identity of So became an unsolved, and in the frame of that scheme, an unsolvable problem. How annoying it became can be judged by the fact that when, some years ago, a scholar offered to dispose of So and to read the biblical text: "for he [Hoshea] sent messengers to Sais, to the king of Egypt," Sais being identified as the village Sa el-Hagar, and called his paper "The end of 'So, king of Egypt,'" ⁽⁵⁾ it was acclaimed with relief as one of the "most important clarifications of biblical history in recent years—precisely because 'So, king of Egypt' was so difficult to identify with any known historical figure."⁽⁶⁾ Yet were So a geographical name, the Hebrew phrase would be *le So, le melech Mitzraim*—"to So, to the king of Egypt." As the sentence stands, the second "*le*" being absent, So is clearly the name of an Egyptian king, and in the revised scheme there is no necessity to dispose of So, king of Egypt.

The seemingly complicated problem is very uncomplicated. In the Scriptures there is a record of tribute paid by Rehoboam, son of Solomon, to pharaoh Shishak as a result of his conquest of Judah; and there is a record of tribute paid two hundred years later by Hoshea of Israel to pharaoh So. In Egypt there are two reliefs depicting tribute

received from Palestine: by Thutmose III of the Eighteenth Dynasty from the cities of Judah, and by Shoshenk of the Libyan Dynasty from the cities of Israel. We have identified the first of the two pharaohs who received tribute (from Rehoboam) as Thutmose III⁽⁷⁾ and the second, who received tribute from Hoshea, as Shoshenk. Thus two biblical records and two Egyptian documents are in complete agreement. Conventional history, however, by making the Libyan Shoshenk the sacker of Solomon's Temple, has no counterpart to the records of Thutmose III concerning his campaign in Palestine or tribute paid to him; and it has no Egyptian counterpart to the biblical record of a tribute paid by Israel to pharaoh So.

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2. B. Mazar in *Vetus Testamentum*, Suppl. 4 (1956), pp. 57ff.
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4. D. B. Redford, "Studies in Relations between Palestine and Egypt during the First Millennium B.C." *Journal of the American Oriental Society* 93 (1973), p. 10.
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6. W. F. Albright, "The Elimination of King 'So'" *Bulletin of the American Schools of Oriental Research* 171 (Oct., 1963), p. 66.
7. *Ages in Chaos*, Volume I, Chapter "The Temple in Jerusalem."





The End of Samaria

When Samaria chose to give her allegiance to Egypt, Isaiah regarded it as a political mistake.

Woe to the rebellious children . . . that walk to go down into Egypt . . . to strengthen themselves in the strength of Pharaoh, and to trust in the shadow of Egypt. . . . For his princes were at Zoan [Tanis] and his ambassadors came to Hanes. (30: 1, 2, 4)

Because of the tribute Shoshenk received from Hoshea, king of Samaria, the Ten Tribes of Israel were doomed to lose their homeland. Shalmaneser V besieged Samaria, but Shoshenk did not send any military expedition to relieve the siege of Samaria by the Assyrians: there is no mention of it in the books of Kings or Chronicles, nor in the extant Egyptian documents.

Isaiah warned:

Therefore shall the strength of Pharaoh be your shame, and the trust in the shadow of Egypt your confusion.

For the Egyptians shall help in vain, and to no purpose . . . their strength is to sit still. (30: 3, 7)

It was more than confusion: it was an end of national existence for the northern kingdom, or of Israel, the Ten Tribes.

“Then the king of Assyria came up throughout all the land, and went up to Samaria, and besieged it three years.” (II Kings 17: 5)

For three long years Samaria withstood the siege; nothing is known of what took place among the besieged, besides that they defended their capital, the last unconquered city; no word of any prophet among the besieged survived, as did the words of Jeremiah from the besieged Jerusalem less than one hundred and forty years later. This is how Sargon II described the conquest of Samaria:

At the beginning of my royal rule, I _ _ _ the town of the Samaritans I besieged, conquered. _ _ _ for the god _ _ _ who let me achieve this my triumph _ _ _ I led away as prisoners 27,290 inhabitants of it and equipped from among them soldiers to man 50 chariots of my royal

In earlier Assyrian conquests by Tiglath-Pileser III and Shalmaneser V, the people of the land had already been carried into exile; those removed by Sargon were the last of Israel—if we do not count those few who, still in time, went over to Judah.⁽²⁾ Hoshea was among those deported.⁽³⁾

The account of the Second Book of Kings is: “In the ninth year of Hoshea the king of Assyria took Samaria and carried Israel away into Assyria, and placed them in Halah and in Habor by the river Gozan, and in the cities of the Medes.”⁽⁴⁾

Sargon, referring to another of his campaigns (against Babylon) wrote: “I bespatted his people with the venom of death.” Of his campaign against Elam he wrote: “Into all their cities I cast gloom and turned all their provinces into deserted mounds.” He did likewise to Israel and to Israel’s land.

The king of Assyria brought throngs of settlers from Babylon, Cuthah, Hamath, Ava, and Sepharvaim and placed them in the city of Samaria. “The town I rebuilt better than it was before and settled therein peoples from countries which I myself had conquered.”⁽⁵⁾

The reign of Sargon II (-723 to -702), the conqueror of Samaria and the Israelite tribes, fell in the midst of a period of great natural upheavals. These upheavals, which marked the century between -776 and -687, I showed in *Worlds in Collision*, part II (“Mars”) to have been caused by perturbations in the celestial sphere—a battleground dominated in the sight of man on Earth by the planet Mars. The Earth was endangered at nearly regular intervals during this century by repeated near-approaches of this planet. Pestilence also broke out in many places and references in the cuneiform literature ascribe the cause of it to Nergal (Mars); earthquakes, overflowing, changes of climate—attested by Klimasturz and the abandonment of lake-dwellings in Central Europe—did not spare a single land. Calendars were repeatedly thrown out of order and re-founded—and the reader will find abundant material in the second part of *Worlds in Collision* and in *Earth in Upheaval*, where no human testimony, but only the testimony of nature, was presented; and my material could be multiplied by any dedicated researcher. these changes moved entire nations to migrations in the hope that beyond the horizon fertile lands, not damaged by unchained forces of nature, awaited the conquerors.

It seems that in one of the earliest waves of the eighth-century migrations the Phrygians moved from Thrace over the Hellespont into Asia Minor. The tradition is that the first king in their new domicile was Gordias, and the story of his selecting the site for his capital Gordion is a well-known legend. Soon he came into conflict with the Assyrians who opposed the penetration of newcomers into central Asia Minor, and Sargon II moved westward to stop the penetration of the Phrygians, by now ruled

by Gordias' son Midas.

In the decades that followed the Scythians descended from the steppes of Russia and moved along the Caspican coast. The Scythians at that time worshipped Mars, and a sword as his sign, for a while leaving their ancient worship of Saturn in abeyance—they were called Umman-Manda, or People of Saturn, in the Akkadian and so-called “Hittite” literary texts. The Scythians in their migration displaced the nomadic Cimmerians, pushing them towards the south and west. The Assyrian defenses withstood the Cimmerian onslaught, but at a heavy cost, which included the death of Sargon in battle in -702.

References

1. Luckenbill, *The Records of Assyria*, Vol. II, par 4.
2. [Archaeological evidence attests to a marked increase in the population of Judah at this time, presumably caused by a large influx of refugees from the northern kingdom.]
3. Josephus, *Antiquities of the Jews* XIV.1.
4. [See I. Velikovsky, “Beyond the Mountains of Darkness,” in *KRONOS* VII.4 (1982)].
5. Luckenbill, *Records of Assyria*, Vol. II, par. 4. (Sargons' s annals).





The Conquest of Ashdod

With Samaria's fall, the last stronghold of opposition to Assyria was extirpated; not only did Egypt lose all of its remaining influence in Asia—its last Libyan rulers were themselves compelled to submit to Assyrian overlordship. By Sargon's seventh year "Pir'u the king of Musru" (Pharaoh, king of Egypt) is listed among those sending tribute to Assyria. Later in the same year a certain Yamani⁽¹⁾ seized power in Ashdod, an independent principality next to Judah on the coast; trying to organize an anti-Assyrian league and to enroll the help of Egypt, he, as Sargon recounts in his annals, "sent bribes to Pir'u king of Musru, a potentate incapable to save him—and asked him to be an ally." The rebellious prince tried also to involve Judah (Ia-u-di) in the conspiracy: but Hezekiah, probably at Isaiah's urging, refused to risk the nation's fate on so doubtful a venture. Informed of Yamani's revolt, Sargon gathered chosen troops and sent them against the rebel: "In a sudden rage I marched quickly . . . against Ashdod, his royal residence."⁽²⁾ Without Egyptian help, the outcome was not long in doubt—the Assyrian king looted the rebellious city, along with other towns on the Philistine coast. Yamani "fled into the territory of Musru [Egypt] which belongs (now) to Ethiopia."⁽³⁾

The rebel king of Ashdod, however, did not find a safe haven with the Ethiopian king: "The king of Ethiopia, who lives in a distant country, in an inapproachable region . . . whose fathers never—from remote days until now—had sent messengers to inquire after the health of my royal forefathers, he did hear, even that far away, of the might of Ashur, Nebo, and Marduk. The awe-inspiring glamor of my kingship blinded him and terror overcame him." The Ethiopian king, anxious to conciliate the powerful king of the north, extradited the rebel Yamani: "He threw him in fetters, shackles and iron bands, and they brought him to Assyria, a long journey." No mention is made of "Pir'u king of Musru" whose aid Yamani had sought only a few months earlier, and it must be assumed that he had been deposed by the king of Ethiopia.⁽⁴⁾

This episode marks the first appearance of the Ethiopians in the Assyrian annals.

The same events are described by Isaiah, a contemporary. The short twentieth chapter of Isaiah opens with the verse: "In the year that Tartan came to Ashdod, when Sargon the king of Assyria sent him, and fought against Ashdod, and took it." Isaiah continued and warned: "So shall the king of Assyria lead away the Egyptian prisoners and the Ethiopians captives, young and old, naked and barefoot, even with their buttocks uncovered, to the shame of Egypt. And they shall be afraid and ashamed of Ethiopia their expectation, and of Egypt their glory."

It is not spelled out whom the prophet had in mind by saying “they”: Israel had already been exiled in Sargon’s first year; Isaiah apparently had in mind a party in Judah which saw rays of hope in the recent replacement of the Libyan masters of Egypt by an Ethiopian overlordship.

Displaying a sense of statesmanship, Isaiah, in the manner of a dervish, walked unclothed and barefoot to emphasize the significance and possible consequences of an erroneous orientation.

The quoted first verse of the twentieth chapter of Isaiah contains the only mention of Sargon in the Scriptures. Tartan, sent by Sargon to fight against Ashdod, is not a private name; it is a high military and administrative title.⁽⁵⁾

We have already read of the circumstances of the fall of Ashdod in the cuneiform inscriptions of Sargon II.

References

1. The name Yamani was understood by several scholars as meaning “The Greek.”
2. Luckenbill, *Records of Assyria*, vol. II, par. 62.
3. *Ibid.*, II.
4. A. Spalinger, “The Year 712 B.C. and its Implications for Egyptian History,” *Journal of the American Research Center in Egypt*, 10 (1973), pp. 95-101.
5. See J. Pritchard, *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 1950), p. 285, n. 4: “The Assyrian word [‘turtan’] refers to a high military and administrative official second in rank only to the king. . . . Besides ‘turtannu’ also ‘tartanu’ is attested.





Sennacherib: the Year - 701

The empire Sennacherib, son of Sargon, inherited was enormous: “The god Assur has intrusted in me an unrivalled kingship . . . from the upper sea of the setting sun to the lower sea of the rising sun, all mankind he has brought in submission at my feet—and mighty kings feared my warfare, leaving their abodes and fleeing. . . .” On climbing the throne, Sennacherib embarked on a series of campaigns aimed at expanding it further still. He wrote of his marching troops: “With the dust of their feet they covered the wide heavens like a mighty storm with masses of dense clouds,” and he boasted: “The tents of the steppe . . . I turned into a mass of flames . . . I swept like a hurricane. I besieged, I captured, I destroyed, I devastated, I burned with fire.”

After two campaigns against his enemies in the north, and still early in his reign, Sennacherib led his forces toward Syria and Palestine. The Assyrian army swept along the coast. It attacked Sidon and Luli, its king, fled into the sea and perished. Sennacherib appointed a new king and received tribute from him. Arvad and Ashdod, Ammon and Edom, brought him gifts and “kissed [his] feet.”

Sennacherib encircled Beth-Dagon, Jaffa, and Bne-Brak and conquered them. “The people of Ekron became afraid and called upon the Egyptian king, the bowmen, chariots and horses of the king of Melukha [Ethiopia], a boundless host, and these came to their aid.” The Assyrian army met them at Eltekeh, a small town on Palestine’s Mediterranean coast. “In the plain of Eltkekeh (*Al-ta-qu-u*), their battle lines were drawn up against me, and they sharpened their weapons.” Sennacherib “fought with them and brought about their defeat. The Egyptian charioteers and princes, together with the charioteers of the Ethiopian king my hands took alive in the midst of battle.” the Egyptian-Ethiopian army was defeated at the walls of Eltekeh; neighboring Ekron was stormed and its inhabitants killed, their corpses hung on poles around the town.

“As to Hezekiah, the Judean (*Ha-za-qi-(i)a-u Ia-u-da-ai*), he did not submit to my yoke.” Sennacherib besieged the “strong cities” of Judah and the “walled forts” and “countless small villages in their vicinity,” and took them by assault, sending the surviving population into exile: “200,150 people, young and old, male and female.” Then he turned against the capital: “I made (Hezekiah) a prisoner in Jerusalem, his royal residence, like a bird in a cage.” Nevertheless, Jerusalem held out and Sennacherib withdrew, though not before exacting a heavy ransom. “Hezekiah himself, whom the terror-inspiring filendor of my lordship had overwhelmed . . . did send me, later, to Nineveh, my lordly city, together with 30 talents of gold, 800 talents of silver, precious stones . . . couches (inlaid) with ivory . . . elephants hides . . . and all kinds of valuable treasures, his own daughters, concubines, male and

female musicians. In order to deliver the tribute and to do obeisance as a slave he sent his (personal) messenger.” Having agreed to the ransom, Jerusalem was not entered by the Assyrian army. The corresponding Biblical record in the Second Book of Kings (18:14) differs only in the quantity of silver in the ransom. It, too, mentions thirty talents of gold, but only three hundred talents of silver.

Besides this record on a clay prism, Assyrian bas-reliefs show the siege of Lachish in southern Palestine, on the way from Jerusalem to Egypt. From the Biblical narrative (II Kings 18:14) we know that Sennacherib was at Lachish, pressing the siege, when he received Hezekiah’s submission. Lachish must have fallen not long afterwards; the reliefs depict the fall of the city and a procession of its inhabitants being taken away to Assyria, some on donkeys, some on foot, carrying their meagre possessions.

Did Sennacherib press further south toward Egypt? In the extant inscriptions Sennacherib did not mention a specific campaign in Egypt and Ethiopia. Since early times the question has occupied the historians: Did Sennacherib subdue Egypt, or did he not?

Herodotos wrote that Sennacherib came against the land of Egypt “with a great host” and encamped at Pelusium near its northeastern frontier.⁽¹⁾ Berosus, who wrote a history of Chaldea, said that Sennacherib conducted an expedition against “all Asia and Egypt.”⁽²⁾ Jewish tradition tells of the conquest of Egypt by Sennacherib and of his march towards Ethiopia: “Sennacherib was forced to stop his campaign against Hezekiah for a short time, as he had to move hurriedly against Ethiopia. Having conquered this ‘pearl of all countries’ he returned to Judea.”⁽³⁾

It appears that after the battle of Eltekeh in southern Palestine, where he was victorious over the Ethiopian-Egyptian army, and having broken the resistance of Hezekiah and reduced the fortified city of Lachish on the approaches to Egypt, Sennacherib crossed the border of Egypt proper and at Pelusium received a declaration of submission.

References

1. Herodotos II. 141.
 2. Josephus, *The Antiquities of the Jews* X. i. 4.
 3. L. Ginzberg, *The Legends of the Jews* (Philadelphia, 19xx), vol. VI, p. 365; cf. *Seder ‘Olam* 23. Talmudic sources also relate that after conquering Egypt Sennacherib carried away from there the throne of Solomon (Ginzberg, *Legends*, IV, p. 160.
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Sethos

Herodotus in his history of Egypt placed Sennacherib's invasion in the reign of "the priest of Hephaestos, whose name was Sethos." At that time, he wrote, "king Sanacharib (came) against Egypt with a great host of Arabians and Assyrians."⁽¹⁾ It is generally assumed that Herodotus or his informants made a mistake: "In the popular tradition preserved by Herodotus the name of the Egyptian king is given as 'Sethos' . . . the true appellation of the monarch has disappeared in favor of the great Seti. . . . It is impossible to reject the whole story to the actual period of Seti in face of the direct mention of Sennacherib (Sanacharaibos)."⁽²⁾

In the conventional scheme of history Seti the Great lived in the latter part of the fourteenth century; the events with which we are now concerned took place in the final years of the eighth century. Sethos of Herodotus was now, however, Seti the Great, as was surmised by the historian quoted above: he was his grandfather. To keep the narrative free from misunderstandings, I shall call the first of that name the way Herodotus called him, "Sethos," retaining for the more famous grandson the name Seti.⁽³⁾ If we can prove our thesis then the confusion of history, for which Herodotus is not to be blamed, put the grandson six hundred years before his grandfather.

Sennacherib invaded Egypt twice. His first campaign resulted in a victory for the Assyrians and Egypt's submission; his second, fifteen years later, as it will be told, ended in disaster. Sennacherib's records speak only of his first campaign and are silent about the second; the Scriptures do not distinguish between the two campaigns; and in the Egyptian record, transmitted by Herodotus, only the second campaign was remembered.⁽⁴⁾ Each of our sources has preserved only a part of the story, and to obtain the complete picture we must draw on each of them in turn.

References

1. Herodotus, *The Histories*, transl. by A. D. Godley (London, 1938), II. 141.
2. H. R. Hall, *The Ancient History of the Near East*, p. 492. See also idem in *The Cambridge Ancient History* (1925), Vol. III, p. 279: "It is simpler to suppose that it is merely a traditional confusion of the old name Seti in a wrong setting."
3. The more complete name of the grandfather, Sethos, was Userkheprure-setpenre Seti-merenptah, and of his famous grandson *Seti-merenptah - menmaat* re, or Seti Ptah-maat. Merenptah means "beloved of Ptah." The

Greeks identified Ptah with Hephaestos. In describing Sethos as a priest of Hephaestos, Herodotos was evidently referring to Seti's second name. Cf. F. Ll. Griffith, *Stories of the High Priests of Memphis* (Oxford, 1900), p. 8, note 1.

4. Herodotus is likewise silent about the conquest of Egypt by Esarhaddon and Ashurbanipal; nor does Manetho record Egypt's humiliation by Assyria.





The Three Brothers

Egyptian traditions recorded by Manetho and preserved by Josephus contain some intriguing facts about Sethos and his contemporaries. The heroes of the story are Sethosis and his two brothers Ramesses and Harmais. Sethosis was the king of Egypt. His name is like that of king Sethos who, according to Herodotus, went to war against Sennacherib. The text, familiar to all who read Josephus, is as follows:

The last-named king [Sethosis], who possessed an army of cavalry and a strong fleet, made his brother Harmais viceroy of Egypt and conferred upon him all the royal prerogatives, except that he enjoined upon him not to wear the diadem [and] not to wrong the queen . . . He then departed on a campaign against Cyprus and Phoenicia, and later against the Assyrians and the Medes . . . meanwhile, sometime after his departure, Harmais, whom he had left in Egypt, unscrupulously defied all his brother's injunctions. He violated the queen . . . put on a diadem, and rose in revolt against his brother. . . . Sethosis instantly returned to Pelusium and recovered his kingdom.⁽¹⁾

This is the opening of the story as Josephus gleaned it from Manetho. Manetho, in his Sethosis, amalgamated the Sethos mentioned by Herodotus who went to war against the Assyrians under Sennacherib, and Seti the Great, who two generations later fought against the Scythians, Babylonians, and Medes as ally of Assyria, the subject of a later chapter of this volume. Harmais is Haremhab of the monuments; his being a brother of the king probably reflects the true situation. Like Sethos, he was educated to be a priest.

The work of Josephus Flavius which contains the above-quoted passage, *Contra Apionem* ("Against Apion"), a polemical work of the first-century Jewish historian, was copied repeatedly by hand; the earliest version that reached us dates from the eleventh century and is called the "Laurentinian" manuscript, so named for the monastery of St. Laurence where it was preserved; other extant versions are but copies of the Laurentinian manuscript. In that earliest extant manuscript of the work, where the story of the two brothers Sethos and Harmais starts, there is an interpolation in the form of a marginal note, worded as follows: "In another copy was found this reading: 'After him⁽²⁾ Sethosis and Ramesses, two brothers. The former [Sethosis] . . . slew Ramesses and appointed Harmais, another of his brothers, viceroy of Egypt.'"

In Egypt, since ancient times, the royal succession was supposed to follow the female line—an heir to the throne usually legitimized his claim by marrying a sister of his.

The exhortation by Sethosis when he left for the front, made to his brother Harmais, not to wrong the queen and not to wear the diadem, we understand now is but one exhortation. Taking over the supreme power in the country was conditional on “violating” the queen, or marrying her while she was still the wife of another.

References

1. Josephus, *Contra Apionem*, transl. by Thackeray, pp. 201ff; cf. Diodorus Siculus I. 28. 2; 97. 2.
2. An unidentified king named Amenophis.





Queen Tworse

There now comes upon the scene a remarkable woman by the name of Twosre.”⁽¹⁾ Jewelry found in a nameless *cache* in the Valley of the Kings shows her to have been Sethos’ principal wife; “a silver bracelet depicts her standing before her husband and pouring wine into his outstretched goblet.”

“Remarkable” Twosre is claimed to have been not because of what is known about her life and reign—and very little is known—but for circumstances that are baffling. Why did she have a separate tomb in the same valley as her husband? The honor of having her own tomb in the Valley was a distinction previously accorded “to only one other royalty of female sex, namely Hatshepsowe [Hatshepsut]”⁽²⁾ however, Hatshepsut was not a queen by virtue of having married a king, but in her own right, as a suzerain.

Besides the very fact of having her own tomb in the Valley, separate from that of her husband Sethos, the contents of the tomb are “even more intriguing.” Gardiner describes the perplexing circumstances: she bears the title of “King’s Great Wife” by virtue of her marriage to Sethos, but one scene⁽³⁾ shows her standing behind another king who is making an offering; the name of this king, Merneptah-Siptah, has been plastered over and that of Sethos cut into the same space. “Since there are excellent reasons for thinking that Sethos was the earlier of the two kings, this replacement [the substitution of Sethos’ name for Merneptah-Siptah’s] must have been due to Twosre’s later preference to be depicted with the king who had been her actual husband.”⁽⁴⁾ With this motive Gardiner sought to explain why the name of Sethos, Twosre’s presumably deceased husband, had been carved over the name of the other king, Merneptah-Siptah, who is depicted standing next to her.

Twosre and her consorts intrigued the historians since the early days of modern Egyptology. In her tomb in the Valley of the Kings, on various places on the walls, she is called *King’s Great Wife*—but immediately we will be confronted with the problem of who were here husband-kings and in what order. Further, she is called *Lady of the Two Lands* and *Mistress of Upper and Lower Egypt*, which is the same as being a pharaoh herself; and another title is attested: *Hereditary Princess*.

For the present effort to resolve the vagaries surrounding Twosre and her time the last of the mentioned titles is of import. Twosre had claims to a pedigree from a royal house—and in the frame of this reconstruction it must have been the house of the Thutmoses and Amenhoteps of the Theban (Eighteenth) Dynasty that came to its end over a hundred years earlier, with the advent of Libyan rule.

A genealogical evidence of Twosre's pedigree must have survived and must have been rather unique. In Egypt, traditionally, the throne was inherited through a royal princess and marriage of a royal son to such an heiress legalized the succession. Her consort, whoever he was, would be elevated to kingship.

The evidence from the tomb of Twosre and from the other scattered archaeological finds, instead of offering a clear answer, presents a confused and much debated state of affairs. What follows is an attempt at a reconstruction of the sequence of events.

As we see it, a clue to the strange facts of Twosre having a tomb separate from that of her husband, and of her being pictured there with another king whose name was subsequently replaced with that of her husband Sethos, can be sought in the legend about the three brothers. Ramses Siptah appears to correspond to Ramses of the legend, and to have died at the hands of Sethos.

When Sethos killed his brother Ramses Siptah, he did not replace him yet on the throne of Egypt; his action was in the nature of a guerrilla assassination, he being an insurgent leader opposing the Assyrian domination of his country.

At some period of her career Twosre claimed the title of Pharaoh, not just royal wife or queen. All points to the time immediately following the assassination of her husband, Ramses Siptah. At the death of her husband she was pregnant and Bey, the Assyrian plenipotentiary, set to pronounce her issue as the occupant of the throne upon birth, would not leave the pharaoh's seat vacant in the interim. This Bey, who was not of Egyptian origin, but possibly "a Syrian by birth" let a tomb be excavated for himself in the Valley of the Kings; even though this tomb is not spectacular, still it was most inappropriate for anybody not of the royal house to be entombed in the Valley of the Kings. "It is a strange and unprecedented thing that three contemporaries should have possessed tombs in the Valley of the Tombs of the Kings," the other two being Sethos and his wife Twosre.

This order of events explains the otherwise enigmatic state of things with Twosre called "Hereditary Princess," then "Royal Wife," with a different husband holding the scepter and donning the crown of upper and lower Egypt. Her claiming the Pharaoh's role and title is attested by the fact that she took a throne name⁽⁵⁾

and called herself "Lady of the Two Lands" and "Mistress of Upper and Lower Egypt" ;⁽⁶⁾ later even "King of Upper and Lower Egypt."⁽⁷⁾ She is associated with Bey, who refers to himself as "Great Chancellor of the Entire Land."⁽⁸⁾ As soon as Twosre bore a son, he was made the pharaoh; he received the name Merneptah Siptah. Bey, according to his own words, "establishes the king on the seat of his father."⁽⁹⁾ Whereas Ramses Siptah provened from a not princely family and gained his kingdom thanks to marrying Twosre, in the case of his infant son Merneptah Siptah, Bey could base his action on the fact that the deceased father had been a

pharaoh.

In 1962 a scholar discerned a certain figure of Merneptah-Siptah, showing him as a small boy sitting on the lap of his mother Twosre, who is referred to as a protectress of the boy-Pharaoh.⁽¹⁰⁾ Thus the throne was ceded to the infant, and he occupied it for several years, possibly six. Twosre's new title was "protectress of the pharaoh."

Ramses Siptah was buried in a tomb of his own in the Valley of the Kings, and in his funerary temple at Thebes Bey's name was found in the foundation deposits.⁽¹¹⁾ His tomb was discovered by Theodore Davis in 1~~~. He suffered in life from the effects of polio—one leg was found shorter than the other. At his death he was in his early twenties.⁽¹²⁾

In the same volume Davis published also find he made in an unnamed tomb—it was a *chache* with treasures of Queen Twosre. Among other bracelets and jewelry, a silver bracelet, mentioned earlier, is most significant—she is shown pouring wine into a goblet held by her husband Sethos. The engraved scene bears similarity to a scene adorning the throne of Tutankhamen—with him sitting, holding a goblet, and Ankhesenpaaten, his young wife, standing before him and pouring wine. This, and several other scenes and statements, make clear that Twosre at some time became the royal wife of Sethos. This way he, too, established in the eyes of the clerics and the people his right to mount the throne. Like his brother Tamses Siptah, he was of rather undistinguished origin.

By the size of the boy, Merneptah Siptah, compared with the lap of his mother and the part of the hand still surviving on the sculpture, it can be judged that Merneptah Siptah remained "in power" or in the position of a puppet of Sargon and Bey for a number of years. An inscription found in Nubia refers to his sixth year.⁽¹³⁾

Sargon's ruling years are given as -722 to -705 when he was killed battling against the Cimmerians on his northern frontier, and his son Sennacherib grasped the scepter. During these seventeen years Ramses Siptah counted a year or so on the throne, Twosre less than a year, Merneptah Siptah six years. From then on the count of Sethos' years starts. He survived Sargon. Since his occupation of Thebes, the Assyrian influence in Egypt was quickly abating. Of Bey nothing is heard again, nor of any other Assyrian functionary. With the advent of Sethos, no longer an insurgent, but an occupant of the throne, Twosre being now his wife, of the boy pharaoh nothing is heard. Was he banned, did he die a natural death, was he killed, or was he only deposed and exiled, or even imprisoned?—we do not know. But there are indications that the marriageable Twosre had some more romantic or tragic experiences in her matrimony. We shall retake the detection effort before long.

References

1. Gardiner, *Egypt of the Pharaohs*, pp. 277f.
2. *Ibid.*, loc. cit.
3. Right wall of the entrance corridor (A); see R. Lepsius, *Denkmaeler aus Aegypten und Aethiopien*, III, pl. 201b.
4. Gardiner, *Egypt of the Pharaohs*, pp. 277f.
5. *Sitre merit-Amen*: see Petrie, *Six Temples at Thebes* (London, ~~~~), pl. 16, 1-7; 17, 2; 19, 2; cf. J. von Beckerath, "Die Reihenfolge der letzten Koenige der 19. Dynastie," *Zeitschrift der Deutschen Morgenlaendisches Gesellschaft* 106 (1956), p. 249.
6. Gardiner, "The Tomb of Queen Twosre," *Journal of Egyptian Archaeology* 40 (1954), p. 42.
7. J. von BEckerath, "Queen Twosre as Guardian of Siptah," *Journal of Egyptian Archaeology* 48 (1962), p. 70.
8. Gardiner, *Egypt of the Pharaohs*, p. 277.
9. *Ibid.*,
10. Von Beckerath, "Queen Twosre as Guardian of Siptah," pl. 3.
11. *Ibid.*, p. 70.
12. J. E. Harris and K. R. Weeks, *X-raying the Pharaohs* (New York, 1973), p. 159.
13. J. Reisner, *Journal of Egyptian Archaeology* 6 (1920), pp. 47-50.





Haremhab Appointed to Administer Egypt

It is regularly admitted that it is not known how and when Haremhab became king of Egypt. Some think that he was the last king of the Eighteenth Dynasty; some place him at the beginning of the Nineteenth Dynasty.⁽¹⁾ He was not the son of a king, nor was he the father of Ramses I, who followed him.⁽²⁾ “Nothing is known of his antecedents.”⁽³⁾ He was appointed by a king to rule the country, and some time after a campaign of conquest or re-conquest against Ethiopia he was designated by the king to be crowned. Nowhere is found the name of the king who appointed him to this extraordinary office. Who could the appointing monarch have been? It was often surmised that he was Akhnaton. But Akhnaton had sons-in-law who followed him on the throne, Smenkhkare and Tutankhamen. Often this role is ascribed to Tutankhamen—but the youthful king was followed by an old general, Ay, the maternal grandfather of the two young princes. Was it Ay who appointed Haremhab to administer the land for him, and then, in his own lifetime, crowned him? But “of Haremhab’s relation to Ay we know absolutely nothing.”⁽⁴⁾ And if there is no historical link between Haremhab and Ay, the last known king of the Eighteenth Dynasty, does any compelling reason exist, or even any ground whatsoever, to place Haremhab immediately after Tutankhamen or after Ay, where we usually find him in books on history? A likely ground is not only non-existent, but everything confounds such placement of the “appointed pharaoh.”

Had Haremhab been a prominent official in the days of el-Amarna, he, like other generals and courtiers, would have had a sepulchral chamber built for him in the necropolis of Akhet-Aton (el-Amarna).⁽⁵⁾ But no tomb, nor any other monument of his, was found there. However, while yet a general, he built for himself a tomb near Memphis, a place rather neglected during the Eighteenth Dynasty; later he prepared another tomb for himself at Thebes.⁽⁶⁾

The finely sculptured Memphite tomb of the “Great Commander of the Army” Haremhab was discovered early in the nineteenth century. At that time it was dismantled and its blocks with inscriptions and bas-reliefs were scattered among many private and public collections. Through subsequent decades scholars spent efforts in trying to trace the parts and collate the pictures and texts. Some blocks described in older publications have since been lost—a block seen many years ago in a private collection in Alexandria is such a case. The museums of Leyden, Vienna, Bologna, and Berlin preserve disunited portions of the tomb. More sculptured blocks

have been retrieved in the newly-resumed excavations by the Egypt Exploration Society, beginning in 1975.⁽⁷⁾

Haremhab's own statement of his title at the time his sepulcher near Memphis was being prepared is:

Chosen of the king, Presider over the Two Lands [Egypt], in order to carry on the administration of the Two Lands, general of generals of the Lord of the Two Lands.⁽⁸⁾

Such titles no officer under the king had ever borne. Under what ruler he thus served is not certain, but whoever he was, such power in the hands of a subject must necessarily have endangered his throne.”⁽⁹⁾ On another fragment from his tomb he is called “The commander-in-chief of the army, Haremhab,” and on still another, “Deputy of the King, presiding over the Two Lands.”⁽¹⁰⁾ But in the pictures next to these inscriptions he wears the diadem with the uraeus, a cobra, the emblem of royal power in Egypt.

The scholars are thus compelled to the conclusion: “Incongruity in the tomb: Throughout its reliefs the figure of the general Haremhab wears the uraeus.”⁽¹¹⁾ It is unique in Egyptian representational art that a uraeus should crown the head of a person who does not occupy the throne. An explanation was offered that the uraeus must have been added to the diadem at some later time, after Haremhab was crowned.⁽¹²⁾

The bas-reliefs in the tomb in various scenes show Haremhab in a pose of submission before a king, but the figure of the king is regularly erased on the surviving fragments; the figure of the king was deliberately destroyed in ancient times. On one bas-relief Haremhab is shown with his right arm lifted in adoration of the king whose figure, probably much larger than that of Haremhab, is not preserved; in his left hand Haremhab holds a fan, and throughout the texts he carries the honorific title “the fan-bearer to the right of the king.”

On another block (Berlin fragment), Haremhab is shown in front of another group of Egyptian dignitaries; he and the rest of them display obeisance by bending their bodies before the king whose likeness is not preserved; Haremhab, though in front of those who pay homage, is not depicted larger than the others in the group: nor does he wear a diadem on this bas-relief.

Dignitaries of foreign lands, Syrians being prominent among them, are shown as paying homage and affirming their role of vassals to the king, whose likeness is destroyed.

The text, reconstructed by Gardiner, makes it appear that the foreign chiefs availed

themselves of Haremhab's good standing with the king to assure him of their loyalty.

Words spoken to His Majesty _ _ _ when _ _ _ came the great ones of all foreign lands to beg life from him, by the hereditary prince, sole friend and royal scribe Haremhab, justified. He said, making answer (to the king _ _ _ foreigners) who knew not Egypt, they are beneath thy feet forever and ever; Amun has handed them over to thee. . . . Thy battle cry is in their hearts.” [\(13\)](#)

Despite the lacunae it is clear that “the king is addressed with flattering words and is assured that his might extends over all lands.” [\(14\)](#)

In front of a huddled group of foreigners, none shackled, a personage proclaimed by a group to be an interpreter, speaks to them; Haremhab, also present and shown larger than the interpreter, attentively listens to him. A raised surface above the head of that man had been prepared for the words spoken by him, but was never filled. The foreigners, by their arms lifted in adoration, document the royal presence; the figure of the king, however, as in the rest of the bas-reliefs, is not preserved. Like Haremhab, “the great ones of all lands who came to beg life” listen to what the interpreter has to say. “The words *of all lands* are of importance,” observes Gardiner, and makes a point also of the fact that Haremhab is seen “in converse with the interpreter,” but he draws no further conclusion from these texts.

On many bas-reliefs of the Eighteenth Dynasty, like those of Hatshepsut, Thutmose III, Amenhotep III, or Akhnaton, foreigners are shown in the presence of the pharaoh either as prisoners or as vassals, but never is a person designated as interpreter depicted; nor do the bas-reliefs of the Nineteenth Dynasty, with foreigners depicted, show interpreters. Was the king whose likeness we miss not versed in Egyptian?

Another fragment from the Memphite tomb of General Haremhab (no. 1889 from Bologna) has a scene chiseled in low relief showing a horse rider between groups of what appear to be soldiers and laborers, possibly in an armed camp. A horserider is practically unknown from Egyptian art—the Egyptians used horses to draw chariots or wagons, but not to ride horseback. The rider in the scene sits on the horse with no saddle under him. “A person is shown mounted on a horse without a saddle—a representation most unique *rarissime*) in Egyptian art, and the person has not the appearance of an Egyptian, though he holds in his hand an emblem of a dignitary. . . .” [\(15\)](#) But this was the Assyrian way of riding horses—never with a saddle, for the most placing a rug or cloth on the horse's back to sit upon.

The way the horses are depicted on Assyrian bas-reliefs differs greatly from the ways they are presented in Egyptian, Mycenaean, or Scythian reliefs, and each of these differs also from all others. The design of the horse with its rider on the stone plate in the Bologna collection from the Memphite tomb of Haremhab is not Egyptian, but clearly Assyrian. the prancing horse under a rider with one of the front

legs raised from the ground, and also its mane arrangement, and the way the artist generally treats the horse, are eminently Assyrian. The Egyptian steed, never for horseback riding and regularly drawing a chariot whether in war or in hunt, has traditionally two forelegs raised, thus charging in gallop, differs in every detail from the horse under the rider on the Bologna fragment from Haremhab's bas-relief. The Assyrians are credited with the development of cavalry; in the words of a Hebrew prophet, "Assyrians . . . horsemen riding upon horses." [\(16\)](#)

The fact that throughout the texts the name of the king is not given is strange, and does not follow established practice, or, one may say, an otherwise unalterable rule: in Egyptian texts the native Pharaoh is always named by his royal names and cognomens, not just as "His Majesty." Together with the presence of a translator to interpret the words of the king to his vassals, the Egyptian commander-of-the-army among them, and likewise the employ of cavalry, must impress ever stronger that the king whose likeness is absent and whose name is not given was a foreign monarch, and more concretely, an Assyrian king.

In the same tomb the enigmatic king is called "The Great of Strength [who] will send his mighty arm in front of [his army _ _ _ and will] destroy them and plunder their towns and cast fire into _ _ _ and _ _ _ foreign countries will set others in their places." [\(17\)](#)

In Egyptian texts of conquest, the expression "plunder their towns" is not infrequently met with; but "cast fire into [their lands]" is not usual. In the records of Sennacherib and of his son Esarhaddon, as also in those of earlier and later Assyrian kings, the graphic descriptions of their "scorched earth" tactics make clear that casting fire was a never absent feature of their warfare. "I besieged, I captured, I destroyed, I devastated, I burned with fire," wrote Sennacherib in the record of his second campaign, and similarly of his fifth, sixth, and seventh campaigns. [\(18\)](#) He called himself "the flame that consumes the insubmissive." [\(19\)](#) This epithet of the great king—"the flame"—is also used by Haremhab: not in describing himself, but in addressing the king who appointed him: "Thy name is flame." [\(20\)](#) It was a fitting cognomen of Sennacherib, and Haremhab used it too in offering an epithet in lieu of a name to designate the Assyrian king.

The removal of entire populations from their lands was a practice peculiar to the Assyrians and their warfare (later also adopted by the Chaldeans); the Egyptians never transferred conquered peoples from one country to another. Yet the last line of the above quoted text from the tomb of Haremhab (" _ _ _ foreign countries will set others in their places") refers to such measures. Breasted's reading of the passage was: " _ _ _ Asiatics; others have been placed in their abodes." [\(21\)](#) Sargon, father of Sennacherib, removed the last of the Ten Tribes from Samaria and her cities and settled others in their place (II Kings 17:24), and according to his prism inscriptions Sennacherib removed large numbers of people of Judah, over two hundred thousand,

from their land to exile. ⁽²²⁾

On a stone from Haremhab's tomb, discovered serving as a doorpost in a building in Cairo, Haremhab is described as "a henchman at the feet of his lord on the battle field on this day of slaughtering the Asiatics." ⁽²³⁾ On another fragment (at Alexandria) he is said to have been "sent as the King's envoy to the sun-disc's rising, returning in triumph, his attack having succeeded." ⁽²⁴⁾ Many times in his tomb he is entitled "Great Commander of the Army," also one who was "chosen by the king to carry on the administration of the Two Lands [Egypt]."

All leads to the conclusion that Haremhab served under an Assyrian king as an appointed military administrator of Egypt.

References

1. "It is difficult at the present day to know what position to assign him [Haremhab] in the pharaonic lists: while some regard him as the last of the XVIIIth Dynasty, others prefer to place him at the head of the XIXth." Maspero *The Struggle of Nations*, p. 369; cf. A. K. Philips, "Horemheb, Founder of the XIXth Dynasty?" *Orientalia* 46 (1977).
2. E. Meyer, *Geschichte des Altertums* Vol. II, pt. I, p. 247; R. Hari, *Horemheb et la Reine Moutnodjemet* (Geneva, 1964), p. 412.
3. G. Martin, "Excavations at the Memphite Tomb of Horemheb, 1975: Preliminary Report," *Journal of Egyptian Archaeology* 62 (1976), p. 9.
4. A. H. Gardiner, "The Tomb of the General Haremhab," *Journal of Egyptian Archaeology*, vol. 39 (1953), note 3.
5. "An individual of the importance of Harmhabi, living alongside the king, would at least have a tomb begun for him at Tell el-Amarna." Maspero, *The Struggle of Nations*, p. 342, note.
6. G. Maspero, *The Tomb of Harmhabi and Toutankhamanou* (London, 1912).
7. Annual preliminary reports appear in *Journal of Egyptian Archaeology*.
8. James Breasted, *Ancient Records of Egypt*, Vol. III, Sect. 20
9. Breasted, *History of Egypt*, pp. 399f.
10. The Leyden and London fragments.
11. Breasted, *Ancient Records of Egypt*, Vol. III, sec. 12.
12. Breasted, *Zeitschrift fuer Aegyptische Sprache* 38 (1900), pp. 47-50; Martin, "Excavations at the Memphite Tomb of Horemheb, 1976," *Journal of Egyptian Archaeology* 63 (1977), p. 14: "The uraeus has been carefully added. . . ."
13. Gardiner, "The Memphite Tomb of the General Haremhab," *Journal of Egyptian Archaeology* 39 (1953), p. 5
14. *Ibid.*, p. 6.
15. Hari, *Horemheb et la Reine Moutnodjemet*, p. 74.
16. Ezekiel 23:112. Cf. Sargon II's reference to his mounted troops as "my

cavalry which never, even in friendly territory, leaves my side.” (Pritchard, *Ancient Near Eastern Texts*, p. 286.) For representations of horses of Sennacherib, see Sidney Smith, *Assyrian Sculptures in the British Museum from Shalmaneser III to Sennacherib* (London, 1938).

17. Gardiner, “The Memphite Tomb of the General Haremhab,” *Journal of Egyptian Archaeology* 39, p. 7.
18. Luckenbill, *Records of Assyria*, II, 238-250.
19. *Ibid.*, II.
20. The hieroglyphic sign for “fire” or “flame” is a noun. Gardiner (*op. cit.*, p. 5) translates not literally “Thy name flares” ; Breasted (*Records*, III.) renders the phrase more accurately as “Thy name is fire.”
21. Breasted, *Records*, III, sec. 11.
22. A total of 200,125 according to the Taylor Prism.
23. K. Pfluger, *Haremhab und die Amarnazeit* (1936), p. 16; also Hari, *Horemheb et la reine Moutnodjemet*, p. 89 and plate XIV.
24. The so-called Zinzinia fragment: Breasted, *Records*, III, sec. 8. Hari, *Horemheb et la reine Moutnodjemet*, p. 66 and pl. XI.





Haremhab Crowned

After a period of time during which Haremhab officiated as the head of the army and administrator of the land, he was crowned. The coronation inscription is preserved on the back of a double statue—of himself sitting with his queen.⁽¹⁾ This statue, now in the Turin Museum, is of fine workmanship; the head of the king, however, is broken off. The queen's name survived: Mutnodjme; and her position next to Haremhab at his coronation and the titles she bore indicate that she played an important part in the ceremony. When we study the text of the inscription it will become evident that Haremhab was in fact crowned at the wedding ceremony at which he married Mutnodjme; he was thus obliged to her for his elevation to the throne.

It would be not usual, but not unthinkable, that a commoner or a military man, having climbed in his career, should become a pharaoh when the throne turned vacant; or that a usurper should put the crown on his head after murdering the rightful pharaoh. But the case of Haremhab mounting the throne followed neither of these models. He was crowned by the king who did not abdicate at the occasion, nor remained as a co-ruler. Further, as just said, he was crowned at a wedding ceremony.

The inscription on the statue gives the story of Haremhab's grown in the king's favor and an account of the coronation ceremonial. "Now he acted as vice-regent of the Two Lands [Upper and Lower Egypt] over a period of many years." With his councillors Haremhab was "doing obeisance at the gates of the King's House." It also happened that "He being summoned before the Sovereign when the Palace fell into rage, and he opened his mouth and answered the King and appeased him with the utterance of his mouth." Haremhab had to assuage the King in his rage. Was the raging king the teenager Tutakhamen?⁽²⁾

In order to shorten the process of unravelling before the reader the meaning of the coronation text, let us substitute the proper person for the anonymous king. Sennacherib was the sovereign. He had Haremhab, a scribe, priest, and military man—a not unusual combination of offices in ancient Egypt—as the commanding officer in charge of an expedition against Ethiopia (Nubia) and as his regent over Egypt. In this capacity Haremhab succeeded to weather the rages of the wrathful overlord; by this, he claims, he won also the appreciation of his own people ("the people were happy").

Then the king, according to the inscription on the double statue,

knew the day of his good pleasure to give him his kingship. Lo, this god distinguished his son in the sight of the entire people. . . . The heart of the King being content with his dealings, and rejoicing at the choice of him.

In this and other passages “king” and “this god” are designations of the sovereign who crowned Haremhab.

The scene of the coronation starts when “his father Horus placed him [Haremhab] behind himself.” The translator of the text, Gardiner, comments in wondering: “but the place of a protective deity was behind the protected person” and he refers to various known instances when the falcon Horus or goddesses with protecting wings place themselves behind the royal figure they protect. Assuming a textual error and thinking of Horus as a deity, Gardiner corrects the sentence and makes of it: “His father Horus placed himself behind him [Haremhab].” The text however makes it clear that it was the much-feared monarch who stood in front of Haremhab and led him through the ceremony. “The form of a god was his aspect in sight of him who beheld his dread image,” is in the text, and once again Gardiner stumbles on the adjective “dread,” not usually applied to divine statues. ⁽³⁾

“Lo, this noble god Horus of Hnes, his heart desired to establish his son upon his eternal throne and he commanded _ _ _ [lines broken].” It was usual in Egypt to call the king “god” and also “noble god Horus” apparently in appreciation of the syllable *hr* in the name Sennacherib; more specifically, the Assyrian king is referred to as “this noble god Horus of Hnes.” Haremhab calls himself “god Horus of Hnes’ son.”

Then did Horus proceed amid rejoicing to Thebes, the city of the lord of Eternity, his son in his embrace, to Ipet-Isut (Karnak), in order to induct him into the presence of Amun for the handing over to him of his office of king.

The god-king inducted him “to his office and his throne.” From now on Haremhab is “Hereditary Prince, Chieftain [King] over the Two Lands” and his future issue is supposed to inherit the title and the throne. he proceeded to the palace, to “his [the king’s] noble daughter the Great of Magic, her arms in welcoming attitude, and she embraced his beauty and established herself in front of him.” ⁽⁴⁾

Mutnodjme is here identified as daughter of Sennacherib. She brought the crown to Haremhab: the coronation and the marriage ceremonies took place one following the other, on the same day. Haremhab became son-in-law of Sennacherib and for this reason he was called “son” of “this god”—the Assyrian king. The royal crown was placed “upon his head” and the populace acclaimed Haremhab as their savior. From now on, as the text makes it known, his titulary would be “Horus of Gold, Satisfied with Truth, fostering the Two Lands, King of Upper and Lower Egypt Djeserkheprure-setpenre, son of Re, Haremhab-Miamun, given life.”

Haremhab's wife is called "Great Wife of the King, Lady of the Two Lands, Mutnodjme, beloved of Isis." Queen Mutnodjme is also spoken of as a "great hereditary princess" and as "regent of Egypt"—and even "of all the countries." ⁽⁵⁾ Thus the queen occupied the throne not just because she was the king's spouse, but in her own right. Her exalted position is also reflected in her scarabs or signets. They were made of gold. The queens of the preceding ages, those that had scarabs of her own, had them made of various materials, mostly minerals, but not of gold; not even Hatshepsut who occupied the throne as "king" or from Tiy, the exalted queen of Amenhotep III, do we possess scarabs of gold. "Scarabs of gold are extremely rare—of the scores of thousands found in the soil of Egypt, not more than four examples are known." ⁽⁶⁾

The cause of this unusual status of the queen Mutnodjme as a regent of Egypt and also the reason for her having her scarabs molded in gold are no longer obscure—she was given as a wife to the administrator of Egypt by his suzerain, the king of Assyria, and at the same time her husband was promoted from the position of "King's Deputy" in Egypt to the status of a pharaoh, yet still dependent on his suzerain and even subordinate to his own queen.

References

1. A. Gardiner, "The Coronation of King Haremhab," *The Journal of Egyptian Archaeology* 39 (1953), pp. 13-31.
2. So Gardiner in "The Coronation of King Haremhab," p. 21: "[Haremhab] also dwells upon the confidence that had been reposed in him by the king, doubtless Tut'ankhamun, on whose behalf he had ruled over a long period of years—a time . . . when the temper of the Palace was not always as cool as it might have been, and needed the wisdom and moderation of a man as astute as himself to steer the ship of state aright."
3. *Ibid.*, p. 16.
4. "Established herself in front of him" is Breasted's translation (*Ancient Records of Egypt*). Gardiner amends it to "established herself upon his forehead"—which seems to make little sense unless she is metaphorically thought of as the uraeus, sign of royal power, with which Haremhab is now endowed.
5. Hari, *Horemheb et la reine Moutnedjemet*, p. 190.
6. *Ibid.*, p. 199.





Haremhab's Great Edict

Having assumed royal powers, Haremhab composed and published a decree, his Great Edict. The fragmentary text is inscribed on the largest stele ever found in Egypt. G. Maspero discovered it in Karnak in 1882.

“Hear ye these commands which my majesty has made for the first time, governing the whole land, when my majesty remembered these cases of oppression. . . .” And he gave his edict to deliver “the Egyptians from the oppressions which were among them.” [\(1\)](#)

The king who bestowed the crown on Haremhab was exalted by him, and called “god” and Haremhab called himself his “son” ; at the same time the rule of the land preceding that of Haremhab was branded by him as a wicked rule. Here again is an incongruity, unless the king who gave him the crown was not the king who ruled Egypt as a native ruler. The rule of Haremhab was that of a king named to administer Egypt by the decree of the foreign king.

Haremhab's Great Edict is a manifesto of his policy for keeping the state in order. The language of the Edict differs from the usual mode of expression of Egyptian edicts. It is a dry juridical document, clear and, apart from the introduction, free from the usual verbosity and figurative exaltations of Egyptian inscriptions. In such language were the legal documents of the Assyrians written.

Throughout the Edict of Haremhab emphasis is placed on the principle of justice. The Edict “might be entitled ‘The Justice of the King.’” [\(2\)](#)

Sennacherib wrote of himself as one “who likes justice, who established order.” [\(3\)](#) Haremhab used the same sort of language.

The Edict of Haremhab contains provisions for martial law. Punishment for offenders was severe: anyone interfering with boat traffic on the Nile, “his nose shall be cut off and he shall be sent to Tharu.” [\(4\)](#) This penalty was not known in Egypt before Haremhab; [\(5\)](#) but in the time of Sennacherib it was a customary punishment inflicted by the Assyrians on vanquished peoples. Sennacherib wrote in the annals of his eighth campaign, against Elam: “With sharp swords I cut off their noses.” [\(6\)](#)

For this reason Tharu, the place of exile of the mutilated offenders, was called Rhinocorura or Rhinocolura by Greek authors, meaning “cut-off noses.” [\(7\)](#)

Rhinocolura is el-Arish on the Palestinian border of Egypt.⁽⁸⁾

Another punishment prescribed in Haremhab's Edict is for a soldier accused of stealing hides: "one shall apply the law to him by beating him with 100 blows and 5 open wounds."⁽⁹⁾

Egyptian justice was traditionally marked by its humane treatment of criminals. From the first legal text that became available under the Old Kingdom, through the Middle Kingdom and much of the New Kingdom—in fact, until the time of Haremhab and the Great Edict—the punishment for most crimes involved the confiscation of a person's property and removal from office, in some cases forced labor. Only high treason, directed against the person of the king, was punishable by death. Although kings had themselves portrayed as killing prisoners of war, the maiming of Egyptian prisoners by disfiguring their faces is so uncharacteristic of the Egyptian idea of justice that some scholars have looked for a foreign influence to explain the introduction of these practices in the time of Haremhab.⁽¹⁰⁾ Punishments reminiscent of those mentioned in Haremhab's Decree—beatings, cutting-off of ears, nose, lips, and pulling out of the hair—are prescribed in Assyrian law codes of the second millennium. There are no Assyrian law codes extant from the time of Sennacherib—but clearly, there was a tradition and practice of harsh punishments in Assyria. Its introduction into Egypt, however, was only possible at the time that Egypt fell under direct Assyrian domination, and this occurred for the first time in the days of Sennacherib.

The Edict confirms what we have already deduced from the study of the Memphite tomb of Haremhab and of his coronation text: the pharaoh was an appointee of his Assyrian overlord. He refers to himself in terms not dissimilar from those with which Sennacherib, on the Taylor Prism, refers to his august person, stressing love of justice and support of the needy, but vengeance upon the offenders and the insubmissive. Sennacherib introduces himself in the opening passage as "The wise ruler (literally, "shepherd"), favorite of the great gods, guardian of the right, lover of justice, who comes to the aid of the needy, who turns (his thoughts) to pious deeds, perfect hero, mighty man; first among the princes, the flame that consumes the insubmissive . . ."⁽¹¹⁾ We have already noted Haremhab's comparison of his overlord to a "flame."⁽¹²⁾

References

1. Breasted, *Ancient Records of Egypt*, III. sec. 67. Cf. the translation by Maspero in Davis, *The Tombs of Harmhabi and Toutankhamanou* (London, 1912), pp. 45-57, and by Pflueger in *The Journal of Near Eastern Studies* 5 (1946), pp. 260-268.
2. Petrie, *History of Egypt*, II. 251.
3. Sennacherib's Taylor Prism inscription, the first campaign. Luckenbill, *Records of Assyria*, II.

4. Breasted, *Records*, Vol. III. sec. 51. W. Helck ("Das Dekret des Koenigs Haremheb," *Zeitschrift fuer Aegyptische Sprache* 80 (1955), 118, translates *Abschneiden der Nase und Verbannung nach Sile.*"
5. D. Lorton, "The Treatment of Criminals in Ancient Egypt," *Journal of the Economic and Social History of the Orient* 20 (197~), 24.
6. Luckenbill, *Records of Assyria*, II. [While punishments inflicted upon prisoners and those meted out to prisoners of war are not strictly comparable, it must be remembered that Egypt was, under Haremhab, in the position of a subjugated country, and under thus under a form of martial law.]
7. Strabo, XVI.ii.31; Diodorus, I.60; see the discussion on the identification of Tharu with Avaris in Volume I of *Ages in Chaos*, pp. 86-89.
8. For a discussion of the location of Tharu and Avaris, see A. Gardiner in *The Journal of Egyptian Archaeology* 3 (1916), p. 101.
9. Lorton, "The Treatment of Prisoners in Ancient Egypt," p. 56.
10. *Ibid.*, pp. 50ff. Only one case of punishment by beating is known earlier, from the time of Thutmose III (pp. 23f).
11. Luckenbill, *The Annals of Sennacherib*
12. In a text from his Memphite tomb. See above, section: "Haremhab Appointed to Administer Egypt: By Whom?"





Haremhab's Contemporaries

Haremhab and the Crown Prince Sheshonk. According to this reconstruction, Haremhab began his career under the last kings of the Libyan Dynasty. We get a first glimpse of him in the tomb of the prince Sheshonk, son of Osorkon II and his wife Karoma. The prince, named as successor to his father, died young, still during his father's reign, and never assumed the royal diadem. The king built for him a funerary chamber in Memphis, where the prince had served in his lifetime as the high priest of Ptah. The excavations of Samaria, discussed [above](#), revealed that the Libyan king Osorkon II was not a contemporary of Ahab, as is usually asserted, but reigned after the time of Jeroboam II—i.e., after ca. -744, which marks the death of Jeroboam II, but before the destruction of Samaria by the Assyrians in -722.

The tomb was discovered in 1942, and its clearance and publication were entrusted to Ahmad Badawi.⁽¹⁾ At the entrance to the tomb, on the lintel of the doorway, Badawi found an incised relief showing Haremhab kneeling in front of a talbe bedecked with offerings; behind Harmhab can be seen the deceased prince, also in a kneeling position. Haremhab's cartouche is somewhat damaged; a deliberate attempt had been made to erase it. But from what remains Badawi could identify the figure in front of the crown prince as that of Haremhab.

In the accepted scheme of history Haremhab is supposed to have reigned some six hundred years before the funeral chamber for Prince Shoshenk, son of Osorkon II, was built. But what incentive would the builder of the tomb have to decorate the monument with the figure of Haremhab and his cartouche? This king did not enjoy such reputation that six centuries after his death a Libyan prince should prominently show himself and Haremhab in an offering scene. There was nothing in the memory of Haremhab that an occupant of a tomb of about -725 would consider as bringing salvation or possessing magic against unclean spirits. Therefore Haremhab's figure and cartouche in a Libyan tomb made historians wonder and grope for a solution.

One detail needs an explanation: Haremhab is depicted as a king, his name enclosed inside a cartouche, sign of royal power—this at least twenty-five years before his appointment as king by Sennacherib. One could assume from this that he was a viceroy of Memphis under the last Libyan kings, continuing in that position under the Ethiopians, until his defection to the Assyrian side in -702. As such he could well have enjoyed the privilege of using the insignia of royalty.

Haremhab and Tirhaka. In this reconstruction Haremhab and Tirhaka, the Ethiopian, are contemporaries; in the conventional version of history they are separated by more than six centuries, Haremhab being dated to the late fourteenth and Tirhaka to the

early seventh. A certain scene, carved on one of the walls of a small Ethiopian temple at Karnak, shows them together. The scene proves not only the contemporaneity of Haremhab and Tirhaka, but also permits to establish a short period in their relations from which it dates. De Rouge in his 1873 study of the monuments of Tirhaka, describes the relief:

Tirhaka is standing and takes part in a paneguric. An important personage, named Hor-em-heb, a priest and hereditary governor, addresses to the people the following discourse in the name of the two forms of Amon: "Hear Amon-ra, Lord of the Thrones of the World and Amon-ra, the husband of his mother, residing in Thebes! This is what they say to their son, the king of Upper and Lower Egypt [Neferatmukhure] son of the sun, Tirhaka, given life, forever: 'You are our son whom we love, in whom we repose, to whom we have given Upper and Lower Egypt; we do not like the kings of Asia _ _ _'"⁽²⁾

The monument must be dated to the time early in Haremhab's career when he was acting as priest and governor under his brother Sethos. Egypt was then allied with Ethiopia, actually under Ethiopian domination, and was bracing itself to meet the armies of Assyria; for Sennacherib had shut up Hezekiah in Jerusalem "like a bird in a cage" and was advancing to the border of Egypt. The Egyptian-Ethiopian army which had gone to block him had suffered a crushing defeat at Eltekeh in Palestine. The declaration "We do not like the kings of Asia" was appropriate for the moment. The ways of Tirhaka and Haremhab would soon part: Tirhaka would flee to Ethiopia and become the bitterest enemy of Haremhab, who would go over to the side of Sennacherib and campaign against the Ethiopian king and his own brother Sethos.

The Tomb of Petamenophis. Of the hundreds of rock-cut tombs crowding the Theban necropolis, the Valley of the Kings, one bearing the name of Petamenophis, a high official of the Ethiopian time, early attracted the attention of Egyptologists by its large size and ambitious layout. It was first described in detail by Lepsius in his pioneering work *Denkmaeler aus Aegypten und Aethiopien*.⁽³⁾ To have occupied a spacious tomb in this prestigious location, Petamenophis must have been a person of distinction. In his inscriptions he describes himself as "Sealbearer and Sole Beloved Friend, Lector and Scribe of the Records in the Sight of the King, Petamenophis."⁽⁴⁾ The king is not named, but his identity is revealed by an inscription, also reproduced by Lepsius, on a wall in the northern part of the great outer courtyard. Though much damaged in the course of time it contains two names, still clearly legible: Petamenophis, and next to it a cartouche of King Haremhab.⁽⁵⁾

The tomb was later visited and described separately by Wilkinson, by Duemichen, and others, before Maspero, seeing its deteriorating condition and realizing the necessity of protecting it from despoliation, had it sealed at the end of the last century. It remained closed until 1936 when W. F. von Bissing obtained permission to re-open it with the purpose of performing a definitive survey and publication.

Braving the “billions of bats” infesting the place and the thick air (the ventilation shafts “left much to be desired”) he persevered, and within two years (1938) published a detailed description of the finds.

Rudolf Anthes and ~. Grapow were entrusted with making a cast of the inscription with Haremhab’s cartouche and found that “the name [Haremhab] stands out quite clearly” “*steht der name völlig deutlich da*”).

Next arose the question of the tomb’s date and the time of Petamenophis’ career. The archaeologists were unable to agree, except that on stylistic grounds it could not be earlier than Ethiopian time. “Unfortunately,” von Bissing wrote, “in the entire vast tomb, not a single indication was found that would directly yield a date.” ⁽⁶⁾ But was not the cartouche of Haremhab just the sought-for indication? In the context of the accepted chronology Haremhab’s named carved next to that of the tomb’s owner was rejected as an anachronism, and since no other royal name was found, the date of the tomb was held to be in doubt. Anthes nevertheless arrived at what appears to be the correct estimate when he placed it in the time of Tirhaka. ⁽⁷⁾

Year 59 Under Haremhab. A legal document in hieroglyphics composed under Ramses II refers to a contract concluded under Haremhab, and gives, without any further amplification, the “fifty-ninth year.” ⁽⁸⁾

Haremhab did not rule Egypt anywhere that long. No era is known in Egyptian history to which the figure could apply. Much was written on the subject, but without a satisfying solution.

It was proposed that Haremhab counted as his own the years of the heretical pharaohs of the Eighteenth Dynasty: Akhnaton, Smenkhkare, Tutankhamon and Ay. ⁽⁹⁾ But it is now admitted that such a solution would require the sole reign of Haremhab to have lasted not less than twenty-seven years, while his dated monuments cease after year eight, ⁽¹⁰⁾ indicating that he reigned but eight years after being crowned.

In the light of the understanding here presented of the true time and role of Haremhab, the thought must come that the “fifty-ninth year” refers to an Assyrian era. On February 26, -747 started the era of Nabonassar; this era was still in use in the second Christian century when Claudius Ptolemy, the Alexandrian scholar, wrote his astronomical treatises. ⁽¹¹⁾

The year 59 in the era of Nabonassar is the year 689 or 688 before the present era. About this time Tirhaka came from Ethiopia and occupied Egypt. This leads us to the conclusion that the document in question was written at the very end of Haremhab’s reign, just before he was expelled by the Ethiopian king and fled by sea. A few months later Sennacherib embarked on his second campaign against Judah and Egypt.

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2. M. le Vicomte de Rouge, "Étude sur quelques monuments du règne de Taharka," *Mélanges d'Archéologie*, Vol. I (1873). The text was published by Prisse d'Avennes, *Monuments égyptiens* (Paris, 1847), pl. XXXII (Wall D of the small building of Tirhaka at Karnak). De Rouge's article is reprinted in *Bibliothèque égyptologique* 28 (1918), p. 268.
3. (Berlin, 18~~) Text, pp. 244-245.
4. F. W. von Bissing, "Das Grab des Petamenophis in Theben," *Zeitschrift fuer Aegyptische Sprache und Altertumskunde* LXXIV (1938), p. 2.
5. Lepsius, *Denkmaeler*, Text 245 middle.
6. Von Bissing, "Das Grab des Petamenophis,"
7. Anthes, *Zeitschrift fuer Aegyptische Sprache*, 73 (1937), 30f.
8. The so-called inscription of Mes. See V. Loret and A. Moret, "La grande inscription des Mes," *Zeitschrift für Aegyptische Sprache* 39 (1901), pp. 1-39; A. Gardiner, "The Inscription of Mes, A Contribution to Egyptian Juridical Procedure," *Untersuchungen* IV, pt. 3 (Leipzig, 1905); G. Maspero, *The Tombs of Harmhabi and Toutanlhamanou* (London, 1912), p. 33; Revillout, *Revue Egyptologique* 9 (19~~), 177-187.
9. This thesis was first formulated by Loret; see above, note 1.
10. J. R. Harris, "How Long Was the Reign of Horemheb?" *The Journal of Egyptian Archaeology* 54 (1968), 95ff.
11. It is often asserted that the Era of Nabonassar was Ptolemy's invention; but it is a fact that one of the most important of the Babylonian historical texts, the so-called "Babylonian Chronicle" (B.M. 92502), starts with the reign of Nabonassar, or the year -747. See H. Winckler and J. N. Strassmeier, *Zeitschrift für Assyriologie*, II (1887), pp. 163-168. Cf. D. J. Wiseman, *Chronicles of Chaldean Kings* (London, 1956), pp. 1-2.





The Later Campaigns of Sennacherib

In the last century scholars became aware that there were two invasions of Palestine by Sennacherib and that it is possible to discern in the scriptural record an early and a late campaign against Hezekiah.⁽¹⁾ The first campaign to Palestine took place about -701. The second campaign is dated by modern historians to -687 or -686.⁽²⁾

The annals of Sennacherib record only eight campaigns. The second march into Palestine, which ended disastrously and which probably was his last military undertaking, was not recorded by the Assyrian king, who had no intention of preserving for posterity the story of his reverses.

The last two campaigns memorialized by Sennacherib on the eight-faced Taylor Prism were against Elam. Elam, occupying roughly the territory of modern Iran, was already the goal of earlier Assyrian kings, Sargon II, father of Sennacherib among them. During the seventh campaign Sennacherib succeeded to invade only a marginal part of the country; he recorded reducing to ashes thirty-four strong cities together with their “countless” surrounding towns. “I besieged, I conquered, I despoiled, I destroyed, I devastated, I burned with fire; with the smoke of their conflagration I covered the wide heavens like a hurricane.”

But “extreme cold” and heavy storms with “rain upon rain and snow” set in. “I was afraid of the swollen mountain streams; the front of my yoke I turned and took the road to Nineveh.”⁽³⁾

But before long Sennacherib returned to Elam to continue the orgy of destruction. To the king and people of Elam went an alarm from the people of Babylon, who still warred for independence, asking for aid. Without delay Sennacherib set out on his eighth campaign: “My great battle chariot . . . I hurriedly mounted.” Defeating the Elamites in battle,

I cut their throats like lambs . . . My prancing steeds, harnessed for my riding, plunged into the streams of their blood. . . . The wheels of my war chariot . . . were bespattered with blood and filth. . . . Their testicles I cut off and tore out their privates . . . their hands I cut off . . .

Next Sennacherib turned towards Elam’s allies, the Babylonians, and brought them to a panicky flight: “They held back their urine, but let their dung go into their chariots”

and in hot pursuit “150,000 of their warriors I cut down with the sword.”

After this feast of carnage Sennacherib again, as before the campaign against Elam, seized “the mighty bow which Assur had given me . . . in my hands; the javelin I grasped” and faced to road to Jerusalem.

References

1. The first to realize that there were two Palestinian campaigns by Sennacherib was Henry Rawlinson. While some scholars continued to maintain a one-campaign hypothesis, recent studies by Albright (*Bulletin of the American Schools of Oriental Research* no. 141, Feb. 1956, pp. 23-26) and John Bright, (*A History of Israel* [Philadelphia, 1962], *Excursus I*, “The Problem of Sennacherib’s Campaigns to Palestine,” pp. 296-308) support the view that there were indeed two campaigns. Bright’s conclusion is that “a two-campaign theory seems at present to satisfy the evidence best.” He suggests a date ca. - 688 for the second (unrecorded) campaign of Sennacherib.
2. H. R. Hall, *The Ancient History of the Near East* (New York, 1913), pp. 490f.; D. N. Freedman, “The Chronology of Israel and the Ancient Near East,” *Essays in honor of William Foxwell Albright* (New York, 1961); Edwin R. Thiele, *The Mysterious Numbers of the Hebrew Kings* (Chicago, 1951), p. 156.
3. Luckenbill, *Records of Assyria* II. 260.





The Siloam Aqueduct

In the years that Sennacherib was carrying on wars against Babylon and Elam, Hezekiah fortified his cities, repaired the citadel of Millo at Jerusalem, prepared arrows and shields, ordered that the fountains and brooks in the land be stopped at the first sign of invasion, and with the help of the prophet Isaiah, heartened the people. Once more he concluded an alliance with the Egyptians and the Ethiopians, and waited for Sennacherib to come again.

Hezekiah realized the importance of an adequate water supply in case of siege. Harboring in his heart the thought to resist Sennacherib should he try to continue to reduce Jerusalem and the surrounding towns to vassalage and exploit the people's resources and the royal treasury, once the appetite of the conquerors was awakened, Hezekiah was prepared to sacrifice the cities outside Jerusalem and was set upon to part with life, but not to open once more the gates of the capital before the ravenous pillager from the banks of the Tigris. He planned to secure water for the inhabitants of Jerusalem and executed the plan.

. . . Hezekiah also stopped the upper watercourse of Gihon and brought it straight down to the west side of the city of David. (II Chronicles 32: 30)

And the rest of the acts of Hezekiah, and all his might, and how he made a pool, and a conduit, and brought water into the city, are they not written in the book of the Chronicles of the kings of Judah? (II Kings 20: 20)

The book of the Chronicles of the Kings of Judah must have been a much more extensive work than the just quoted book of Chronicles.

In the Old City of Jerusalem, inside the walls, in the Christian sector, till today the large stone pool serving as a reservoir is shown; it carries the name Breikhat Hezekiah, or the Reservoir (pool) of Hezekiah. In 1880, south of the Temple area in Jerusalem, in the rock wall of the lower entrance to the tunnel of Hezekiah, an inscription was discovered. It actually occupied the lower part of a prepared stone surface and is therefore judged to be but the last half of the planned (or even executed) inscription. Six lines remain. For the upper part the mason could have planned the date of the execution and the purpose, possibly referring to its value in war time.

The source of water lies lower than the reservoir and it needed to be raised to

adequate height by mechanical means—an engineering feat solvable by means whether primitive or more sophisticated. But a real engineering achievement was in digging the conduit simultaneously from two ends, especially considering the substantial distance from the spring to the reservoir and the depth from the surface of the rock to the conduit beneath.

The inscription—in biblical Hebrew—slightly damaged, in its six lines tells:

[.. when] (the tunnel) was driven through. And this was the way in which it was cut through: >_ While [..] (were) still [..] axe(s), each man toward his fellow, and while there were still three cubits to be cut through, [there was heard] the voice of a man calling to his fellow, for there was *an overlap* in the rock on the right [and on the left]. And when the tunnel was driven through, the quarrymen hewed (the rock), each man toward his fellow, axe against axe; and the water flowed from the spring toward the reservoir for 1,200 cubits, and the height of the rock above the head(s) of the quarrymen was 100 cubits. ⁽¹⁾

The two teams of excavators of the channel for the conduit, one working in the rock formation beginning from the end designated for the reservoir, the other standing at a distance of 1,200 cubits at the underground spring, heard each other when they were separated by the last intervening three cubits of rock. Even in modern times, with all the developed surveillance methods, road tunnels running under mountain passes, when dug from two ends with the two teams not bypassing each other, are a cause of celebration—a deviation of even a fraction of a degree would result in a failure.

For supplying Jerusalem with water and for security reasons, Hezekiah, as already quoted, “stopped the upper watercourse of Gihon and brought it straight down to the west side of the city of David.”

When the feared moment arrived and “Hezekiah saw that Sennacherib was come, and that he was purposed to fight against Jerusalem,” the governors were summoned to the city.

He took counsel with his princes and his mighty men to stop the water of the fountains which were without the city: and they did help him.

So there were gathered much people together, who stopped all the fountains, and the brook that ran through the midst of the land, saying, Why should the kings of Assyria come, and find much water? (II Chronicles 32: 3-4)

But Sennacherib—Isaiah speaking for him—said: “I have digged and drunk water; and with the sole of my feet I have dried up all the rivers of the besieged places.” ⁽²⁾

References

1. “*The Siloam Inscription*,” transl. by W. F. Albright in James b. Pritchard ed., *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 1950), p. 321.
2. Isaiah 37: 25.





The Reign of King Hezekiah

The thirty-eighth chapter of Isaiah, or the next-to-last of what is regarded as Isaiah I, starts with the words: “In those days was Hezekiah sick unto death.” There follows the story of Isaiah coming to Hezekiah with the words: “Set thine house in order—for thou shouldst die and not live.” Hezekiah, upon hearing the message, turned his face toward the wall, and prayed to the Lord. “The grave cannot praise thee, death cannot celebrate thee, they that go down into the pit cannot hope for thy truth.” In a little while Isaiah returned, brought a lump of figs to place on the boil erupted on the body of the sick king, and said in the name of the Lord: “I have heard thy prayer, I have seen thy tears: behold, I will deliver thee and this city out of the hand of the king of Assyria: and I will defend this city.”

Hezekiah asked the seer: “What is the sign that I shall go up to the house of the Lord?” Isaiah’s answer was:

And this shall be a sign unto thee from the Lord, that the Lord will do this thing that he hath spoken. Behold, I will bring again the shadow of the degrees, which is gone down in the sun-dial of Ahaz, ten degrees backward. So the sun returned ten degrees, by which degrees it was gone down.

I have discussed the nature of the event in *Worlds in Collision* (“The Year -687”) and do it again in the present volume. Here, however, the concern is with a chronological problem, albeit minor, dealing with the reign of Hezekiah and the order of the events of that time.

It is stated that Hezekiah reigned twenty-nine years (II Chron. 29:1; II Kings 18:2); that Hoshea, the last king of Israel, started to reign in Samaria in the twelfth year of Ahaz, father of Hezekiah (II Kings 17: 1); that Ahaz reigned sixteen years in Jerusalem (II Chron. 28: 1); that in the third year of Hoshea, Hezekiah began to reign (II Kings 18: 1); that Hoshea reigned in Samaria nine years (II Kings 17: 1); but that already in the fourth year of Hezekiah “which was the seventh year of Hoshea” Shalmaneser came against Samaria and besieged it (II Kings 18: 9); that the siege of Samaria endured three years (II Kings 17: 5); that at the end of these three years, in the ninth year of Hoshea, which was the sixth of Hezekiah, Samaria fell (II Kings 18: 10); that in the ninth year of his reign Hoshea was captured, fettered, and put in prison (II Kings 17: 9), probably in Assyria.

The accepted date for the fall of Samaria is -722. The calculations, mostly based on cuneiform data, by which this was figured out, were not retraced in the course of this

reconstruction. Sargon reigned seventeen years, beginning with the fall of Samaria in his first year. Consequently if Samaria fell in -722, Sennacherib mounted the throne in -705. This is also the accepted date for the beginning of his reign.

In the fourteenth year of Hezekiah Sennacherib came “against all the fenced cities of Judah and took them” (II Kings 18: 13). It was during Sennacherib’s third campaign, or his first against Judah. Sennacherib ceased to write his annals (Taylor Prism) after his eighth year.

The Scriptural data cited here are generally in good agreement one with others, and if there is any possible disagreement it amounts to no more than one or two years, and this could be adjusted by one of the devices usually applied by commentators for minor discords in texts.

But a problem amounting to a decade or even decades comes to light if Hezekiah was already on the throne in Jerusalem three full years before the fall of Samaria, or in -725. Reigning for twenty-nine years, he must have ended his reign and life in -696.

These figures, or small variants of them, are also accepted by a few scholars.⁽¹⁾ But if Sennacherib invaded Judah in -701, and this should be Hezekiah’s fourteenth year, then this king of Jerusalem must have started to reign in -715, or seven years after the accepted date for the fall of Samaria⁽²⁾, and there is a disagreement of ten to eleven years. Could it be that Hezekiah after the fall of Samaria was not yet a sole ruler but a co-ruler with Ahaz, his father, and those years should not count in the twenty-nine, assigned to him as king? Or should the date of the fall of Samaria be lowered? The problem connected with Hezekiah’s reign is not limited to this issue alone.

When Hezekiah fell sick he was promised a grace of fifteen years. The figure fifteen is not arbitrarily chosen. In *Worlds in Collision* it was brought out that the turbulent events of that time were caused by repeated close approaches of the planet Mars that repeat themselves till today at the same fifteen-year period, called “favorable opposition” (favorable for observation); only twenty-seven centuries ago this phenomenon was much more pronounced—the opposing celestial bodies were at such encounters closer to each other.⁽³⁾

As elsewhere in this volume the nature of the paroxysms and the subsequent calendric changes are discussed (and in *Worlds in Collision* records of these phenomena were collected from many ancient civilizations, in East and West), I will keep here to the subject only insofar as it concerns the chronological problems under scrutiny. The *midrashim* explain that on the memorable day of Hezekiah the sun retarded to set by the same amount, namely ten degrees (*maaloth* in Hebrew is preferably “degrees” and more so when applied to the sundial) by which it speeded up to descend on the sundial built by Ahaz—and, further, that this phenomenon of acceleration of the sun reaching the horizon took place on the day Ahaz was brought to the grave. Since Sennacherib came toward all the fenced cities in Hezekiah’s domain in his (Hezekiah’s) fourteenth year, and Sennacherib, according to his own

descriptions and reliefs, was tarrying in Palestine, besieging Lachish and reducing many places one by one to his yoke, it is well thinkable that Jerusalem under the “proud Judean, Hezekiah” besieged like “a bird in a cage” submitted to pay tribute when nearly fifteen years of Hezekiah on the throne had passed (Sennacherib records that before the campaign he consulted astrologers and was told to be sure of the protection of the gods; rabbinical sources also tell that he consulted astrologers before going toward Jerusalem, and he was cautioned to hurry, and not to tarry, but he tarried. The promise to the sick Hezekiah of a fifteen year period of grace intends to convey to the reader of the Scriptures that such grace came really into fulfillment. But that would mean that Hezekiah was permitted to live another fifteen years, and to stay altogether twenty-nine on the throne, or reach his fifty-fourth year—he mounted the throne at twenty-five.

Everything just told seems in good agreement but for several things. First, three separate texts in the Scriptures, and so also Herodotus in his history of Egypt, tell of an unusual debacle suffered by the Assyrian army under Sennacherib. He won the battle of Eltekeh, close to Jaffa on the Mediterranean coast, against Sethos and Ethiopian generals, and properly recorded it; he continued warfare and carried it east into Elam, southeast into Babylon, west into Anatolia, north into the Caucasus, and beyond.

The realization that Sennacherib came again to Palestine on his ninth campaign was initially made by Rawlinson in 18~~, and with years gained an almost universal acceptance. It means that the Scriptural records in its versions of II Kings, II Chronicles, and Isaiah, needs to be regarded as an amalgam of reports of two campaigns by the same king to the same country, but nearly fifteen years apart. I have dwelt on this in *Worlds in Collision* and again elsewhere in the present volume. The debacle that overtook the Assyrian host occurred at the second invasion of Palestine, it being also the second confrontation with the Egyptian allies of Hezekiah together with Tirhaka, king of Ethiopia.

Herodotus, too, told of only one campaign of Sennacherib, met by Sethos on the Palestinian frontier, when nature intervened. In *Worlds in Collision* I brought out the fact, neglected by the commentators of the Scriptures and of Herodotus alike, that the story of the sun having changed the rising and setting points four times since Egypt became a kingdom is included in Herodotus immediately following the story of the debacle Sennacherib’s army suffered. The phenomenon of the sun returning on the sundial is described in all three biblical sources in the same context of Sennacherib’s debacle. The Assyrian king for his part refrained from all military activity in the last seven or eight years of his life, and spent his time prostrated before the image of the god Nergal, the planet Mars, and was assassinated in that position by two of his sons.

It appears that the descriptive chapters in the book of Isaiah, and, accordingly, the passages in Kings and Chronicles, require an emendation in the sense of transposition of chapters or passages.

The sickness of Hezekiah from which he was healed by Isaiah belongs to the time of the first invasion by Sennacherib. Should this episode be retained for the second invasion, Hezekiah's life and reign would extend to fifteen years past -687, and even starting the reign at the lower date of -715, he would need to remain on the throne much longer than the twenty-nine years, given both by Kings and Chronicles. This means that Hezekiah died during the second invasion by Sennacherib, or shortly thereafter. The words "In those days was Hezekiah sick unto death" which start chapter 38 of Isaiah would make more sense if the chapter were placed earlier and generally if the Scriptures discerned between the two campaigns of Sennacherib to Palestine.

The visit of the ambassadors of Merodach-Baladan of Babylon, who sent presents to Hezekiah on the occasion of his having recovered from his illness, seems to have occurred not after Sennacherib's debacle, but much earlier. As the political situation suggests, the visit of the ambassadors and Hezekiah's showing them his treasures in gold and otherwise seems misplaced: Hezekiah paid tribute in gold (30 talents) and silver (300 or 800 talents) to Sennacherib on his first campaign to Palestine, and he stripped his palace and the temple—besides, he must have remained in awe of Sennacherib to entertain ambassadors of the king of Babylon, Sennacherib's enemy. It would look better if the arrival of Merodach Baladan's envoys took place after the solar disturbance that coincided with Hezekiah's mounting the throne—the funeral day of Ahaz, his father. At that time Hezekiah had not yet impoverished his treasury by the tribute to the Assyrian king.

The scholarly opinion held that the second campaign of Sennacherib against Palestine-Egypt could not have occurred before -689, the year Tirhaka mounted the throne.⁽⁴⁾

References

1. See for instance, Nadav Na'aman in *Bulletin of the American Schools of Oriental Research* (April, 1974), p. 32, note 28: "I have adopted here the dates of 727 - 696 B.C. [or -726 to -695] for the reign of Hezekiah."
2. This is the solution proposed by Thiele, who regards the source used by the compiler of the Second Book of Kings to have erred in relating the fall of Samaria with the beginning of Hezekiah's reign.
3. At 14½ year intervals, now more than 15 year.
4. If to harmonize the involved chronological problems the debacle of Sennacherib's army needs to be placed fifteen years earlier (not in -687 but in -701), and the first invasion in -715, and the beginning of Hezekiah's reign in -729, then I would need to change the date for the last global catastrophe from -687 to -701 or -702.





Sennacherib's Last Campaign

The last campaign of Sennacherib was directed not only against Jerusalem, but also against Egypt and Ethiopia (Sudan)—an enterprising warrior, Tirhaka, who invaded Egypt from the Sudan, reinstated Sethos, and put the occupant of the throne of Egypt, underling of Sennacherib, to flight.

When Sennacherib came to Palestine for the second time, Hezekiah refused to submit or to pay tribute. The Ethiopian king Tirhakah (Taharka) stood together with his Egyptian confederate, Sethos, at the border of Egypt, prepared to meet the threat. Sennacherib sent his messengers to Hezekiah from Lachish and once more from Libnah to demand submission; he also wrote him an ultimatum, and blasphemed the Hebrew God.

Then in a single night the Assyrian host, about 185,000 warriors, perished, destroyed by some natural cause. ⁽¹⁾

Herodotus (II. 141) relates this event and gives a version he heard from the Egyptians when he visited their land two and a half centuries after it happened. When Sennacherib invaded Pelusium, the priest-king Sethos went with a weak army to defend the frontier. In a single night hordes of field mice overran the Assyrian camp, devoured quivers, bowstrings and shield handles, and put the Assyrian army to flight. Another version was given by Berosus, the Chaldean priest of the third century before the present era.

This event and the writings relating to it have been investigated in *Worlds in Collision*, Part II, which deals with the natural history of the period. A sequence of natural phenomena that bewildered the world for almost a hundred years during the eighth century and the beginning of the seventh is investigated and described in that volume. With knowledge of the precise character and time of these physical phenomena, an exact synchronism can be established; for the purposes of the present book I borrow from *Worlds in Collision* the exact date: Sennacherib's army was annihilated on the night of March 23, -687. The calculations of modern historians who place the second invasion of Judah by Sennacherib in -687 are correct. However if to harmonize the involved chronological problems the debacle of Sennacherib's army needs to be placed fifteen years earlier (not in -687 but in -701) and the first invasion in -715 and the beginning of Hezekiah's reign in -729, then I would need to change the date for the last global catastrophe from -687 to -701 or -702.

1. II Kings 19: 35; Isaiah 37: 36; cf. Josephus quoting Berosus in *Jewish Antiquities* X. i. 4-5.





Political Turmoil Around - 687

The natural events of March -687, a final recurrence of earlier such disasters that had taken place during the eighth century, were once more followed by renewed migrations of peoples, political revolutions and economic dislocations. Climatic change was again very significant and oscillations of climate marked the ninety years from -776 to -687.⁽¹⁾ In many places cultivated lands grew barren, strata were dislocated, water sources became in numerous sites sealed off, many river courses changed, glaciers melted, some overflowed streams caused inundations, and altogether contributed to “wolf-time, sword-time” in the words of the Edda, the Icelandic epic, or internecine wars.

In -687 the Cimmerians, a nomadic people from southern Russia—the basin of the Don and the Crimea—moved along the coastal route round the eastern shores of the Black Sea and descended on Anatolia in their westward sweep. The same year saw the horde reaching Gordion. Their incursion marked the end of the short-lived Phrygian kingdom, founded by Gordias, who supposedly had migrated from Thrace, and who was followed by his son Midas. The Cimmerians had earlier (-707/-706) clashed with the armies of Urartu and of Assyria, as is shown from the Assyrian state correspondence. The young Sennacherib, still a crown prince under his father Sargon, sent dispatches to Dur-Sharrukin, Assyria’s capital, about the movements of the Cimmerians. This time they were repulsed, but some twenty years later, in -687, they succeeded to penetrate into Anatolia. Soon after their passage the Cimmerians become lost to history, possibly having crossed the Bosphorus into Thrace. The remnants left behind in Asia were destroyed by Esarhaddon in alliance with the Scythians in -679.

About the time of the sack of Gordion, Sardis, capital of Lydia, close to the Aegean shore, experienced a palace revolution: in -687 or about that year Gyges overthrew the Heraclid Dynasty, probably so called for its ruling under the aegis of Mars (Heracles) and its worship of this planet.

The end of the Heroic Age, or the final stage of the Mycenaean Age, was due not to the onslaught of the Sea Peoples—nor were the Mycenaeans themselves the Sea Peoples: this myth, created by the historians and related to ca. -1200 is refuted in the volume *Peoples of the Sea*. Violent earthshocks and other perturbations of nature destroyed the Mycenaean citadels and left their defenders exposed to the assaults of migrant tribes, dislodged in the same upheavals, and calling themselves the Children of Heracles, or Mars.

The seventh century opened with the migration of the Cimmerians followed by the

Scythians who came also by way of the Caucasus and by the route of the Caspian sea coast. These nomadic peoples from the Asiatic steppes, displaced by upheavals of nature, injected themselves into the policies of the warring nations in the ancient East, and changed the course of history.

References

1. See *Earth in Upheaval*, chapter “Klimasturz.”





Esarhaddon's Reconquest of Egypt

Several years after Sennacherib returned from his ill-fated campaign against Judah and Egypt, he was slain by two of his sons while worshipping in the temple of Nergal (Mars).⁽¹⁾ Esarhaddon, his heir, pursued his brothers, but they escaped over the mountains to the north.⁽²⁾ Then he tried to re-establish the shattered authority of Assyria in Syria and on the Phoenician shore.

“I besieged, I captured, I plundered, I destroyed, I devastated, I burned with fire,” wrote Esarhaddon.⁽³⁾ I hung the heads of the kings upon the shoulders of their nobles and with singing and music I paraded.”⁽⁴⁾ He threatened Tyre whose king “had put his trust in his friend Tirhakah (Tarku), king of Ethiopia.” He “threw up earthworks against the city,” captured it, and made a vassal of its king Ba’lu.⁽⁵⁾ He also marched into the desert “where serpents and scorpions cover the plain like ants.”⁽⁶⁾ And having thus ensured the safety of his rear and flank along the roads to Egypt, he moved his army against that country.

In the sixth year the troops of Assyria went to Egypt; they fled before a storm.” This laconic item in the short “Esarhaddon Chronicle”⁽⁷⁾ was written more than one hundred years after his death; if it does not refer to the debacle of Sennacherib, one may conjecture that at certain ominous signs in the sky the persistent recollection of the disaster which only a few years earlier had overtaken Sennacherib’s army, threw the army of his son into a panic.

Thereafter, “in the tenth year, the troops of Assyria went to Egypt.”⁽⁸⁾ Esarhaddon marched along the military road running across Syria and along the coast of Palestine. He conquered Sidon and “tore up and cast into the sea its walls and its foundations.” This ancient Phoenician city was situated on a promontory jutting into the sea. Its king Abdimilkute tried to escape on a boat, but was “pulled out of the sea, like a fish.”⁽⁹⁾ The Assyrian king cut off the head of this Sidonian king and sent off to Assyria a rich booty, to wit: “gold, silver, precious stones, elephant hides, ivory, maple and boxwood, garments of brightly colored wool and linen.”⁽¹⁰⁾ He took away the king’s wife, his children, and his courtiers: His people from far and near, which were countless . . . I deported to Assyria.”⁽¹¹⁾

Following the fall of Sidon, he “called up the kings of the country of Hatti”—namely Ba’lu, king of Tyre, Manasseh (Me-na-si-i), king of Judah (Ia-u-di), also kings of Edom, Moab, Gaza, Ashkelon, Ekron, Byblos, Arvad, Beth-Ammon and Ashdod, all

named by their names and spoken of also as “twelve kings of the seacoast.” ⁽¹²⁾ Esarhaddon summoned also ten kings from Cyprus (Iadnana)—their names are given, too—altogether “twenty-two kings of Hatti, the seashore, and the islands.” he made them “transport under terrible difficulties, to Nineveh as building material for my palace” logs and beams of cedar of Lebanon “which had grown for a long time into tall and strong timber” ; the vassal kings had also to deliver to Nineveh slabs of stones from the quarries of the entire region. ⁽¹³⁾

The king of Tyre “bowed down and implored me as his lord.” He “kissed my feet” and was ordered to pay heavy tribute, and to send “his daughters with dowries.” ⁽¹⁴⁾ “As for Hazail, king of Arabia, the splendor of my majesty overwhelmed him and with gold, silver, precious stones he came into my presence” and also “kissed my feet.” ⁽¹⁵⁾ Into Arabia Esarhaddon sent “bowmen mounted on horseback” and brought the villages of the desert under his yoke.

The road to Egypt and the flanks having been made secure, Esarhaddon wrote: “I trod upon Arzani [to] the Brook of Egypt.” ⁽¹⁶⁾ We had already occasion to explain the geographical term Arzani as the Hebrew Arzenu, “our land” by which the Scriptures (Joshua 9:11, Judges 16:24, Psalms 85:10, Micah 5:4) repeatedly refer to Israel and Judah; by the same term (*'rezenu*) this land was known to the rulers of the Eighteenth Dynasty, Thutmose and others. ⁽¹⁷⁾ “Brook of Egypt,” or in the Assyrian text Nahal Musur, is Nahal Mizraim of Hebrew texts; it is Wadi el-Arish, the historical frontier of Egypt and Palestine. The “town of the Brook of Egypt” in Esarhaddon’s inscription is el-Arish, the ancient Avaris. ⁽¹⁸⁾

It was in his tenth year, or -671, that Esarhaddon entered Egypt: he marched unopposed only as far as a place he calls Ishupri: there he met his adversary, Tirhaka, king of Ethiopia (Nubia) and Egypt. The progress from here on was slow; it took fifteen days to advance from Ishupri to Memphis, close to the apex of the Delta a few miles south from present-day Cairo.

“From the town of Ishupri as far as Memphis, his royal residence, a distance of fifteen days’ march, I fought daily, without interruption, very bloody battles against Tirhakah, king of Egypt and Ethiopia, the one accursed by all the great gods. Five times I hit him with the point of my arrows, inflicting wounds from which he should not recover, and then I laid siege to Memphis, his royal residence, and conquered it in half a day by means of mines, breaches, and assault ladders; I destroyed it, tore down its walls, and burned it down.” ⁽¹⁹⁾

Before we go on to recount the events that followed, we should examine more closely the question which was the “town of Ishupri” that Esarhaddon mentions as the starting point in his confrontation with Tirhaka. Its name was not known from the list of cities compiled from hieroglyphic texts of the imperial age of Egypt, and it intrigued the Orientalists. When their efforts to find its derivation were crowned with

success, the solution raised a rather grave question.

Ishupri was understood as an Assyrian transcription of the throne name of pharaoh Sethos (Wesher-khepru-re) and meaning “Sethosville” or the like. The leading German Orientalist Albrecht Alt came to this conclusion,⁽²⁰⁾ and the solution was accepted by other Orientalists. The question raised by this solution was in the enormous time span between Sethos and Esarhaddon on the conventional time-table. Sethos (in the conventional history Seti II) is placed in the second part of the thirteenth century, and Esarhaddon ruled Assyria from -681 to -668, invading Egypt in -671; in between there lie some five hundred and seventy years. The survival of the name Sethosville (Ishupri) was estimated by Alt as “remarkable,” and even more remarkable (*um so bemerkenswerter*) is the fact that for these almost six hundred years this locality remained unmentioned in the hieroglyphic texts and appeared for the first time in the annals of Esarhaddon. In his inscriptions he refers to Ishupri not less than three times. How did an Assyrian king of the seventh century come to call a fortress or a locality east of the Delta, possibly at Kantara of today,⁽²¹⁾ by the name of an obscure pharaoh of an age long past? Or why did this city name, familiar to Esarhaddon, escape mention in all texts, Egyptian or others, prior to -671? Should it not have been preserved on some document belonging to the king who built it or the following generations, if the city was called after him?

In the present reconstruction Sethos is recognized as the grandfather of Seti the Great; we found him in the history of Herodotus as the adversary of Sennacherib, father of Esarhaddon. He was considered a savior of Egypt and it was therefore only natural to find that a city or fortress guarding the Asiatic frontier was named after him: Esarhaddon on his campaign to recover Egypt, only a few years after the events of -687, called it by the name it then carried “House of Sethos,” or “Sethosville.” Sethos, the adversary of Esarhaddon’s father, could even have been still alive.

Upon seizing Memphis Esarhaddon captured Tirhaka’s queen, his children, the women of his palace, “as well as horses and cattle beyond counting,” and all this he sent as booty to Assyria.

“All Ethiopians I deported from Egypt, leaving not even one to do homage to me. Everywhere in Egypt I appointed new kings, governors, officers.” The word “new” means that the kings and governors had already once been appointed by his father Sennacherib—but Haremhab was not among those who were now re-appointed. The Assyrian king obliged Egypt with sacrificial dues “for Ashur and other great gods my lords, for all times.” He also imposed tribute to the Assyrian crown to be paid “annually without ceasing.” Besides the prisoners of war, Esarhaddon sent to Nineveh also civilians, namely physicians, divination experts, goldsmiths, cabinetmakers, cartwrights, and shipwrights.

Esarhaddon continued along the Nile towards the Sudan (Ethiopia). “From Egypt I departed, to Melukha (Ethiopia) I marched straightway.”⁽²²⁾ He described briefly the

march of thirty days from Egypt to Melukha—on none of the existing steles, however, have the details of this part of his campaign remained preserved. Tirhaka retreated before the Assyrian king who already covered an immense distance from Nineveh to the cataracts on the Nile.

Summing up the campaign of his tenth year, Esarhaddon wrote: “I conquered Egypt, Upper Egypt, and Ethiopia (Musur, Patursi, and Kusi). Tirhakah, its king, five times I fought with him with my javelin, and I brought all of his land under my sway, I ruled it.” ⁽²³⁾ Esarhaddon called himself “king of Sumur and Akkad, king of the kings of Egypt, Upper Egypt, and Ethiopia, the son of Sennacherib, King of Assyria.”

Egypt reconquered, Esarhaddon returned home. He erected at Sendjirli, in eastern Anatolia, a memorial stele to glorify his lord Ashur by recounting his own mighty deeds when he marched against the enemy “upon the trustworthy oracles” of his lord Ashur.

Not many years passed and Tirhaka again emerged from Nubia and once more took possession of Egypt. Esarhaddon put his army on a hurried march.

References

1. II Kings 19:36-37; Luckenbill, *Records of Assyria* II. 502, 795 & 796. In the Biblical account the temple is identified as that of Nisroeh, apparently the same as Nergal, or Mars.
2. Esarhaddon’s text runs as follows: “. . . They heard the march of my expedition and deserted the troops who were helping them, and fled to an unknown land.” R. C. Thomson, *The Prisms of Esarhaddon and Ashurbanipal Found at Nineveh, 1927-8* (London, 1931), p. 12. Though younger than his two brothers-parricides, Esarhaddon had been chosen for the kingship by an oracle, and was made crown prince already in Sennacherib’s lifetime.
3. Referring to his Cilician campaign. See Luckenbill, *Records of Assyria* II. 516; Thompson, *The Prisms of Esarhaddon and Ashurbanipal*, p. 18.
4. Referring to the execution of Abdi-milkuti of Sidon and Sanduarri of Kundi. See Luckenbill, *Records of Assyria*, II. 528.
5. Luckenbill, *Records of Assyria*, II. 556.
6. *Ibid.*, II. 520.
7. “The Esarhaddon Chronicle” in Sidney Smith, *Babylonian Historical Texts Relating to the Capture and Downfall of Babylon*, (London, 1924), p. 14.
8. *Ibid.*,
9. Luckenbill, *Records of Assyria*, II, 527.
10. Luckenbill, *Records of Assyria* II. 527.
11. *Ibid.*
12. It is worth noting tha Esarhaddon refers to these rulers and to their lands as kings and lands of Hatti, which is nearly synonymous with the designation “the other side of the Euphrates.” Hatti is obviously a broad geographical

- term. Luckenbill, *Records of Assyria* II. 690.
13. *Ibid.*, II. 627.
 14. *Ibid.*, II. 547.
 15. Luckenbill, *Records of Assyria* II. 551.
 16. *Ibid.*, II. 710.
 17. See *Ages in Chaos*, Vol. I, section "God's Land and Rezenu."
 18. See *Ages in Chaos*, Vol. I, section "The Location of Avaris."
 19. The Sendjirli Stele, translated by Luckenbill, *Records of Assyria*, II. 580.
 20. "Ishupri," *Orientalistische Literaturzeitung* (1925), Nr. 9/10.
 21. Alt, "Ishupri," p. 578.
 22. The campaigns of Esarhaddon in Egypt and Ethiopia are recorded on his steles, particularly on that found in Sendjirli; his stele at Nahr el-Kalb, close to Beirut, also describes the campaign against Egypt and the capture of Memphis. Luckenbill, *Ancient Records of Assyria*, II, Secs. 557ff.
 23. *Ibid.*, Sec. 710.





From Nineveh to Ni

“I am powerful, I am all-powerful, I am a hero, I am gigantic, I am colossal . . . I am without an equal among all kings,” wrote Esarhaddon.⁽¹⁾ He died after a reign of not full twelve years. “In the twelfth year the king of Assyria went to Egypt, fell sick on the road, and died on the tenth day of the month Marcheswan.” “Esarhaddon exercised sovereign power in Assyria twelve years,” narrates a chronicle of his reign, written more than one hundred years later.⁽²⁾

In his lifetime Esarhaddon appointed his son Assurbanipal Crown Prince of Assyria, and another of his sons, Shamash-shum-ukin Crown prince of Babylonia. At a great assembly in Nineveh in -672 Esarhaddon made a proclamation to the governors of the provinces and vassal rulers:

When Esarhaddon, king of Assyria, dies, you will seat Assurbanipal, the Crown Prince, upon the royal throne~.~.~ you will help to seat Shamash-shum-ukin, his co-equal brother, the Crown Prince of Babylon, on the throne of Babylon.

At Esarhaddon’s death the plan of succession went into effect and Assurbanipal, in accordance with his father’s will, assumed the crown of Assyria.

Despite the impression of full manhood conveyed by muscular bodies, heavy-set, and full beards, the Assyrian kings, at least Sennacherib, Esarhaddon, and Assurbanipal, must have mounted successively the throne in their primes. The time of the Sargonids, from the beginning of Sargon II’s reign in the year of the fall of Samaria till the time of the fall of Nineveh in the days of Sin-shar-ishkun, successor of Assurbanipal, amounted to only 110 years (722 to -612). They were married early and became fathers in their teens. Being young did not keep them from exhibiting cruelty of character. When Assurbanipal replaced his father Esarhaddon, who reigned but twelve years, he sought out anybody who possibly could have been implicated in the temple assassination of his grandfather Sennacherib and, according to his own words,

I tore out the tongues of those whose slanderous mouths had uttered blasphemies against my lord Assur and had plotted against me, his god-fearing prince; I defeated them (completely). The others, I smashed alive with the very same statues of protective deities with which they had smashed my own grandfather Sennacherib—now (finally) as a (belated) burial sacrifice for his soul. I fed their corpses, cut into small

pieces, to dogs, pigs, *zibu* birds, vultures, the birds of the sky and (also) the fish of the ocean. After I had performed this and (thus) made quiet (again) the hearts of the great gods, my lords, I removed the corpses of those whom the pestilence had felled, whose leftovers (after) the dogs and pigs had fed on them were obstructing the streets, filling the places (of Babylon), (and) of those who had lost their lives through the terrible famine.⁽³⁾

Immediately upon asserting his kingship, Assurbanipal made preparations for a campaign to recover Egypt. The sudden death of Esarhaddon had given a respite to Tirhaka, and for a number of years the Ethiopians ruled the land unopposed. Assurbanipal in his account of the events that led to his Egyptian campaign narrates how “Tirhakah (*Tarqu*) without permission of the gods, marched forth to seize Egypt~.~.~. the evil treatment which my father had given him had not penetrated his heart~.~.~. He came and entered Memphis. That city he took for himself.”⁽⁴⁾

There is no word of any resistance on the part of the Assyrian-appointed kings and governors: When Tirhaka “sent his army to kill, to plunder, to despoil” Egypt, they appealed to Assyria for aid. “I was walking round in the midst of Nineveh,” recounts Assurbanipal, “when a swift courier came and reported to me.” And “my heart was bitter and much afflicted.” There and then Assurbanipal vowed “to make the greatest haste to aid the kings and governors, my vassals.”

For the reconquest of Egypt Assurbanipal relied heavily on foreign troops from his dependencies on the Phoenician coast and the vassal kings of Cyprus.⁽⁵⁾

In the year -667 a great army was assembled and set out on the road to Egypt. “With furious haste they marched.” Assurbanipal did not personally participate in the campaign, but entrusted this task to his generals. “Tirhaka, king of Kush, heard of the coming of my armies in Memphis.” The Ethiopian king sent his men to meet the enemy, but they were no match for the Assyrian army, made up of the assembled troops of a score of nations. Assurbanipal wrote simply: “On the wide battlefield I accomplished the overthrow of his [Tirhaka’s] army” ; “his fighting men [my troops] destroyed with the sword.” When the news of the defeat reached Tirhaka in his residence in Memphis, “terrible fear struck him.” He made up his mind to flee: “To save his life in a ship he sailed; his camp he abandoned and fled alone.” Tirhaka retreated up the Nile to Thebes (Ni), while the Assyrians took Memphis together with the ships of the Ethiopian fleet. “A messenger of good tidings hastily returned and told me.” For the Assyrians this was an important strategic gain, for it enabled them to quickly press their attack southward; they were joined by the local kings who had been suppressed under the Ethiopian domination.

It took but ten days for the Assyrian-led army to reach Thebes—yet on their arrival the soldiers found that Tirhaka was no longer there. He had forsaken the city and, crossing the Nile, established for himself on the opposite bank a fortified place. The

Assyrian generals were content for the time being to leave Tirhaka in peace.

References

1. Luckenbill, *Records of Assyria*, II, par. 577.
2. S. Smith, "The Esarhaddon Chronicle," *Babylonian Historical Texts*, p. 15.
3. Luckenbill, *Records of Assyria*, Vol. II, pars. 795, 796.
4. S. Smith, *History of Assurbanipal* (London, 18~~).
5. The twenty-two kings on who Assurbanipal called for support for his Egyptian campaign (Cyl. A, col. I, 1. 71) are apparently the same twelve kings from the seacoast and ten kings from Iadnana (Cyprus), named in the annals of Esarhaddon.





Dakhamun

In the course of the brief reign of Ramses I (Necho I), Tirhaka, who had fought against Sennacherib, Esarhaddon and Assurbanipal, died at his capital of Napata. In Assurbanipal's words, "The night of death overtook him." ⁽¹⁾ He left behind, widowed, his chief wife Duk-hat-amun, but no sons—a son and another wife had been captured years earlier by Esarhaddon in Memphis and deported to Assyria. The succession to the Ethiopian throne would pass through Duk-hat-amun if she could find a husband of royal blood; if not, Tirhaka's nephew, Tandamane, was next in the line of succession.

In the biography of Suppiluliumas, compiled by his son Mursilis, there is quoted a letter from a queen of Egypt named Dakhamun: "My husband died," she wrote, "and I have no son. People say that you have many sons. If you were to send me one of your sons, he might become my husband." ⁽²⁾ She added she did not wish to marry a commoner from among her subjects. Since the reign of Suppiluliumas has been placed about 600 years before the reign of Tirhaka, the identity of Dakhamun has remained a mystery. She is usually identified as one of Akhnaton's daughters. But of all the queens of ancient Egypt, only one had a name that corresponds to Dakhamun of the annals of Mursilis—namely, Duk-hat-amun, the widow of Tirhaka.

A request of this kind was unheard of, and Suppiluliumas sought the advice of his consellers, exclaiming: "Since of old such a thing has never happened before me!" They advised caution: He should first assure himself that no deception was being planned. It was decided that the royal chamberlain should be sent to Egypt to find out "whether perhaps they have a prince" and "do not really want one of my sons to take over the kingship."

Dakhamun answered in a letter: "Why do you say: 'They may try to deceive me' ? If I had a son, would I write to a foreign country in a manner which is humiliating to myself and to my country? You do not trust me and tell me even such a thing. He who was my husband died and I have no sons. Shall I perhaps take one of my servants and make him my husband? I have not written to any other country, I have written only to you. People say you have many sons. Give me one of your sons and he is my husband and king in the land of Egypt."

At this, Suppiluliumas "complied with the lady's wishes," and sent her a prince.

But a few weeks later the news arrived that the prince had been assassinated. Whether this was done by the Assyrians, who held control over Syria-Palestine, as well as

northern Egypt, or whether a court intrigue by the opponents of Duk-hat-amun caused the prince's death is not known.

References

1. Luckenbill, *The Records of Assyria*, II.
2. H. G. Guterbock,





The Sack of Thebes

The assassination of Suppiluliuma's son frustrated Dakhamun's hopes of retaining royal power, and the reigns of government passed on to Tirhaka's nephew, Tandamane.⁽¹⁾ On Tandamane's accession the Ethiopians renewed their drive to dominate Egypt. Tandamane fortified Thebes and Heliopolis, and besieged the Assyrian garrison of Memphis.

We know from Herodotus that Necho I, called by him Necos, was killed by the Ethiopians after a very short reign.⁽²⁾ His son, a youth, escaped to Palestine and lived there in exile. But "when the Ethiopian departed by reason of what he saw in a dream, the Egyptians of the province of Sais brought him [the son of Necho] back from Syria."

The Ethiopian left Egypt not so much because of a dream, but because of Assurbanipal, who was marching against Egypt and Ethiopia in all haste. "Against Egypt and Ethiopia I waged bitter warfare and established my might." This was the second campaign of Assurbanipal against Egypt. "Tandamane heard of the approach of my expedition (only when) I had (already) set foot in Egyptian territory." The Assyrian troops "defeated him in a great open battle and scattered his (armed) might." Tandamane abandoned Memphis, "fled alone and entered Thebes, his royal residence." But Assurbanipal's army followed in close pursuit. "They marched after him, covering a distance of one month in ten days on difficult roads as far as Thebes." The Ethiopian did not risk another confrontation with Assurbanipal: "He saw my mighty battle array approaching, left Thebes, and fled to Kipkipi." Never again did the Ethiopians transgress the frontier of the Sudan.

Thebes now lay prostrate before Assurbanipal's troops and was "smashed (as if by) a floodstorm." Its chief citizens were led into captivity. Isaiah's prophecy about Egypt was fulfilled: "So shall the king of Assyria lead away the Egyptian prisoners, and the Ethiopian captives, young and old, naked and barefoot, even with their buttocks uncovered" (20:4). Assurbanipal boasted of having carried away "inhabitants, male and female." Besides, he wrote, "I carried off from Thebes heavy booty, beyond counting," and he listed silver, gold, precious stones, fine horses; even two obelisks covered with "shining copper" were pulled down and carted off to Assyria. "I made Egypt (*Musur*) and Nubia (*Kush*) feel my weapons bitterly and celebrated my triumph. With full hands and safely I returned to Nineveh." Many years later the prophet Nahum recalled "populous No (Thebes) that was situated among the rivers~.~.~ Ethiopia and Egypt were her strength and it was infinite~.~.~ Yet was she carried away, she went into captivity: her young children were dashed into pieces at the top of all her streets: and they cast lots for her honorable men, and her great men were

bound in chains.”

Seti-Psammetich, the young exile, returned to Egypt following the chariot of Assurbanipal.

References

1. Assurbanipal calls him “the son of his [Tirhaka’s] sister.” See Luckenbill, *Records of Assyria, II*.
2. Herodotus II. 152. Herodotus’ statement calls for a correction. Not Sabacos (Shabaku) but Tandamane, son of Sabacos, killed Necos. See E. Meyer, *Geschichte des Alten Aegyptens* (Berlin, 1887), p. 325; also A. Spalinger, “Assurbanipal and Egypt: A Source Study,” in *Journal of the American Oriental Society* 94 (1974), p. 323.





Necho I

The new administration set up in Egypt at Assurbanipal's behest consisted again of the twenty governors and vice-kings appointed earlier by Esarhaddon. At the head of the list was Necho, who received Memphis and Sais as his share—two of the most important cities of the period.

But the governors were not content with their subordinate position under an Asiatic overlord. As told by Assurbanipal, "their hearts plotted evil." They sent mounted messengers to Tirhaka, saying: "Let brotherhood be established among us, and let us help one another. We shall divide the land in two, and among us there shall not be another lord." But soon the Assyrians caught wind of the plot: "An officer of mine heard of these matters and met their cunning with cunning. He captured their mounted messengers together with their messages, which they had dispatched to Tirhaka, king of Ethiopia." ⁽¹⁾ The Assyrian reaction was characteristically swift and decisive: The governors were arrested, bound in chains, and sent to Nineveh to face the wrath of Assurbanipal.

There followed a wave of savage reprisals in the cities of Egypt against the civilian population. The soldiers "out to the sword the inhabitants, young and old~.~. they did not spare anybody among them. They hung their corpses from stakes, flayed their skins, and covered with them the wall of the towns." ⁽²⁾ It happened as Isaiah had prophesied when he warned that the Egyptians would be given "into the hand of a cruel lord; and a fierce king shall rule over them." (19:4).

When the twenty governors reached Nineveh, all save one were put to death: only Necho, vice-king of Memphis and Sais, was allowed to live. Assurbanipal, in need of a reliable ally to govern Egypt and keep it safe from the Ethiopians, chose Necho to be sent back to the country as its sole king. "And I, Assurbanipal, inclined towards friendliness, had mercy upon Necho, my own servant, whom Esarhaddon, my own father, had made king in Kar-bel-matate [Sais]." The king of Assyria secured Necho's allegiance by "an oath more severe than the former. I inspired his heart with confidence, clothed him in splendid (brightly-colored) garments, laid upon him a golden chain as the emblem of his royalty~.~. Chariots, horses, mules, I presented to him for his royal riding. My officials I sent with him at his request." ⁽³⁾

This Necho lives in history as Ramses I of the Nineteenth, and Necho I of the Twenty-sixth Dynasties. He was installed by Assurbanipal in ca. -655, a score of years after Haremhab's final expulsion. We shall continue, in this reconstruction of history, to refer to him as Ramses I, although an earlier king of that name, Ramses Siptah, held

the throne briefly decades earlier, in the time of Sargon II, and might therefore have a better claim to that title.

It is sometimes surmised that it was Haremhab who appointed Ramses I to the throne; but the course of this reconstruction makes it evident that some twenty-two years passed from the time of Haremhab's expulsion by Tirhaka (ca. -688) and the accession of Ramses I (ca. -665). Historians have wondered that none of the extant inscriptions of Ramses I contains any reference to Haremhab, and that no traceable relation of Ramses I to the family of Haremhab has been found.⁽⁴⁾ Instead, Ramses I calls himself "Conductor of the Chariot of His Majesty," "Deputy of His Majesty in North and South," "Fanbearer of the King on His Right Hand."⁽⁵⁾ The similarity of these titles to those borne earlier by Haremhab has been noted⁽⁶⁾—as we saw, both Haremhab and Ramses I were appointees of Assyrian kings: Haremhab of Sennacherib and Ramses I of Assurbanipal.

Assurbanipal also elevated Necho's son to the position of co-rulership with his father, and let him reign in Athribis. The Assyrian called him Nabushezibanni, but the Greek authors knew him as Psammetichos. In his own inscriptions he names himself Seti Meri-en-Men-maat-Re, or Seti Ptah-Maat. It is known from Egyptian sources that Seti was co-regent with his father Ramses I.⁽⁷⁾

In both his existences, Ramses I--Necho I lived only one year and a few months after being crowned.⁽⁸⁾

References

1. A. C. Piepkorn, *Historical Prism Inscriptions of Assurbanipal* (Chicago, 1933), pp. 13-15.
2. Luckenbill, *Records of Assyria*, II. 876, in Pritchard, *Ancient Near Eastern Texts*, p. 295.
3. Luckenbill, *Records of Assyria* II, 905, in Pritchard, *Ancient Near Eastern Texts*, p. 297.
4. R. Hari, *Horemheb et la Reine Moutnodjemet* (Geneva, 1964), p. 412.
5. *Ibid.*, p.
6. Gardiner, *Egypt of the Pharaohs*, p. 248.
7. *Bulletin de l'Institut Francais d'Archeologie Orientale au Caire*.
8. [Ramses I reigned, according to Manetho, for one year and four months; This is confirmed by a stele dated to his second year (Gardiner, *Egypt of the Pharaohs*, p. 248. The length of Necho's reign can be determined from the Assyrian documents: It began ca. -655 when he was installed by Assurbanipal, and ended in -664/663 with his assassination by Tandamane. The Egyptologists, looking for Necho's monuments apart from those of Ramses I, have failed to find any inscriptional evidence whatsoever for the reign of





The First Greeks in Egypt

When upon the death of Necho Assurbanipal reconquered Egypt he re-established the system of numerous vice-kings, who “came to meet me and kissed my feet.”

We are informed by Assurbanipal that this governmental organization was discontinued a few years later, when one of the vice-kings took all the power to himself, accomplishing this with the help of the soldiers who arrived in Egypt from Sardis on the Aegean shore of Asia Minor. Gyges was at that time king of Sardis in Lydia.

At first Gyges sent messengers to Assurbanipal: “Guggu (Gyges), king of Lydia, a district of the other side of the sea, a distant place, whose name the kings, my fathers, had not heard, he dispatched his messengers to bring greetings to me.”⁽¹⁾

But after a few years, Gyges ceased to ally himself with Assurbanipal. “His messengers, whom he kept sending to me to bring greetings, he discontinued.”

According to Assurbanipal, Gyges sent his forces to the aid of the king of Egypt,⁽²⁾ “who had thrown off the yoke of my sovereignty.”

Herodotus wrote that Psammetichos, one of the twelve vice-kings, deposed his eleven co-rulers, and he did it with the help of Ionian and Carian mercenaries. According to Herodotus, the Greek and Carian mercenaries arrived in Egypt in the days of Psammetichos, brought by a gale.

. . . Certain Ionians and Carians, voyaging for plunder, were forced to put in on the coast of Egypt, where they disembarked in their mail of bronze.

. . . Psammetichos made friends with the Ionians and Carians and promised them great rewards if they would join him.⁽³⁾

The Egyptian sovereign placed them in two camps on opposite shores of the Pelusian branch of the Nile and “paid them all that he had promised.”

Moreover he put Egyptian boys in their hands to be taught the Greek tongue; these, learning Greek, were the ancestors of the Egyptian interpreters.

The Ionians and Carians dwelt a long time in these places, which are

near the sea, on the arm of the Nile called the Pelusian, a little way below the town of Bubastis.

Herodotus states they “were the first men of alien speech to settle in that country” (II, 154).

A glance at a historical map of the western shore of Asia Minor reveals that the tiny maritime states of Ionia and Caria jutted well into the border of Lydia, whose capital was Sardis. Gyges was able to provide Egypt with Ionian mercenaries because he had recently occupied Colophon in Ionia.⁽⁴⁾ Thus it appears that Ionians and Carians arrived at the shores of Egypt in mail of bronze, not because of a gale, but because of an agreement with King Gyges of Sardis, as stated by Assurbanipal.

Diodorus of Sicily, too, wrote about the first meeting of the Egyptians with the Greeks on the soil of Egypt, when Ionians and Carians arrived and were hired as mercenaries.

He [Psammetichos] was the first Egyptian king to open to other nations the trading places throughout the rest of Egypt. . . . For his predecessors in power had consistently closed Egypt to strangers.⁽⁵⁾

Diodorus also said that Psammetichos was a great admirer of the Hellenes and gave his son Necho (the future Ramses II), a Greek education.

Greek arms, utensils and vases, and the very bones of the Greek mercenaries in their peculiar sarcophagi, have been found in and near the Delta, often together with objects of the Nineteenth Dynasty.⁽⁶⁾

Formations of mercenaries from Sardis, called Shardana or Sar-an, were in the service of Seti the Great.

The time of Seti is, in the conventional scheme, the end of the fourteenth century; of Psammetichos, the seventh century. Herodotus, who lived in the fifth century, wrote that in the days of Psammetichos, only two hundred years before, Greeks for the first time came to live in Egypt. He must have been well informed, for not merely the history of Egypt was involved but that of his own people likewise: his birthplace was Halicarnassus in Ionia-Caria. Also, in Beth-Shan in Palestine, where the excavators were able to determine the successive layers of the tell (mound), tombs of mercenaries from the Aegean-Anatolian region have been unearthed. “Doubtless among all these troops [of Seti] were many Mediterranean (Aegean-Anatolian) mercenaries, including the redoubtable Sherdenen [Shardana]; these must have formed the major part of the garrison left at Beth-shan by Seti.”⁽⁷⁾ Thus wrote the archaeologist of that place.

Does this mean that Lydians and Ionians were present in Egypt when the Israelites were there in bondage? If, as many scholars believe, Ramses II was the Pharaoh of Oppression, the presence of soldiers from the Aegean-Anatolian region in the Delta in his days in the days of his father Seti would signify a meeting of Greek and Israelite peoples in pre-Exodus Egypt. The problem thus stated will not appeal to those same historians.

The explanation of the presence of Greek mercenaries in the army of Seti, seven hundred years before Psammetichos, is simple: Seti was the Psammetichos of Herodotus and other Greek writers, and he lived seven hundred years after the time assigned to him by modern historians.

References

1. Luckenbill, Records of Assyria, II, Sec. 784.
2. *Ibid.*, Sec. 785. Assurbanipal called the Egyptian king who received military support from Gyges, Tusharniiki. It is known that at that time Psammetichos became the sole king of Egypt. The Assyrian kings occasionally gave Egyptian cities and Egyptian kings Assyrian names. Assurbanipal called Sais Kar-bel-matate.
3. Herodotus, II, 152 ff.
4. Herodotus, 1, 14. See E.M. Smith, Naukratis (Vienna, 1926), p. 14, n. 16.
5. Diodorus (trans. C.H. Oldfather, 1933), 1, 66-67.
6. See Naville, The Mound of the Jew (London, 1893), Plate 13; cf. A. Rowe, The Topography and History of Beth-shan (Philadelphia, 1930), pp. 2, 26, 39.
7. Rowe, Topography and History of Beth-shan, p. 26.





Seti Becomes an Ally of Assurbanipal

Two campaigns against Egypt and Ethiopia and one against Tyre, and Assurbanipal found himself surrounded by enemies. The instigator was his brother Shamash-shum-ukin, to whom Esarhaddon had bequeathed Babylonia, leaving Assyria to Assurbanipal. Shamash-shum-ukin corresponded with Tirhakah the Ethiopian until the death of the latter, and with the kings of Elam, Aram (Damascus), and other countries that were alarmed by Assyria's aggressive policy.

After a campaign toward Elam, whose king "plotted" against him, Assurbanipal became aware that his own brother was his chief enemy. "In these days Shamash-shum-ukin, the faithless brother of mine, king of Babylon, stirred to revolt against me the people of Akkad, Chaldea, the Arameans . . . along with the kings of Gute, Arnurru and Melukha [Ethiopia] ." [\(1\)](#)

Assurbanipal was no longer able to interfere in the affairs of Egypt, and Seti succeeded in overcoming the eleven vice-kings of the nomes and regained the throne of his father. The revolt stirred up all around Assyria absorbed Assurbanipal's entire attention. In the fraternal war he captured Babylon, and his brother Shamash-shum-ukin killed himself. But a number of years later a new opponent, an untiring avenger, arose in the person of Nabopolassar.

Nabopolassar, together with the king of the Medes, waged a protracted war against Assurbanipal, who desperately needed an ally. Assurbanipal found him in Seti, whose father had been pardoned and crowned by him. In this way Seti rose from the status of a vassal to that of a partner of the Assyrian king in a long war.

Seti may have numbered the years of his reign from the day he became the sole king of Egypt, or from the day he achieved independence for Egypt and was recognized as Assurbanipal's ally. This explains the fact that already in his first year Seti, in recording his accomplishments, could refer to his campaigns in Palestine, Arabia, and Libya. [\(2\)](#)

The princes of Babylon, Nabopolassar and his brother, revolting against Assyria, sent emissaries to Aleppo, Hamath, and Damascus, and to the chieftains of the unsettled tribes of the desert, inciting them to create disturbances in the Assyrian domain. At that time, in the reign of Assurbanipal, the provinces were ruled more by anarchy than by the will of the despot. Usurper replaced usurper, to be assassinated in his turn, and there was neither order nor authority in northern Palestine and Syria. "They have

taken to cursing and quarrelling, each of them slaying his neighbor, “⁽³⁾ wrote Seti.

He moved into Galilee. The land of the Ten Tribes was desolate after the exile, and the new settlers were unable to protect their habitations against bands from the desert or even against wild beasts (II Kings 17:25f.).

In the days of Esarhaddon and Assurbanipal, Menashe (Manasseh), son of Hezekiah, reigned in Judea. For fifty-five years he occupied the throne of Jerusalem. The Scriptures do not mention any war of Menashe, only his being carried away into a short captivity in Babylon. In those turbulent times fifty-five years could hardly have passed without involving Judea more than once in greater or lesser conflicts. Menashe certainly must have been successful in his politics if he could keep Judea out of war that long.

Seti repeatedly led military expeditions toward the Euphrates; he also took measures to secure the safety of the cities of Galilee and defended them against bands from the desert. His activities in Galilee and his numerous marches across the plains of the Philistines, close to Judea, might easily have infringed on Menashe’s territorial rights. But apparently Menashe leaned toward Assyria and Egypt; he called his son Amon, a sacred name among the Egyptians. He tried to avoid a major conflict.

The latter part of Menashe’s long reign coincided with the earlier part of the long reign of Seti, and it would be strange indeed if, in Seti’s account of his march to Galilee and Syria, he did not mention Menashe. With this thought in mind, it is worthwhile to reread the annals of Seti. There we find Seti’s boast that he had “set terror in Retenu [Palestine],” had taken from there “every costly stone of God’s land,” and had “beat down the men of Menate (M-n-ty).” The men of Menate, twice named in this passage of Seti’s annals,⁽⁴⁾ are the men of Menashe. We have here the name we had every reason to expect to find, inasmuch as Seti and Menashe were contemporaries.

The question, ‘Why do the Scriptures not mention the presence of a pharaoh in Palestine in the days of Menashe?’ is not the point. Although the Scriptures contain no reference to this fact, the historians admit that a pharaoh went with his army on a prolonged expedition to Palestine in the time of Menashe, but they call him Psammetichos, as Herodotus narrated.

The reason for the omission on the part of the Scriptures is at hand. Since the time of Hezekiah, the father of Menashe, the land of the Ten Tribes had been settled by non-Israelites, and the Books of Kings and of Chronicles no longer occupy themselves with the history of the place, in respect to this or any other event.

"Not far into Asia, Seti apparently meets a fortified town, to which the relief gives the name Pekan [Pekanon]. . . . Exactly what this name means here is not certain.”⁽⁵⁾
A scene on a bas-relief illustrates the occupation of the fortress Pekanon in Palestine.

The accompanying inscription reads:

Town of Pekanan (P' -k' -n' -n'), Year I, King of Upper and Lower Egypt, Menmare (Seti). The destruction which the mighty sword of Pharaoh made among the vanquished of the Shasu (invading Bedouins) from the fortress of Tharu (in Egypt) to Pekanan, when his majesty marched against them like a fierce-eyed lion, making them carcasses in their valleys, overturned in their blood. . . .” ⁽⁶⁾

A few other places in the plain of Jezreel are also mentioned as having been occupied with the intention of repelling the invasion of the foreigners, but prominence is given to Pekanon.

No reference to the city of Pekanon is found in previous lists of Palestinian cities compiled by the pharaohs, nor had the Israelites found a city by that name when they occupied Canaan. Some scholars presume that it may mean Pi-Canaan or “The Canaan,” but others disagree. ⁽⁷⁾ The name has the sign of a country, but it is pictured on the bas-relief as a city. This suggests that the city was the capital of a country.

The city of Pekanon must have existed for but a short moment. It is conceded that Egyptian documents before Seti (whose reign, according to the conventional chronology, started in -1310) do not know such a city. Hebrew annals containing a list of the Palestinian cities of the thirteenth century (the supposed time of the conquest by Joshua) do not know it either. In the Egyptian sources Pekanon is met once more on the stele of Merneptah (the grandson of Seti), who mentions the Israelites in Palestine. Thus the name Pekanon became a hopeless issue in historical geography.

Pekanon was a city fortified by Pekah, the next to the last king of Israel. ⁽⁸⁾ Cities built, rebuilt, or fortified by kings were often named in their honor. Pekah, son of Remaliah, reigned in Samaria

for twenty years (II Kings 15:27). He was a ruler eager for enterprises, from the day he slew Pekahiah, his master, until the day he slaughtered 120,000 people of Judah and “carried away captive of their brethren two hundred thousand” (II Chronicles 28:8), only to release them shortly thereafter.

According to the reconstruction of history offered here, Pekah preceded Seti the Great by two generations. This order of things explains why, in the list of Thutmose III containing the names of hundreds of Palestinian and Syrian localities, the name of Pekanon does not appear, and why, in the biblical register of cities of Canaan, there is no mention of this name in the days of Joshua’s conquest or later. Judging by the significance attached to Pekanon in the records of Seti, it was an important city in or near the Esdraelon Valley, renamed by King Pekah, who rebuilt or fortified it.

References

1. Luckenbill, Records of Assyria, II, Sec. 789.
2. Breasted, Records, Vol. III, Sec. 81.
3. *Ibid.*, Sec. 101.
4. Breasted, Records, III, Sec. 118. On M-n-ty, meaning the tribe Menashe, see Ages in Chaos, 1,173.
5. Breasted, Records, Vol. III, Sec. 87. See W.M. Muller, Asien und Europa nach Altgyptischen Denkmälern, p. 205.
6. Breasted, Records, Vol. III, Sec. 88.
7. G. Steindorff, Journal of Egyptian Archaeology, XXV (1939), 32, supports this equation; Gauthier, Dictionnaire des noms géographiques contenus dans les textes hiéroglyphiques (Cairo, 1925-31), V, 187-88, questions it.
8. The form "Pekanon" is derived from Pekah, like Shomron from Shemer (I Kings 16:24). Pekanon could also be Shomron (Samaria) renamed by Pekah.





The End of Nineveh

Seti, who, as an ally of Assyria, took it upon himself to attend to rebellious Syria, moved with his army along the Esdraelon Valley and came to the city of Beth-Shan not far from the Jordan. A stele of Seti was found in Beth-Shan, the inscription of which reads:

The wretched enemy who was in the city of Hamath, he had collected to himself many people, was taking away the town of Beth-Shan...⁽¹⁾

The stele further states that the Egyptian army of Ra, called also “Many Braves,” captured the city of Beth Shan at the command of the pharaoh. The erection of the stele in that place indicates that Seti succeeded in conquering this city-fortress.

Beth-Shan guards the road from Gilead in Trans-Jordan and also from Galilee along the valley of the Jordan; consequently it is an important strategic point at a crossroads, protecting the eastern gate of the Esdraelon Valley against encroachment from the north and east.

In the days of Assurbanipal’s father, Esarhaddon, the Scythians came down from the steppes of Russia and, crossing the Caucasus, arrived at the lake of Urmia. Their king went to the help of Assur-banipal when the Medes and the Babylonians marched against Assyria.⁽²⁾

Herodotus⁽³⁾ narrates that the Scythians descended from the slopes of the Caucasus, battled the Medes who were pressing on Nineveh, and, moving southward, reached Palestine. There they were met by Psammetichos, the pharaoh, who for a long time tarried in Palestine.

Chapters 4-6 of the young Jeremiah are generally regarded as expressing the fear of the people of Palestine at the approach of the Scythian hordes. The prophet spoke of the evil that would come down from the north and a great destruction (4:6), of whole cities that would “flee for the noise of the horsemen and bowmen” (4:29), of “a mighty nation . . . whose language thou knowest not” (5:15). “Behold, a people cometh from the north country, and a great nation shall be raised from the sides of the earth” (6:22).

The Egyptian king, however, succeeded by persuasion in halting their advance toward Egypt. He, like the Scythians, was an ally of Assurbanipal. According to Herodotus, Psammetichos was besieging a city in Palestine when the Scythians

reached that country.

I have identified Seti the Great with Psammetichos of Herodotus. Now we are bound to ask: What city was Psammetichos besieging when the Scythians descended from the north?

The translation of the Seventy (Septuagint) calls Beth-Shan by the name of Scythopolis;⁽⁴⁾ so do Josephus⁽⁵⁾ and Eusebius.⁽⁶⁾ Georgius Syncellus,⁽⁷⁾ the Byzantine chronologist, explained that the use of the name Scythopolis for Beth-Shan was due to the presence of Scythians, who had remained there from among the invading hordes in the days of Psammetichos.

As has been said above, Beth-Shan was besieged and occupied by Seti, and his steles and the graves of the Greek mercenaries who served with him were discovered there. Ramses II, his successor, also occupied Beth-Shan for some time, but no vestiges have been found there of Egyptian kings of later times. The conventional chronology compelled the archaeologists of Beth-Shan to conclude that after Seti and Ramses II the city was practically uninhabited until the time of the Neo-Babylonian Empire in the seventh century, although from the Scriptures we know that Beth-Shan was an important city in the days of Judges and Kings.

Seti-meri-en-Ptah Men-maat-Re, who left his steles in Beth-Shan, was Psammetichos of Herodotus. It was the seventh century.

There is a mural that shows Seti capturing a city called Kadesh.⁽⁸⁾ Modern scholars recognized that this Kadesh or Temple City was not the Kadesh mentioned in the annals of Thutmose.⁽⁹⁾ Whereas the Kadesh of Thutmose was in southern Palestine, the Kadesh of Seti was in Coele-Syria. The position of the northern city suggested that it was Dunip, the site of an Amon temple built in the days of Thutmose III. Dunip, in its turn, was identified as Baalbek.⁽¹⁰⁾

Following the Orontes, which has its source not far from Baalbek, Seti occupied the site of Tell Nebi-Mend near the village of Riblah and built a fortress. A fragment of a stele of his was unearthed there.⁽¹¹⁾ Then he proceeded farther to the north and fought in the valley of the Euphrates. In his war record on the wall of the Karnak temple he wrote that he fought in Mesopotamia (Naharin), but with the destruction of the upper row of his bas-reliefs the illustrations of this part of the campaign were lost.⁽¹²⁾

The war in the valley of the Euphrates is described by Seti, king of Egypt, by Assurbanipal, king of Assyria, by Nabopolassar, king of Babylonia,⁽¹³⁾ and by Greek authors.⁽¹⁴⁾ But there is still another description of this war. We have documentary sources in the so-called Hittite annals. The Annals of Mursilis describe the very same conflict as the Chronicle of Nabopolassar, Nabopolassar and Mursilis being the same

person. However, I leave the narration of this last phase of Seti's long campaign for the volume *Ramses II and His Time*.

Nabopolassar, the Chaldean, was allied with Cyaxares, the king of the Medes and the prince of Damascus; Assurbanipal and after him Sin-shar-ishkun of Assyria were aided by Pharaoh Seti and for some time by the king of the Scythians. Egyptian troops are mentioned for the first time in Nabopolassar's year 10 (-616). For many years the fortunes of war changed camps. Then Nabopolassar and Cyaxares, the Mede, brought the Scythians over to their side. Their armies advanced from three sides against Nineveh. In August of the year -612 The dam on the Tigris was breached, and Nineveh was stormed. In a single night the city that was the splendor of its epoch went up in flames, and the centuries-old empire that ceaselessly carried sword and fire to the four quarters of the ancient world—as far as Elam and Lydia, Sarmatia and Ethiopia—ceased to exist forever.

“The shield of [the] mighty men is made red, the valiant men are in scarlet; the chariots are fire of steel. . . . The chariots rush madly in the streets, they jostle one against another in the broad places; the appearance of them is like torches, they run to and fro like the lightnings. . . . Hark! the whip, and hark! the rattling of wheels; and prancing horses, and bounding chariots; the horsemen charging, and the flashing sword, and the glittering spear; and a multitude of slain, and a heap of carcasses . . . and they stumble upon their corpses. . . . Nineveh is laid waste; who will bemoan her?”

Thus did Nahum, a contemporary seer, describe the end of Nineveh and Assyria.⁽¹⁵⁾

The Assyrian king Sin-shar-ishkun perished in the flames of his own palace. His brother Ashurballit succeeded in escaping and with Egyptian assistance resisted Nabopolassar for a few more years.

Nabopolassar founded the Neo-Babylonian Empire and defended and strengthened it in endless wars. When he was struck by illness and after a time died, the empire was threatened with disintegration. But his young sons successfully defended it against all enemies. The most formidable among the latter was the new king of Egypt, the successor to Seti.

References

1. The stele was found by the expedition of the University of Pennsylvania in 1923. See Rowe, *Topography and History of Beth-shan*, p. 28.
2. Bartatua, the king of the Scythians, proposed an alliance to Assyria and asked a daughter of Esarhaddon for wife. Madyas, the son of Bartatua (Madyas, son of Protothyas, according to Herodotus), came to the help of Assurbanipal

when Cyaxares of the Medes marched against Assyria.

3. I, 103 ff.
4. Judges 1:27; see also II Maccabees 12:29 ff.
5. *Jewish Antiquities*, V, 83 (“Beth Sana, now called Scythopolis”), and XII, 348 (“Beth-Sane, by the Greeks called Scythopolis”).
6. Eusebius, *Chronicle*, 237, 55. See also Pliny, *Natural History*, V, 74: “Scythopolis-where a colony of Scythians are settled.”
7. *Chronographia*, 1,405.
8. At Karnak, on the outside of the north wall of the Great Hypostyle Hall, top right hand register. Cf. Wreszinski, *Atlas*, II, pls. 34ff.
9. Breasted, *Records*, Vol. III, Sec. 140, note. Cf. *Ages in Chaos*, Vol. I, “Kadesh in Judah.”
10. Gauthier, *Dictionnaire des noms géographiques*.
11. M. Pézard, *Syria*, III (1922), 108ff.
12. Breasted, *Records*, Vol. III, Sec. 114 ff.
13. D. J. Wiseman, *Chronicles of the Chaldean Kings* (London, 1956).
14. See especially Diodorus Siculus, Bk. II.
15. Nahum chs. 2 and 3 (transl. of the Holy Scriptures by the Jewish Publication Society of America, Philadelphia, 1917)





How I Arrived at My Concepts

I have often been asked to explain how I arrived at the concepts expressed in my books. I shall try to tell the story as briefly as possible.

I think that it was at my fortieth birthday (1935) that my father gave me as a present the Hebrew book by Bar-Droma, *Negeb* ("The South"). Busy as I was with medical practice, I did not read the book, and only opened it at a few places and chanced to read that according to somebody's view, Mt. Sinai was a volcano.

In the summer of 1937 I was in Paris to read a paper at the International Psychological Congress. In the Bibliotheque Nationale I read the articles of Freud in *Imago* about Moses. When in the Spring of 1939 the articles appeared as a book, *Moses and Monotheism*, I bought a copy in a Tel-Aviv bookstore. The reading of this book brought me to the surmise that pharaoh Akhnaton, who Freud thought to be the originator of monotheism and a teacher of Moses, was in fact the prototype of Oedipus of the Greek legend. In a few weeks I had a rather convincing list of supporting evidence, but the meager Tel-Aviv library did not suffice for the kind of research I needed to do. I planned a sabbatical year in the United States to write a book on "Freud and his Heroes." I arrived there with my family on the eve of World War II. The next eight months I spent in the Public Library on Forty-second Street in New York, reading on the subject, mostly the Egyptological material on the el-Amarna period. At the very beginning of these efforts, the Egyptologist Otto Ranke (whom I met at the Metropolitan Museum of Art in New York) gave me some guidance, yet tried strongly to dissuade me from pursuing my subject. However, I persisted.

At the beginning of April, 1940, we intended to return to Palestine, but at the last moment decided to remain a little longer. About that time, discussing with Dr. Gruenbaum, a rabbinical scholar who came to see me at our home on the fifth floor of 5 Riverside Drive, I came upon the idea that the Dead Sea might be of recent origin, because in the story of Sodom and Gomorrah the place is referred to as a plain. The idea had already visited me while still in Palestine, and at that time a check in the *Encyclopaedia Britannica* led me to an article by W. Irwin in the *Geological Journal*, printed in England. The calculation of the age of the sea based on the accumulation of salts in it showed that the sea, actually a lake, was not a million years old (the Tertiary period), but only fifty thousand years. Revising these figures (taking as a base for calculation different salts and considering other sources of accretion besides the Jordan), I came to an even more recent age for the Sea. During the discussion that took place with the visiting scholar, I remembered that in some passage dealing with the Exodus the Dead Sea was referred to as recently created. I also remembered the

sentence I had read in Bar Droma's book on the Sinai and surmised that the Exodus took place in catastrophic circumstances. The story of the plagues and of the passage of the sea appeared to me as a description of some calamities in nature.

We decided to extend our stay in the United States. I looked for an Egyptian reference to natural catastrophes. In the textbooks on Egyptian history nothing was mentioned. I read the pamphlet of Charles Beke⁽¹⁾ (the author of the idea referred to by Bar Droma), who maintained that Mount Sinai was a volcano. At the occasion of a small social gathering at the home of Dr. Paul Federn, the renowned psychologist, I put the question before a visitor, an Egyptologist from Vienna, and before Dr. Walter Federn, also an Egyptologist, the son of Paul Federn. The former asked the latter—where is the reference about the Nile turning to blood? (I did not wish to disclose my thesis and was all ears). Walter Federn referred me to a book by Junker (under whom he studied) and Delaporte. The next day in the library on Forty-second Street I read the passage: it referred to words of one Ipuwer. Next I needed to find who Ipuwer was and locate the complete text.

At the Metropolitan Museum of Art I asked the help of Dr. W. C. Hayes. For over an hour he searched in the staff library room and, finally, I myself found on the shelves the text and translation of a papyrus stored in Leyden, Holland, since the early nineteenth century, published by Alan H. Gardiner in 1909 under the title "Admonitions of an Egyptian Sage." Studying the text, I became convinced that I had before me not just a story of a social revolution, but the Egyptian version of the plagues described by an eyewitness, and it was surprising to me that Gardiner had not observed these similarities between the Ipuwer text and the Biblical account of the plagues accompanying the Exodus. Even the wording is similar in both texts—later, in *Ages in Chaos*, I published a detailed comparison of the two sources. This was about April 20, 1940. But the true advance came a few weeks later when I realized that the Amu, who were described as having invaded Egypt while the country lay prostrate, were the Amalekites, met by the Israelites moving out of Egypt, as narrated in the Scriptures. A book on the Amalekites by Noeldeke⁽²⁾ was not in the Forty-second Street Library (one of the greatest in the world) and I went for the first time to the Columbia University Library. From Noeldeke I learned that the Arab authors of the Golden Age of Arab literature claimed that the Amalekites, coming from Mecca, had invaded Egypt and ruled over the country for several centuries at some ancient time. Noeldeke disbelieved this persistent tradition, but for me it was a strong support to what I considered a breakthrough.

This was in June 1940, and in a few days the entire plan of *Ages in Chaos* was born in my mind. I am myself surprised when looking through my one-line notes made in the excitement of the discovery, that in a couple of days I had already concluded not only that the Eighteenth Dynasty in Egypt must be contemporary with the kings of David's Dynasty, but arrived even to such a detail as that Haremhab, assumed to be the last of the Eighteenth Dynasty, was actually an appointee of King Sennacherib, the Assyrian king—a difference of over six hundred years between the accepted chronology and my new time table.

I knew of course of the el-Amarna tablets, found in King Akhnaton's short-lived capital, that contain the royal correspondence of the late Eighteenth Dynasty,⁽³⁾ but I had never read the text of the tablets. I remember going to the library of the Metropolitan Museum of Art with the expectation of finding in those tablets letters of king Jehoshaphat of Jerusalem, of king Ahab of Samaria, and of the kings Ben-Hadad and Hazael of Damascus—and I found them there. Similarly I went to the library on Forty-second Street, and Elisheva, my wife, who participated with me in my searches, brought from the shelves the description of the “Punt” expedition of Queen Hatshepshe (Hatshepsut) who, according to my calculations, must have been the Biblical Queen [of] Sheba. The historian Josephus Flavius described her as the queen “of Egypt and Ethiopia.” I expected to see in the reliefs reproduced in that book how the Israelites of the time of Solomon looked, and almost with trepidation I opened the volume. Next I expected to see the treasures of Solomon's temple as the booty of Thutmose III, who followed Hatshepsut on the throne, and in the historical atlas of Egyptian archaeology by Wreszinski I saw pictures of the sacred furniture and utensils of Solomon's temple, even in the same numbers as described in the Scriptures. All these finds were made by me in a matter of days in June 1940. At that time I thought to call the book “From Exodus to Exile” since the reconstruction at that time reached the fall of Jerusalem and the Babylonian Exile. But I had already realized that the “Forgotten Empire” of the Hittites was but the story of the Chaldean kingdom. I thought that I would finish the book in a matter of a few months.

Early in the fall of 1940 we moved to 525 Riverside Drive to a small apartment on the twelfth floor, overlooking the Hudson.

There on about October 20, in the afternoon, sitting at the window of the kitchenette, I read in the book of Joshua. I was struck by the fact that the verse in which the sun and moon are described as disrupted in their motion was preceded by a verse telling of great stones falling from the sky. In the library of Columbia University, which I visited several times each day for the next ten or twelve years, I made a list of books on Chinese and Mexican lore—east and west—to find out whether a disruption in the motion of the sun is mentioned there. From the long list made, one of the first books chosen was by Etienne Brasseur de Bourbourg, a missionary of the last century, and the first decipherer of a few Mayan hieroglyphics.⁽⁴⁾ A passage in the book attracted my special attention—it told that St. Augustine wrote that Varro (a learned Roman of Caesar's time whose books are not extant) referred to two authorities who claimed that in the time of Ogyges Venus changed its form and orbit. It was not more than two weeks, probably less, from the time that I realized that the catastrophes of the times of Moses and Joshua must have been not local but global, that I also realized that Venus must have played a decisive role in the events: I already understood that Ogyges was the Biblical Agog, the king of the Amalekites, mentioned in the blessing of Israel by Balaam in the days of the conquest by Joshua. For the next ten years I worked simultaneously on *Ages in Chaos* (a reconstruction of ancient political and cultural history) and *Worlds in Collision* (a reconstruction of natural events).

Early in my work I became convinced that not only is the cosmology of the solar system very different from what is thought, but also the celestial mechanics that claims that only inertia and gravitation participate in the spheres above will need re-examination and so also the Darwinian evolution based on the principle of uniformitarianism or gradualism.

Soon I became aware that I had precursors—one was William Whiston, successor to Newton at Cambridge, who at the end of the 17th century claimed that the Deluge had been caused by a comet that was seen in 1680. The “miracle of Joshua” however, Whiston dismissed as a worthless piece of folk fantasy. He considered that prior to the Deluge the Earth’s axis of rotation had been perpendicular to the ecliptic, and therefore there were no seasons and that the year had exactly 360 days. Ignatius Donnelly, a member of the House of Representatives, in the later part of the 19th century wrote a book, *Ragnarok*, in which he claimed that in prehistoric times a comet had passed near the Earth and showered till over that part of the globe that happened to be turned toward it. A. Olrik, a Scandinavian author, wrote another book under the same title. Neither one of these two gave any indication of being aware of the work of Whiston. Georges Cuvier, the famous paleontologist, claimed catastrophic interruptions in the history of the globe but made sarcastic remarks about Whiston. Dr. Walter Federn drew my attention to the work of the Viennese engineer Hoerbiger who claimed that thin ice pervades the universe, causes shifts in orbits, the repeated captures of successive moons, and their disintegration millions of years later. [\(5\)](#)

With Whiston I agreed as to the Deluge having been caused by a comet; but I had much more to say: Saturn was disrupted by the close approach of Jupiter, and exploded; the explosion of Saturn engulfed the Earth and other planets. This is the story of Tammuz of the Babylonians and of Osiris of the Egyptians, and of Kronos of the Greeks. Centuries later Venus was born by the fission of Jupiter, which collected much of the material dispersed by Saturn. I concluded that Saturn must be made up largely of hydrogen, a fact I soon found confirmed. From Donnelly and from Bellamy, a follower of Hoerbiger, I used a few literary references to the age of darkness and gave credit in each case.

Ages in Chaos occupied most of my time: soon I revised the chronology of ancient history up to the time of Alexander of Macedon’s arrival in Egypt. For a year and a half I did not tell Walter Federn of my thesis. I showed it to Dr. Schwartz of the Oriental Department of the Public Library, Forty-second Street, and he thought me wrong; besides, he advised me to write in some language I knew well, rather than in my ferocious English. I discussed my work with Ralph Marcus, translator of Josephus Flavius, in his office at Columbia University, and he, though very friendly, advised me, too, to return to my profession and leave history alone. I corresponded with Prof. Harry Wolfson of Harvard and sent to him an early version of *Ages in Chaos* and he gave it to Prof. Robert Pfeiffer. Next I came to see both, and Pfeiffer discussed with me my history and found me knowledgeable, yet reserved judgment.

One winter night, I think it was in January 1942, I told Walter Federn of my reconstruction, and from that time on he was of great assistance to me with his knowledge of the immense literature on Egyptology. He opposed me consistently but never refused information. I had no similar help from any scholar in cuneiform, though Prof. I. J. Gelb of the Chicago Oriental Institute wrote answers to occasional inquiries.

One morning in 1942 I typed (in erroneous English) a number of pages, and went to Washington D.C. There I had a discussion with Prof. F. R. Moulton, co-author with T. C. Chamberlin of the tidal theory of origin of the solar system, and at the National Academy I tried in vain to persuade the Secretary of the Academy to accept my essay for safekeeping. Returning home I had my essay notarized, and in the court downtown had the court clerk authenticate the notary's signature. ⁽⁶⁾

I also devised an experiment to find whether the velocity of light would be influenced by the motion of the illuminating or of the illuminated body. I sent it to Prof. Paul Epstein of the California Institute of Technology, but he assured me, though he did not persuade me, that the issue is settled without an experiment.

Occasionally I would find that some other author had already come to one of the aspects of my theory. Once, I remember, in the library on Forty-second Street, I read the book of an author who advanced the idea that the Pyramids were built to serve as shelters against natural catastrophes, an idea I had already put into writing several years earlier.

In 1945 I put together *Theses for the Reconstruction of Ancient History* and gave it that summer to a printer in Canaan, Connecticut. I published it as a monograph in *Scripta Academica*, a series I started with the funds of my father while still in Palestine and to which Chaim Weizmann and E. Bergmann contributed the first monograph and Prof. A. Fodor, of the Hebrew University, the second. Of the 284 statements in the "Theses," I would today correct only a very few.

Nine publishers rejected *Ages in Chaos* though Prof. Pfeiffer tried to help. Eight publishers rejected *Worlds in Collision*, mostly because of the many footnotes, believing that the book should be brought out by some subsidized academic (University) press. It was contracted by Macmillan in 1947 and published in 1950. The history of its reception is not dealt with here and is partly known. ⁽⁷⁾

References

1. *Mount Sinai, a Volcano* (1873).
2. T. Nöldeke, *Über die Amalekiter* (Göttingen, 1864).
3. I edited and published in 1923 *Scripta Universitatis*, that served as the beginning of the Hebrew University, and there was a scholarly article by

- Mahler of Vienna on the chronology of the el-Amarna period.
4. The book has the title *S'il existe les sources de l'histoire . . .*
 5. See I. Velikovsky, "Precursors," *Kronos* VII.1, 48-55.
 6. See I. Velikovsky, "[Affidavit.](#)"
 7. See I. Velikovsky, *Stargazers and Gravediggers* (William Morrow Co.: New York, 1983).
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Chronicles of Discovery

Marked June 25, 1940

June 20. First time told Elisheva (on Riverside Drive walk) of my idea that coming toward the Israelites leaving Egypt, the conquering Hyksos. The same evening, in the library, I ascertained that this is true. The history must be moved by 700-800 years.

June 21. Read Josephus Flavius Against Apion.

June 22. In Metropol. Mus. of Art Library. Found in Gauthier the name of Tahpanheth. Looked for the first time in T. El Amarna letters by Knudtzon. The name of Abdi-Ashirta, called also Rib-Addi.

June 23. Till afternoon made lists from O.T. Afternoon in the library. Became satisfied from Knudtzon T A that the time is of Jehoshaphat, as also expected.

June 24. With Elisheva in the Hebrew Division of the Library (42nd Str.) The Amalekites were summoning the Israelites to slavery (upon becoming masters of Egypt)

June 25. Afternoon from 3 to 9:45 in the library. I found what I also thought the evening before. Haremhab was placed at the head of Egypt by Sennacherib. I also found confirmed what I thought that either Sethos or Ramses is Necho. By comparing the material about Nebkadnezzar and about Ramses, that Ramses is Necho. The name is mentioned also in Assyrian documents and also in Egypt. "From Exodus to Exile" (the name of the book to write).

June 26. In the library till 3 pm (forgotten to go to dentist) I met Federn. Did not tell him the subject of my work. I completed the search. Now to classify the material. Cuneiform in the letter of El Amarna understandable because this was the time of Assyrian advance toward Egypt.

June 27. Queen of Seba (=Hatshepsut). At once lookup in Encycl—acc. to Josephus, she was queen of Egypt. And what kind of theories. See Koran —I was depressed today and I was weary. Now I read a chapter in Psalms. — It was given me to solve also this riddle (Q. Sheba) and to know that I am building on a firm ground.

June 28. We have sent the children to a camp. In the evening I came afoot to the library and Elisheva also came. On the way I thought that the letter of the widow of

Smenkhkare fits with the story of the Seven Against Thebes and so I learned to know who fought against Thebes. In the Library, Elisheva found the text of the travel of Hatshepsut to Solomon.

This evening we shall not forget. Like drunken wine we sat the evening in the Central Park on our way from the library.

“To remain here till the morning, and in the morning to go again to the library,” said Elisheva. The life was not easy with you but I can say as Wilkie’s wife (he was nominated that day and nothing to envy her) that the life with you was an adventure. We spoke about my father and mother. We felt as if the world opened itself before us. It was fated that we remained on the sixth of April here. Who would believe that in one week all this research was made.

Not to tarry even for a day. To return respect (glory) to the nation. Sheilok situation. We have suffered for [being identified as] Amalek.

Nov. 7, 940

Less than two weeks ago I was reading the book of Joshua, as I undertook to read (a part of the chapters possible for the first time, or for the first time since childhood) up to Sam. II incl. for the chapter Hyksos-Amalekites.

As I came to the chapter 10 of Joshua, the reading instantly caused the association: the sun and moon staying at the sky and the stones which fell—a celestial body passed near by.

I read once that in Koran there is a legend that hot stones fall on sinners (with inscribed names)—I brought this in connection.

I read about Harras in Arabia, scorched by fire, I brought this in connection.

I decided: a change of the movement is possible at an impact like this. And I thought about the ice age. I knew quite nothing about it. I read about ice age. My supposition was right. When it was, why it had the shape (Am. & Eur. but not Asia), why it ceased—no satis. explanation. I measured the center. I found it to be near the Baffine. Then I thought—and where are the magnetic poles? Are they not in vicinity. I went again to the atlas and I found them in vicinity. I explained to myself that the sun is magnetizing the earth, so the poles are the result of the previous age. And now? Must be some other point—between the pole (or the point near the pole where the sun just reaches) and the magnetic pole. Thus exists at 78 degrees n. larg. (Maybe this was the ground of complicated influence?) The pole was previously in America.

At the same time I looked for comets in the old time. The list (Roscher or Wissowa) comets in ancient time started with a later time. I looked in the legends of all nations, the Sacred Books of Orient, Golden Bough—no mention of meteorites. Something in China but later. But I knew I must find it—because at the time the sun stopped, the

night side of the earth had to experience the hardest blow and be in vicinity of our earth. In the legends of the redskin Indians I found about the hot stones falling from the sky. It looked like a description of a comet.

I had to look in the old description from the time before Columbus. I knew nothing about the Indians, but always was interested to have in future a chance to know what was their culture at the time Columbus came. I looked at the catalogue. Thousands books. I chose a list of them. I got nothing interesting. Next day I ordered another book of my list. It was Brasseur de Bourbourg. I found what I knew I must find. The traditions of the Mexicans from before Columbus are full of memories about great catastrophes.

The idea that meanwhile came to me that some—possibly 65— years before the earthquake and eruptions at Exodus were due to the same cause: now the comet returned to continue the destruction. (That an earthquake was at the Red Sea I found since April; together with the idea of new appearance of the Dead Sea it was the beginning of my paper; then I looked for traces in Egypt, up to - after denials on the part of the Egyptologist that any earthquake was—I found Ipuwer witness).

In Mexican sources I found that there were three catastrophes. Their identification as I possess from Brasseur de Bourbourg has satisfied my desire to find these witnesses. I have to read the sources. Meanwhile I write the chapter.

The sky had to change the constellation-view. I found it in Mexican legends. I looked at Job and found it too.

The time-measure underwent a change together with the new order in the axis, orbit, swiftness. This could be the cause why the age of the patriarchs and their contemporaries was longer and just with Joshua this age over 100 ceases. A year was shorter. Maybe under new influences the life is really shorter?

This issue may be the cause of the mistake of some 600 years in the chronology, which I discovered previously, and which let me identify: Hyksos-Amalekites. Saul freeing Egypt from slavery, Queen Seba-Hatshepsut, Shisha-Thutmosis III, El Amarna letters-letter of Jehoshaphat and Ahab or Joram, Sanherib and the time of Horemhab his soldier, Ramses and Necho, etc., etc.

Now the Atlantide disappeared at one of these two catastrophes. Arabia and Africa ceased to be lands of cultivation. Now I knew that hot ... in Arabia-Gulf was the center of the catastrophe.

And neft? May be it was sprayed by the comet?

That Europe and N. America have culture—they owe to the comet.

That we have still a moon and the happy circumstance that at the first catastrophe was full moon, (and in Mexico was day, at the second, it was beginning of the month (moon afternoon)).

The reading of the book of Brasseur de Bourbourg brought me to the idea that Solomon and Hiram were sending their ships to America (Tarshish). I read about Ophir and Tarshish. Would it be at Arabia or in India, they had sent caravans; things and animals that were brought from there exercised the same astonishing effect as the things and animals brought by the conquerors of America. And silver, peacocks (maybe brought just by Phoen. from America are now in Africa) apes (on the picture of Hat-shep-sut I hoped to differentiate what ape this was from O.W or from the N. W.)

Dec. 8. 940.

More than a week ago, when two parts of the chapter about paleont. were already written, I took the liberty to say and repeat: not all of the huge animals in the hall of reptilia (extinct) are reptilia, there must be (the Brontosaurus) mammalia. As the destruction was in historical times they must not be animals of millions years ago. I saw these animals only twice more than a year ago. The story of mutation in Indian tales was in my eyes a reflect of the history. So I told to Elisheva and children I am sure to find in Brontosaurus signs of mammalia.

I me with Elisheva and Ruth in the museum, Saturday a week ago. The pelvis, the jaw and the legs—without that I read any book about zoology at all or knew the signs of mammalia—from the common sense only—were for me the signs I found. Now I wrote the chapter about Brontos. (another animal too) as mammalia.

During the week I read a chapter in one of the encyclopedias that there are extinct mammalia—mammoth and mastodont. Mammoths that were found frozen and in condition of preservation in N.E. Siberia—I could instantly explain: they were killed by the comet and their bodies were few hours later brought into the new polar circle. I read that Mastodont is a name given by Cuvier. I went to the geol. library and read Cuvier, one chapter. thus he begins: Mammoths were found in North, their corpses did not decay; they were killed just before their bodies were frozen. But they could not live in a cold desert. A common ground was for the killing and the change of temperature—a catastrophe.

He is right! Now there is also found by me the cause of all this; the cause that killed (possibly asphyxiated) the animals and turned the land to be cold. —I suppose in N.E. of Siberia rich remnants of culture may be found.-

Since the second part of October (about 20) when I read the book of Jehoshua and at once returned to read two lines before the “sun stopped” about the stones that fell, I realized that...

Dec. 8. 940.

Since Friday a week ago it became clear that 7 days of a week are 7 ages; the meaning of a rest from creation—that the creation went through all the time up to Exodus. The changes in the world were the days (Mex.= the suns) of creation (for this reason all history before exodus—in Breshith). But it came a new catastrophe (in the days of Jehoshua)—this was neglected, just because it was promised, no new catastrophe will come (in Aggada—the stones of Red Sea were suspended and fall in the days of Jeshua). The prayer of Saturday evening expresses the idea: Sabbath is the remembrance of the Exodus, of the new calendar, of the Creation. What it means? All the three started together.

Also in Saturday evening prayer (Hardala) the same idea is expressed.

Now I realize that it could really be a double tide—due to the influence of the comet-gravitation. If so—the Jews have all the right to think themselves a chosen people: they were rescued from slavery and from peril at one time. Would the sea at Dunkirk open itself before the British and drown the Nazis—would not the British had the right to believe they are chosen.

In some 10 days a comet will appear in the sky. Who knows whether she will not strike with stones all over Germany? This would be a Divine participation in this struggle.

I know what can happen to our earth from a comet. I would like to have the possibility to write my book to the end.

One or two days during this week I read the legends of creation of Jews. Now the stories of huge animals, fishes and birds seen by travellers have a true part.

The whole idea of very slow development is not exact, because this theory (Darwin) never reckon the catastrophes. The piece of coal must not be of millions of years; because it could burn 3400 years ago. New conditions had to produce new forms. And then the idea of a reserve in the plasma (and in seed) came to me.

Amusant is the story in Agada that the Brontosaurus (Behemoth) in pregnancy the “last year” could not go on feet. This what I expected when I wrote few days before that due to the increase in weight these huge animals had to perish.

Also the story of a mortal battle between Brontosaurus (Behemoth) and the bid Ziz remembered me the scene I saw in Museum last Saturday as one extinct devoured another one.

These animals were remnants of a previous epoch, just as the giants the spies found in Palestine; the immigrants of Mexico found there; and recalled by other peoples too.

Geology is “writing and arithmetic.” The millions of years—as Cuvier says—“a century is of no value.”

(Darwin I have not read. I shall read him now.)

Dec. 8. 940.

Since two or three days I told Elisheva that it seems to me as if the planet Venus is the head of the comet that struck our earth many times and after one collision turned to go through the sun and became a planet. What was the suggestion? In different sagas I found the same idea. (Beside the snaring of the sun)—a stone is thrown in the sun, and a crown, or a piece or an eye (Egypt) falls. It was mere supposition. For the new star in the horizon of Mexico and Egypt could be Sirius, after the horizon moved southward. but already the confusion in Mexico and in Egypt between Sirius and Venus was a problem. Venus fumed—I found it twice. At first I thought the comet passed through Venus too, and later I came to the above idea.

Yesterday morning I remembered that there exists a legend that a goddess came out of the head of Zeus. I thought it was Aphrodite, in any way I concluded: this is the same story, the goddess is the new planet. Now I was sure. Then I asked Shulamith, she shall be reading the Bible (she was read the moment) look to find about a new star. She told me at once about the passage of Isaiah: Hillel Ben Shahaar wished to be over the world and fell: the explanation she learned: it was the morning star (Ben-Shahaar). So I had the new proof; I was without doubt. I said to Elisheva: I suppose the light of Venus must be not at all reflected, in any way Venus must be hot, after only 3400 years passed since she went through the sun. I went to the library and in Encyclop. Brit. I could read (Venus, Planets) that she emits heat, and the explanation I found (possibly she turns quick?, or she turns once a year?) was not plausible. Now our earth—similar to Venus—has done the same development.

One moment is a problem for me. When occurred this going through the sun, and “break up” of the sun? After Exodus, or after Jehoshua? In first case in days of Jehoshua the comet was already without its head.

I hope to find the answer in the story of forlorn eye of Osiris (I have not yet read it) or in other sagas.

Since or or two days I intend to think that what happened before the Exodus and in the high and day at Red Sea were two impacts with the same comet—once descending to the sun and one on her return.

The spots on the Sun—are they not smokes from nafta burning, but not escaping, some process there return the composition to nafta once more?

The semi-darkness during 25? years (Mexico)—Desert (no sun in some variant)—due possibly to the same effect.

It is good that the planet Venus is smaller (a little smaller) than our earth. It disturbed the way of our moon, but could not capture it.

Dec. 8. 940.

To day I think about the second rule of Kepler I read yesterday. How may it be that the mass and the speed of planets (of this system?) are in an invariable ratio, without regard to the magnetic forces and the place of the axis and the magn. poles? I suppose the rule may be good only for a planet in her first age.

Since weeks I was eager to find in Hebrew sources an allusion to sun going from West to East. I was directed by the book of Thomson to Gaster; I went to 42str—but the two allusions were of no value. I wrote from Concord. west & east;

Today I asked Shulamith, (I was encouraged by her yesterday's answer) whether by reading Bible she will look to an allusion to sun rising from west. Few hours later I found in the legends of Jews—when I already was disappointed to find an allusion to what I looked for, that—the last week before the Deluge the Sun rose in the West. And it good that it is written—the deluge was combined with disruption of the run of the earth. I am under my finding done few minutes ago—and already announced to Elisheva, Shulamith & Ruth.

Dec. 8. 940.

Two days ago reading about Typhon that he ruled in the days of great perturbances; and that he was smitten by Zeus and is drowned in the sea; I came to the idea (an idea came to me) that typhon is possibly the name of the pharaoh who was smitten and drowned in the sea. The struggle between the God and the pharaoh; and the struggle between the sun and the comet were identified in the mythus. So Typhon became the name of the devil of storm, comet, volcano; but it was originally the name of the pharaoh. Now I have to find in the lists of the pharaohs of the time of Exodus this name. "Tymoethus" begins the story of Manetho-Josephus. He was possibly the next pharaoh, as the invasion of Hyksos followed the drowning of pharaoh? Or this is the other version of the name? The other thing I understood was: the last change in the direction of movement was during the comet of Exodus. Zeus in his struggle with

Typhon has the time to rob Europe from Phoenicia. Europe-Erev-Evening. It was not alight hear on the side of Zeus: the west turned to east. Kadmus—the brother of Europe—came to Hellas; this is the time of general migration. the new dwellers of Hellas were from Phoenicia.





526 WEST 113TH STREET,
NEW YORK, N. Y.

DR IMMANUEL VELIKOVSKY

PHONE: MONUMENT 2-2225

Affidavit

This exposé on nine pages I brought last week, on Tuesday 24th of this November 1942, to the National Academy of Sciences, 2101 Constitution Avenue, Washington, D.C., at approximately 3,45 p.m. I applied there to Mr.P.Brockett, the curator, asking to accept from me for secure keeping the nine pages which I proposed to put in an envelope, after he would, (if he likes) to inspect them. To introduce myself I showed my publications 'Scripta Academica'. I waived in advance any responsibility on the part of the Academy, in case my exposé would be destroyed by fire, by an enemy action or be lost otherwise. I explained that the results of my research are of a far reaching importance for many fields of science. The curator refused to my asking, telling me that this is not the duty of the Academy, and such procedure is unknown. I insisted, explaining that this courtesy would be a logical duty of an academy; I do not ask printing in Proceedings, nor bringing my paper before a meeting; I am interested in securing my priority for the results of my research. I asked whether he would like hear an opinion of the President or Secretary of the Academy.He answered me that he himself is the Executive Secretary of the Academy. He suggested to me that I shall apply to the National Archiv. I replied that I understand that the suggested Institution is serving only as the Governmental Archiv, and would not accept a paper of a scholarly character brought by a private person. I was asked why I should not read about my research in a scientific society. I explained that the research with all its material is very large (The Mns now is well over five hundred pages, and it will take probably one or two years before it will be printed; another another book will precede in publication), and to bring the results without the

material which served as proofs, would be unadvisable, especially because of the extraordinary character of my results. There can't be nothing in the Statutes of the Academy, why my envelope should not be accepted. How would he act, if not my humble personality, but a Copernicus or Newton would apply with a similar asking? - But in spite of all arguments - I could not be more eloquent, and to keep better the exact measure in all respects, - I did not succeed in this long and friendly conversation. Then I asked him to write me his refusal, and he noticed my address in N.Y. But up till to day I did not receive any notice.

signed before Notary

Rose Richardson Mandel, Dec. 5, 1942
certified by Supreme Court Clerk DC. 11, 1942

I present here some results of my research based upon inquiry in different material, historical, geological, physical, geophysical, pertaining to folklore and to history of religions. A full description of results of my research will appear in book form, and there the material will be presented in full.

The results to which I arrived, appear to be of fundamental importance to science in all its branches.

To begin with, our Earth collided (contacted) in the fifteenth century before this era with a comet. The head of the comet exchanged violent electrical discharges with our planet, and also with its own tail. The Earth changed the poles, south becoming north, changed axis, changed the orbit of revolution changed speed. As a result, the year that consisted previously of 260 became 360 days (our orbit was approximately that of Venus today). The moon changed its orbit, and the month of 20 days became of 36. Iron previously neared to the core of the Earth, appeared in upper layers. Neft poured from sky and built the present deposit. Meteorites fell in abundance. Harras in desert of Arabia are meteorites fields. Lava streamed on the surface of the Earth not only from volcanoes, but also from clefts. Continents and seas changed places. Rivers disappeared, others

appeared, still others inversed their direction (f.e. Jordan, that flow previously to the Meditteraneum, Dead sea being not in existence). A major part of human kind perished. A double tide of immense high swept seas and continents. In general conflagration woods burned down, rivers boiled; magnetic storms reached degree hurtful to bioplasma; immense hurricane accompanied the change of rotation of the Earth. In places struck by electrical contact with the comet nitogren was converted into (deposits) of saltpeter. Air became filled with clouds of carbons or hydrocarbons, and Earth was enveloped in them during a number of years. These compounds of carbon precipitated slowly in the process of cooling.

South pole which was approximately between Greenland and Northern America, or in North America, changed its place by approximately 159 degrees. Its former place might be found by locating the center of the later ice-age-cover; ice age did came to close at that moment. The magnetic pole previous to that contact, or still earlier was probably coinciding with the geographic pole,

The comet changed its path too after the electrical contact with the Earth, its orbit became a stretched ellipse, and was semi-planet semi-comet. After 50 or 52 years it contacted for the second time with the Earth, and the Earth was brought out of rotation. This encounter in the fourteenth century before the present era, had similar effects as the previous contact. But there was no permanent change of direction of rotation, nor change of north and south. Since 34 centuries the sun rises in the East. After the second encounter the Earth was endangered every 50-52 years by this new planet of the solar system: this is the planet Venus. The above recorded calendar changes are effects of first a n d the second encounter.

In the ninth century Venus moving on a stretched ellipse contacted with Mars, brought Mars out of its path, and repeated this contact for a number of times, and since then has Venus occupied approximately its present position in the solar system, and ceased to endanger the Earth. But Mars brought out of its orbit became the dangerous neighbour of the Earth. In -747 the Earth contacted with Mars. The peril of contact repeated itself every fifteen years. At midnight March 23, -687,

Earth contacted again with Mars. The catastrophe was of lesser dimensions than that of 14th or 15th century. Still Earth was brought out of its rotation, changed its orbit from one of 360 days to 365 and a quarter somewhat different days; the moon changed its orbit from 36 days to 29 days. Poles were displaced, Europe moving to the South, but the north and south poles did not exchange direction. Mars took its present position in the solar system. In contacts with Venus and Earth, Mars lost most of its organic life; it acquired some of the atmosphere of Venus (carbohydrate) and lost some of its atmosphere to our planet (probably argon and neon). Mars should be examined as to the presence of these rare gases. As a result of these contacts Earth, but also Venus and Mars are warmer than the solar radiation can account for. Anomaly in movement of Mercury, as well as the precession of the earth can have their origin in these displacements of planets.

Before contacts with Venus and Mars, our Earth suffered a number of cataclysmic contacts. One of the earliest was when the Earth attracted the Moon, still in memory of human kind. Thereafter passing in Saturn atmosphere the Earth was drowned in hydrogen, which drifting through oxygen of the Earth, became water. Thereafter Earth suffered heavily when Saturn and Jupiter collided, and the Earth passed dangerous close to Jupiter. Electrical contacts, change of calendar (year, month, day) happened already at that times, in the fourth (?) and third millennia before the present era. Gigantic forms of life which existed at that time, only in few exemplars survived these catastrophes, but were still in existence 34 centuries ago, at the contact-cataclysm caused by Venus. The teaching of Darwin which supposes but slow changes in life-forms is wrong. Gigantic reptilia ceased to exist not tens of millions of years ago, but they lived still a few thousand years ago; they perished in catastrophes, and those that survived could not exist in new conditions, especially because of changed weight of all objects, and of their large bodies, not capable to move, esp. during gravity. Brontosaurus was not a reptile, as it is thought, but a mammal. Humankind survived in races of small kind. Gigants were exterminated. The buildings of cyclopic size-stones were possible chiefly because of different weight of all objects before the contacts. The theories

of slowly development of mountains and valleys under causes like rain and wind, are wrong. The earthquakes are the post-effects of the contacts and are readjustments of displaced masses and twisted strata.

This my research is based not upon speculations but primarily on historical data; its results, better to say the results of the cataclysms can be proven by many different ways, astronomical, geological, physical, historical. As to the last it should be taken in consideration that the world (political) history of the thousand years, starting with the catastrophe of Venus is entirely confused. This catastrophe caused the end of the Middle Kingdom in Egypt. The Reconstruction of the Millenium which closed with arrival of Alexander into Egypt is prepared for print under the name 'A chimerical millenium'. The manuscript dealing with the here recounted cosmic revolutions is written and bears the name 'Worlds in collision' . The other research was conceived in its all main features April 1940; the present research in October 1940; Some results, (concerning Mars) and also the concrete formulating of the fallibility of Newton's teaching of gravitation were brought to clarity in March 1942.

As to this here mentioned fruit of my research I like to point out: the planetary bodies at contacts were not crushed (this possibility is not excluded), but exchanged electrical discharges. The bipolarity is well balanced in the planets; bipolarity of comets is divided in tail and head. This is the cause of approach and retreat of comets to and from the sun.

The behaviour of our earth, Mars, Venus, Moon, and other planets at contacts, shows clearly that there is no such phenomenon as gravitation. The mathematical proofs of Newton are completely erroneous. He admitted a primary push or pull that brought the moon into motion on a straight line; he admitted gravitation force of the Earth that tries to remove the Moon from the straight line motion. An object falls near the surface of the Earth with the initial mean speed of 16,1 feet in the first second. The moon is remote from the Earth's centre sixty times the distance of an object on the Earth surface from Earth's center (Earth's radius). The initial velocity of fall at the distance of the moon

should be 60 times slower, 16,1 feet in a minute. 15,43 feet in a minute is the 'fall' of the moon from the tangent of its orbit. The approximity of these two figures 16,1 and 15,4 is but accidental. There is no logical reason to count the velocity of fall by seconds, which are but human, not in nature preexisting time measure. Reckoning by two seconds the velocity of fall would be 48,3 feet here, and the same amount in the two minutes at the distance of the moon; and the fall from the tangent line is but 30,8 feet.

The fallacy of Newton's scheme is obvious also in terms of mechanics. The primary force was not infinite in its strength as pull or push. It does not act anymore. The Earth on the other side pulls permanently. In many different elementary ways it is possible to show that under such conditions the permanently acting force of gravitation would let the Moon approach the Earth in a quick spiral.

As the computation concerning the Moon caused Newton to postulate a general law concerning the whole solar system and the whole Universe, it, the law of gravitation is wrong in all its applications. Velocities and masses computed with its help are probably wrong in many instances.

There exist attraction and repulsion. Electrical phenomena are responsible for attraction and for repulsion. To explain the fact that objects close to the surface of the Earth are more attracted than repulsed, we owe to admit that a high layer in the atmosphere repulses what the solid portion of the Earth attracts. The phenomenon of the tail of the comets repulsed from the sun, of polar light, of zodiacal light will find here their explanation. The phenomenon (why not questioned at all?) that Nitrogen lighter than Oxygen does not move to the higher level in the atmosphere, though the air is a mixture and not a compound, is another fact of disobedience to the 'law' of gravitation. Also water, in small drops, is lifted then dropped by electrical charges and discharges. The radio-layer in the atmosphere is probably the attracting and repulsing medium acting contrary to the ground. The moving of negative electricity into the ground does is due to the charge of the Earth. At near distances

special law acts in magnetism (also electrical phenomenon) and electricity. Levitation is conceivable. Perpetuum mobile theroretically possible. Discharge from upper layer might be exploited, also with destructive purposes. A flight to interplanetary space in defiance of gravitation is thinkable.

Electrical charges in the Earth and its atmosphere are chiefly induced and sent by the Sun. Sun sends two kinds of charges, positive and negative. Heat and light are transformations; (transformation into heat is achieved by passing media [through?] coolness of summits, but the heating of Moon surface must be accounted for, before accepting the last hypothesis.) Cosmical rays which reach the Earth have probably their origin in the Sun (and also in other cosmical bodies). They arrive during the night or during sun-eclipse, because they are moving not in straight lines. (Their efficiency on malign tumors should be explored by sending sick persons to a mountanous sanatorium near the southern 0or northern) magnetic pole).

Whether elements mutated under influence of electrical contacts of cosmic dimensions-(in cataclysms) is difficult ascertain or to deny and laboratory work will gave reply.

The building of the solar system as revealed by grandious esperiments exhibited by the nature in sight of the historical man, is composed of a two fold process : distributing of (solar) energy and arrival of new members from interstellar space, collisions, violent discharges.If an atom is built as a microcosmical model of a solar system, elements arriving from interatomic space, also travelling from one atom to another must be in existence. Contacts between elements, increase in numbers of electrones, polarities, change of orbits, all must take place. Change of orbits and emitting of energy at these moments were supposed by Bohr.

This statement I like to have guarded by an Academy of Sciences. I wrote it the night before leaving at an early hour for Washington where I shall try to leave it at the office of the Academy (there) As the largest part of this statement I wrote directly by the typewriter, I concede that a better shape might be given to the

results of my research and to the physical conclusions deducted from those results. The few lines about heat had not to be written at all, at present. In the Mns the research is put in many hundreds of pages, and the physical deductions, meanwhile, are put on some tens of pages. There are problems esp. concerning 'weight' , 'attraction and repulsion' , magnetism, cosmic rays, heat, and I would like to experiment as to come to farther answers.

November 23th, 42

[signed] Dr. Im. Velikovsky





THESES FOR THE RECONSTRUCTION OF ANCIENT HISTORY

FROM THE END OF THE MIDDLE KINGDOM IN EGYPT
TO THE ADVENT OF ALEXANDER THE GREAT

BY

IMMANUEL VELIKOVSKY

1945

INTRODUCTION

The written history of the ancient world is composed without correct synchronization of the histories of different peoples of antiquity: a discrepancy of about six hundred years exists between the Hebrew and Egyptian histories as they are conventionally written; since the histories of other peoples are synchronized both with the Hebrew and the Egyptian past, they are completely distorted.

The ground plan for a redesigning of ancient history was ready in its main features in the spring 1940. During the years 1940-1944, I wrote and completed a Reconstruction of ancient history from the end of the Middle Kingdom in Egypt to the advent of Alexander the Great. Due to war conditions and their interference with the printing of extensive scientific works, the publication of "Ages in Chaos" had to be postponed. This short paper is intended to bring together in concise form most of the innovations of my work; I present them in the form of theses; the manifold proofs which underlie the Reconstruction and the numerous collations of historical material are reserved for the work itself.

New York, June 10, 1945.

manner. It is entirely confused, and is a disarray of centuries, kingdoms and persons.

2. The cause of this confusion lies in an incorrect representation of the Egyptian past; and since the history of Egypt is chosen to serve for orientation in compiling the histories of other peoples of antiquity, the histories of these other peoples are brought into disorder as well. The error in Egyptian history consists of six to seven and, in some places, eight centuries of retardation.

3. Histories of Palestine, Syria, Babylonia, Assyria, Mycenae, Classical Greece, Chaldea, Phoenicia, and Caria, are written in duplicate form, with the same events repeated after a period of six or seven centuries. The confusion of centuries makes the life of many personages double; descendants are transformed into ancestors, and entire peoples and empires are invented.

4. The Egyptian and Jewish histories, as they are written, are devoid of a single synchronism in a period of many hundreds of years. Exodus, an event which concerns both peoples, is presumably not mentioned in the Egyptian documents of the past. The establishing of the time of the Exodus must help to synchronize the histories of these two peoples.

5. The literal meaning of many passages in the Scriptures which relate to the time of the Exodus, imply that there was a great natural cataclysm of enormous dimensions.

6. The synchronous moment between the Egyptian and Jewish histories can be established if the same catastrophe can also be traced in Egyptian literature.

7. The Papyrus Ipuwer describes a natural catastrophe and not merely a social revolution, as is supposed. A juxtaposition of many passages of this papyrus (edited by A. Gardiner, under the name "Admonitions of an Egyptian Sage", 1909) with passages from the Scriptures dealing with the story of the plagues and the escape from Egypt, proves that both sources describe the same events.

8. The Papyrus Ipuwer comprises a text which originated shortly after the close of the Middle Kingdom; the original text was written by an eyewitness to the plagues and the Exodus.

9. The plagues were the forerunners and aftermaths of a great cataclysm the nature of which will be discussed in a work dealing with the natural history of the world. Earthquakes, eruptions of volcanoes, changes of the sea profile, were some of the results of that catastrophe.

10. The tenth plague, during which the houses were struck down, was an earthquake. The clay huts of the "dwellers of the marshes" suffered less than the structures of stone.

11. The “firstborn” (b’khorim) is erroneously used instead of the original “chosen” (b’chorim), and the tenth plague originally narrated the destruction of all the choice people among the Egyptians.

12. The naos (shrine) of el-Arish, now in the Museum of Ismailia, describes the plague of darkness and the death of the pharaoh in a whirlpool. The place of the last event is at Pi-Kharoti, which is Pi-ha-Kiroth of the Book of Exodus.

13. Tom-Taoui-Toth was the Pharaoh of the Exodus.

14. The Exodus took place at the close of the Middle Kingdom: the natural catastrophe caused the end of this period in the history of Egypt. This was in the middle of the second millennium before the present era.

15. The Israelites left Egypt a few days before the invasion of the Hyksos (Amu).

II

16. The Israelites met the Hyksos (Amu) on their way from Egypt. The Hyksos were the Amalekites.

17. The Arabic authors of the Middle Ages related traditions which reflect actual historical events, about the Amalekites who left Mekka amidst catastrophes and plagues, the invasion of Palestine and Egypt by the Amalekites, and the Amalekite pharaohs.

18. The catastrophes and plagues of these traditions are part of the cataclysm which is described in the Scriptures, the Papyrus Ipuwer, and the naos of el-Arish. The flood, which drowned many Amalekites who escaped from Arabia, was simultaneous with the upheaval of the sea on the day of the Passage.

19. Because of the occupation of southern Palestine (Negeb) by the Hyksos, the Israelites escaping from Egypt were forced to roam in the desert. The Desert of the Wanderings stretched deep into the Arab Peninsula.

20. The Hyksos stronghold Auaris was situated at the el-Arish of today. (Its other names are Tharu and Rhinocorura).

21. Its builder Latis, mentioned in the Arabic sources, is identical with the Hyksos King Salitis of Josephus-Manetho.

22. The Hyksos King whose name is read Apop (I) is the Agog (I) of the Scriptures. Similarly Apop II is the biblical Agog II.

23. Amalekite fortresses were built in Palestine. One of them was at Pirathon in

Ephraim.

24. The Amalekites employed the same tactics in their devastating raids on Palestine and Egypt, choosing the time before the harvest.

25. The process of the conquest of Palestine by the Israelites was slowed down and reversed when the Canaanites allied themselves with the Hyksos-Amalekites. The wars of the Judges were intended to free the people from the yoke of the Hyksos.

26. The cataclysm which caused a migration of peoples brought the Philistines from Cyprus to the shores of Palestine. They intermarried with the Amalekites and produced a hybrid nation.

27. The Manethonian tradition about the later Hyksos Dynasty of a "Hellenic" origin reflects the period when the Philistine element became rather dominant in the Amalekite Empire.

28. The "Amalekite city" which was captured by Saul was Auaris.

29. As the result of his victory at Auaris, Saul freed Egypt and the entire Near East.

30. In the siege of Auaris, Saul was assisted by Kamose and Ahmose, the vassal princes of Thebes.

31. Manetho's story about the Hyksos leaving Auaris by agreement reflects the scriptural incident concerning the Kenites leaving the besieged Amalekite fortress.

32. The invasion of southern Palestine by the escaping remnants of the Hyksos is reflected in I Samuel 30; and their further destruction at Sheruhen, in the Talmudic story of Joab's war against the capital of the Amalekites.

33. This last bastion of the Amalekites was probably on one of the rocks of Petra.

34. Manetho confused Sheruhen with Jerusalem, and the Israelites, the redeemers of Egypt, with the Hyksos.

35. This confusion spread in the Ptolemaic time and became the cause of the rise of anti-Semitism which, fed from different channels, survived until today.

36. The period of the Wanderings in the Desert, of Joshua, and of the Judges, corresponds to the time of Hyksos domination in Egypt and the Near East. The period of the Hyksos lasted for more than four hundred years. The archaeological findings of the Hyksos period in Palestine appertain to the time of the Conquest and the Judges.

37. Two kingdoms rose on the ruins of the Hyksos Empire: the kingdom of Israel under David, and the New Kingdom of Egypt under the Eighteenth Dynasty. The beginnings of these two dynasties are not separated by six centuries; they started simultaneously.

38. The Egyptian Queen Tahpenes, the sister-in-law of Hadad the Edomite, was a wife of Ahmose.

39. Thutmose I attacked Gezer of the Philistines and gave it to Solomon, his son-in-law.

40. Queen Sheba is identical with Queen Hatshepsu.

41. The information of Josephus that the queen-guest ruled Egypt and Abyssinia, is correct.

42. The theories which place Punt and God's Land in either South Arabia or Africa are equally wrong. Hatshepsu's expedition, pictured in the temple of Deir el Bahari near Thebes, went to Palestine-Phoenicia.

43. By the time of the Old Kingdom, Palestine was already known as God's Land or Holy Land. The tribe of Menashe lived in Palestine already at the time of the Old Kingdom in Egypt.

44. A preliminary expedition dispatched by Hatshepsu to prepare the way for the main expedition, was met by Peruha, the biblical Paruah, governor of Ezion-Geber.

45. The correction of the verses I Kings 4, 16-17 which place Aloth in the domain of the son of Paruah, is well founded.

46. Queen Hatshepsu participated personally in the main expedition to Ezion-Geber, Jerusalem, and Phoenicia. Her intention was to see what she had known "by hearsay" only.

47. The return voyage was made by sea from the Palestinian shore to Thebes on the Nile, and a second fleet was used. In the days of Hatshepsu there was no canal connecting the Nile with the Red Sea.

48. Jewish officers in the service of Solomon are portrayed on the walls of Deir El Bahari.

49. Exotic animals and plants, including the algum-trees "never seen before", which Queen Hatshepsu received as gifts in God's Land, had been brought by the navy of Hiram and Solomon from Ophir. They are seen in the pictures of the expedition.

50. Gifts were also presented to Hatshepsu by messengers of Hiram.

51. Solomon was not an obscure prince, as he is often represented. The riches of his kingdom astounded the Egyptians under their most magnificent monarch.

52. Silver-covered floors in the Jerusalem of Solomon were an actual feature; such floors were also built in the palaces of the viziers of Hatshepsu.

53. The architecture and ordinances of the Temple of Solomon were copied in the Temple of Amon at Deir El Bahari. The plan of this structure and its terraces can help in the reconstruction of the plan of the Temple of Solomon.

54. The Songs of Mounting, which are included among the Psalms, were sung by priests while ascending the terraces.

55. The office of High Priest was introduced into the Egyptian service in imitation of a similar post in the service in Jerusalem. The word pontifex is derived ultimately from the word Punt. The last word means Phoenicia.

56. The Abyssinian tradition preserved the name of the Queen of the South as Makeda, which is derived from the personal name of Hatshepsu (Make-Ra).

57. The Arabic claim that Queen Sheba was their Queen Bilkis, is unfounded.

58. The traditional origin of some Hebrew legends concerning Queen Sheba can be traced in the life and appearance of Hatshepsu.

IV

59. Thutmose III is the scriptural Shishak; he lived not during the fifteenth, but during the latter part of the tenth and the beginning of the ninth century.

60. Thutmose III refers in his inscription in Karnak to the state of disagreement and war among the Jewish tribes of Palestine after the death of Solomon.

61. The disintegration of the empire of Solomon was planned for by Thutmose III and carried out by him. He was also the author of the division of Palestine into two kingdoms.

62. Jeroboam, the first king of the ten tribes, is pictured during his stay in Egypt on a bas-relief in Thebes, together with a small son of his, as the prince of Dunip (Tunip), which is Dan.

63. Baalbek is the ancient Dan.

64. The list of the Palestinian cities inscribed by Thutmose III in Karnak comprises the names of the cities of Rehoboam in his fifth year. The city-fortresses built or fortified by Rehoboam, Etam, Beth-Zur, Shocco, Gath, Ziph, and Adoraim, can be identified in their Egyptian transcription.

65. The chief fortress besieged and captured before the Pharaoh came to Jerusalem, was Megiddo. Megiddo was defended by Rehoboam personally, and he eluded captivity when the fortress fell.

66. The city Kadesh, the most important among the Palestinian cities, and the first in the list of Thutmose III, is Jerusalem.

67. The submission of Rehoboam and the princes of the land, and their “becoming servants” to the Pharaoh is described in the annals of Thutmose III.

68. The vessels and furniture of the Temple of Solomon sacked by Thutmose III, are pictured on a bas-relief of Karnak. They can be seen in detail: altars, tables, candlesticks, etc.

69. The ornaments of “a crown of gold round about”, “buds among flowers” and “lily-work” described in the Scriptures, are shown on the bas-relief.

70. The showbreads had a conical form. The candlesticks had three branches on either side of the stem, or seven branches on either side [*altogether*]. The fountains for perfume were vessels ornamented with figures of animals.

71. The copper covered doors and chains of gold were actual features of the Temple of Solomon.

72. Golden chariots, like those mentioned in the Song of Songs, were carried from Palestine as tribute, and are pictured in the sepulchral chambers of Rekhmire, the vizier of Thutmose III.

73. The theory about the supreme artisanship of the Canaanites in the pre-Israelite period is without foundation.

74. Jewish artists brought to Egypt introduced their fine arts and influenced the aesthetic conceptions of the Egyptians.

75. Animals and plants of Palestine of the days of Rehoboam are pictured in the temple of Karnak. They comprise the collections of Solomon.

76. “Arzenu” (our land), by which the Scriptures mean Palestine, was its name in the Egyptian tongue (“Rezenu”), a geographical equivalent of the name “God’s Land”.

77. The name of Israel is found in the annals of Thutmose III as that of a people bringing tribute. The assertion that the name of Israel is met for the first and only time in the inscription of Merneptah is wrong.

78. Rehoboam, “the king of Kadesh”, is pictured on a bas-relief in the tomb of Merneptah in Thebes.

79. The people of Gubath in the inscription of Thutmose III, is the people of the scriptural Gubath, son of Hadad the Edomite.

80. Sesonk, the Pharaoh of the Libyan dynasty, was not Shishak of the Scriptures.

V

81. Amenhotep II lived not in the fifteenth but in the ninth century, and was the scriptural Zerah.

82. The theory that the Ethiopian Zerah came from Arabia is wrong; equally wrong is the theory that he is a mythological figure.

83. The battle of Ain-Reshet, referred to by Amenhotep II, is the battle of Mareshet-Gath, which was lost by Amenhotep II and won by Asa.

84. This intrusion of Amenhotep II-Zerah is also narrated in the poem of Keret found in Ras Shamra.

85. The theory that Terah of the Poem, who invaded the south of Palestine with millions of soldiers, is the father of Abraham, is wrong.

86. The Shemesh-Edom of the war-annals of Amenhotep II is the Edomite city of Shaphesh (Shemesh) referred to in the Poem of Keret.

87. In the days of Thutmose IV, Palestine again became a protectorate of Egypt in fear of a menacing conquest by Assurnasirpal (885-860), father of Shalmanassar.

88. Shishak mentioned in the Ras Shamra texts is Thutmose IV.

89. The texts found in Ras Shamra are not of the fifteenth, but of the ninth century.

90. The close resemblance of the texts of Ras Shamra with diverse books of the Scriptures repudiates most of the assertions of the Bible criticism (late origin of the texts), as well as the modern theory about the Canaanite heritage in the Scriptures (early origin of the texts).

91. The theory that alphabetic writing was perfected in the sixteenth century cannot be supported by the Ras Shamra texts of the ninth century.

92. As the alphabetic writing of Hebrew in cuneiform of Ras Shamra is contemporaneous with the stela of Mesha written in Hebrew alphabetic characters, the alphabet most probably did not originate in Phoenicia but in Palestine.

93. The theory that the Ras Shamra texts contain mention of Ionians, and of their city Didyme, is correct, but it concerns the ninth century Ionians.

94. The Khar of the Egyptian and Ras Shamra texts were not Hurrites or Troglodytes, but Carians.

95. The statement by classical authors that the Carians migrated from Crete is corroborated by the name of Keret of the Ras Shamra texts.

96. The Khari (Cari) of the Scriptures were the Khar or Carians from Ras Shamra.

97. The Carian language is studied in the disguise of the Hurrian (or Hurrite) language. The reading of the cuneiform Khar can be helped by a comparative study of the Carian inscriptions in Greek letters found in Egypt.

98. The reading of Carian will contribute to the decipherment of the Cyprian and Cretan hieroglyphics and may aid in reconstructing the early history of the West.

99. The name of the city Ugarit (Ras Shamra) is probably the equivalent of Euagoras, the Carian-Ionian name of a number of Cyprian kings.

100. The name Nikmed of the Ras Shamra texts is the Ionian-Carian name Nikomed (es).

101. The city of Ras Shamra was destroyed in the days of the King Nikmed by Shalmanassar (in 856 B. C. E). Its destruction is recorded by Shalmanassar and the city is called "the city of Nikdem". A proclamation telling about the expulsion of Nikmed, found in the city, refers to the same event.

102. It is highly probable that King Nikmed (Nikdem) fled to Greece, and that this man of learning there introduced alphabetic writing. Therefore, he might have been Cadmos of the Greek tradition.

103. Minoan inscriptions of the Mycenaean Age may comprise alphabetic writings following in principle the cuneiform alphabet of Ras Shamra Hebrew.

104. The vaults of the necropolis of Ras Shamra and similar vaults in Cyprus are contemporaneous, and not separated by six centuries.

105. The tombs of Enkomi on Cyprus, excavated by A. S. Murray in 1896, were correctly assigned by him to the eighth-seventh century.

106. The time table of the Minoan and Mycenaean culture is distorted by almost six hundred years, because it is dependent upon the wrong Egyptian chronology.

107. No “Dark Age” of six centuries duration intervened in Greece between the Mycenaean Age and the Ionian Age of the seventh century.

108. The large buildings and fortifications of Mycenae and Tiryns in the Argive Plain date from the time of the Argive Tyrants, who lived in the eighth century.

109. The Heraion of Olympia was built in the “Mycenaean” age, in the first millennium

110. The so-called Mycenaean ware was mainly of Cypriote (Phoenician) manufacture. It dates from the tenth to the sixth century.

111. The so-called Geometric ware is not a later product than the Mycenaean ware; they were products of the same age.

112. The entire archaeology of the eastern Mediterranean, based upon the assumption that the Mycenaean culture belongs to the fifteenth-thirteenth centuries, is built upon a misleading principle.

VI

113. The el-Amarna Letters were written not in the fifteenth-fourteenth century, but in the middle of the ninth century.

114. Among the correspondents of Amenhotep III and Akhnaton are biblical personages: Jehoshaphat (Abdi-Hiba), King of Jerusalem; Ahab (Rib Addi), King of Samaria; Ben-Hadad (Abdi-Ashirta), King of Damascus; Hazael (Azaru), King of Damascus; Aman (Aman-appa), Governor of Samaria; Adaja (Adaja), Adna (Adadanu), Amasia, son of Zihri (son of Zuhru), Jehozabad (Jahzibada), military governors of Jehoshaphat; Obadia, the chief of Jezreel; Obadia (Widia), a city governor in Judea; the Great Lady of Shunem (Baalath Nesse); Naaman (Janhama), the captain of Damascus; and others. Arza (Arzaja), the courtier in Samaria, is referred to in a letter.

115. Mesha, King of Moab, is often mentioned in the Letters by his name (Mesh). The omission of the name of the rebel king by the translators of the Letters is not warranted.

116. The King of Hatti, who for years invaded and harassed Syria, was Assurnasirpal and after him Shalmanassar.

117. The following correspondents of Amenhotep and Akhnaton are known from the inscriptions of Shalmanassar; Adima, Prince of Siana and Irqata; Mut-Balu (Matinu-Bali), Prince of Arvad.

118. Burnaburias is the Babylonian name of Shalmanassar, and under this name he corresponded with Amenhotep III and Akhnaton. In the Letters he is also referred to as Shalmajati.

119. The military chief who opposed Shalmanassar at Karkar was the governor of MegiddoBiridri (Biridia), one of the Pharaohs correspondents. The identification of Ben Hadad with Biridri is wrong.

120. Sumur of the Letters is Samaria; Gubia is Jezreel. The new residence of the king of Israel was named in honor of his wife Jezebel.

121. Jarimuta or Rimuta of the Letters is Ramoth in Gilead; Sigati is Sukkoth; Ambi - Moab; Durnui - Edom; Rubuti - Raboth in Ammon; Kilti - vadi Kelt.

122. "Elippe" in a number of el-Amarna Letters means "a man over a thousand" or a chief, and not a "ship". Several cities (Sumur being one of them) are incorrectly located on the seashore because of the mention of "elippe".

123. The scriptural penman also confused "elippe", the chief, with the same word meaning a thousand, and thus a correction of the text is required in the story of twenty-seven thousands killed by the wall of Aphek.

124. Ahab was faithful to the Egyptian protectorate. Ben Hadad, supported by Shalmanassar, inspired Mesha to revolt.

125. The capture of Ben Hadad and a covenant signed between him and the King of Samaria are events also related in the Letters.

126. The sieges of Samaria, the negotiation about sending Egyptian detachments, and the flight of the Syrians at the spreading of a rumor about the arrival of the Egyptian troops, can also be read in the Letters.

127. King Ahab was not killed at Ramoth in Gilead, but merely wounded. He survived Jehoshaphat by two years. The version 2 Kings 3, 2 is erroneous, and the rival version 2 Kings 1, 17 is correct.

128. Many events ascribed by the Scriptures to Jehoram, son of Ahab, or to the undefined "king of Israel", happened in the days of Ahab. Ahab is the author of more

than sixty letters found in the el-Amarna collection.

129. Jehoram of Israel and Jehoram of Judea were probably one and the same person, a son-in-law of Ahab.

130. The insurrection of Mesha took place during the life-time of Ahab, after the defeat at Ramoth in Gilead.

131. The K-r-k-h (the capital) of the Mesha Stela means Samaria. The Moabites succeeded in entering Samaria. The Ophel of K-r-k-h is the Ophel of Samaria. The fall of Samaria signified the “everlasting humiliation” and the “great indignation” in the Scriptures and the Stela.

132. By “cuttings” of K-r-k-h, the ivory work of the palace of Samaria is meant.

133. Samaria was the center of the Egyptian administration in Palestine. Possessing and building it was the privilege of the first among the chiefs.

134. Jehoshaphat’s position was of comparative independence, as there was no permanent Egyptian governor in Jerusalem. Adaja was the deputy over Edom and he was subordinate to Jehoshaphat.

135. The expedition of three kings against Moab preceded the invasion of Palestine by tribes of Transjordan and Seir. The sequence in Josephus is wrong.

136. The invasion of the Moabites, Ammonites, and the tribes of Seir is described in the Letters. Khabiru means bandits.

137. The prayer of Jehoshaphat is authentic, being similar in spirit and content to his letters addressed to the Pharaoh.

138. The monotheism of Jehoshaphat is proved by his letters. The notion that Akhnaton was a monotheist (“the first monotheist”) is wrong.

139. The letters of Jehoshaphat’s generals and city-chiefs substantiate the complaint of the scriptural writer that idolatry was not eradicated in Judea in the days of Jehoshaphat.

140. The el-Amarna Letters provide ample material for elucidation of the feudal system in Palestine in the ninth century.

141. The failing of water sources, the drought and the great famine of seven years duration in Israel are described in many of the letters of the King of Samaria.

142. Ramoth in Gilead was a subject of rivalry because it was not afflicted by drought

and famine.

143. The existence of a Great Lady of Sunem called Baalat Nesse (“Wonder occurred to her”), throws a side-light on the life and acts of Elisha.

144. The change in the attitude of Janhama, the captain of Damascus, toward the King of Samaria, throws another sidelight on the biblical narrative about Elisha.

145. The story about sending assassins against Ahab and about his repeated escapes is also narrated in the Letters.

146. The sickness of Ben Hadad, and his being killed while sick, is confirmed by the Letters. Hazael, his murderer, was his son by a harem woman.

147. The biblical dialogue of Hazael is truly transmitted, as his letters and letters about him prove. In his writing, he used the very same expressions ascribed to him in the Scriptures.

148. Hazael burnt the towns of Israel and occupied most of their land; this is verified by the Letters.

149. Hazael, after leaning toward Shalmanassar, was acknowledged King of Damascus by Akhnaton on the condition that he oppose Shalmanassar.

150. Shalmanassar’s inscriptions and the letters of Hazael (Azaru) give coordinated records about their war and other conditions in Syria.

151. The theory of a Mizri kingdom in Syria is wrong. The soldiers of Mizri at Karkar were Egyptians. The gifts sent by the King of Mizri to Shalmanassar are those enumerated by Akhnaton in his letter to the King of Hatti.

152. Ahab, under pressure from Hazael, went to Beirut. He was not permitted by his brother to return to Jezreel. He went from Beirut to Sidon, to the family of his wife Jezebel. In his lifetime, rumors about his death were spread, and they contributed to the confusion of later chronographers.

153. Sawardatta of the Letters was a prince of the Sodomites who lived at Vadi-Kelt.

154. Labaja of the Letters was a rebellious prince of Libna.

155. The letter addressed by Subliliuma to Hurria does not belong to the el-Amarna collection. It was written in the seventh century and addressed to Tirhaka-Hurria, the Ethiopian. It should be a matter of further investigation, whether any other letters are wrongly ascribed to the el-Amarna archive.

156. The ivories of Samaria of the time of Ahab are not late imitations of the ivories of the time of Amenhotep III, Akhnaton and Tuthenkhamon, but are contemporaneous products.

VII

157. Between the Eighteenth and the Nineteenth Dynasties there was a period of about 150 years, during which Egypt was ruled by the Libyans and the Ethiopians (Twenty-second to Twenty-fifth Dynasties).

158. The period of the Libyans in Egypt lasted not over 200 years but about 100 years only, and its termination is correctly fixed at the end of the eighth century.

159. The only period of ancient Egypt which is correctly placed in time, is the short Ethiopian period. But this retention of its proper place at the end of the eighth and the beginning of the seventh century caused a still greater chaos in historiography; generations which actually followed became progenitors, ancestors became descendants.

160. Osorkon I was not Zerah of the Scriptures, nor did he invade Palestine. Osorkon II was not a contemporary of Omri and Ahab.

161. Hebrew letters on the statues of Osorkon and Sosenk made by the Phoenician kings Elibaal and Abibaal represent the characters of the eighth century, not the tenth century.

162. The ostraca of Samaria were not written in the days of Ahab, but close to the end of the kingdom of Israel, in the days of Jehoram [*Jeroboam*] II. These ostraca, written in characters similar to those of the Siloam inscription of Hezekiah, do not signify an abnormal development of the Hebrew script.

163. Pharaoh So who received gifts from Hoshea was Sosenk IV, and his bas-relief scene pictures this tribute. Sosenk regularly placed as I (first) was IV (last).

164. Osorkon, the priest who caused a civil war and was expelled from Egypt, was the historical prototype of Osarsiph of Manetho, whom he wrongly identified with Moses.

165. After the battle of Eiteka, Egypt became a vassalage of Sennaherib.

166. Psammetich-Seti I, King of Egypt and an ally of the Ethiopians, was deposed by his brother Haremhab, who was in charge of the government during the king's absence because of the war. Haremhab went over to the Assyrians. The legend about Harmais (Josephus-Manetho), who deceived his brother, is the story of Haremhab.

167. Haremhab was King of Egypt under Sennaherib, and in this service made war against the Ethiopians. His laws were made on the Assyrian model, as were also the punishments involved.

168. Harsiese, the priest of Ammon at the end of the Libyan Dynasty, was the man who reared Haremhab.

169. Haremhab was expelled by Tirhaka, the Ethiopian, and probably fled to Cyprus.

170. The 59th year of some reckoning mentioned in a document written in [*referring to*] the days of Haremhab, is the 59th year of the era of Nabonassar, which started in 747 B. C.E.

171. A cartouche of Haremhab on the inner wall of a sepulchral chamber cut in the days of the Ethiopians, does not constitute an enigma.

VIII

172. The so-called Nineteenth and Twenty-sixth Dynasties are substantially one and the same.

173. Ramses I is identical with, Necho 1. He was one of the viceroys under Essarhadon. After the death of Essarhadon, when the viceroys took sides with Tirhaka the Ethiopian and were killed by Assurbanipal, Ramses I, pardoned by the Assyrian King, was installed by him as the king of Egypt.

174. Shamash Shum Ukin, King of Babylon, and brother of Assurbanipal, corresponded with Tirhaka and allied himself with him.

175. Psammetich-Seti II, son of Ramses I, rose from vassal to the position of an ally of Assurbanipal in his war against Shamash Shum Ukin.

176. Psammetich-Seti II (Seti the Great) repeatedly invaded northern Palestine. He mentions smaller conflicts with Manasseh, referring to the latter by his name.

177. The city Pekaon to which he laid siege and which he captured was a fortress-capital of Peka, King of Israel, who lived two generations earlier. Being a capital, it was probably Samaria.

178. Beth-Shan-Scythopolis was the city where Seti met the vanguard of the Scythians. He occupied the city, as he reported on his stela found there.

179. Seti built a fortress on the Orontes, at Tell Nebi Mend; it is Riblah of the Scriptures.

180. Seti participated in the war in the valley of the Euphrates on the side of Assurbanipal and against Nabopolassar. The Egyptian army referred to by Nabopolassar in his annals was that of Seti.

181. Greek soldiers sent by Gyges of Sardis to Egypt in the days of Seti became the first Greek settlers there.

IX

182. There was no Empire of the Hittites in the fourteenth-thirteenth centuries. The archive found at Boghazkoi belongs in its larger part to the Neo-Babylonian Empire of the seventh-sixth centuries.

183. These documents reflect the political, religious and juridical activities of the Chaldeans.

184. In the seventh century the Chaldeans were centered in Asia Minor, in an area bounded by the Black Sea, the Euphrates, and the Halys.

185. The “Hittite” hieroglyphics are the Chaldean script.

186. The presumed “Hittite” art of the fourteenth-thirteenth centuries is the Chaldean art of the seventh-sixth centuries, and is coeval with and subsequent to late Phrygian art. The bas-relief of Yasilikaya dates from the time of the Neo-Babylonian Empire. Greek sculptures with “Hittite” (Chaldean) signs present no problem, neither does the silence of Greek authors about the “Hittites” of the “post-Empire” period.

187. The “Hittite” stela in the palace of Nebukhadnezar in Babylon is a contemporary Chaldean document. The lead tablets from Asaur with “Hittite” hieroglyphics, date from the last centuries before the present era.

188. The succession of the kings of the Neo-Babylonian Empire was: Nabopolassar, Nergilissar, Labash-Marduk, Nebukhadnezar, Evil Marduk, Nabonides. Berosus, according to whom Nergilissar and his son followed Nebukhadnezar, is wrong.*

189. The treaties of Subliliumas with Azaru of Damascus, with a patricide prince of Mitanni, and with the widow of Tirhaka, make plausible his identity with Shamash Shum Ukin. This would signify also that Nabopolassar was a son of Shamash Shum Ukin.

190. The people and the kingdom of Mitanni did not “disappear” in the thirteenth century. Mitanni is another name for Medes; the northwest part of Medes retained this name as Matiane (Herodotus).

191. Mursilis of the Boghazkoi texts (Merosar of the Egyptian texts), also known as

Bijassili, is Nabopolassar of the Babylonian texts, Belesys of Diodorus or Bussalossor of Abydenos. Bel-shum-ishkun is another name of Nabopolassar.

192. The annals of Nabopolassar from his tenth until his seventeenth year (now in the British Museum), can be supplemented by the "Hittite" annals of his from the first to the tenth year (two variants) and from the nineteenth year on, as they survived in the Boghazkoi archive.

193. The presence of the Scythians (Umman-Manda) in Asia Minor, who in the days of Essarhaddon arrived from behind the Caucasus, is also reflected in the Boghazkoi texts dealing with the Umman-Manda.

194. The Assyro-Egyptian alliance against which Mursilis conducted a long war in the valley of the Euphrates, was the alliance of Assurbanipal and Seti (see §180).

195. Assuruballit in Harran, against whom Mursilis marched, was the younger brother of Assurbanipal.

196. The capture of Manassehand his release are recorded in the annals of Mursilis.

197. The Median prince and ally of Mursilis-Nabopolassar was his brother-in-law, known in the texts by the name of Mattiuza.

198. The sickness of Nabopolassar, his subsequent inability to head the army, his invalid condition and his death, as described by Berosus, find their confirmation in the report of Mursilis-Nabopolassar about the first and second strokes of paralysis that befell him.

199. Nergilissar who called himself son of Bel-shum-ishkun, King of Babylon, was a son of Nabopolassar. He was the second son of Nabopolassar; his elder brother died before being crowned.

200. Nergilissar followed the policy of his father in signing international protective treaties, with Chaldea playing the part of the protector.

201. The name of one of his allies, Alexandus (Alexandos) of Wilusa, who came to Alasia (Cyprus), does not imply that the name Alexandos or Alexandros was already in use in the fourteenth century. (Alexandus of Wilusa might have been identical with Alexandros, son of Akamas and father of Chytros, who was connected with the city of Chitroi on Cyprus.)

202. The Aiavolos mentioned in the Boghazkoi texts and identified as Aioles, and connected in the texts with Lesbos, were the colonists from Boeothia on Lesbos (Thukidides I, 12ff.). This process of migration is reflected in the Boghazkoi texts.

203. Nebukhadnezar left an autobiography found among the Boghazkoi texts (the autobiography of Hattusilis-Khetasar). Like other documents of Boghazkoi it is incorrectly ascribed to a period seven centuries earlier.

204. Nebukhadnezar was the third son of Nabopolassar. Of feeble health, he was reared in a temple of Ishtar. When his elder brother died, he was given the name of the deceased.

205. Nergilissar appointed Nebukhadnezar as chief of the army and governor of Assyria. In this capacity he battled the Egyptians under Ramses II, in the second year of the latter; in the fifth year of Ramses II, raised to the station of King of Assyria, Nebukhadnezar again battled the Egyptians, at Kadesh-Carchemish.

X

206. Ramses II (of the Nineteenth Dynasty) and Pharaoh-Necho (of the Twenty-sixth Dynasty) of the Scriptures or Necos of Herodotus are one and the same person.

207. The theories that make Ramses II the Pharaoh of Oppression or the Exodus are wrong.

208. For nineteen years Ramses II was in a state of war with Nebu-khadnezar.

209. The defeat of Josiah is portrayed in a mural fragment, now in the Metropolitan Museum of Art.

210. The tribute imposed upon Judea and the imprisonment of Jehoahaz are referred to on an obelisk of Tanis.

211. The first march of Necho-Ramses II toward the Euphrates is related on the obelisk of Tanis and on the rock inscription of Nahr el Kalb near Beirut, written in his second year. The rock inscriptions of Ramses II are not as old as that of Essarhadon on the same rock.

212. The second campaign which Ramses II led toward the Euphrates is narrated in his annals and in the Pentaur-poem and has a parallel record in Jeremiah 46.

213. The Shardana mercenaries were the people of Sardis (Lydians), and not of Sardinia.

214. The city Kadesh the Old of the battle was Carchemish.

215. The remnants of the fortifications and the double moats of Kadesh-Carchemish pictured by Ramses II are recognizable in situ.

216. Hieropolis the Old was situated on the site of Carchemish.

217. The river 'N-r-t or 'R-n-t was the Egyptian name of the Euphrates.

218. Bab and Aranime mentioned by Ramses II in the course of the battle are Bab and Arime on the road from Aleppo to Carchemish.

219. At the beginning of the battle, Ramses II, with the division of Amon, was northwest of Carchemish; the division of Re was between Sadjur and Carchemish; the division of Ptah and Sutekh were south of Bab. The army of Re was driven northward away from its base, and, together with the division of Amon, was thrown into the Euphrates.

220. After the defeat at Carchemish, Ramses II lost dominion over Syria and Palestine for three years, until the eighth year of Jehoiakim.

221. A fragment of a clay tablet, dealing with the battle of Carchemish, is preserved in the archive of Boghazkoi.

222. Nebukhadnezar returned from the pursuit of Ramses II because he was accused before Nergilissar of intending to usurp the imperial crown.

223. The person of his accuser, Arma, a very aged relative, whom he ultimately put to death, is intimated in the rabbinical literature and in the Fathers of the Church as that of Hiram, King of Tyre, old relative and accuser of Nebukhadnezar.

224. Nergilissar exacted an oath from Nebukhadnezar that he would be faithful to his son and heir, Labash-Marduk (Lamash or Labu in the Boghazkoi texts). After Nergilissar's death, Nebukhadnezar crowned his nephew, but nine months later, he arrested him. A letter of Nebukhadnezar (Hattusilis) to his minor nephew, containing a denunciation, is preserved.

225. The repairs of the palace and the temple of Ezagila in Babylon made by Nergilissar antedate those made by Nebukhadnezar.

226. The queen of Nebukhadnezar was a daughter of a priest of Ishtar. She was not an Egyptian or Median princess, as related by early authors.

227. Nebukhadnezar became King of Babylon five years after Ramses II became King of Egypt.

228. In his ninth year Ramses II occupied Askalon and the Philistine shore. Marching through the valley of Jezreel, his troops reached Beth Shan.

229. In the twelfth year of Ramses II, Palestine was again subdued by Nebukhadnezar.

230. During the interval between two sieges of Jerusalem in the days of Zedekiah, a treaty was concluded between Ramses II and Nebukhadnezar; its text is extant.

231. Jewish fugitives in Egypt were extradited in accordance with the treaty.

232. The “Fossae Temple” of Lachish was built in the days of Solomon and rebuilt in the days of Jehoshaphat and Amenhotep III; the city was captured by Sennaherib, and destroyed by Nebukhadnezar. The “Fossae Temple”, burnt in the days of Ramses II, and the city-walls, burnt in the days of Nebukhadnezar, are remains of one and the same fire.

233. Nebukhadnezar did not invade Egypt. The only historical inscription which is ascribed to Nebukhadnezar and which deals with a march toward Egypt, has a counterpart in the Marriage Stela of Ramses II.

234. Ramses II married a daughter of Nebukhadnezar. The bas-relief of Abu-Simbel portrays the visit of Nebukhadnezar bringing his daughter to Ramses II.

235. “Bit-Niku” outside the wall of Babylon was the palace built for Ramses II who used to visit there.

236. Nebukhadnezar’s daughter had a palace at Daphneh-Tahpanhes.

237. Red baked bricks of the Ramses period in Tahpanhes were an innovation introduced from the Babylon of Nebukhadnezar.

238. The Bentresh Stela deals with the mental disease of the elder daughter of Nebukhadnezar, and was written by the priests of Khons a few decades thereafter. This daughter was married to a prince of Damascus.

239. The paranoiac character of Nebukhadnezar is fully reflected by his autobiography and other texts of Boghazkoi, notably dealing with exorcisms. The biblical record about his suffering from nightmares and about his mental disease is substantiated.

240. The tomb of Ahiram found at Bybios dates not from the thirteenth century, but from about 600 B.C.E. The Cyprian pottery of the end of the seventh century and the vases of Ramses II found in this grave are contemporaneous.

241. Itobaal, son of Ahiram, the builder of the tomb, was probably the defender of Tyre against Nebukhadnezar, as mentioned by Josephus.

242. The inscriptions of Ahiram’s tomb are of the same age as the ostraca of Lachish. The development of the Hebrew letters went through a normal process without falling

into archaisms.

243. The dispute as to whether Ramses II or Necho built the canal connecting the Mediterranean with the Red Sea, deals with a spurious problem.

244. Greek armor found in Daphneh (Daphnoi), as well as iron tools and ingots, are coeval with the temple of Ramses II there, and are products of the Greek mercenaries in the service of the pharaohs of the Nineteenth (Twenty-sixth) Dynasty.

245. Tiles of buildings erected by Ramses II (in Kantir) which have Greek letters on the back, are products of Greek laborers in the service of the pharaoh. The letters are genuine Greek letters of the sixth century.

XI

246. Pharaoh Marneptah is the biblical Hophra and Apries of the Greek authors. Marneptah was not the Pharaoh of the Exodus, but the Pharaoh of the Exile. His royal name usually read Hotepirma, must be read Hophra-Mat.

247. That part of the population of Palestine which escaped deportation to Babylon, went to Egypt, and this migration through the fortress city of Takhu was recorded by the officials of Marneptah.

248. The fortress and palace station Takhu on the frontier, is the biblical Tahpanhes (Daphnoi).

249. The mention of Israel in the "Israel Stela" of Marneptah as an unsettled people refers to their status of exiles.

250. Marneptah used metaphors similar to Jeremiah's in describing the plight of Palestine and Israel.

251. The incursion of Marneptah into Syria is echoed in Diodorus I, 68. This could have taken place during the mental illness of Nebukhadnezar.

252. The city Kaditis in Palestine, referred to by Herodotus, is Jerusalem, and not Gaza.

253. The Libyan campaign of Marneptah was caused by the migration of the Greeks to Cyrenae. It was not an archaic invasion of Hellenic peoples in the thirteenth century, but the mass migration encouraged by the Pythian oracle and described by Herodotus (IV, 159).

254. Amasis deposed Marneptah. There were not seven centuries between Marneptah and Amasis; the latter was a general in the service of the former. Amasis kept his

prisoner for a while as co-ruler on the throne.

255. The violent death of Apries-Marneptah at the hands of the assassins was caused by a lethal wound of the head, as the perforation of the skull of his mummy shows.

XII

256. The overthrow of Egypt, which Ramses III referred to as having occurred a number of generations before his own days, is the conquest of Egypt by Cambyses in the year of Amasis' death.

257. The Palestinian Irsa who taxed Egypt is Ezra, the scribe; he taxed Egypt in accordance with the decree of Artaxerxes.**

258. Ramses III is identical with Nectanebo I of the Greek authors. He lived not in the twelfth but in the fourth century.

259. In Herodotus there can be no reference to Ramses III, because the historian lived before the pharaoh. The history of Egypt by Herodotus, though defective in details, is more nearly accurate than that of the later and modern historians, because he placed the history of the Eighteenth, the Ethiopian, and the Nineteenth Dynasties in fairly accurate order.

260. "Invasion of Egypt by the archaic Greeks" in the twelfth century is a fallacy. The Greeks who participated in the wars of Ramses III and who are shown as changing sides, were at first soldiers of Chabrias, assisting Egypt, and then troops of Iphicrates, opposing Ramses III.

261. Agesilaus, the King of Sparta, had already arrived in Egypt in the days of Nectanebo I (Ramses III), [*Tachos (Ramses IV)*] and Ramses III, who referred to his arrival, mentioned also his notably small stature.

262. The Pereset, with whom Ramses III was at war, were the Persians of Artaxerxes II under the satrap Pharnabazus, and not the Philistines.

263. The war described by Ramses III, and by Diodorus and other classical authors (the war of Nectanebo 1), is one and the same war of 374 BCE

264. A camp was set up by Pharnabazus in Acco in preparation for an attack against the Egypt of Ramses III.

265. A naval invasion against Egypt was undertaken by forcing the Mendesian mouth of the Nile, fortified by Ramses III.

266. Flame throwers were used on the Persian ships forty years before their use by

the Tyrians at the siege of Tyre by Alexander.

267. The Egyptian bas-reliefs of the temple at Medinet Habu show Sidonian ships and Persian carriages comparable to the pictures of ships and carriages on the Sidonian coins minted during the years of the invasion.

268. The bas-reliefs of Medinet Habu show the reform of Iphicrates in lengthening the swords and spears and reducing the armor intended for defense.

269. The Jewish military colony at Elephantine still existed in 374 BCE and participated in the defense of the eastern border of Egypt. These professional soldiers were called Marienu by Ramses III, which is the Aramaic Marenu.

270. Semitic languages and the Palestinian cult of Baal made headway in Egypt at the time of Ramses III.

271. The Greek letters of classical form incised on the tiles of Ramses III during the process of manufacture (found at Tell-el-Yahudieh in the Delta) present no problem. They are Greek letters of the fourth century.

272. The inlay work and glazing of the tiles of Ramses III are innovations introduced from Persia.

273. The hunting motifs in the art of Ramses III were inspired by Assyrian and Persian bas-reliefs; some motifs of the Greek art also made their influence felt in the murals of Ramses III.

274. Other kings known by the name of Ramses, from Ramses IV to Ramses XII, are identical with the kings of the Twenty-ninth and Thirtieth Dynasties and their order of succession is confused.

275. The papyrus of Wenamon describes the conditions in Syria during the late Persian or early Greek times. In the days when the Testament of Naphtali was composed, the Barakel Shipowners Company mentioned in this papyrus was still in existence and owned by a son of Barakel.

276. The so-called Twenty-first Dynasty flourished not in the twelfth-eleventh century, but in the fifth-fourth century; it was established by the Persians as a dynasty of priestly princes in the oases of the Libyan desert for strategic purposes. It existed before, during and after the Twentieth (Twenty-ninth and Thirtieth) Dynasty.

277. The so-called Stela of the Exiled is the Egyptian record of the visit of Alexander the Great to the oracle of Amon in the oasis. The question about the exiles refers to the exiles from Chios; the question about the punishment of the murderers refers to the murderers of Philip.

278. The narration of Greek and Latin authors concerning this visit of Alexander is historical and true in many details; such is, e. g., the episode of the priest applying the word “son” to Alexander, or the oracle’s manner of answering questions by nodding.

XIII

279. The history of the ancient world, confused for a period of over one thousand years, reaches the end of its confusion with the time of Alexander the Great. Since then it is rendered in a synchronized form.***

280. The problem of the beginning of the Iron Age in diverse countries is confused by wrong chronology. The Iron Age developed simultaneously in Egypt and Palestine.

281. The often made assumption that the royal signs (scarabs with cartouches) of the Egyptian kings do not present a valid argument for the time valuation of the strata in which they are found, is erroneous. In most cases they were neither heirlooms deposited at a later date, nor late counterfeits, but genuine gems as old as the strata in which they are found.

282. Archaeological work in the Near East is misled by the erroneous chronology of Egypt. In the excavations where the strata were carefully distinguished, as in Beth Shan, no strata of the Israelite period above the stratum of Rames II could be found.

283. The astronomical computation of chronology made by calculation of the Sothic periods is entirely arbitrary in many aspects. The Egyptian New Year followed the planet Isis, which is Venus, and not Sirius. The Canopus Decree of the priests of Ptolemy III Euergetes was concerned with the transfer of the New Year from the heliacal rising of Venus to a date regulated by the rising of Sirius (Sothis).

284. After the end of the Middle Kingdom, a change in cosmic scenery caused a reform in the calendar. During the time of the Libyan Dynasty (between the Eighteenth and Nineteenth Dynasties) another change was made in the calendar.

* Velikovsky later concluded that there were two Nergilissars, the second reigning after Evil Marduk.

** Velikovsky later rejected Irsa being Ezra, and identified him as the Persian official Arsames. Cf. *Peoples of the Sea*, n. 8 on page 27.

*** Velikovsky later found that the confusion persists until the time of Ptolemy II. Cf. *Peoples of the Sea*.





COSMOS WITHOUT GRAVITATION

ATTRACTION, REPULSION AND ELECTROMAGNETIC CIRCUMDUCTION IN THE SOLAR SYSTEM

Synopsis

BY

IMMANUEL VELIKOVSKY

1946

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I

THE FUNDAMENTAL theory of this paper is: Gravitation is an electromagnetic phenomenon. There is no primary motion inherent in planets and satellites. Electric attraction, repulsion, and electromagnetic circumduction⁽¹⁾ govern their movements. The moon does not “fall,” attracted to the earth from an assumed inertial motion along a straight line, nor is the phenomenon of objects falling in the terrestrial atmosphere comparable with the “falling effect” in the movement of the moon, a conjecture which is the basic element of the Newtonian theory of gravitation.

Aside from several important facts discovered in the study of cosmic upheavals, which are not illuminated here and only enumerated at the end of this paper, and which are discussed at length in a work of research entitled *Worlds In Collision* now being prepared for publication, the following facts are incompatible with the theory of gravitation:

1.

The ingredients of the air—oxygen, nitrogen, argon and other gases—though not in a compound but in a mixture, are found in equal proportions at various levels of the atmosphere despite great differences in specific weights. The explanation accepted in science is this: “Swift winds keep the gases thoroughly mixed, so that except for water-vapor the composition of the atmosphere is the same throughout the troposphere to a high degree of approximation.”⁽²⁾ This explanation cannot be true. If it were true, then the moment the wind subsides, the nitrogen should stream upward, and the oxygen should drop, preceded by the argon. If winds are caused by a difference in weight between warm and cold air, the difference in weight between heavy gases high in the atmosphere and light gases at the lower levels should create storms, which would subside only after they had carried each gas to its natural place in accordance with its gravity or specific weight. But nothing of the kind happens.

When some aviators expressed the belief that “pockets of noxious gas” are in the air, the scientists replied:

“There are no ‘pockets of noxious gas.’ No single gas, and no other likely mixture of gases, has, at ordinary temperatures and pressures, the same density as atmospheric air. Therefore, a pocket of foreign gas in that atmosphere would almost certainly either bob up like a balloon, or sink like a stone in water.”⁽³⁾

Why, then, do not the atmospheric gases separate and stay apart in accordance with the specific gravities?

2.

Ozone, though heavier than oxygen, is absent in the lower layers of the atmosphere, is present in the upper layers, and is not subject to the “mixing effect of the wind.” The presence of ozone high in the atmosphere suggests that oxygen must be still higher: “As oxygen is less dense than ozone, it will tend to rise to even greater heights.”⁽⁴⁾ Nowhere is it asked why ozone does not descend of its own weight or at least why it is not mixed by the wind with other gases.

3.

Water, though eight hundred times heavier than air, is held in droplets, by the millions of tons, miles above the ground. Clouds and mist are composed of droplets which defy gravitation.

4.

Even if perfect elasticity is a quality of the molecules of all gases, the motion of the molecules, if effected by a mechanical cause, must subside because of the gravitational attraction between the particles and also because of the gravitational pull of the earth. There should also be a loss of momentum as the result of the transformation of a part of the energy of motion into vibration of molecules hit in the collisions.⁽⁵⁾ But since the molecules of a gas at a constant temperature (or in a perfect insulator) do not stop moving, it is obvious that a force generated in collisions drives them. The molecules of gases try to escape one another. Repulsion between the particles of gases and vapors counteracts the attraction.

5.

The weight of the atmosphere is constantly changing as the changing barometric pressure indicates. Low pressure areas are not necessarily encircled by high pressure belts. The semidiurnal changes in barometric pressure are not explainable by the mechanistic principles of gravitation and the heat effect of solar radiation. The cause of these variations is unknown.

“It has been known now for two and a half centuries, that there are more or less daily variations in the height of the barometer, culminating in two maxima and two minima during the course of 24 hours. Since Dr. Beal’s discovery (1664-65), the same observation has been made and puzzled over at every

station at which pressure records were kept and studied, but without success in finding for it the complete physical explanation. In speaking of the diurnal and semidiurnal variations of the barometer, Lord Rayleigh says: 'The relative magnitude of the latter [semidiurnal variations], as observed at most parts of the earth's surface, is still a mystery, all the attempted explanations being illusory.'" [\(6\)](#)

One maximum is at 10 a.m., the other at 10 p.m.; the two minima are at 4 a.m. and 4 p.m. The heating effect of the sun can explain neither the time when the maxima appear nor the time of the minima of these semidiurnal variations. If the pressure becomes lower without the air becoming lighter through a lateral expansion due to heat, this must mean that the same mass of air gravitates with changing force at different hours.

The lowest pressure is near the equator, in the belt of the doldrums. Yet the troposphere is highest at the equator, being on the average about 18 km. high there; it is lower in the moderate latitudes, and only 6 km. high above the ground at the poles.

6.

Laplace, pondering the shape of the atmospheric envelope of the earth, came to the conclusion that the atmosphere, which rotates with the same angular velocity as the earth and which behaves like a fluid, must be lenticular in form; its polar and equatorial axes must be about 35,000 and 52,000 miles respectively; at the equator the atmosphere must extend more than 21,000 miles above the ground. At these distances from the ground the gravitational force of the earth is just equal to the centrifugal force due to rotation.

From the measurement of the pressure of the earth's atmosphere, measurement based also on the principles of gravitation, it has been deduced that the atmosphere is but 17 (not 21,000) miles high.

Observations of the flight of meteorites and of the polar auroras lead to the conjecture that the atmosphere reaches to a height of 130 miles (meteorites) or over 400 miles (polar auroras). Radio measurements yield about 200 miles for the upper layer recognizable through this method of investigation.

Two computations, both based on the principle of gravitation, differ in the proportion of 17 and 21,000. Direct observations do not justify either of the computed figures.

7.

Cyclones, characterized by low pressure and by winds blowing toward their

centers, move counterclockwise in the northern hemisphere and clockwise in the southern hemisphere. This movement of air currents in cyclonic vortices is generally explained as the effect of the earth's rotation.

Anticyclones, characterized by high pressure and by winds blowing from their centers move clockwise in the northern hemisphere and counterclockwise in the southern hemisphere. The movement of anticyclones has not been explained and is regarded as enigmatic.

Cyclones and anticyclones are considered a problem of fluidal motion with highest or lowest pressure in the center. As the movement of anticyclones cannot be explained by the mechanistic principles of gravitation and rotation, it must be concluded that the rotation of cyclones is also unexplained.

8.

The area of land in the northern hemisphere of the earth is to the area of land in the southern hemisphere as three is to one. The mean weight of the land is two and three-quarter times heavier than that of water; assuming the depth of the seas in both hemispheres to be equal, the northern hemisphere up to sea level is heavier than the southern hemisphere, if judged by sea and land distribution; the earth masses above sea level are additional heavy loads. But this unequal distribution of masses does not affect the position of the earth, as it does not place the northern hemisphere with its face to the sun. A "dead force" like gravitation could not keep the unequally loaded earth in equilibrium. Also, the seasonal distribution of ice and snow, shifting in a distillation process from one hemisphere to the other, should interfere with the equilibrium of the earth, but fails to do so.

9.

Mountainous masses do not exert the gravitational pull expected by the theory of gravitation. The influence of the largest mass on the earth, the Himalaya, was carefully investigated with plumb line on the Indian side. The plumb line is not deflected as calculated in advance.⁽⁷⁾ "The attraction of the mountain-ground thus computed on the theory of gravitation, is considerably greater than is necessary to explain the anomalies observed. This singular conclusion, I confess, at first surprised me very much." (G. B. Airy.⁽⁸⁾) Out of this embarrassment grew the idea of isostasy. This hypothesis explains the lack of gravitational pull by the mountains in the following way. The interior of the globe is supposed to be fluid, and the crust is supposed to float on it. The inner fluid or magma is heavier or denser, the crust is lighter. Where there is a mountainous elevation, there must also be a protuberance beneath the mountains, this immersed protuberance being of lesser mass than the magma of equal volume. The way seismic waves travel, and computations of the

elasticity of the interior of the earth, force the conclusion that the earth must be as rigid as steel; but if the earth is solid for only 2000 miles from the surface, the crust must be more rigid than steel. These conclusions are not reconcilable with the principle of isostasy, which presupposes a fluid magma less than 60 miles below the surface of the earth. There remains “a contradiction between isostasy and geophysical data.” ⁽⁹⁾

10.

Over the oceans, the gravitational pull is greater than over the continents, though according to the theory of gravitation the reverse should be true; the hypothesis of isostasy also is unable to explain this phenomenon. ⁽¹⁰⁾ The gravitational pull drops at the coast line of the continents. Furthermore, the distribution of gravitation in the sea often has the peculiarity of being stronger where the water is deeper. “In the whole Gulf and Caribbean region the generalization seems to hold that the deeper the water, the more strongly positive the anomalies.” ⁽¹¹⁾

As far as observations could establish, the sea tides do not influence the plumb line, which is contrary to what is expected. Observations on reservoirs of water, where the mass of water could be increased and decreased, gave none of the results anticipated on the basis of the theory of gravitation. ⁽¹²⁾

11.

The atmospheric pressure of the sun, instead of being 27.47 times greater than the atmospheric pressure of the earth (as expected because of the gravitational pull of the large solar mass), is much smaller: the pressure there varies according to the layers of the atmosphere from one-tenth to one-thousandth of the barometric pressure on the earth; ⁽¹³⁾ at the base of the reversing layer the pressure is 0.005 of the atmospheric pressure at sea level on the earth; ⁽¹⁴⁾ in the sunspots, the pressure drops to one ten-thousandth of the pressure on the earth.

The pressure of light is sometimes referred to as to explain the low atmospheric pressure on the sun. At the surface of the sun, the pressure of light must be 2.75 milligrams per square centimeter; a cubic centimeter of one gram weight at the surface of the earth would weigh 27.47 grams at the surface of the sun. Thus the attraction by the solar mass is 10,000 times greater than the repulsion of the solar light. Recourse is taken to the supposition that if the pull and the pressure are calculated for very small masses, the pressure exceeds the pull, one acting in proportion to the surface, the other in proportion to the volume. ⁽¹⁵⁾ But if this is so, why is the lowest pressure of the solar atmosphere observed over the sunspots where the light pressure is least?

12.

Because of its swift rotation, the gaseous sun should have the latitudinal axis greater than the longitudinal, but it does not have it. The sun is one million times larger than the earth, and its day is but twenty-six times longer than the terrestrial day; the swiftness of its rotation at its equator is over 125 km. per minute; at the poles, the velocity approaches zero. Yet the solar disk is not oval but round: the majority of observers even find a small excess in the longitudinal axis of the sun. ⁽¹⁶⁾ The planets act in the same manner as the rotation of the sun, imposing a latitudinal pull on the luminary.

Gravitation that acts in all directions equally leaves unexplained the spherical shape of the sun. As we saw in the preceding section, the gases of the solar atmosphere are not under a strong pressure, but under a very weak one. Therefore, the computation, according to which the ellipsoidity of the sun, that is lacking, should be slight, is not correct either. Since the gases are under a very low gravitational pressure, the centrifugal force of rotation must have formed quite a flat sun.

Near the polar regions of the sun, streamers of the corona are observed, which prolong still more the axial length of the sun.

13.

If planets and satellites were once molten masses, as cosmological theories assume, they would not have been able to obtain a spherical form, especially those which do not rotate, as Mercury or the moon (with respect to its primary).

14.

The Harmonic Law of Kepler views the movements of the planets as depending only on their distance from the sun. According to Newton, the masses of the sun and the planets must also enter the formulas. The Newtonian orbits differ from the Keplerian, found empirically. The Newtonian formula has a sum of masses (instead of a product of masses), and in view of the largeness of the sun, the Newtonian orbits are supposed to not deviate substantially from the Keplerian. ⁽¹⁷⁾

15.

Perturbations of planets due to their reciprocal action are pronounced in repulsion as well as attraction. A perturbation displacing a planet or a satellite by a few seconds of arc must direct it from its orbit. It is assumed that the

orbits of all planets and satellites did not change because of perturbations. A regulating force emanating from the primary appears to act. In the gravitational system there is no place left for such regulating forces.

16.

The perturbing activity appears unstable in the major planets, Jupiter and Saturn: Between the minimum of the year 1898-99 and the maximum of the 1916-17 there was found an 18 percent difference.⁽¹⁸⁾ As these planets did not increase in mass in the meantime, this change is not understandable from the point of view of the theory of gravitation, which includes the principle of the immutable gravitational constant.

17.

The pressure of light emanating from the sun should slowly change the orbits of the satellites, pushing them more than the primaries, and acting constantly, this pressure should have the effect of acceleration: the pressure of light per unit of mass is greater in relation to the satellites than in relation to their primaries. But this change fails to materialize; a regulating force seems to overcome this unequal light pressure on primaries and secondaries.

18.

The sun moves in space at a velocity of about twenty kilometers a second (in relation to the nearby stars). This motion, according to Lodge, must change the eccentricities of some of the planetary orbits to an extent which far exceeds the observed values.⁽¹⁹⁾

19.

The motion of the perihelia of Mercury and Mars and of the nodes of Venus differ from what is computed with the help of the Newtonian law of gravitation. Einstein showed how his theory can account for the anomaly of Mercury; however, the smaller irregularities in the movements of Venus and Mars cannot be accounted for by Einstein's formulas.

20.

Unaccounted for fluctuations in the lunar mean motion were calculated from the records of lunar eclipses of many centuries and from modern observations. These fluctuations were studied by S. Newcomb, who wrote: "I regard these fluctuations as the most enigmatic phenomenon presented by the celestial motions, being so difficult to account for by the action of any known causes, that we cannot but suspect them to arise from some action in nature hitherto

unknown.” [\(20\)](#) They are not explainable by the forces of gravitation which emanate from the sun and the planets.

21.

It was found that “the strength of radio reception was nearly doubled with the passing of the moon from overhead to underneath the observer ... It does not appear reasonable that the relatively small gravitational tide in the earth’s atmosphere, which changes the barometric pressure by less than half of one percent, could account for a sufficient change in altitude of the ionized layer to produce such marked changes in the intensity of reception.” [\(21\)](#)

The lifting of the ionosphere generally results in better radio reception, and the small tidal action by the moon when overhead should improve reception a little, not impair it; in any event, the moon cannot have a marked effect on the ionosphere without being itself a charged body. But if the moon is charged, it cannot behave in its motion as though the gravitational force alone acts between it and the earth.

22.

The tails of the comets do not obey the principle of gravitation and are repelled by the sun. “There is beyond question some profound secret and mystery of nature concerned in the phenomenon of their tails” ; enormous sweep which it (the tail) makes round the sun in perihelion, in the manner of a straight and rigid rod, is in defiance of the law of gravitation, nay, even of the recorded laws of motion” (J. Herschel). [\(22\)](#)

“What has puzzled astronomers since the time of Newton, is the fact that while all other bodies in the sidereal universe, as far as we are aware, obey the law of gravitation, comets’ tails are clearly subject to some strong repulsive force, which drives the matter composing them away from the sun with enormously high velocities” (W.H. Pickering)

23.

The change in the angular velocity of comets (especially of the comet Encke) is not in accord with the theoretical computations based on the theory of gravitation. [\(23\)](#)

24.

Meteors, after entering the terrestrial atmosphere at about 200 km. above the ground, are violently displaced toward the east. These displacements of the

meteors are usually ascribed to winds blowing in the upper atmosphere. ⁽²⁴⁾
The atmospheric pressure at a height of 45 km. is supposed to be but “a small fraction of one millimeter of mercury.” ⁽²⁵⁾ On the other hand, the velocity with which the meteors approach the earth is between 15 and 75 km. per second, on the average about 40 km. per second or over 140,000 km. per hour. If winds of 150 km. per hour velocity were permanently blowing at the height where the meteors become visible, it would not be possible for such winds of rarefied atmosphere to visibly deflect stones falling at the rate of 140,000 km. per hour.

Approaching the earth, the meteorites suddenly slow down and turn aside, and some are even repelled into space. “A few meteors give the appearance of penetrating into our atmosphere and then leaving it, ricocheting as it were.” ⁽²⁶⁾

25.

The earth is a huge magnet; it has electric currents in the ground and is enveloped by a number of layers of electrified ionosphere. The sun possesses an electric charge and magnetic poles; also the sunspots are found to be powerful magnets. The ionosphere is permanently charged by particles arriving from the sun; sunspots actively influence terrestrial magnetism, ground currents, the ionosphere’s charge, and auroras. As the principle of gravitation leaves no room for the participation of other forces in the ordinary movements of the celestial mechanism, these obvious and permanent influences of the electromagnetic state of the sun on the magnetic field of the earth, the ionosphere, the auroras, and the earth currents are not allowed to have more than zero effect on the astronomical position of the earth, and this for the sake of maintaining the integrity of the gravitational principle.

Sun and moon, comets, planets, satellites, and meteorites - all the heavenly host - air and water, mountain massifs and sea tides, each and all of them ⁽²⁷⁾ disobey the “law of laws” which is supposed to know no exception.

* * *

To the empirical evidences of the fallacy of the law of gravitation four well known difficulties of the gravitational theory can be added:

a.

Gravitation acts in no time. Laplace calculated that, in order to keep the solar system together, the gravitational pull must propagate with a velocity at least fifty million times greater than the velocity of light. A physical agent requires time to cover distance. Gravitation defies time.

b.

Matter acts where it is not, or *in abstentia*, through no physical agent. This is a defiance of space. Newton was aware of this difficulty when he wrote in a letter to Bentley: “That gravity should be innate, inherent, and essential to matter, so that one body can act upon another at a distance through a vacuum without the mediation of anything else, by and through which their action and force may be conveyed from one to another, is to me so great an absurdity that I believe no man, who has in philosophical matters a competent faculty of thinking, can ever fall into it.” Leibnitz opposed the theory of gravitation for this very reason.

c.

Gravitational force is unchangeable by any and all agents or by any medium through which it passes, always propagating as the inverse square of the distances. “Gravitation is entirely independent of everything that influences other natural phenomena” (De Sitter⁽²⁸⁾). This is a defiance of the principles governing other energies.

d.

Every particle in the universe must be under a tendency to be pulled apart because of the infinite mass in the universe: it is pulled to all sides by all the matter in space.

A few additional remarks about the motion of bodies in the universe which bear upon the theory of gravitation are added here:

1.

The notion of the tangential escape or inertia of the primary motion of the planets and satellites, being adopted by all cosmogonical theories of post-Newtonian days, led all of them into insurmountable difficulties. The retrograde motion of some satellites is one of these difficulties.

2.

The principle of gravitation demands an ultimate balling of all matter in the cosmos. This is not in harmony with spectral observations, which suggest even an “expanding universe”

3.

“An atom differs from the solar system by the fact that it is not gravitation that makes the electrons go round the nucleus, but electricity.” (B. Russell). Different principles are supposed to govern the motion of the planetary bodies in the macrocosm and microcosm. [\(29\)](#)

* * *

Newton explained the principle underlying the motion of the planets and the satellites by the example of a stone thrown horizontally from a mountain with such force that gravitation bends its flight so that it revolves around the earth, coming back to exactly the same place, once again to repeat the course of its flight. But he admits “It is not to be conceived that mere mechanical causes could give birth to so many regular motions,” and invokes an act of Providence in providing each satellite with a tangential push of a strength which, together with the pull of the primary, creates an orbit. (General Scholium to Book III of the *Principia*) The inertia of the tangential (instantaneous) push has not exhausted itself in all the eons despite the tidal friction between a satellite and its primary, or the sun pulling the satellite away from the primary, or the resistance of matter (meteorites) in space, though all these forces act permanently and therefore with acceleration.

* * *

Newton’s gravitational theory is regarded as proved by the action of the tides. But studying the tides, Newton came to the conclusion that the moon has a mass equal to one fortieth of the earth. Modern calculations, based on the theory of gravitation (but not on the action of the tides), ascribe to the moon a mass equal to 1/81 of the earth’s mass. [\(30\)](#)

The greatest triumph of the theory of gravitation was the discovery of the planet Neptune, the position of which was calculated simultaneously by Adams and Leverrier from the perturbations experienced by Uranus. But in the controversy which ensued concerning the priority in announcing the existence of Neptune, it was stressed that neither of the two scholars was the real discoverer, as both of them calculated very erroneously the distance of Neptune from the orbit of Uranus. [\(31\)](#) Yet, even if the computations were correct, there would be no proof that gravitation and not another energy acts between Uranus and Neptune. The gravitational pull decreases as the square of the distance. Electricity and magnetism act in the same way. Newton was mistaken when he ascribed to magnetism a decrease that follows the cube of the distance. [\(32\)](#)

Building his System of the World, Newton put before his readers “Rules of Reasoning in Philosophy.” The First Rule is: “We are to admit no more causes of natural things than such as are both true and sufficient to explain their appearances.” Rule II is : “Therefore, to the same natural effects we must, as far as possible, assign the same causes.”

II

Thorough theoretical and experimental investigations will be necessary to build a new theory in place of the now accepted theory of gravitation. For the present we shall offer only general suggestions.

1.

Attraction between two neutral atoms. Each atom is made up of positive and negative electricity and, though neutral as a whole, may form an electric dipole when subjected to an electric force. Thus, in the theory presented here, this attraction is not due to “inherent gravitational” properties of mass, but instead to the well known electrical properties of attraction. Two dipoles arrange themselves so that the attraction is stronger than their mutual repulsion.

2.

Inertia, or the passive property of matter. “The equality of active and passive, or gravitational and inertial mass was in Newton’s system a most remarkable accidental coincidence, something like a miracle. Newton himself decidedly felt it as such” (W. DeSitter). [\(33\)](#)

In Einstein’s explanation, inertia and gravitation are not two different properties, but one and the same property viewed from different points in space. According to his illustration, a man in an elevator that is being continuously pulled up by a rope invisible to the man will feel his feet pressed against the bottom of the elevator and will think that he gravitates toward the floor. But someone else observing the situation from the outside in space will judge that there is a fact of inertia; the pulled elevator has to overcome the inertia of the man standing on its floor. If the man in the elevator lets an object fall from his hand, it will approach the floor at an accelerated speed because the elevator is being continuously pulled upward; to the observer on the outside it rises with acceleration.

By this illustration Einstein tried to explain the equivalence of inertia and gravitation. But it is impossible to adopt this explanation for the gravitational effect of the globe: the observer from outside cannot perceive the globe as moving simultaneously in all directions. Einstein sees the difficulty and says: “It is, for instance, impossible to choose a body of reference such that, as judged from it, the gravitational field of the earth (in its entirety) vanishes.” [\(34\)](#)

In our explanation the active property is due to one kind of charge in the atom - the attracting (attracted) charge; the passive property, to the opposite charge,

which repels (is repelled). Both exist in equal quantities in a neutral atom; this explains the equality of the gravitating and inertial properties of matter.

However, the charges must arrange themselves in such a manner that attraction proceeds: the attracting force overcomes the repelling force because the attracting poles of the dipoles are closer to one another than the repelling poles; when the repelling poles are closer, the atoms (or their combinations in molecules) repel each other, as is the case with gases.

A charged body attracts more strongly than a neutral body because of the presence of free electrons; in dipoles the charges rearrange themselves only a little, but free electrons can rearrange themselves much more.

3.

Attraction of bodies toward the earth. The ionosphere is strongly charged with respect to the “neutral” earth; a potential difference of 100 volts per meter altitude exists near the ground, or a difference in potentials which forces the current through the electric lamps. Does any relation exist between the difference in voltage in the lower atmosphere and the difference in weight (“at the ceiling of a room 3 meters high a kilogram weighs about one milligram less than at the floor”)?

With the altitude a voltage difference per meter is not the same as near the ground, but it accumulates to a high figure: “Between a point ten miles high and the surface of the earth there is an electrical pressure difference of about a hundred and fifty thousand volts.” [\(35\)](#)

Neutral bodies consist of both positive and negative charges. Neutral atoms form dipoles along the lines of force of the electric field with poles turned toward the earth and the ionosphere. Is the fall of objects due to their “dipole attraction” and to their movement in an electrical field as dipoles? The proximity to the ground gives its action preference over that of the ionosphere as far as the attracting force is concerned, since the distance between the opposite electric poles of the atomic dipole is much smaller in comparison to its total distance from the ionosphere than from the ground. This means, however, that when objects reach a certain altitude, they would be attracted upward. Meteorites, repelled into space, are apparently charged identically with the upper layer of the ionosphere.

This part of the theory (concerning falling bodies) requires experimentation and exact calculation. It is probable that besides carrying a charge, the ground turns all of its atoms as dipoles toward the ionosphere. [\(36\)](#)

4.

“In contrast to electric and magnetic fields, the gravitational field exhibits a most remarkable property, which is of fundamental importance ... Bodies which are moving under the sole influence of a gravitational field receive an acceleration, which does not in the least depend either on the material or the physical state of the body.” (Einstein)⁽³⁷⁾

This law is supposed to hold with great accuracy. The velocity of the fall is generally explored with the help of a pendulum; it appears to us that a charged object must fall with a different velocity than a neutral object. This is generally denied. But the denial is based on the observation that there is no difference in the number of swings of a pendulum in a unit of time, in the case where a charged or neutral bob is used. This method may produce inaccurate results. *In an accurate method, the falling time and the time of ascent of the pendulum must be measured separately.* In the case of a charged body, the increase in the velocity of descent of the pendulum may be accompanied by a decrease in the velocity of ascent, and thus the number of swings in a unit of time would remain the same for charged and non-charged bobs.

In a charged body the attracting and the inertial properties are not equal. It appears also that the weight of a body increases after it is charged. An experiment made with a piece of hard rubber (ten grams), neutral and again charged by rubbing, on a scale with a sensitivity of one-tenth of a milligram, showed a change in weight of over ten milligrams. This appears to be the result of an induced charge in the bottom (ebony) of the balance (placed on a thick plate of glass). A grounded wire held over the scale with the charged rubber raises the scale. If “gravitation” is an electrical phenomenon, attraction by induced electricity is not an entirely different phenomenon. Nevertheless, this experiment cannot be regarded as conclusive for the present problem.

In the oil-drop experiment the action of the charges may be made equal to the “gravitational” pull: One and the same action is ascribed to two fundamentally different principles.

A photograph may provide the answer to the question of how much a charged drop revolving around a pole of a magnet is influenced by the terrestrial pull.

Would a metal container filled with gas fall (in a vacuum) with the same velocity as a solid piece of metal?

III

Attraction, repulsion, and electromagnetic circumduction act in the solar system. Sun, planets, satellites, comets are charged bodies. As charged bodies they are interdependent.

The solar surface is charged negatively in relation to the charge of the earth, as the spectral lines (with the dominant red line in the spectrum of hydrogen) reveal. The sun carries a charge and rotates: it is an electromagnet.

The spots of the sun are magnetic, and the filaments of hydrogen on the sun's surface arrange themselves as iron particles in a magnetic field.⁽³⁸⁾ Besides the spots, the sun as a whole is a magnet. "The form of the corona and the motion of the prominences suggest that it is a magnet," wrote G.E. Hale when he undertook to detect the Zeeman effect.⁽³⁹⁾ The Zeeman effect proved to be most pronounced at 45° in both hemispheres of the sun; Hale found the displacement of lines decreases to zero at the equator and near the poles of rotation; and also that "a first approximate value for the vertical intensity of the sun's general field at the poles is 50 gaussses." Thus, it was confirmed that the sun is a magnet, but the magnetic field was found not to be strong.

This result is questioned here. The lines of the corona suggested the existence of a magnetic field on the sun to the scholar who discovered it. But the form of the corona suggests a powerful magnetic field.⁽⁴⁰⁾ Visible coronal bands and streamers reach a distance equal to ten and more diameters from the disc of the sun—Mercury is only forty solar diameters from the sun and Earth 108 solar diameters. More recent investigation by Stevens, who photographed the streamers from 25,000 feet, disclose a globular corona more extensive than any known from ground photographs.

Disturbances in filaments and vortices of the sun affect the ionosphere of the earth and prove the existence of a powerful charge on the sun; rotating at the speed of the solar rotation, a strong charge must produce a strong magnetic field.

A revised investigation of the magnetic power of the field around the sun is here suggested. It should be kept in mind that the observations have been made from the solar magnetic field, in which the earth is embedded, if our concept is correct. It is possible also that the strongest Zeeman effect will show itself in latitudes higher than 45°. As is well known, the angle of observation must be taken into consideration in observing the Zeeman effect.

The sun is a rotating charged body, and it creates a magnetic field. We assume the solar charge to be large enough to produce a magnetic field with lines of force reaching the orbit of Pluto. The charged planets move at right angles to the sun's magnetic lines of force and describe the usual circular motion to which moving charged bodies are subjected in a magnetic field. Satellites, in turn, revolve in smaller magnetic fields produced by the rotation of the charged planets. The non-rotating planets have no satellites, for they do not produce magnetic fields. If there are rotating satellites, they may be able to revolve trabants around them.

"The origin of the earth's main magnetic field has so far defied all attempts of solution."⁽⁴¹⁾ The cause of the earth's magnetic field is in (1) the magnetic field of

the sun, and (2) the rotation of the charged earth around its axis.

It has been calculated⁽⁴²⁾ that if the earth is a magnet because of the rotating charge on its surface, the charge must be so great as to “enter as a serious factor in planetary perturbations,” and therefore the theory was dropped.⁽⁴³⁾ But this is exactly what happens: the electromagnetic fields of the earth and of other planets are the causes of the planetary perturbations.

We have constructed a theory according to which the members of the solar system are charged bodies; electric attraction and repulsion, and electromagnetic circumduction act in the system; the origin of the magnetic field around the sun is in its charge—the sun is an electromagnet; planetary motion is due to the electromagnetic force exerted on the planets by the sun. The planets as charged bodies create magnetic fields by their rotation. It follows that (a) gravity, depending on electrical charge, varies with the charge, (b) the masses of the planets are inaccurately calculated, (c) the positive and negative charges are manifested only in relation to the charge of the earth.

One of the differences between the conception of celestial mechanism expounded here and the theories of gravitation of Newton and Einstein is that in our understanding the revolution of the moon is a process of a different order from that of the falling of objects near the terrestrial ground. The revolution of the moon is a phenomenon of circumduction of a charge by a magnetic field and is not a fall combined with inertia; the primary motion of planets and satellites along a straight line is a fallacious notion. At the distance of the moon the electromagnetic field of the earth causes circumduction while in the terrestrial atmosphere the electric field between the earth and the ionosphere causes the movement of the dipoles. Like the moon, the earth and other planets and satellites are subject to electromagnetic circumduction.

IV

“Universal gravitation” is an electromagnetic phenomenon, in which the charges in the atoms, the free charges, the magnetic fields of the sun and the planets play their parts.

In the frame of this theory the following phenomena become explainable:

1.

All planets revolve in approximately one plane. They revolve in a plane perpendicular to the lines of force of the sun’s magnetic field.

2.

The planets have a greater aggregate energy of motion than the sun. The

revolution of the planets did not originate in the angular velocity of rotation of the sun; the magnetic field of the sun effected their revolution. Also, the fact that one of the satellites of Mars revolves with an angular speed greater than that of the rotation of this planet is explained here by electromagnetic circumduction.

3.

The retrograde revolution of a number of satellites. It is due either to retrograde rotation of the primary with inversed magnetic poles or to a difference of charges. The fact that the retrograde satellites of Jupiter and Saturn are the most remote from their primaries poses the problem whether their remoteness from the primaries and their relative closeness to the sun play a role in their being of a presumably different charge than the other satellites of Jupiter and Saturn. ⁽⁴⁴⁾

In the case of Uranus, the retrograde revolution of its satellites follows the retrograde rotation of the planet and its magnetic field. (One of the magnetic poles of Uranus can be readily investigated because it faces the ecliptic.)

4.

The rotation of the earth. The tidal theory fails to account for the rotation of the planets. The position of the magnetic poles of the earth at a distance of about 20 degrees from the geographical poles may be related to the rotation of the earth. Once each day the magnetic poles of the earth occupy the southernmost and the northernmost positions in the lines of the magnetic field of the sun.

5.

Perturbations among the members of the solar system are actions of attraction as well as of repulsion and depend on the charges of the planets and satellites and their magnetic properties. The fact that after perturbations, the planets resume their normal courses is due to the regulating action of the sun's magnetic field. Similarly, the satellites are regulated in their motion by the electromagnetic fields of the primaries.

6.

The anomalies in the motion of Mercury and other planets. The velocities of revolution of the planets depend on their charges. A strongly charged body is carried across the lines of the magnetic field more swiftly than a weakly charged body. If the charge of a planet increases, the velocity of revolution of such a planet must increase too. Positive as well as negative charges arrive

from the sun in an uninterrupted flow.

The planet Mercury moves faster and faster. *This must be the result of an increasing charge of the planet.* Also, the anomalies in the motion of other inner planets may be attributed to a changing charge; other irregularities in the motion of the planets can be attributed to the fact that the electrical charge of the sun is not equally distributed on the solar surface.

7.

The deflection of a ray of light passing close to the sun. Before attributing the deflection to the gravitational field of the sun, the influence of the magnetic field of the sun on the rotation of light should be calculated. (The influence of the moon on a ray of light by creating a ripple in the atmosphere during a solar eclipse must not be overlooked; an investigation of the trajectory of a stellar ray passing close to the moon in a lunar eclipse is suggested here.)

8.

The repulsion of a comet's tail by the sun. The head of a comet and its tail are charged under a great potential difference, accounting for the manifest repulsion of the tail and attraction of the head. The neck of the comet is probably composed of positive and negative elements in equal proportion, thus forming a neutral zone between the head and the tail. Under the influence of the temperature in space the charges change and the comet returns on its orbit.

9.

The displacement of the meteorites in the higher atmosphere. It is caused not by the winds, but by the electromagnetic effect of the ionosphere. The light of the meteorites is caused by electric discharges. Consequently, the passage of meteorites disturbs radio reception.

10.

The influence of the moon on radio reception. The charged moon on its hourly stations exerts an attracting-repelling action on the electrified layers of the atmosphere (ionosphere) to a greater degree than on the "insulating layer" of the earth's atmosphere.

11.

The semi-diurnal variations of the barometric pressure. These variations with maxima at 10 a.m. and 10 p.m. have their cause in the semi-diurnal changes of the charge of the ionosphere at the same hours, 10 a.m. and 10 p.m. The

barometric pressure reflects the degree of attraction exerted by the ground and the ionosphere on the gaseous envelope.

12.

The defiance of gravity by water and cloud building. The ground and the ionosphere induce secondary charge-layers in the atmosphere. In such a secondary layer cloud-building takes place. Generation of electricity in clouds is due not to the friction of neutral clouds on mountain ridges, or to the friction of neutral clouds among themselves, or to the friction of droplets by the gravitational pull on them, but to the fact that droplets rise already charged toward the charged layer of the atmosphere, and clouds are further subjected to induction by the ground and the ionosphere. This explains also the segregation of the charges in the upper and lower levels of the clouds.

13.

Defiance of gravity experienced in the cumulo-nimbus clouds. This defiance recorded by airplane pilots is the result of charges and electromagnetic effects prevailing in these clouds.

14.

The direction of the cyclonic and anticyclonic whirls. Their direction on the earth, as well as on the sun, depends on the electromagnetic fields and not on the rotation of these bodies.

15.

Increased gravity over the sea. The increase of gravity over the sea as compared with that over the continent may be explained by the higher charge of salt water.

* * *

There were a few attempts made to unite the electromagnetic and gravitational field theories; but as far as I know nobody has tried to solve the problem of planetary movement around the sun as a motion of charged bodies in a magnetic field; my explanation implies that the measurement of the solar magnetic field by Hale is not correct.

If the sun has a sufficiently strong magnetic field so as to reach the farthest of the planets, the quantitative elements are dictated by the charge of the sun, the strength of its magnetic field, and the charge of the planets.

The theory of the Cosmos without Gravitation given here in synopsis is written also in a comprehensive form (1941-43). I arrived at this concept early in 1941 as a result of my research in the history of cosmic upheavals as they affected the earth and other members of the solar system. A number of facts proved to me that the sun, the earth and other planets, the satellites, and the comets, are charged bodies, that the planets and their satellites have changed their orbits repeatedly and radically, and that gravitational attraction or the weight of objects has changed during human history. I thus recognized the fact that not gravitation, but electric attraction and repulsion and electromagnetic circumduction govern the solar system.

In construction the electromagnetic theory of the solar system, I am indebted to Miss Shulamith Velikovsky for valuable suggestions on the dipole explanation of attraction between the atoms and the dipole concept of inertia.

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THE 'OBSERVER' ARTICLES

by

Immanuel Velikovsky

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Introduction

The pages that follow deal with the marvelous and the miraculous. On the pages of the Old Testament and in Hebrew lore stories are told of unusual phenomena. They intrigued me by the fact that so many of them reappear in the fields of modern paleontology, physics, and psychology. In almost every instance the gap could be bridged by an association - from archaic and miraculous to modern and self-understood, but still miraculous. Is not the phenomenon of magnetism well-known, yet still miraculous? And the same is with many other phenomena in the natural sciences. Thus a miracle of ancient lore is explained, yet the miraculous in the natural event remains.

As I proved in *Ages in Chaos* the letters found in the Egyptian State Archive of el-Amarna originated in the ninth century, and a very considerable portion of them was written in Palestine, by Ahab king of Israel, Jehoshaphat, king of Jerusalem, and their generals. The corresponding texts of the Scriptures prove a very high grade of trustworthiness, even in transmission of orations and dialogues, ascribed to historical personages. This fact encourages to approach with credence the stories of Elijah and Elisha, interwoven in the same parts of the Book of Kings.



Notes and Themes

Themes for *Shamir*

(mostly from the Old Testament; miracles-ancient lore)

Genesis

Serafim
Sanverim
Sulfur (brimstone)
Interplanetary travel
Giants
“Smoke of furnace”
Deluge
Giant animals—also Ziz bird, (mammals)
Struggling with the angel?
Angels visit Abraham
Dream interpretation

Exodus

Manna—hydroc. combin.

Numbers

Radiation disease-Tzaarat—“leprosy”—Hair fell out

Joshua

Wild ducks (meat of fowl)—radioactivity in exposed animals—case of radiated engineer.
The death after eating the wild ducks (irradiated).
Phosphorescence—hand white after being kept in dark
Karnaim—the horns or rays of Moses
(rays of Venus—like horns)
Finding water
Diamonds
Petroleum
Vermin plague
Jordan running back
Deluge of fire
Serpent and Baal worship
Leveling of mountains

Judges & Kings

Magnet
Mouth-to-mouth breathing
Weather forecast
Telepathy and hypnosis. Since 1740?
Necromancy
Shamir-radium
“Oil-enzyme”?

“Leprosy” and sulfur baths
Ball of fire (left cloth);
Sennacherib (burnt but cloth)
Sword over Jerusalem
Glilim
“Terrible ones”
Music in psychiatry
Even shetia (Mars?) (also Mecca)
Daniel & his friends
Mene Tekel - writing on the wall
Sun’s shadow returned

Elias & Elisha

Sanverim
Magnetism
Static electricity
Artificial breathing
Meteorology
Galvanism
Chariot of fire

Interplanetary Travel

The story told in Genesis 6, about the sons of God (B’nei Elim) coming to the daughters of men, is usually explained as referring to the aristocrats that mingled with common people.

In my understanding this is a literary relic dealing with the visit of intelligent beings from another planet. Actually in the rabbinical literature is preserved the story of 36(?) persons led by that descended on Mount Hermon. The new arrivals, all males, were probably of gigantic stature; their progeny with women of the earth were giants (Genesis 6). I thought that trilithon of Baalbek, near Hermon, was the work of their hands.

The planet from which they came I would not know to determine. El would refer to Saturn. The great size of the visitors would suggest a smaller body. Because of the strangeness of the idea, I thought to never publishing it. But since I came to it in about 1940-1941, the space age started, UFO were claimed to be vehicles of visitors from other planets (which idea does not find any credence in me), and previous visits to the earth by guests from other systems (other star systems) were expressed without calling for ridicule.

It appears to me that the visitors in expectation of some great catastrophe, moved out from their planet. Actually, their story precedes the story of the Deluge in the Scriptures.

Angels visit Abraham

The time of the events connected with the story of the patriarch Abraham is, in my understanding, the end of the Early Bronze or Old Kingdom in Egypt. The catastrophe of Sodom and gomorra—the overturning of the plain, the origin of the Dead Sea, was a catastrophe that ended an era; the origin of the Great (African) Rift or its greater expansion, coincided with those events. The age of the Dead Sea when measured by the amount of salts in its waters and in the supplying sources—is of the order 5,000 years, but could be even less, all depending the various factors (submarine sources, change in concentration of salts in the Jordan, the contribution of the sources on the shores of the sea, besides the main tributaries.)

The visit of “angels”—or B’nei El—to the ten of Abraham would suggest that the interplanetary

visitors were still around at the end of the Old Kingdom in Egypt, or Early Bronze. To me this appears a misplaced memory. I would think that the “visitors” would be suggestive of an earlier time.

But in recent years I chanced to find my old idea concerning Genesis 6, expressed by a Russian astronomer, though he seems to be unaware of the landing at Hermon, he associated a not removed stone in the quarry near Baalbek with “their” effort to leave the earth; he also suggested that the turning of the plain was the work of their hands (atomic explosion) which might be true, considering the element of the “punishment” told in the story of Sodom.

Horn Blowing on Yom Kippur

The blowing of the horn on the New Year and on Yom Kippur (Day of Atonement) is a recreation of the noise that like blowing of the horn was heard at the day of Lawgiving—all over the world. The twisted strata of the earth produced this noise, and as I remarked in *Worlds in Collision*, the noise could also have been produced by the approach of a charged body (Teremin effect).

Hamon

I read these days (April 1967) that infra-acoustic waves can cause death. I thought of the expression that the Assyrians before their death were “permitted to hear the music of the sphere”; also the expression “Hamon” in the prophets relating to the phenomenon; also the Egyptian name of a divinity Hemon.

As I demonstrated in *Worlds in Collision*, Mars was the instrument of the debacle of the Assyrian host. Hamon must be another name for Mars, Maadim, or Aritz, from which is derived the Greek Ares.





Giant Animals in Hebrew Lore

It is remarkable that travellers of the second and possibly the first millennium before the present era, brought home these stories:

The ruler over the sea animals is Leviathan. His fins radiate brilliant light, its smell is foul.⁽¹⁾ Leviathan spouts out water.⁽²⁾ This description, one may guess, is of a whale.

Ziz is the ruler over the birds; it is monstrous in size; its wings are so huge that unfurled they darken the Sun. "Great bird Ziz slaps his wings and utters his cry, so that the birds of prey, the eagles and the vultures, blench."⁽³⁾ The span of the wings of the pterosaurs ranged from 27 feet upwards to an incredible 69 feet, whereas the span of the wings of the large eagles is less than 10 feet.

Behemot (not to be confused with the animal that bears this name at present) is the most notable representative of the mammal kind. Behemot matches Leviathan in strength. It had to be prevented from multiplying and increasing, "else the world could not have continued to exist." It is deprived of the desire to propagate its kind.

As the above-mentioned travellers could not have visited the American Museum of Natural History on their voyages, nor any other museum of paleontology, nor could they have read modern books on dinosaurs and all their classes, it is puzzling to read their description of the monstrous animals and of their behavior, and also of the weapon used by the largest land animal. In mortal combat between the gigantic beasts, Leviathan kills by a blow of its fins, and Behemot kills by a lash of its tail.⁽⁴⁾ The modern paleontologists wondered at the largest land animal's lack of weapons for attack or defense, which would have made it easy prey for every attacker, and supposed that the animal used its tail as its weapon.

Equally interesting is the description of the gigantic female Reem when heavy with young. "Leviathan, Ziz, and Behemot are not the only monsters; there are many others, and marvellous ones, like reem, a giant animal, of which only one couple, male and female, is in existence The act of copulation occurs but once in seventy years between them . . . The act of copulation results in the death of the male. He is bitten by the female and dies of the bite. The female becomes pregnant and remains in this state for no less than twelve years. At the end of this long period she gives birth to twins, a male and a female. The year preceding her delivery she is not able to move . . . For a whole year the animal can but roll from side to side, until finally her belly bursts, and the twins issue forth. Their appearance is thus the signal for the death of the mother reem."⁽⁵⁾

The problem of the statics of the dinosaurs, with their pillar-like legs, vexed modern scholars. The larger species are classified as amphibians, though no adaptation for life in water is found in their fossilized remains; they are classified so because, by wading in water, they would have a lesser load of body to carry. That this does not solve the question is shown above. The animals were apparently not adapted to the life conditions and did not survive.

To be more exact, the animals adapted themselves to conditions, but the Earth changed these conditions completely, and more than once. The variations of the force of gravitation became, more than anything else, fatal to the large dinosaurs.

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4. Ginzberg, I, p. 28.
5. *Ibid.*, pp. 30-31.





The Burning Bush

It is told in the Book of Exodus that, in advance of the great catastrophes that preceded and accompanied the flight of the Israelites from Egypt, the first sign of the things to come was the experience of Moses in the wasteland of Midian? Sinai? when he saw a burning bush. The bush, to his amazement, was burning, yet the flame did not consume it (Exodus 3:2-4). Should we assume that it was some natural phenomenon, interpreted by Moses as a miracle, we would be put before the choice: either it was a phenomenon of phosphorescence, or some similar radiation, or it was a phenomenon of an electrical nature, such as that known to us as St. Elmo fire. In the first instance a desert bush could glow in the dusk of the day if covered by phosphorus dust; and the desert of Sinai, like southern Israel, abounds in deposits of phosphorus. Irradiated by light during the day, phosphorus continues to glow in the dusk. St. Elmo fire is the visible electrical glow on the tops and extremities of masts of ships, or at the summits and ends of branches of trees; this electrical phenomenon is especially apparent when the atmosphere is charged more than usual by electricity. Neither phosphorescence nor St. Elmo fire are consuming flames; and the miracle of the revelation was the miracle of one of these phenomena, because they are revelations of nature which human genius tries to understand and has succeeded in this until now only very incompletely.

The “miracle” with the bush was followed, according to the story, by more phenomena of a related nature. Moses observed that his hand temporarily turned white, as if afflicted by leprosy, upon keeping it in the dark recess of his clothing. This, too, sounds like luminosity of phosphorescent or radioactive nature.

Assuming that what is described in Exodus 3:2-4 and 4: were phenomena that really did occur, we would think that in these unusual signs the cosmic events that were soon to take place had already their first foreboding. Moses felt an inner call to return to Egypt to announce great happenings and to demand the right of worship for his people there, not yet the permit for them to emigrate. He himself was not yet aware of the great disturbances to come. In *Worlds in Collision* and *Ages in Chaos* I offered evidence that the Earth entered the fabric of a great comet at the time that these events took place. Most probably the celestial prodigy made itself known by irradiating the Earth with the electrical glow of its dispersed trail of thin dust or gases. A great train of meteorites was to follow; but already the precursor of the great and swiftly-moving masses, the thin dust of charged particles, could make the phenomena of phosphorescence and St. Elmo fire rather pronounced. And the future leader of the bondsmen escaping from Egypt, impressed by the glow that does not consume, felt an inner call to return to the land of his birth and to bring there the message of upheavals approaching in swift succession.

It is known that comets glow chiefly by their own light, rather than by the reflected light of the Sun: the spectral analysis of the glow coming from the tails of the comets shows that the light originates there; it shows the so-called lines of emission, whereas reflected glow would produce lines of absorption. Electrical light shining in vacuum, upon meeting some obstacles, may also produce X-rays.

The great discharges exchanged between the head and tail of the comet, retarded in its motion; the terrifying “crashes” (*kolot*) of the bolides (*barad*) on entering the Earth’s atmosphere; the magnetic disturbances; and the electrical phenomena caused by the irregularities of the terrestrial motions—all must have contributed to the increased tensions between the ground and the upper atmosphere, and the radiations, some of them of harmful nature, that filled the air of the entire world. Thus a passage of the Earth through the tail of a comet would result in phenomena the intensity of which would clearly depend on the size and mass of the comet and of its trailing tail, and the closeness of the approach.

It is narrated that when Moses came from hiding in the cloud on Mount Sinai, his face shone (Exodus 34:30,35). This was regarded as a sign of holiness, and actually in Christian times the saints are represented with a halo around their heads. Of Zarathustra it is also said that he was burned by fire, but not consumed by it, during his stay on a mountain. ⁽¹⁾ Mountains themselves often possess a “halo” ; and actually, Charles Beke went to Arabia in 1874 in search of Mount Sinai, and believed to have discovered it in Mount Seir, a mountain with an electrical halo. Michelangelo portrayed Moses on his famous statue, presently in Rome, with horns over his forehead. As many artists, he was misled by the translation of the word *keren* (plural *karnaim*), which in Hebrew can mean both “horn” and “ray.” What the scriptural writer had in mind when he described Moses descending from Mount Sinai was most certainly a halo of rays of light. In the *aggadic* or legendary material not included in the Scriptures, Moses and Aaron, appearing before the Pharaoh, had already faces that were illuminated, or glowed in the dark. The Biblical narrative renders the story of Moses’ descent from the mountain after the lawgiving as the time when he impressed the people in the plain by his head shining in the dark: it was surrounded by rays of light, understood by Michelangelo, and by many others, as “horns” protruding from his head.

As we can gather from the material collected in *Worlds in Collision*, the comet that shone at the end of the Middle Kingdom in Egypt—and caused its downfall—appeared to the peoples of the world at one time as a dragon with a flaming body, at another moment as the head of a bull with horns stretched out towards the earth; these were horns of light. This explains why the Hebrew word “horns” and the word “rays” is the same (*keren*, plural *karnaim*) can be understood in terms of the phenomena attending the Exodus.

It is also very probable that the great discharges that accompanied the terrestrial catastrophes caused radiation diseases. The great role that leprosy (*zaarath*) took in

the medical concern of the priests during the wandering in the desert, and the very description of this so-called “leprosy” that was cured by time and no other medicine, lets surmise that this disease was of radioactive nature. I will discuss the subject of radiation disease separately.

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Matza

The most important item of the ceremonial of Passover is unleavened bread called matza; the feast itself is called the feast of the unleavened bread. Matza is not just one of several equally important other regulations of the festival of Passover: it is the main ceremonial (together with the reading of the Haggada), almost *the* symbol of the chief holiday of the Israelites. The observing of the command to eat only the unleavened cakes during the feast of Passover is ordained in the following terms: “For whosoever eateth leavened bread from the first day until the seventh day, that same shall be cut off from Israel” (Exodus 12: 15). The Book of Exodus explains this bread by the command given on the eve of the departure of the Children of Israel from Egypt:

And this day shall be unto you for a memorial; and ye shall keep it a feast to the Lord throughout your generations... Seven days shall ye eat unleavened bread. (Exodus 12:14)

After they left Rameses and came to Succoth,

And they baked unleavened cakes of the dough which they brought forth out of Egypt, for it was not leavened; because they were thrust out of Egypt and could not tarry, neither had they prepared for themselves any victuals. (Exodus 12:39)

The fact that the Israelites left Egypt in such a hurry that that night the dough did not leaven, could hardly be the only motif for a command to which the religion of Israel affords such importance. The speed of the Exodus from Egypt was not complemented with the speed of an entry into the Promised Land, but was followed by forty years of aimless wandering in the desert; the haste which saved a few hours needed for the dough to leaven was lost completely in the events of the slow-moving years that followed; the rashness of the Exodus did not even help the Israelites to run away from the pursuing Egyptian army and they would have been destroyed were it not for the sea that parted and let the Israelites pass, only to return then to its strength and engulf the Egyptian hosts. For its part, the haste of the Exodus could have been much more aptly remembered by some act symbolizing the haste of leaving one's domicile or swiftness of retreat, or celebration of reaching a water barrier and the like; weary loins and the staff of a wanderer would express better the leaving of Egypt; and if the swift going away should be symbolized in food, uncooked victuals or eating while standing could better symbolize the speed than unleavened cakes eaten in a reclining position, as prescribed by the ritual. And the seven-day-long observance of eating

unleavened bread hardly harmonizes with the explanation that makes a one-time hurried preparation of bread the motive of it.

The other explanation of the origin of the custom of eating of matza during Passover is found in the Haggada read during the Seder, the evening meal of the first (in diaspora the first two) evenings of the feast. There it is said: "This is the bread of misery that our forefathers ate in Egypt." This explanation makes matza the replica of the poor bread eaten in the misery of serfdom. Though less popular, it sounds better rationalized. A nation that preserves the memory of the long years of affliction may institute the observance of eating—one week each year—the bread of affliction, *lakhmo anio*. It must, however, be noted that the replica of the bread of affliction is not made to taste unpleasantly and is enjoyed by adults and by children alike. There is another symbolic piece of edibles on the Seder plate, the bitter root, which is supposed to commemorate the bitterness of the days of bondage; it is eaten, however, dipped in honey.

The two explanations contradict each other: according to one of them the unleavened bread was eaten during the many decades of the sojourn in Egypt where the children of Israel were subjugated and carried the yoke of bondage; according to the other explanation this bread was eaten only on the very last night of the sojourn and possibly not even then, but was, for lack of time, made in preparation of the suddenly-undertaken migration.

Being contradictory, the two traditional explanations invite a re-examination of the motives underlying this ancient usage.

The major festivals of the Jewish calendar are connected with the memories of the Exodus, Lawgiving and living in huts during their migration in the desert. Was not some unusual phenomenon connected with the time of the Exodus of the Israelites from Egypt that could be regarded as more compelling for the origin of the custom than the above-stated motives? A usage of such persistence, predominance and antiquity, must have been instituted, so it seems, to honor some unusual and impressive occurrence. Such an occurrence was the fall of manna.

During the years when the Israelites wandered in the desert after having left Egypt manna fell from the sky. It served as their nourishment in the years when they roamed in the wasteland, in the shadow of death, when nothing budded. The customary explanation of manna as the seed of the tamarisk bush growing in the desert was refuted in *Worlds in Collision*, section "Ambrosia." Manna is called "the bread of heaven," the bread that fell from the clouds, (Exodus 16: 4) or even from the starry sky.¹ It was found by the Israelites daily in enormous quantities, and the Midrashic sources state that "the quantity that fell every day would have sufficed to nourish the people for two thousand years."² It was ground between stones and baked in pans (Exodus 16:14-34), Numbers 11:7-8). It had the shape of coriander seed, a yellowish color and oily taste.

And the people went round about, and gathered it, and ground it in mills, or beat it in a mortar, and baked it in pans, and made cakes of it. (Numbers II: 8)

The fall of manna was also not confined to the desert of wandering. It is said that all the peoples of the East and the West could see it.³ And actually we could trace the same memory to many nations of the world. The Scandinavian peoples were destroyed almost to the last in a catastrophe, and in the Fimbul winter that followed, the survivors subsisted on the morning dew.⁴ The Scriptures also have it that “When the dew fell upon the camp in the night, the manna fell upon it.” (Numbers 11:9) The Greeks preserved the memory of manna as that of ambrosia—and it is described in the very same terms as manna. Ambrosia had the taste of oil and barley, or honeycomb; and so did manna.

It is significant in this connection that according to old rabbinical sources, matza is described as having the taste of manna.⁵ From this alone one could deduce that the custom of eating matza was first established in memory of the phenomenon of manna—yet, strangely, this has not yet been done. The fall of manna was a phenomenon of no mean significance. After the catastrophe of the days of the Exodus and in the years of its aftermath, the Israelites roaming in the desert had no leaven and they lacked salt; and until this day the unleavened bread is produced without salt being added. In the Seder night, when the great miracles are told that accompanied the Exodus and the upheaval in the physical nature, the greatest—the fall of bread from the sky—must be especially honored, it being the food of the multitude that left Egypt, and it would be strange if it would have remained without a memorial in the main feast commemorating the deliverance from Egypt and the preservation of the people, almost brought to complete annihilation by man and by elements alike.

A similar feast was celebrated in Athens during the spring month of Anthesteria—honey and flower were poured into a fissure in the earth. And since the phenomenon of manna was ubiquitous all over the earth, it is of interest and significance to note that also in India, in the *Rig-Veda*, it is said that honey (*madhu*) comes from the clouds.⁶

In that book is described how edible substances precipitated for a long period of time after the passage of the Earth through the trailing part of the planet Venus, then a comet.⁷

The planet Venus was deified by all races of antiquity and in *Worlds in Collision* I brought together reports of its being described as a comet from ancient Mexico, where it was called *la estrella que humeava*, “the star that smoked,”⁸ from Babylon, from China and from many other lands and peoples. Manna was a derivative of Venus. To eat it was like eating a portion of the god. Many ancient religions had this mystery of swallowing the god. The Christian religion, too, in the mystery of

communion, had the participants eating of their god. Here it is shown how this strange idea originated; it was an element of ancient mysteries that were inherited and then incorporated in the Christian faith. The eating of the body of the god, the miracle of food falling from the sky, the food that sustained life in the wanderers in the desert—these are the wonders that impressed the ancient world and that survived in the ancient cult of matza, and also in the bread of communion, and in the custom of offering cakes to the Queen of Heaven in ancient pre-exilic Israel.

There must have been a special reason why the cakes of unleavened bread should not be implicitly connected with manna. It appears that these cakes became a part of an astral worship. It transpired to the instructed priests of the northern kingdom of Israel that it was the planet Venus that was an instrument, or as they may also have thought, the cause of the disturbances and upheaval that enabled the Israelite slaves to leave Egypt. In the northern kingdom Jeroboam, by erecting an image of a calf in the temple of Dan and another in Beth-el, said “here are the gods that brought you out of Egypt” and he initiated the Passover service in Dan which in his plan should have served as the gathering place for the Passover week, not only for the population of the northern kingdom, but also for the people of Judah. Thus we see that Passover was a feast also in the worship of Baal; and in *Worlds in Collision* we have shown that the calf was the image of the planet Venus and that Baal was also her name.

At the end of the sixth century before the present era, shortly before the Babylonian Exile, Jeremiah accused the population of Jerusalem: “The women knead dough to make cakes to the queen of heaven, that they may provoke me to anger.” (7:18) The Queen of Heaven, we are informed by many authorities, was the planet Venus. Apparently the knowledge that Venus had something to do with the Exodus made the people of the Northern Kingdom, that of Israel, and then also of Judah, to bake cakes in honor of Venus, the planet, the role of which in the catastrophe of the days of the Exodus is described in detail in *Worlds in Collision*. And when Jerusalem fell to the Babylonians, the Jews who escaped to Egypt spoke of the incense and offerings that were given to the queen of heaven by themselves, and also by their fathers, their kings, and their princes “in the cities of Judah, and in the streets of Jerusalem.” “And when we burned incense to the queen of heaven, and poured out drink offerings unto her, did we make her cakes to worship her, and pour out drink offerings unto her without our men?(44:19)”

The heavenly bread coming from the clouds that were deposited by the comet Venus, the cakes made by the women of Jerusalem to her honor, were in memory and in thankfulness for the miracle she performed for their ancestors: Therefore the women of Jerusalem regarded the prohibition of this usage by the king Josiah and probably also by his son Zedekiah, under the influence of Jeremiah, as an offense for which their temple was destroyed; they went into refuge in Egypt, when the other remnants of the people were carried into Exile in Babylonia.

The custom of bringing bread (flour) and honey to the queen of heaven was practiced also by the Syrians in the second century before the present era, as Lucian tells in his

book *De Dea Syria*. And in Greece, on the spring feast of libations of flour and honey were poured into a crevice in the ground, in memory of the flood of Deukalion, in which the population of Greece was destroyed almost to the last; this flood of Deukalion, according to tradition conserved by the fathers of the Church, occurred in the days of the Exodus (Eusebius)

Also in the Western Hemisphere the spring feast in honor of Quetzalcoatl or the planet Venus was observed once in eight years—every eight years the planet Venus presently returns to the same position in relation to the sun and the earth—the synodic cycle of Venus consists of eight terrestrial years. Venus years were rigorously observed by the Mayas in Yucatan, Aztecs in Mexico, and Incas in Peru.

During the feast of in honor of Venus, bread was baked without salt, with water alone—and Sahagun, the Spanish author who studied the life of the Mayas in the sixteenth century, wrote:

Every eighth year these natives celebrated a feast which they called Atamalqualiztli, which means “feast of bread and water.” For eight days preceding the festival they ate nothing but tamales prepared without salt, nor did they drink anything else but clear water. ... They did not mix anything else with the dough of which they make them (tamali) not even salt...⁹

Here we see the feast of unleavened bread in America dedicated to Venus and was observed on its every return on its synodical cycle. Among the Mayas the feast of the bread was dedicated to the planet Venus, as it was among the women of Jerusalem in the days of Jeremiah and before him.

The word “matza” may mean “to find”; the corn of heaven was actually found on the ground.

The people of Israel in gratitude for their salvation in the desert, amidst the outraged elements, in a desert clouded by twilight, burning and waterless, observe the feast of salvation and eat the unleavened bread.

The connection by the people of Judea in the days of Jeremiah of manna and matza with Venus contributed to the separation between the custom and its cause, when religion became a monotheistic form of Judaism. Thus the root of the custom was lost and other explanations were devised and survived for many centuries, despite their obvious inadequacy.

References

1. Psalms 78:23-24; Tractate Yorna 75a.

2. Midrash Tehillim to Psalm 23; Tosefta Sota 4.3.
3. Tractate Yorna 76a.
4. J. A. MacCulloch, *Eddic Mythology* (1930), p. 168.
5. Kiddushin 38a.
6. W.H. Roscher, *Nektar und Ambrosia*, (Leipzig, 1883), p. 19.
7. [The synthesis of various edible carbohydrates and sugars from hydrocarbons by bacterial action, or from other, simpler compounds by chemical reaction aided by strong irradiation has been demonstrated experimentally. For instance, see A. J. Swallow, *Radiation Chemistry of Organic Compounds* (Oxford, 1960). V. A. Firsoff (Our *Neighboring Worlds* [1954], p. 208) described how formaldehyde could be produced from water vapor and carbon dioxide in the presence of strong ultraviolet radiation. From formaldehyde sugars, like fructose or glucose, and starches can be produced. See Wong Kee Kuong, "The Synthesis of Manna," *Pensée* III (1973), pp. 45-46. Carbon dioxide is a major constituent of Venus' atmosphere.]
8. Bernardino de Sahagun, *Historia general de las cosas de la Nueva Espana*, Bk. VII, Chap. 4.
9. *Ibid.*, Appendix to Bk. II.





Shamir

In the Talmud and the Midrashim there are many references to *Shamir*—unusual qualities were ascribed to it. For instance it reportedly could disintegrate anything, even hard, durable stones. The rabbinical literature describes it as being employed in engraving the breast plate of the High Priest. Among Solomon’s possessions it was the most wondrous. King Solomon was eager to possess the Shamir because he had heard about it from earlier days; knowledge of the Shamir is in fact ascribed by rabbinical sources to Moses. After much search a grain of Shamir the size of a barley-corn was found in a distant country, in the depths of a well, and brought to Solomon. But strangely, it lost its abilities and became inactive several centuries later, about the time the Temple of Solomon was destroyed by Nebuchadnezzar.

What was *Shamir*?

In the opinion of medieval authors, Rashi, Maimonides and others *Shamir* was a living creature, a worm.¹ It was argued that *Shamir* could not have been a mineral because it was active. The Talmud transmits in the name of Rabbi Nehemiah the following description of the engraving on precious stones: The names of the twelve tribes were inscribed on the twelve semi-precious stones of the Urim and Tummim, the breastplate of the High Priest, not by carving, but by writing with a certain fluid and “showing” them to *Shamir*, or exposing them to its action. In the opinion of modern authors, the expression “was shown to *Shamir*”—“clearly shows it was the glance of a living being which effected the splitting of wood and stones.”² It is admitted, however, that “in the Talmudic-Midrashic sources it is never explicitly stated that the *Shamir* was a living creature.”³ An old source. *The Testament of Solomon*, a work written in Greek, probably in the early third century of the present era,⁴ refers to *Shamir* as a “green stone.” But how could a greenish stone cut the hardest of diamonds with its glance?

“The Shamir is as large as a barley-corn. It was created in the six days of Genesis. There is no substance hard enough to withstand its action”⁵

Over a hundred and twenty-five years ago a Jewish scholar in Germany published a paper to prove that *Shamir* is a mineral,⁶ but more modern authorities agree with the medieval rabbis and say that they were “undoubtedly correct.”⁷

The manner in which *Shamir* was kept secure may give us some clue “The *Shamir*

may not be put in an iron vessel for safe-keeping, nor in any metal vessel: it would burst such a receptacle asunder.”⁸ “It is kept wrapped in wool inside a box of lead filled with barley-bran.” This sentence is quoted from the Tractate Sotah 48b of the Babylonian Talmud. “*Oferet*” in the text is properly translated as “lead.” It contains an important clue: folkloristic fantasy would not make a leaden box of a greater resistance than an iron or a gold one: lead is a soft metal. Therefore, this must be a description based on fact. And with the knowledge of our age we may easily guess who or what was *Shamir*: It was a radioactive substance; radium salts, for example, acting upon certain other chemical substances, can emit a luminescence with a yellow-green hue.

The breastplate of the High Priest was engraved in the following manner. The letters were written with ink, and the stones were exposed, one after another, to the “glance” or radiation of the *Shamir*. This ink must have contained powdered lead or lead oxides.⁹ The parts of the stones which were unprotected by lead were disintegrated without leaving any dust particles which, according to the Tractate Sotah 48b, appeared especially wondrous. Those parts protected by leaden ink stood up in relief on the surface of the gems.

The most precious possession of Solomon, his *Shamir*, did not survive. With time it became inactive. The usual version of the story—the *Shamir* “disappeared,” does not correspond to the Hebrew text. The word *batel* used to describe the end, or demise, of *Shamir*¹⁰ has only one meaning: “To become inactive.” Therefore, when occasionally it is said that the *Shamir* “vanished” at about the Temple was destroyed, this is incorrect.¹¹ The Hebrew term for a paralyzed member is *ever batel*; a loafer is *batlan*; inactivity is *batala*; all these words come from the root *batel*. In the four hundred years that passed from the building of the first Temple to its destruction by Nebuchadnezzar in -587, a radioactive substance could become inactive.¹²

In 1896, one year after Wilhelm Konrad Roentgen of Wuerzburg discovered X-rays, Antoine Henri Becquerel, son and grandson of the great physicists, discovered radioactivity by accidentally placing a photographic plate near a uranium salt.

Uranium at ordinary temperatures emits an invisible radiation which resembles X-rays, and can affect a photographic plate protected by a thin layer of metal.

Marie and Pierre Curie, led by the conviction that in the midst of pitchblende, their source of uranium, there must be still another element of a much greater radioactivity, dedicated themselves to its isolation and in 1898 they succeeded in bringing forth the new element as its bromide salt—radium.

A new era in physics began with these discoveries. And because of the dramatic circumstances under which the Curies pursued their goal—and the story of the illuminating substance they found one evening when they came to their cold and

poorly-equipped laboratory—the last of the three discoveries, radium, captured the imagination of people everywhere.

Radioactivity is used in the treatment of neoplasms, while the destructive work of the uranium bomb thrown on Hiroshima also goes back to the discoveries of Roentgen, Becquerel, and the Curies.

Uranium and radium are elements—the original substances of which the universe is built; they were discovered, not invented. Therefore they were present in nature since the beginning; and since radioactive elements have a limited life-time because of disintegration through radioactivity, there must have been more radioactive elements in the past; and actually, a “radium clock” is used to measure the age of rocks. Radium itself is continuously decaying, yet continuously being replenished from the decay of thorium, of which it is a byproduct. The end result of the decay of radium is an isotope of lead. This lead differs from regular lead, and from the ratio of such lead to uranium in rocks, the age of these rocks can be determined. Lead is also the substance that protects best against the damaging effect of radium or other radionuclide irradiation; and thus laboratory radium is preserved in a lead receptacle when not in use for medical or technological purposes.

The information found in ancient sources—that *Shamir* was a greenish mineral, that it was as large as a barley-corn; that it could damage anything, even metals and other minerals, save lead, and the only protection could be found by placing *Shamir* in a leaden box; that it had a “glance” which disintegrated things without leaving filings or dust; that it became inactive after a period of four hundred years—all reveal the true nature of *Shamir*.

References

1. Rashi, *Pesahim 54a*; Maimonides, *Commentary on Abot 5.6*.
2. L. Ginzberg, *The Legends of the Jews*, (Philadelphia, 1925), vol. V p. 53, n. 165.
3. *Ibid.*, loc. cit.
4. C. McCown, *The Testament of Solomon* (Leipzig, 1922), pp. 105 ff. F C. Conybeare (“The Testament of Solomon,” *The Jewish Quarterly Review* XI [1898], p. 12) dated it to ca. 100 C.E.
5. Tractate Sotah 48b of *The Baby Ionian Talmud*.
6. S. Cassel, “Ein archaologischer Beitrag zu natur- und Sagenkunde,” *Denkschrift der Koeniglichen Akademie gemeinmütziger Wissenschaften in Erfurt*, (19 July, 1854), pp. 48-112.
7. Ginzberg, *Legends*, loc. cit.
8. *Ibid.*, Vol. I, p. 34
9. [Possibly the ink contained sugar of lead, which is the salt of acetic acid solution—a readily available reagent for the ancients, as acetic acid is the major constituent of vinegar.—F.B.J.]

10. Tractate Sotah (Seder Nashim) 9.2.
 11. E.g., Ginzberg, *Legends* I. 34.
 12. Radium loses about one percent of its radioactivity every 25 years.
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Magnetism

It would appear that the action of the lodestone must have been discovered very early; a legend tells how a young herdsman in the hills of Magnesia felt the nails of his shoes kept glued to the rock, and thus discovered the phenomenon of magnetism. Since magnetic rock is found in many places, the discovery of its action must have been made in more than one place; yet apparently knowledge of the phenomenon was confined to the initiated, whether the medicine man, yogi, or shaman.

Is it for certain that the phenomenon has no reference in the Hebrew Scriptures? One instance, it seems, points to its use by the seer Elisha. In the Book of Kings where the story of his deeds is given, apparently culled from some ancient source no longer extant, the following episode is described:

So he [Elisha] went with them. And when they came to Jordan, they cut down wood.

But as one was felling a beam, the ax head fell into the water: and he cried, and said, Alas, master! for it was borrowed.

And the man of God said, Where fell it? And he shewed him the place. And he cut down a stick, and cast it in thither; and the iron did swim. therefore said he, Take it up to thee. And he put it in his hand, and took it. [\(1\)](#)

Nothing is said as to whether a lodestone was attached to the twig. The onlookers could think that the twig was a wonder wand, and that a stone tied to its end was only for the purpose of approaching the twig to the sunken ax. But we know that a twig would not attract and lift iron, whereas a lodestone would—and much more easily in water than in air, because the weight of the ax would be that much lighter in water. Preoccupation with things electrical and magnetic was a trademark of Elijah and his apprentice and successor Elisha.

There remains a margin of surmise in this our explanation of the phenomenon. But should today primitives of Africa or Australia ask a missionary to perform the miracle and lift iron drowned in a stream or a lake, he would impress them greatly if he should repeat the miracle as reconstructed here. Miracle it is, but not of the one who long ago knew its use: magnetism is a miracle with which the Universe is created, and its true nature is still not known, and therefore belongs in the fold of the miraculous.

References

1. II Kings 6:4-7.





Radiation Sickness

The upheaval of the days of the Exodus caused by interplanetary perturbations and discharges, was of an intensity of many thousands of hydrogen bombs. Some of the many consequences were transmutation of elements, nuclear fission, and radiation sickness. A permanent bombardment of the Earth by cosmic rays is going on, resulting in fission of atoms, especially those of nitrogen. But the comparative rarity of cosmic rays makes the results, though spectacular in every case or collision of a ray-particle with an atom or a gene, lacking, in an overall picture, the dramatic element of massive change or transformation. In the abnormal conditions of interplanetary stress and discharges, the elements could go through transformations on a grand scale, the living organisms through the process of somatic changes, and their reproductive cells through mutations that would impress themselves on the formation of the generations to follow.

In the travelogue of the fugitives from Egypt which was ruined in the catastrophe, we read the strange story of the people's asking for meat, their request having been answered, yet the wrath of the Lord causing them to die as a consequence of eating the flesh of the quail, a large flock of which was flung towards their camp (Numbers 11:31-33). It could have been the consequence of eating meat contaminated by fallout; the flesh of the flock of wild geese could have been so contaminated, and the description of what happened to those who feasted on them in the desert supports such an interpretation.¹

Since antiquity a story was spread that the refugees were people sick with leprosy. Manetho, an author of the third pre-Christian century, equated them with the lepers that were expelled from Egypt with the high priest Osarsiph—yet this story does not refer to the time of the Exodus but, as I will show elsewhere, belongs into the period of Libyan domination over Egypt. It is based on the story of Osorkon,² whose expulsion in the late eighth century took place in the midst of another series of catastrophes, during which portions of the Earth's ozone layer were stripped away, resulting in the penetration of dangerous amounts of radiation from space, and widespread radiation disease.

We must be impressed with the many regulations concerning the diagnosis, the isolation, the quarantine, and the symptoms of *zaraath* found in Leviticus, and related by the text of that book to the time of the wandering in the desert. It appears from the importance given to the regulations concerning those stricken with *zaraath* that it was a widespread disease in the days of the wandering in the desert. Actually, this disease occupied the minds of the priests to the extent that the code of hygiene for the purpose of preventing disease deals chiefly with *zaraath*.

A recently published report on the contamination of a group of physicists at a research laboratory tells that one of the physicists who was exposed to a larger dose of irradiation contaminated his apartment, his family, and the rugs and furniture; that the rugs and the furniture were burned, yet the neighbors continued to evade the members of the family; and though the physicist after several months was again able to work, the fear of his co-workers was so great that he was coerced to look for a place of work far away from his community, and at the time of the publication of the report was still without a job and could not find a buyer for his house.

Similarly in the Book of Leviticus (Ch. 13) we read of the fear of the community with respect to those affected with *zaraath* and of their banishment from the camp. The fear of the ancients of radiation sickness was not smaller.

Zaraath being understood in later times as leprosy, the fear of radiation disease of those times was transferred to those sick with leprosy. Today we read the reports of medical men who work with the leprous, and we find that this disease is one of the less contagious; yet through the ages the lepers were the outcasts, kept outside the camps or any other human settlements, urban or rural. It seems as if the ancient fear of radiation disease was manifesting itself in the later fear of leprosy.

Leprosy does not break out in sudden symptoms. Yet the description we have of *zaraath* in the Scriptures ascribes to this disease a sudden outbreak.³

A famous case of *zaraath* is narrated in II Chronicles, ch. 26. It affected the king Uzziah.⁴ In *Worlds in Collision* I narrated in short the episode that preceded the outbreak of the affliction. It was during the planetary upheavals of the eighth century, namely in -747.

According to the Midrashim and Talmud, on the west side of Jerusalem a mountain was split and one of its halves was hurled to the east.⁵ Flaming seraphim leaped in the air.⁶ The population fled from Jerusalem in advance of the catastrophe; Uzziah burned incense in the Temple and addressed himself to the Lord in the name of the nation. This was interpreted by the priests as an appropriation of their priestly duties. The punishment that followed was ascribed to Uzziah's having committed a sin by burning incense in the Temple. The Temple itself was badly damaged by a great breach that rent its wall. This shows that Uzziah was appearing before the Lord in the very moment of great danger. Flaming seraphim, or tongues of fire leaped in the air. The king was stricken with *zaraath*. According to the Book of Chronicles, the signs of *zaraath* "shone on the king's forehead"⁷ in these very circumstances when the king was in the Temple usurping the duties of the official intermediary between men and God. It would appear more probable that the sickness which we would be inclined to recognize as radiation sickness, showed itself soon thereafter. The sudden outbreak of the symptoms of leprosy would be even less likely than a sudden outbreak of a

sickness which we would think not entirely unexpected under the circumstances.

In Assyria, and in the entire ancient world, a new era was counted from the year -747; in Assyria it was the “era of Nabonassar,” still used many centuries later in astronomical computations. In the Scriptures, too, we find that the time was counted from the days when “the people escaped from before the *raash* (commotion) of the days of Uzziah.”⁸

The fact that the king who prayed for his people and realm was struck by a disease was regarded as a sign of the Lord’s displeasure. Uzziah was placed in seclusion; and still today on the slopes of the Mount of Olives, close to the bottom of the Valley of Jeshoshaphat, or of the Lord’s Judgment, in Jerusalem, tourists are shown the artificial grotto that looks like an enclosed balcony with supporting columns where, according to the tradition, king Uzziah spent the rest of his reign, within sight of Jerusalem and the Temple’s hill Moriah yet barred from entering.

Zaraath covered also the term for leprosy, at least in later times. And it took three thousand years to separate leprosy from the fear of contamination it carried among all peoples.

References

1. Cf. the following item in *Newsweek*, November 26, 1956, p. 64: “Historians of the atomic age may one day make a prominent place in their chronicles for some oddly assorted pioneers of progress: the radioactive ducks . . . The ducks once severely upset the stomachs of some Canadian hunters who ate them. A few weeks before, the fowl, on their way north, had fed at an extremely radioactive pond at Oak Ridge, Tennessee.”
2. See R. Caminos, *The Chronicle of Prince Osorkon*, in *Analecta Orientalia* (1956).
3. [E.g., Miriam became “leprous” all of a sudden after she and Aaron approached the pillar of cloud (Numbers 12:5, 10), and recovered seven days later. This course of the disease is quite unlike leprosy.]
4. Cf. Julian Morgenstern, “The Sin of Uzziah,” *Hebrew Union College Annual*, Vol. XII (Cincinnati, 1937).
5. L. Ginzberg, *The Legends of the Jews* IV, 262.
6. *Ibid.*, VI, 358.
7. II Chronicles 26: 19. The King James version renders this: “He was leprous in his forehead,” but the Hebrew text has: “*ha-zaraath zarkha*”, meaning “the zaraath shone.”
8. Amos 1:1; Zechariah 14:5.





Diamonds

Diamond is a form of carbon, differing from common graphite only in its molecular structure. Using extremes of heat and pressure, artificial diamonds have been produced from graphite. By implication it is concluded that naturally found diamonds might have originated from coal, but under what conditions is not known.

Diamonds are regularly found as single crystals with no signs of previous attachment to any other mineral. They are found in several places in the world, in sands and gravels; in South Africa they are found in the “blue ground.” The nature and origin of the “blue ground” is not known; it contains splinters of minerals some of which are of the nature of the rocks in the neighborhood, and some of which cannot be traced to the surrounding formations. But in the neighboring rocks diamonds are not found. Similarly with the gravel and sands: they are only partly related to the rock formations in their vicinity; and diamonds are not found in these formations. Diamond is a form of carbon foreign to the surroundings in which it is found. Thus it is spoken of the “mystery which surrounds the natural origin of this remarkable mineral.”⁽¹⁾

The clouds which encompassed the Earth at the time of the Exodus contained carbon in abundance. There were frequent discharges of potentials at that time between the clouds and the ground. Let us make a surmise: did not diamonds originate in these clouds?

In the Tractate Yoma it is said that precious stones fell every morning with manna from the clouds.⁽²⁾

Did diamonds drop from the sky? In this connection significant is the fact that diamonds are occasionally found in meteorites.⁽³⁾

The “blue ground” of South Africa was thrown together in a catastrophe: this is well recognized. But the catastrophe appears to have been of cosmic nature.

If we are to believe the Talmud, diamonds were found in the Desert of Wandering.⁽⁴⁾ So far no diamonds are known to have been discovered in the desert of Arabia. If transformation of the carbon of the clouds into diamonds, through powerful electrical discharges, whether originating in the clouds themselves or from other planets, was facilitated by the atmospheric conditions over the desert. Possibly diamonds will yet

be found in the desert of Arabia, and also possibly in the sands of the Sahara.⁽⁵⁾

References

1. Article “Diamond” in *Encyclopaedia Britannica*, 14th edition.
2. Yoma 75a.
3. Diamonds were found in the meteorites which fell in 1886 at Novo_urei near Penza in Russia; in the stone discovered at Carcote, Peru, and in the iron meteorite found at Canon Daiblo in Arizona. Also “graphitic carbons” found in meteorites are regarded as metamorphosed diamonds.
4. See “The Great and Terrible Desert.”
5. [Alexander Humbold concluded “that the formation of gold veins, and consequently of diamonds, is comparatively of recent date, and scarcely anterior to the destruction of the mammoths.” See J. Timbs, *Curiosities of Science* (London, 1859), pp. 122f. The same conclusion was reached by Sir Roderick I. Murchison in his *Siluria*.]





The Chariot of Fire

Asking one day a friend of mine, Horace Kallen, the well-known humanist scholar, educator and philosopher who lived in New York, which of the wonders of the Old Testament seemed to him the least plausible, he answered me, who was expecting to hear about Joshua and the sun that stood still, "The carrying of Elijah by a flaming chariot into the sky."

In the ninth century, as a result of cosmic events, the electrical charge of this planet was highly affected. The ionosphere above the earth was charged to such an extent that leaps of discharge occurred from a cloudless sky. As I proved in *Ages in Chaos*, the letters found in the Egyptian State Archive of el-Amarna originated in the ninth century, and a very considerable portion of them was written by Ahab king of Israel, Jehoshaphat king of Jerusalem, and their generals. The corresponding texts of the Scriptures prove a very high grade of trustworthiness, even in transmission of orations and dialogues, ascribed to historical personages. This fact encourages to approach with credence the stories of Elijah and Elisha, interwoven in the same parts of the Book of Kings. Incidentally I could show that the change of attitude of Captain Naaman towards the king of Samaria, from bad to good, is substantiated also by texts of the Letters. The Book of Kings ascribes this change to a rather natural cure of the captain by Elisha, who prescribed to the diseased seven baths in the Jordan river: the Jordan is rich with sulfur, magnesium, and brom salts, which enter the river at the Sea of Tiberias, and constitute, after evaporation of water in the Dead Sea, its deposits. Another instance which throws a side-light on the activity of Elisha is the fact that, as I could show, two letters of the collection were written to the Pharaoh by the Great Lady of Shunem (Kings). She wrote from that city, and signed "Baalat-Ness", or "the Lady to whom a wonder had occurred". Elisha revived her child employing artificial breathing and a "four-cells" contact of his own body with the body of the infant.

The wonders of Elijah were of a peculiar nature: it seems that most or all of them have to do with atmospheric electricity. When a prolonged drought endured for a number of years, he sat on top of Mount Carmel with his head between his knees and from time to time asked his servant whether there was a cloud already seen over the sea. After a while a cloud appeared, approached, and burst into abundant rain.

When a detachment of the king Ahaziah was sent to interrogate him, Elijah, again "on top of the hill" invoked a lightning bolt out of an apparently cloudless sky to strike this group of men. According to the story he repeated this with a second detachment. Characteristically Elijah made all his meteorological and electrical "wonders" from the top of a hill.

Elijah was an “electrical” man, occasionally a living barometer, looking for electrical and magnetic “wonders” to employ in his miracles; in modern times and in modern attire I think of Nikola Tesla, who introduced alternating current and measured the Earth’s electrical charge; he too was a recluse who hardly published anything (of Elijah no prophetic book is known to exist). Tesla was attracted to electricity, was as if sought out by electrical phenomena. Some of his exploits may well be compared to those of Elijah—his most famous were performed from the top of a hill.

Attention should be paid to the fact that summits of certain mountains have an electrical halo, and that there is a permanent flow of electricity as can be demonstrated by a wire that connects two points at different altitudes on the slope of a hill, and that a charged electroscope is quickly discharged by ions, supposedly drifting from above. The enigmatic coolness of mountain tops is caused by an electrical process as I show elsewhere.

The death of Elijah also takes place under circumstances that suggest an electrical phenomenon. The occurrence of the phenomenon known as ball lightning was denied until very recent time, actually measured in decades. Today, the phenomenon belongs into textbooks. A ball of fire is seen sometimes moving rather slowly and then exploding.

In the Second Book of Kings, in its second chapter, the story is told how Elijah had crossed the Jordan with Elisha, his apprentice, when “behold, a chariot of fire and horses of fire . . . parted them both asunder; and Elijah went up by a whirlwind into heaven . . . And Elisha saw him no more . . . he took up also the mantle of Elijah that fell from him, and went back . . .”

The disciples looked for several days “lest peradventure the spirit of the Lord hath taken him and cast him upon some mountain, or into some valley,” but they found him not.

The detail about the mantle of Elijah that was left behind, instead of detracting from the verisimilitude of the Biblical episode, tends to support it. It is a well-known phenomenon that a wire may evaporate when an electrical discharge strikes it, yet its envelope of fabric (an insulator) remains intact. Here is what may have happened:

Traveling afoot on the east side of the Jordan, Elijah and Elisha were approached by a lightning ball that separated them; next it exploded, consuming Elijah, yet leaving his mantle unscathed, thus making it appear that it was a fiery chariot that approached them and then carried Elijah “by a whirlwind into heaven.”

It is not claimed here that this was the end of Elijah, only that such a phenomenon could be natural, though very unusual.





Resuscitation by Mouth-to-Mouth Breathing

When I was a medical student at the University of Moscow (1915-1921), we were taught the art of reviving the drowned or suffocated, or people in shock, by artificial breathing. The patient who had stopped breathing was put in the proper position (in the case of drowning on his stomach, with his tongue pulled out and held by a cloth) and his arms were lifted and then pressed to his ribs, pressure thus being rhythmically applied to his chest.

Once, years later, on a crowded beach, the body of a drowned man was brought from the sea surf. I happened to be in the crowd, and together with another doctor we desperately toiled for almost an hour, until an ambulance arrived. The doctor in the ambulance pronounced him dead—he did not breathe, nor did his heart beat.

After that incident I thought of Elisha's method of artificial breathing; but many years passed before I read in the American press of a new method—resuscitation by mouth-to-mouth breathing. Since then, the method of mouth-to-mouth breathing has become widely known, and in very many cases people were revived who otherwise would be dead. Only yesterday (of my writing this) I read of a boy of ten who was discovered by his father with his neck caught by the sling of a rope; the father cut the rope and the mother, who happened to be a nurse, applied mouth-to-mouth breathing, keeping him alive until the ambulance arrived. The boy was saved.

In the time of Elijah there lived in Shunem “a great woman.” After years of childlessness she bore a boy.

And when the child was grown, it fell on a day that he went out to his father to the reapers. And he said unto his father. My head, my head. And he said to the lad, Carry him to his mother. And when he had taken him and brought him to his mother, he sat on her knees till noon, and then died.¹

The mother put him on a bed and hurried on a donkey driven by a servant, and came to the man of God, Elisha, and begged him to hurry with her to her son. Elisha followed to Shunem, entered the house.

A staff brought in by the seer's servant, Gehazi, who arrived first, and put it on the child, did not produce any effect. Gehazi “went again to meet him [his master], and told him, saying. The child is not awakened.” Then Elisha entered the house and

“found the child was dead.”

And he went up, and lay upon the child and put his mouth upon his mouth, and his eyes upon his eyes, and his hands upon his hands; and he stretched himself upon the child; and the flesh of the child vexed warm. Then he returned and walked in the house to and fro; and went up and stretched himself upon him: and the child sneezed seven times, and the child opened his eyes.²

He called the Shunamite and said: “Take up thy son.”

The description of Elisha’s miracle makes clear that he did not resurrect the child by a gesture or a word, but by a prolonged procedure, with the seer’s mouth upon the child’s mouth; the exercise was interrupted, the seer, after straightening his body by walking in the house, repeated the procedure, and then the child repeatedly sneezed and the breathing reflex was re-established, and the child was alive again.

The description of the child’s sudden illness makes it appear that he suffered from sun-stroke when in the field with the reapers. A strong headache preceded the lapse into unconsciousness.

The mouth-to-mouth breathing accompanied by rhythmic movements of the body of the healer stretched out on the child’s body, who kept his hands on the child’s hands, and also warmed him by his own body warmth (and the flesh of the child vexed warm”), is an even better method than mouth-to-mouth breathing alone, and should be recommended in emergencies.

The story is apparently not fiction. In *Ages in Chaos* I have quoted from two letters of the great lady of Shunem. These two letters of the el-Amarna collection are the only ones written from Israel by a woman; she must have been a “great lady” if she corresponded directly with the pharaoh. As I could show conclusively, these two letters were written from Shunem; and the woman signed them Baalat-Ness, or “she to whom a miracle happened.” From the appellation used in her letters to the pharaoh it appears that the fame of the healing reached also the palace of Egypt.

References

- II Kings 4:18-20.
- II Kings 34-35





Sanverim

The book from which I learned the history and practice of hypnosis treated it: as a rather recent discovery, crediting F.A. Mesmer with inventing hypnosis, or “animal magnetism” as he called it.¹ But it is very improbable that this natural phenomenon could have evaded the ancients and remained unknown through all the centuries and millennia of recorded history: too simple is the application and in no proportion to the mystery of the phenomenon. Many of the practices of the Hindu yogis that go back to ancient times belong to the category of autohypnosis.

In a deep hypnosis it is possible to provoke by a mere verbal order a cataleptic state, hysteria-like paralysis, and illusions. An order can be given that the person in the experiment not be able to lift his arms; in the case of a person subjected to a deeper hypnosis—that he will not be able to see; or if led to some destination, that he should believe that he is in different surroundings.

In the Hebrew Scriptures I find two instances where supposed “miracles” can be recognized as inflicted hypnotical states, consisting of paralysis and somnambulistic illusions. In both of these examples the expression *hikku b’ sanverim*—he (or they) smote with sanverim”—is used to describe the phenomenon.

The first story is found in Genesis, in the narrative of the event shortly preceding the destruction of Sodom and Gomorrah. Lot had in his house as guests two of the Lord’s messengers, or *malakhim*, a word usually translated as “angels” ; but they are called also “men” in the body of the story. When the depraved people of the town demanded the delivery of the guests for their sexual debauchery and tried to force their way inside. Lot vainly negotiated with the people at the door. The messengers opened the door, stretched out their arms, brought Lot inside, and smote the assailants at the door with *sanverim*. Those smitten with *sanverim* groped for the door, unable to find it. The next morning Lot with his family hastily left the city and fled to Zoar. Then followed the destruction of Sodom and Gomorrah.

The second case where the word *sanverim* is used in the Scriptures is in the Book of Kings. King Ben-Hadad of Damascus conspired to kill the king of Samaria in an ambush, hiding his assassins near a road where the king was to pass. But the king of Samaria was warned repeatedly by the seer Elisha, and would each time select a different route and thus escape the peril. The king of Damascus spoke to his captains and expressed the belief that somebody among them had disclosed their plans to the king of Samaria. They answered him by saying that the seer in Samaria knows what he. King Ben-Hadad, says in his bedroom; in other words, that the king of Samaria is

warned by his seer, who is endowed with the gift of telepathy. On hearing this, the king of Damascus sent a detachment to fetch the seer. They found him in the village of Dothan. They were under orders to bring him to Damascus; but the seer smote them with *sanverim* and commanded them to follow him, saying that he would lead them to the man they were seeking. He led them to Samaria. There he opened their sight by ordering them to see again, and they saw; “and behold, they were in the midst of Samaria,” the king’s city. Then Elisha had bread and water set before them and sent them back to Damascus.

The usual translation of the word *sanverim* is “blindness.” Yet in these instances if blindness was meant, the regular word for blindness, *ivaron* should have been used. *Iver* signifies a blind person in many Biblical texts. The Old Testament also knows the ways a person may become blind—slowly as in the case of the patriarch Isaac, or suddenly, as in the case of King Zedekiah, blinded by Nebuchadnezzar. The translation of *sanverim* as blindness is given on the basis of the fact that in both instances the effect was a transient inability to see. But in the story of Lot we have a case of blindness obviously induced by hysteria, affecting simultaneously more than one person.² In the story of Elisha it is even more obvious that the term refers to hypnotical blindness or illusion. It was inflicted by verbal means, and it was also relieved by verbal means. The fact that the soldiers of Ben-Hadad were made to travel to Samaria believing that they were going to a different destination is also an act that a good hypnotist can perform with a select group of people. Their being sent to remove the seer, whose fame had reached foreign countries, made the men of the detachment well prepared (conditioned) for this feat.

References

1. Its first use is often placed in 1840 when a surgeon working in India applied it for its anaesthetic effect before there was any other method of painless surgery. Ether was introduced for narcosis by C.W. Long in 1842 and chlorophorm by J.Y. Simpson in 1847. Even today there are physicians who apply hypnosis in childbirth.
2. The word *sanverim* is probably not of Hebrew origin; there is no word in Hebrew that is built on the same root. [A Syriac commentary on Genesis interprets the word *sanverim* as “phantasies.” Abraham Levene, *The Early Syrian Fathers on Genesis* (London, 1951) p. 92.—JNS]





The Secret of Baalbek

THE TEMPLE AT DAN

The story of Jeroboam, son of a widow of Zereda, an Ephraimite and Solomon's servant, begins with this passage:

Solomon built Millo, and repaired the breaches of the city of David, his father.

And the man, Jeroboam, was a mighty man of valor; and Solomon, seeing the young man that he was industrious, made him ruler over all the charge of the house of Joseph.¹

The ambitious servant was not satisfied with this honor of administering the land of Menashe (Manasse) and Ephraim, or even the entire northern half of the kingdom; he wished to be a king himself. When Jeroboam's plans became known to Solomon, the king intended to kill him, but Jeroboam ran away to the Pharaoh of Egypt. When Solomon died, he returned; he tore the ten tribes' land from Rehoboam, son of Solomon. Solomon's realm was split in two: Jeroboam became king of Israel in the north, and Rehoboam retained the kingdom of Judah in the south. To make the rift permanent Jeroboam had to keep the people from going to Jerusalem and its new temple.

And Jeroboam said in his heart, Now shall the kingdom return to the house of David.

If this people go up to do sacrifice in the house of the Lord at Jerusalem, then shall the heart of this people turn again unto their lord, even unto Rehoboam, king of Judah, and they shall kill me, and go again to Rehoboam, king of Judah.²

From the viewpoint of serving his own ends, it was a sound idea to build on some ancient sites places for folk gathering which would compete with Jerusalem.

Whereupon the king [Jeroboam] took counsel, and made two calves of gold, and said unto [his people]. It is too much for you to go up to Jerusalem . . .

And he set the one in Beth-el, and the other put he in Dan.³

Beth-El was in the south of his kingdom, close to Jerusalem, Dan in the north of his kingdom. In order to attract pilgrims from the land of Judah, Jeroboam also made

Beth-El the site of a new feast, “like unto the feast that is in Judah”.⁴ Setting up the image of the cult in Dan, Jeroboam proclaimed: “Behold thy gods, O Israel, that brought thee up out of the land of Egypt.”⁵ Thus, Dan in the north competed with Jerusalem in the days of Passover and Tabernacles. The temple of Dan was a much larger edifice than the temple in Bethel, and it became a great place for pilgrimage, attracting people even from the southern kingdom.

And this thing became a sin; for the people went to worship before the one [of the two calves], even unto Dan.⁶

The temple of Dan was called a “House of High Places” : “And he made an house of high places . . .”⁷ The Temple of Jerusalem was also called a “House” in Hebrew.

For centuries the temple of Dan in the north successfully contested with the Temple of Jerusalem, and attracted throngs of pilgrims.

Jeroboam, the man who supervised under Solomon the building of Millo, the fortress of Zion with its strong wall, and who, in recognition of his ability demonstrated in this work, was appointed governor of the northern provinces, now, when king, must have desired to erect in Dan a temple surpassing the magnificent Temple of Solomon in Jerusalem. Only in offering a more imposing building could he hope not only to turn the people from going to Jerusalem, but make the people of Judah elect a pilgrimage to Dan over one to Jerusalem. Meanwhile, Jeroboam had seen the temples and palaces of Egypt, and his ambition was, of course, to imitate all the splendor he had seen in Jerusalem, in Karnak, and in Deir el-Bahari. Or would this “mighty man of valor”, industrious constructor of Zion’s citadel, and a shrewd politician, try to contest the Temple of Jerusalem by means of an ignoble chapel? That he succeeded in his challenge is a testimony to the size and importance of the temple at Dan.

It was not enough that Dan and Beth-El were ancient places of reverence: magnificence was displayed in the capital of Solomon, and magnificence had to prevail in the temple cities of the Northern Kingdom.

The temple of Beth-El, the smaller of the two Israelite temples, was demolished three centuries later by King Josiah, a few decades before the Temple of Jerusalem was destroyed by Nebuchadnezzar. It was trampled into smithereens by the king, jealous for his God.⁸ There is no mention of a destruction of the temple in Dan. Where was Dan and its “House of High Places” ?

THE SEARCH FOR DAN

Dan was the northernmost point of the Israelite settlement where one of the twelve tribes chose its domicile. A familiar expression was: “From Dan even to Beer-

Sheba.”⁹

Students of biblical geography have agreed to place Dan in the Arab village of el-Kadi, on the upper flow of the Jordan, which is there but a rivulet. In recent years very insignificant ancient ruins have been found on this place.¹⁰ This is in accord with what the biblical archaeologists expect, for they think the temple of Dan to have been a very modest structure of which, most probably, hardly any ruins would have remained.

The biblical Dan is placed on the upper flow of the Jordan because of a passage in Josephus Flavius. In his *Jewish Antiquities*, Josephus says that Dan was on “a spot not far from Mount Libanus and the sources of the lesser Jordan”.¹¹ Commentators of Josephus deduced that by the “lesser Jordan” the upper flow of the Jordan, above the Lake of Huleh, or above the Lake of Tiberias, is meant; however, this interpretation is not supported by the words “not far from Mount Libanus” since, from the surroundings of el-Kadi and the sources of the Jordan, the snow-capped Hermon or Anti-Lebanon can be seen in the distance, but not Lebanon, far behind the Anti-Lebanon.

After having chosen the source of the Jordan as the area where to look for Dan, this ancient city was located at el-Kadi for the following reason: the name Dan is built of the Hebrew root that signifies “to counsel” or “to judge”. El-Kadi means in Arabic “the judge”. There was no other reason, beside this philological equation of Hebrew and Arabic terms, to locate the site of the ancient temple city in the small village of el-Kadi, since—until quite recently—no ruins, large or small, were found on the site.

The aforementioned reference in Josephus makes one wonder whether by “the lesser Jordan” the river Litani was meant. This river begins in the valley between Mount Lebanon and Mount Anti-Lebanon, flows to the south in the same rift in which farther to the south the Jordan flows, and towards the source of that river, but changes its course and flows then westwards and empties itself into the Mediterranean. Its source being near Mount Lebanon, it appears that the Litani was meant by “the lesser Jordan”.

However, Josephus, who wrote in the first century of the Christian era, was not necessarily well-informed concerning the location of Dan - the temple city of the Northern Kingdom - a state whose history ended with the capture of Samaria by Sargon II in -722.¹²

Therefore, it is only proper to go back to the Scriptures in trying to locate Dan.

THE PORTION OF THE CHILDREN OF DAN

When the Israelites, after the Exodus from Egypt, roamed in the wilderness, they sent scouts to Canaan to investigate the land and to report. The scouts passed the land through its length “from the wilderness of Zin unto Rehob, as men come to Hamath”.¹³ These were also destined to be the southern and northern borders of the land: “Your south quarter shall be from the wilderness of Zin” and in the north “your border [shall be] unto the entrance of Hamath”.¹⁴

The expressions “as men come to Hamath”, or “unto the entrance of Hamath” signify that Rehob, the northern point of the land visited by the scouts, was at a place where the road began that led to the city of Hamath in Syria.

In the days of conquest under Joshua son of Nun, when the land was partitioned by lot, the tribe of Dan received its portion in the hilly country on the road from Jerusalem to Jaffa. The tribe was opposed by the Philistines, also invading the same country. When the population of Philistia increased through the arrival of new immigrants from the Mediterranean islands, the tribe of Dan, being the advance guard of the Israelites, had to suffer not mere resistance, but strong counter-pressure. The Samson saga reflects this struggle. Tired of continuously opposing the increasing influx of the Philistines, the Danites migrated to the north.

They . . . came unto Laish, unto a people who were quiet and secure; and they smote them with the edge of the sword, and burned the city with fire.

And there was no deliverer, because it was far from Zidon, and they had no business with any man; and it was in the valley that lieth by Beth-Rehob. And they built a city, and dwelt therein.

And they called the name of the city Dan . . . howbeit, the name of the city was Laish at the first.¹⁵

Here we meet again the northern point Rehob or Beth-Rehob. We are also told that it was situated in a valley. Next to it was the city of Laish, and the Danites burned the city and then erected there a new city, Dan.

Beth-Rehob, or House of Rehob, is the place we met—in the story of the scouts sent by Moses—as the most remote point they visited going to the north.

The place was “far from Zidon” ; if it were where it is looked for today—at the source of the Jordan—it would not have been proper to say “far from Zidon”. but rather “from Tyre”. But if Zidon (Sidon) is named as the nearest large city. Tyre must have been still farther from Laish-Dan, and the latter city must have been more to the north, in the valley between Lebanon and Anti-Lebanon.

The Danites were in contact with the Zidonians already at the time when they fought

with the Philistines for the possession of territory. Because of want of land, they sent many of their sons as sailors on Phoenician ships.¹⁶ In their new place of abode the Danites became kindred with the Phoenicians.

In Dan-Laish, “the children of Dan set up the graven image” of Micah.¹⁷ The story of this holy image is connected with the migration of the Danites to the north. Before migrating they sent a few men to find for them “an inheritance to dwell in”.¹⁸ These men traversed, on their errand, the mountainous land of Ephraim. Micah was an Ephraimite who built a private chapel in Mount Ephraim, where he placed “a graven image and a molten image”, and hired a Levite to serve there as a priest.¹⁹ The men of Dan, dispatched on the errand to find a new domicile for the tribe, heard an oracle from the priest. After having spied the place of Laish, they returned to their tribe that dwelt in the hilly borderland of Zarah, and with six hundred warriors went to the north. Passing again Mount Ephraim, they took with them the image and the priest, despite the bitter protests of Micah. When they conquered Laish “the children of Dan set up the graven image”.²⁰ Since then, there was an oracle in Dan.

The name Dan-jaan, found in the Scriptures,²¹ is apparently a synonym for Dan: it means “Dan of answer”, or “of oracle”.

Dan became the site of the temple built by Jeroboam. It was a holy place long before he built his temple there, since the story of the oracle of Micah is conspicuously narrated in the Book of Judges; it is rather probable that Rehob was a sacred place even before the Danites built their city on the ruins of Laish close by.

It cannot be said of the present village of el-Kadi that it lies on the road “as men come to Hamath” ; to satisfy this description, Rehob must be looked for farther to the north.

THE SUCCESSORS OF JEROBOAM

Being located in an outstretched part of the Israelite kingdom, Dan was often the subject of wars between the kings of Damascus and of Israel. Shortly after the death of Jeroboam, the temple city was conquered by the king of Damascus.²² It appears that, at the time of the revolution of Jehu, three generations later, in the ninth century, Dan was still in the hands of the kings of Damascus; but it is said that Jehu, who destroyed the temple of Baal in Samaria, did not destroy the temple of Dan, nor did he abolish its cult, “the sin of Jeroboam”. This implies that Dan came back into the hands of the Israelites in the days of Jehu. In any case, the population of the northern kingdom -that of Israel—but also of the southern kingdom - that of Judah-continued to go to Dan on the feasts of Passover and Tabernacles, preferring it to Jerusalem.

Jehu, jealous of the God Yahweh, did nothing to keep the people from going to Dan, and obviously even encouraged them to do so; the cult of Dan was one of Yahweh,

though in the guise of a calf, or Apis.

In the eighth century the prophet Amos, one of the earliest prophets whose speeches are preserved in writing, spoke of the worship at Dan:

They that swear by the sin of Samaria, and say, Thy god, O Dan liveth; and, The manner of Beer-Sheba liveth; even they shall fall, and never rise up again.²³

For a time Amos prophesied at Beth-El, the other sacred site of the Northern Kingdom. In his time the place had a royal chapel; and in view of the statement that, of the two places where Jeroboam placed the calves, the people went to worship in Dan,²⁴ apparently the chapel of Beth-El remained a minor sacrarium and did not attract many worshippers.

Hosanna, another prophet who lived in the eighth century, admonished: “Let not Judah offend . . . neither go ye up to Beethoven.”²⁵ He prophesied also that the “inhabitants of Samaria shall fear because of the calves of Beethoven”, and that the glory of that place will depart from it.²⁶

It is generally agreed that Hosea, speaking of Beth-Aven (“the House of Sin”), referred to Beth-El This is supported by the verse in the Book of Joshua which tells: “And Joshua sent men from Jericho to Ai, which is beside Beth-Aven, on the east side of Beth-El”²⁷

It appears that the name Beth-Aven, or “The House of Sin” was applied to both places where Jeroboam built temples for the worship of the calf. It is possible that, in another verse of his, Hosea had in mind the temple of Dan; he said: “The high places also of Aven, the sin of Israel, shall be destroyed . . .”²⁸

“The sin of Israel” is the usual term for the cult of Dan; and the “high places”, according to the quoted story of Jeroboam placing calves in Dan and Beth-El,²⁹ were built in Dan.

At the beginning of the Book of Amos, the following sentence appears: “I will break also the bar of Damascus, and cut off the inhabitant from the plain of Aven (*me'bik'at Aven*) . . . and the people of Syria shall go into captivity unto Kir . . .”³⁰

I shall return later to this passage and to the accepted interpretation of “the plain of Aven”.

During the wars of the eighth century, the temple city of Dan may have taken part in the struggle of the Northern Kingdom for its existence, being oppressed first by Syria, and then by Assyria. Dan may have been besieged, and may have changed hands

during these wars, but nothing is known of its destruction.

In the latter part of the eighth century the population of the Northern Kingdom was deported by Sargon II to remote countries, from where it did not return. More than a century later Jeremiah referred to the oracle of Dan: “For a voice declareth from Dan”,³¹ which shows that the oracle of Dan was still in existence after the end of the Northern Kingdom.

An oracle venerated since ancient times, a magnificent temple where the image of a calf was worshipped, a place where the tribes of Israel gathered in the days of the feasts, and the people of Judea used to come, too—this was the cult.

On the way to Hamath, on the northern frontier of the Northern Kingdom, closer to Zidon (Sidon) than to Tyre, and strategically exposed to Damascus—this was the place. Would no ruins help to identify the site?

BAALBEK

In the valley that gives birth to two rivers of Syria—the Orontes flowing to the north, and the Litani flowing to the south and west, between the mountains of Lebanon and Anti-Lebanon, where roads from Palestine in the south, Damascus in the east, and the sea-coast on the west meet and run from there to Hamath in Upper Syria—lie the ruins of Baalbek.

“When we compare the ruins of Baalbek with those of many ancient cities which we visited in Italy, Greece, Egypt, and in other parts of Asia (and Africa), we cannot help thinking them to be the remains of the boldest plan we ever saw attempted in architecture. Is it not strange then, that the age and the undertaker of the works, in which solidity and duration have been so remarkably consulted, should be a matter of such obscurity. . . ?³²

From the time when this was first written, in the fifties of the eighteenth century, and till today, nothing was added to dispel the obscurity which envelops the origin of this temple city.³³ The excavations undertaken there brought no solution to the problem of its origin or the nature of its cult.³⁴ No early inscriptions were found.

Throngs of travelers who spend their day wandering among the ruins of a magnificent acropolis go away without having heard what the role of the place was in ancient times, when it was built, or who was the builder. The pyramids, the temples of Kamak and Luxor, the Forum and Circus Maximus in Rome were erected by builders whose identity is generally known. The marvellous site in the valley on the junction of roads running to Hamath is a work of anonymous authors in unknown ages. It is as if some mysterious people brought the mighty blocks and placed them at the feet and

in front of the snow-capped Lebanon, and went away unnoticed. The inhabitants of the place actually believe that the great stones were brought and put together by Djenoun, mysterious creatures, intermediate between angels and demons.³⁵

SOLOMON'S BAALBEK

Local tradition, which may be traced to the early Middle Ages, points to a definite period in the past when Baalbek was built: the time of Solomon.

Ildrisi, the Arab traveler and geographer (1099-1154), wrote: "The great (temple-city) of astonishing appearance was built in the time of Solomon."³⁶ Gazwini (d. 1823 or 4) explained the origin of the edifices and the name of the place by connecting it with Balkis, the legendary Queen of the South, and with Solomon.³⁷

The traveler Benjamin of Tudela wrote in the year 1160 of his visit to Baalbek: "This is the city which is mentioned in Scripture as Baalath in the vicinity of the Lebanon, which Solomon built for the daughter of Pharaoh. The place is constructed with stones of enormous size."³⁸

Robert Wood, who stayed at Baalbek in the 1750's, and who published an unsurpassed monograph on its ruins, wrote: "The inhabitants of this country, Mohomedans, Jews and Christians, all confidently believe that Solomon built both, Palmyra and Baalbek."³⁹ Another traveler who visited Syria in the eighties of the eighteenth century recorded: "The inhabitants of Baalbek assert that this edifice was constructed by Djenoun, or genies in the service of King Solomon."⁴⁰

ON - AVEN

The identification of Bikat Aven, referred to in Amos 1:5 with the plain of Coele-Syria is generally accepted.⁴¹ The text, already quoted, reads: "I will break also the bar of Damascus, and cut off the inhabitant from the plain of Aven . . ."

The Septuagint, the Greek translation of the Bible by the Seventy, renders the above text as "the valley of On," written the same as On (or Heliopolis) in Egypt. The Hebrew spellings of Aven and On do not differ in consonants; and vocals were inserted in the texts by the Masoretes in a late period. On is the Hebrew name of Heliopolis in Egypt, pronounced also as Aven, as in Ezekiel 30:17; Bikat Aven is the name of the plain of Baalbek in Amos. Tradition has it also that the cult of Baalbek was brought there from Heliopolis in Egypt.⁴²

Hosea, however, called by the name of Aven (Beth-Aven) the cities of Bethel and

Dan;⁴³ and he spoke of “high places” there, and in the instance where he referred to “the sin of Israel” he obviously meant Dan.⁴⁴

Amos, who in the eighth chapter speaks against the worshippers at Dan, in chapter one speaks against the plain of Aven—and thus, comparing Hosea and Amos, one wonders whether Amos 1:5 speaks of Baalbek or of Dan.

The expression Bikat Aven, or the Valley (Plain) of Aven in Amos impelled the exegetes and commentators to refer the place to Coele-Syria, and this because Bi’qa is the specific name of the Coele-Syrian plain—still in use today. The very name Baalbek is generally explained as the Baal of Bi’qa or Bekaa—of the valley.

Baalbek is situated in the valley between Lebanon and Hermon. Of Dan it is also said that it was situated in a valley:

”. . . And it was in the valley that lieth by Beth-Rehob. And they built a city, and dwelt therein.”⁴⁵

BAALATH, BAAL GAD, BAAL ZAPHON, BAAL MELECH

Is Baalbek the Scriptural Baalath, as Benjamin of Tudela thought? About Baalath it is said: “And Solomon built . . . Baalath, and Tadmor in the wilderness.”⁴⁶ Tadmor is Palmyra, far to the northeast of Baalbek. Baalath is said to have belonged to the tribe of Dan.⁴⁷

Or, is Baalbek the Scriptural Baal Gad? deliberated a few scholars.⁴⁸ It is said: “Baal Gad in the valley of Lebanon under mount Hermon.”⁴⁹ In the valley of Lebanon under mount Hermon lies Baalbek. If this identification is correct then Baalbek was inside the Israelite kingdom. However, against this supposition of Baal Gad in the valley of Lebanon it was argued that the Israelite kingdom never embraced the area of Coele-Syria, or the valley between Lebanon and Hermon (Anti-Lebanon).⁵⁰

Some writers would regard Baalath and Baal Gad as two names of one place and would locate it at Baalbek.⁵¹

If Solomon built in Palmyra in the desert between Syria and Mesopotamia, the region of Coele-Syria between Lebanon and Hermon could certainly be in the area of his building activity, argued these scholars. But placing Baal Gad in Coele-Syria, where would they place Dan, the northernmost point of the Kingdom of Israel? To keep Dan in Galilee and to place Baal Gad, an Israelite city, one hundred fifty kilometers farther to the north will not stand up against the indisputable fact that Dan was the northernmost city in Israel.

Some scholars, looking for Baalbek in the Scriptures, identified it with Baal-Hamon, referred to in the *Song of Songs*.⁵² And again, Baal Hamon is supposed to be another name for Baalath and Baal Gad.⁵³

Also Baal Zaphon, or Zeus Cassius, was proposed as Baalbek.⁵⁴ In this connection it can be said that, according to the Talmud, Gad was the name of the planet Jupiter;⁵⁵ and Zeus Cassius signifies Jupiter of Lebanon; and Hamon was supposed to be a Syrian form of the name Amon⁵⁶ who, according to the Greek authors, was Zeus-Jupiter.⁵⁷

All this together, if correct, points toward the cult of Jupiter in Baalbek, a matter to which we shall return in one of the next sections.

Besides Baal Gad, Baal Zaphon or Zeus Cassius, Baal Hamon, and Baalath, one more name is identified as Baalbek: Baalmelech, or “the royal Baal”.⁵⁸

THE TRILITHON

Already in the last century it was observed that the Acropolis of

Baalbek and the temples built on it date from different epochs. The massive substratum—the great base of the acropolis—appears to be of an earlier date; the three temples on the substratum, of a later date.

It is even probable that the wall of the acropolis did not originate in one epoch. Among the stones of which it is built there are three of an unusual size—almost twenty meters long. Each of them weighs about one thousand tons. These huge monoliths are incased in the wall. The question arises whether they are not the survivals of the original cyclopean structure—that which carried the name Rehob, or Beth-Rehob, and which served as a landmark for the scouts dispatched by Moses in their survey of Canaan, and for the emissaries of the tribe of Dan in their search for the territory in the north. Like Stonehenge in Great Britain, or Tiahuanaco in the Andes, it may have originated in an early time—not necessarily neolithic, since it appears that these stones are subjected to hewing by metal tools.

In the quarry a mile away is found another stone of comparable size, cut out of the rock from all but one side; it appears that this stone of more perfect cut was quarried in a later time, possibly in the days of Jeroboam, or even later; but, for probably mechanical considerations, the work was not finished and the stone not removed, and the emulation of the early builders not completed.⁵⁹

In another place I intend to return to the problem of the Trilithon of Baalbek, when treating cyclopean buildings and the mechanical means of quarrying and transporting these monoliths.

THE EMBOSSED QUADERS

Aside from the incased trilithon, the attention of the visitor to Baalbek who inspects the wall of the acropolis is drawn to stones of a bossed shape with an indented rim on all four sides of the face of the stone.

O. von Richter in 1822⁶⁰ and S. Wolcott in 1843⁶¹ drew attention to the fact that the quaders of the wall of the temple area of the acropolis of Baalbek have the same form as the quaders of the Temple of Solomon, namely, of the surviving western (outer) wall, or Wailing Wall. The Roman architects, wrote Wolcott, never built foundations or walls of such stones; and of the Israelite period it is especially the age of Solomon that shows this type of stone shaping (chiseling). The photograph of the outer wall of Baalbek's temple area illustrates that the same art of chiseling was employed in the preparation of stones for its construction. Whatever the time of construction of other parts of Baalbek's compound—neolithic, Israelite, Syrian, Greek, or Roman—this fundamental part of the compound must have originated in the same century as the surviving (western) wall of the area of Solomon's temple.

THE TEMPLES OF THE ACROPOLIS

The buildings on the flat plateau of the Acropolis have columns with capitals of Corinthian style. The time of the origin of these temples is disputed. An author of the last century⁶² brought forth his arguments against a late date for the temples atop the acropolis; he would not agree to ascribe them to the Roman period, or Greek period; he dated them as originating in an early Syrian period: the Romans only renovated these buildings in the second century of the present era.

The opinions of scholars are divided over whether these buildings can be ascribed to Roman times, though the source of the designs on the doorways and the ceiling and in the capitals of the columns speak for a Roman origin. When the Roman authorship of the buildings is denied, the Romans are credited only with renovating the structures.

The Emperor who is sometimes said to have built the largest of the temples in the temple area—that of Jupiter—is Aelius Antoninus Pius (138-161). The source of this information is the history of John of Antioch, surnamed Malalas, who lived not earlier than in the seventh century of this era, and wrote that Antoninus Pius built a temple for Jupiter at Heliopolis, near the Lebanon in Phoenicia, which was one of the wonders of the world.⁶³

Julius Capitolinus, who wrote the annals of Antoninus Pius and enumerated the buildings he erected, offers no material support for the assertion made by the Syrian writer of the early Middle Ages. Though Antoninus Pius did build in Baalbek, as is evidenced by his inscriptions found there,⁶⁴ his activity was restricted to reparation of the temples or the construction of one of the edifices in the temple area.⁶⁵ The work in its entirety could not have been his because Lucian, his contemporary, calls the sanctuary of Baalbek already ancient, and because Pompey had already found it in existence and Trajan consulted its oracle.

The style of the temples caused the same divergence of opinion as the style of the surviving ruins of Palmyra. Some regard them as Roman,⁶⁶ others as Hellenistic and Oriental.⁶⁷ They are sometimes called East-Roman.⁶⁸ In the case that only the ornamentation is of the Roman period the question may arise whether the walls and the columns of these buildings could be of as early a period as the seventh century before the present era, or the time of Manasseh, of whom Pseudo-Hippolytus says that he reconstructed Baalbek, built originally in the time of Solomon.⁶⁹

THE CALF

It was almost a common feature in all places where pilgrims gathered to worship at a local cult that diminutive images of the deity were offered for sale to them. Also small figures of the god or of his emblem in precious or semi-precious metals were brought by worshippers as a donation to the temple where the large scale figure had its domicile.

In Baalbek archaeological work produced very few sacred objects or figures that could shed light on the worship of the local god. "It was a disappointment, next to the brilliant success of so rich an excavation, that nothing was learned of the nature of the deity and the history of its worship."⁷⁰

Figures of Jupiter Heliopolitanus standing between two bullocks or calves have been found at Baalbek, dating from Roman times.⁷¹ In addition, an image of a calf was also found.

The only figure of an earlier time found in Baalbek is an image of a calf. Since it is to be expected that images found in an ancient temple are reproductions of the main deity worshipped in the holy enclosure, it is significant that the holy image in the temple of Baalbek was that of a calf, and of no other animal.

The name Baal-Bek (Baal-Bi'qa) is sometimes transmitted by Arab authors as *Baal bikra*, or Baal of the Steer or Calf, which is the way of folk etymology to adapt the name to the form of the worship practiced in the temple. This, together with the finding of the images of the calf in the area of the temple, strengthens the impression

that the god of Baalbek was a calf.

THE ORACLE OF BAALBEK

Baalbek or, as the Romans called it, Heliopolis, was venerated in the Roman world as the place of an old cult of an ancient oracle, and it rivalled successfully other venerated temples of the Roman Empire.

It is known that the Emperor Trajan, before going to war against the Parthians in the year 115, wrote to the priests of Baalbek and questioned its oracle. The oracle remained in high esteem at least as late as the fourth century of the present era, when Macrobius in his *Saturnalia* wrote of Baalbek: “This temple is also famous for its oracles.” ⁷²

Was it the ancient oracle of Micah? In the words of Jeremiah, shortly before the Babylonian exile of -586 in which he spoke of “a voice . . . from Dan”, ⁷³ we had the last biblical reference to the oracle of Micah. In the days of Jeremiah the oracle must have been seven or eight hundred years old. Did it survive until the days of Trajan and even later, until the days of Macrobius?

In the Tractate Pesahim of the Babylonian Talmud is written the following sentence: “The image of Micah stands in Bechi.” ⁷⁴ Bechi is known as the Hebrew name for Baalbek in the time of the Talmud. As we have seen, in the Book of Exodus it is recounted that the Danites, migrating to the North, took with them Micah and his idol, and that it was placed in Dan of the North. The Talmud was composed between the second and the fifth centuries of the present era.

This passage in the Tractate Pesahim is a strong argument for the thesis of this essay, namely that Baalbek is the ancient Dan. ⁷⁵

TWO PROBLEMS: A SUMMARY

The problems will be put side by side. Dan was the abode of the old oracle of Micah. Jeroboam built there a “house of high places”, or a temple. Previously, he was the builder of Jerusalem’s wall under Solomon; before becoming king of the Northern Kingdom he lived as an exile in Egypt. He introduced the cult of the calf in Dan.

The new temple was built to contest and to surpass the temple of Jerusalem. It became the gathering place of the Ten Tribes, or “the sin of Israel”, and pilgrims from Judah also went there.

The prophets, who opposed the cult of Dan, called the place Aven, like Aven, or On

(Heliopolis) in Egypt.

Its oracle was still active in the days of Jeremiah, in the beginning of the sixth century.

Dan was the northernmost city of the Kingdom of the Ten Tribes, and the capital of the tribe of Dan. It was situated in a valley. If Baal Gad, between the Lebanon and the Anti-Lebanon was not the same place, Dan must have been more to the north.

The place was at the point where the roads meet that run toward Hamath.

No ruins of this temple-city are found. Where was Dan and its temple?

* * *

Remains of a great temple-city are preserved in Baalbek. At the beginning of the present era it was described as already ancient. It bore the name of Heliopolis, like the Egyptian On, or Aven (Ezekiel); and Amos, who spoke against the worshippers at Dan, prophesied the desolation of Bikat-Aven, or the Valley of Baalbek.

Its cult was introduced from Egypt. During excavations, the figure of a calf was unearthed.

The temple possessed an old oracle. The Talmud contains the information that the oracle of Micah (which according to the Book of Judges was in Dan) stands in Baalbek.

Local tradition assigns the building of the temple of Baalbek to the time of Solomon. The wall of the temple area is built of great stone blocks of the same peculiar shape as those of the Wailing Wall in Jerusalem, the remains of the outer wall of the temple area erected by Solomon.

Baalbek lies in a valley (Bi'qa) between the Lebanon and the Anti-Lebanon, and on the junction of the roads that connect Beirut from the west and Damascus from the east with Hamath in the north.

The history of the temple-city of Baalbek in pre-Roman times is not known, neither is its builder known, nor the time when it was built.

* * *

Two problems—when was Baalbek built and who was its builder, and where was Dan and what was the fate of its temple—have a common answer.

The tradition as to the age of the acropolis and temple area of Baalbek is not wrong. Only a few years after Solomon's death the house of the high places of Dan-Baalbek

was built by Jeroboam.* Possibly, Solomon had already built a chapel for the oracle, besides the palace for his Egyptian wife.

The *Djenoun* who, according to Arab tradition, built Baalbek for Solomon were apparently the tribesmen of Dan. In the Hebrew tradition, too, the tribesmen of Dan, because of the type of worship in their capital, were regarded as evil spirits. In the corrupted name of Delebore, who, according to Macrobius, was the king who built Baalbek and introduced there the cult of Heliopolis from Egypt, it is possible to recognize the name of Jeroboam who actually returned from Egypt before he built “the house of the high places”.

* * *

EDITORIAL POSTSCRIPT:

Velikovsky's essay on Baalbek was planned to include a discussion of the names by which this place was known in Egyptian texts. This part was not written, but a few notes of his, scattered among his papers, may help us to follow his reasoning. One note reads: “Dunip (Tunip) of the el-Amarna letters and other ancient sources was Dan. It was also Kadesh of Seti's conquest. Finally, the place is known as Yenoam ('Yahwe speaks') which refers to the oracle.”

Tunip: *As Velikovsky noted in “From the End of the Eighteenth Dynasty to the Time of Ramses II” (KRONOS III.:3, p. 32) certain scholars (e.g., Gauthier) have identified Tunip with Baalbek, though others (e.g., Astour) have disputed the link. Thutmose III recorded the capture of Tunip in the 29th year of his reign; an inscription recounts the Egyptian king's entering the chamber of offerings and making sacrifices of oxen, calves, etc. to Amon and Harmachis. The el-Amarna letters indicate that the same gods were worshipped at Tunip as in Egypt.*

On the walls of a Theban tomb of the time of Thutmose III (that of Menkheperre-Seneb), among paintings of foreigners of various nations, there is one of a personage from Tunip, carrying a child in his arms. Velikovsky thought that, possibly, it was a depiction of Jeroboam, and that the painting illustrated the passage in the First Book of Kings (II :40): “And Jeroboam arose, and fled into Egypt, unto Shishak, king of Egypt. . .”

Among the considerations which led Velikovsky to identify Tunip with Dan-Baalbek were (1) Tunip was located in the general area of Baalbek, with some scholars asserting that the two were one and the same. (2) There was a temple of Amon at Tunip; the Roman equivalent of Amon - Jupiter - was worshipped at Baalbek.

Kadesh of Seti's Conquest: *This identification was given in brief in Velikovsky's*

article in *KRONOS III:3*, mentioned above. The relevant passage reads: “There is a mural that shows Seti capturing a city called Kadesh. Modern scholars recognized that this Kadesh or Temple City was not the Kadesh mentioned in the annals of Thutmose. Whereas the Kadesh of Thutmose was in southern Palestine, the Kadesh of Seti was in Coele-Syria. The position of the northern city suggested that it was Dunip, the site of an Amon temple built in the days of Thutmose III. Dunip, in its turn, was identified with Baalbek.”

Pseudo-Hippolytus (Sermo in Sancta Theophania in J. -P. Migne, Patrologiae Cursus Completus [Graeca] Vol. 10, col. 705) gives the information that Manasseh, son of Hezekiah, restored Baalbek. In his forthcoming *Assyrian Conquest*, Velikovsky suggests that this could have been a reward for Manasseh for his “loyalty to the Assyrian-Egyptian axis”.

Yenoam: Regarding Yenoam, I find only the following among Velikovsky’s notes: “Yenoam-Dan (Yehu probably introduced the cult of Yahwe at Dan).” Yenoam, read in Hebrew, could be interpreted as “Ye [Yahwe] speaks”; Velikovsky evidently saw in the name a reference to the oracle at Dan. Yenoam is mentioned among the towns taken by Thutmose III (he captured it soon after taking Megiddo). In the el-Amarna letter no. 197 there is a reference to a town named Yanuammu. Later, Seti recorded the despatching of an army against Yenoam, in the first year of his reign. Yenoam is once again mentioned on Merneptah’s so-called Israel Stele; the claim is that it was “made non-existent.” In Ramses II and His Time this deed is ascribed to Nebuchadnezzar.

- Jan Sammer

References

1. I Kings 11:27, 28.
2. I Kings 12:26, 27.
3. I Kings 12:28, 29.
4. I Kings 12:32, 33.
5. I Kings 12:28.
6. I Kings 12:30.
7. I Kings 12:31.
8. II Kings 23: 15.
9. Judges 20:1; I Samuel 3:20.
10. See *Israel Exploration Journal*, Vol. 16 (1966), pp. 144-145; *ibid.*, vol. 19 (1969), pp. 121-123. [In 1980, an arched city gate was reportedly uncovered at this site. - LER]
11. *Anriquities* V.3.i.
12. Similarly, the passage in *the Book of Enoch* (13:7), which refers to Dan to the “south of the western side of Hermon” must not be treated as an historical

location.

13. Numbers 13:21.
14. Numbers 34:3,7-8.
15. Judges 18:27-29.
16. Judges 5:17.
17. Judges 18:30.
18. Judges 18:1.
19. Judges 17:4, 7-13.
20. Judges 18:30.
21. Samuel 24:6.
22. Kings 15:20.
23. Amos 8: 14.
24. I Kings 12:30.
25. Hosea 4:15.
26. Hosea 10:5.
27. Joshua 7:2; cf. Joshua 18:11-12: “and the lot . . . of Benjamin . . . and their border . . . at the wilderness of Beth-Aven.” Cf. also I Samuel 13:5 and 14:23.
28. Hosea 10:18.
29. I Kings 12:28-30.
30. Amos 1:5.
31. Jeremiah 4:15.
32. Robert Wood, *The Ruins of Palmyra and Baalbek* (Royal Geographical Society, London, 1827), Vol. Ill, p. 58; first published as *The Ruinen of Baalbek* (1757).
33. “Wir wissen aussert wenig von dem Schicksal Baalbeks in Altertum”, O. Puchstein, *Führer durch die Ruinen von Baalbek* (Berlin, 1905), pp. 3-4.
34. “Es war leider bei den an glänzenden Erfolgen so reichen Ausgrabungen eine Enttäuschung, dass sie über das Wesen des Gottes und die Geschichte seiner Verehrung nichts gelehrt hat.” H. Winnefeld, *Baalbek, Ergebnisse der Ausgrabungen und Untersuchungen von 1895-1905*, ed. by Th. Wiegand, Vol. II (Berlin, 1923), p. 110.
35. C. F. Volney, *Voyage en Syrie et en Egypte, pendant les années 1783-1785* (Paris, 1787), p. 224.
36. Idrisi in P. Jaubert, *Geographie d’Edrisi* (Paris, 1836-1840), I, p. 353; quoted by C. Ritter, *Die Erdkunde*, Vol. XVII (Berlin, 1854), p. 224.
37. Al-Qazwini Zakariya ibn Muhammad, *Kosmographie*, H. F. Wüstenfeld ed. (Berlin, 1848-49), II, p. 104.
38. A. Asher tr. and ed.. *The Itinerary of Benjamin of Tudela* (N.Y. 1840-41).
39. R. Wood, *The Ruins of Palmyran Baalbek* (London, 1827), p.58.
40. C. F. Volney, *op. cit.*, p. 224.
41. E. Robinson, *Biblical Researches in Palestine and the Adjacent Regions* (London, 1874), Vol. Ill, pp. 519-520.
42. Lucian, *De Dea Syria*, par. 5; *Macrobius, Saturnalia* I. 23: Assyrii quoque Solem sub nomine Jovis, quem Dia Heliopoliten cognominant, maximis ceremoniis in civitate, que Heliopolis nuncupatur. Ejus dei simulacrum sumtum est de oppido Aegypti, quod et ipsum Heliopolis appellatur, regnante apud Aegyptios Senemure; perlatum est primum in eam per Opium, legatum

- Deleboris, regis Assyriorum, sacerdotisque Aegyptios, quorum princeps fuit Partemetis, diuque habitum apud Assyrios, postea Heliopolim commigravit.
43. Hosea 10:5.
 44. Hosea 10:8.
 45. Judges 18:28.
 46. I Kings 9:17-18.
 47. Joshua 19:44.
 48. Michaelis, *Supplementa ad lexica hebraica* (Gottingen, 1784-1792), pp. 197-201; Ritter, *Die Erdkunde*, Vol. XVII, pp. 229-230; E. F. C. Rosenmüller, *The Biblical Geography of Asia Minor, Phoenicia and Arabia*, tr.by N. Morren (Edinburgh, 1841), 1. ii., pp. 280-281; W. H. Thomson, "Baalbek" in *Encyclopaedia Britannica* (14th ed.), Vol. II, p. 835.
 49. Joshua 11:17;cf. St. Jerome, *Onomastica*, article "Baalgad".
 50. E. Meyer, *Geschichte des Alterthums*, Vol. I (first ed., Berlin, 1884), p. 364, note; Robinson, *Biblical Researches*, III, p. 410, n. 2.
 51. Cf. Robinson, *Biblical Researches*, III, p. 519; Ritter, *Die Erdkunde* Vol. XVII, pp. 229-230.
 52. *Song of Songs* 8:11.
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 54. O. Eissfeldt, *Tempel und Kulte syrischer Stadte in hellenistisch-romischer Zeit* (Leipzig, 1941), p. 58.
 55. F. H. W. Gesenius, *Thesaurus philologicus linguae hebraeae et chaldaee Veteris Testamenti* (Leipzig, 1829), p. 264.
 56. Michaelis, *Supplementa ad lexica hebraica*, p. 201; Rosenmüller, *Biblical Geography*, I. ii, p. 281, Wilson, *Lands of the Bible*, II, p. 384.
 57. Herodotus, *Histories* II. 42; Diodorus Siculus 1.13.2.
 58. G. Hoffman, "Aramäische Inschriften." *Zeitschrift für Assyriologie*, XI (1896), p. 246.
 59. See the recent discussion by Jean-Pierre Adam, "À propos du trilithon de Baalbek, Le transport et la mise à l'oeuvre des mégalithes," *Syria* LIV (1977), pp. 31-63.
 60. O. von Richter, *Wallfahrt*, p. 88; quoted by Ritter, *Die Erdkunde*, XVII, p. 231.
 61. S. Wolcott, "Notices of Jerusalem; and Excursion to Hebron and Sebeh or Masada; and Journey from Jerusalem northwards to Beirut, etc." in *Bibliotheca Sacra* (1843), p. 82; quoted by Ritter, *Die Erdkunde*, XVII, p. 232.
 62. See von Schubert, *Reise in das Morgenland*, *op. cit.*. Vol. III, p. 325.
 63. *Chronographia* in *Corpus Scriptorum Historiae Byzantinae* 11, p. 280.
 64. Robinson, *Biblical Researches*, III, p. 509.
 65. Robinson suggested that "Antonine rebuilt the great temple of the Sun: and erected the lesser temple to Jupiter Baal" (*Biblical Researches*, III, p. 520, n.6).
 66. O. Puchstein in Th.Wiegand ed. *Palmyra* (Berlin, 1932).
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 68. H. Winnefeld, B. Schulz, *Baalbek* (Berlin, Leipzig, 1921, 1923).

69. L. Ginzberg, *Legends of the Jews* (Philadelphia, 1928), VI, p. 375.
 70. Winnefeld in Wiegand, *Baalbek*, *op. cit.*, Vol. II (1923), p. 110:
 71. Rene Dussaud, "Jupiter heliopolitain," *Syria* 1 (1920), pp. 3-15; Nina Jidejian, *Baalbek Heliopolis "City of the Sun"* (Beirut, 1975), ill. no. 135-140.
 72. *Sat.* i. 23. 12.
 73. Jeremiah 4:15.
 74. Pesahim 117a; see Ginzberg, *Legends of the Jews*, VI, p. 375.
 75. The readers of this passage probably understood it in the sense that Micah's oracular image, after being removed from the temple of Dan, was placed in Baalbek. Baalbek being Dan, such an interpretation is superfluous.
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The “Great and Terrible Wilderness”

In *Ages in Chaos* I brought together evidence from Hebrew and Egyptian sources which enabled me to establish the identity of the Hyksos with the Amalekites. I found that the time, the place, and the circumstances corresponded in both sources. In comparing the two sources and seeking to complement them, I looked also into the ancient Arabian traditions and found there plenty of material in support of my view. I lighted upon an old pre-Islamic story describing the wandering of the tribes under Moses, a story which until now has not been recognized as such. Yet the Arabian sources speak so clearly about these events that one wonders why no heed was paid to them before. For me they were not the starting point, but merely a welcome confirmation of what I was able to establish from a comparison of the Egyptian and Hebrew histories.

Outhman, son of Sadj, recites in his history that a torrent once penetrated the Ka'aba and overthrew the structure.⁽¹⁾ This catastrophe did not influence the people of Mecca, and they persisted in their vicious ways. The signs of heavenly wrath inspired the king, Mondad, son of Amur (grandson of Mondad, the father-in-law of Ishmael) to address his people with these words:

Remember what happened to the Amalekites in the time of your fathers. They treated with scorn the Haram [the sacred dominion]; they did not respect what was sacred. The Lord expelled them from the holy place and dispersed them among the foreign countries.

You have seen how the Lord dealt with the Amalekites.

The narrator continued as follows:

The tradition reports that the Amalekites violated the privileges of the sacred territory and that the Almighty God sent against them ants of the smallest variety which forced them to desert Mecca.

Afterwards the Lord sent drought and famine and showed them the clouded sky at the horizon. They marched without rest toward those clouds which they saw near them, but were not able to reach them; they were pursued by the drought which was always at their heels.

The Lord led them to their native land, where He sent against them the

Our interest is aroused by this last statement—that it was a deluge that took the tribe of the Amalekites by surprise when they reached their old native land.

Evidently the disturbance in the accustomed flow of events was experienced not only in Egypt, but in Arabia, too. Mecca, like Memphis, was visited by plagues: the shock that overthrew the cities of Egypt brought the Amalekites, at that time conquerors of Mecca, into disorder and tumult. They became like herds of animals brought to a state of excitement by an earthquake, and their fugacious troops reached Mount Seir (the Old Testament designates Mount Seir as their “native land”) and arrived at the shores of the Red Sea as the Israelites were escaping from Egypt.

The catastrophe was obviously greater than a rupture of a dyke may cause. Not only the region of Seba, but Mecca, and all the shore of the sea—Tehama—were shattered. Could it be that Arim was not a “dyke” but something different? Massoudi wrote: “All persons versed in tradition among those peoples agree that the word ‘Arim’ designates a solidly built dam.” The meaning of the word “Arim” was not entirely certain if it required interpretation.

The same great catastrophe, when mountain-high waves rushed onto the land, became a theme of tradition and legends of many nations.

A Greek legend personified this upheaval in a battle of Zeus and Typhon, which took place over the sea, between Egypt and Syria. The origin of the legend and its historical background are clarified in *Worlds in Collision*. Strabo quoted Pindar: “It was father Zeus who once among the Arimi, by necessity, alone among the gods, smote monstrous Typhon of the fifty heads.” Strabo added: “But some understand the Syrians are Arimi.” This is the Greek legendary version of what happened at the Sea of Passage. The Arimi were Hebrews, who were called Arameans: Their origin was from Aram. Toufan of the Arabian author is the same as Typhon of the Greek author; Arim of the Arabian author is Arimi of the Greek author. The “flood of Arim” of the Arabian tradition was originally not the “rupture of the dyke” but the “flood of the Hebrews,” the flood which got their name because they found in it their salvation, whereas for other nations it meant destruction.

The Arab historian did not suspect any link between his story and the events of the Exodus, and he did not bring them into any connection; had he done so, it could be suspected that he was merely transmitting a passage of the Bible in an arbitrary form; but he seems unaware of the significance of his report.

A sudden inundation in which a whole country was destroyed, a land devastated, and in which a multitude of people perished is related in one of the earliest Arab pre-Islamic traditions.⁽³⁾ “The Flood of the Dyke” was an event which fixed itself indelibly in the memory of the Arabs. This flood was known also as the Deluge of Marib. Marib was the former capital of the Sabeans in Yemen, in the south of Arabia. Near this place a dam was constructed to gather the water which flowed in the wadi of Dhenne (or Adana) that divides the Balak hills. During the summer the bed of the wadi is often dry; in the winter, after rains, it often becomes so swollen as to be impossible to cross. An earthen dam, the remains of which, some 600 meters long, are still to be seen, was used for collecting and storing the water; in the rainless months an irrigation system supplied it to the gardens and to the pastures of the valley beneath.

Al-Masudi in his *Meadows of Gold and Mines of Gems*⁽⁴⁾ gives a description of what he supposed the dam of Marib to have been like before its destruction. In a dyke one parasang (ca. 2.2 kilometers) long were thirty openings which provided for the distribution of water throughout the land.

The rich fantasy of the oriental writers tells of a country in South Arabia whose beauty was proverbial far and wide. A whole month one could ride on his mule across this land (situated within the tropic of Cancer) without leaving the shade above his head. An empty basket on the head of the traveler would fill itself with fruits falling down from the trees.

The rupture of the dam turned this blessed country into ruin: the land was submerged, the structures were overthrown, the trees broken, the population drowned: the catastrophe ruined the entire kingdom.

The inhabitants of the Arabian desert preserved through centuries the memory of a remote past when the catastrophe of Marib occurred. A migration of tribes in South and North Arabia was connected with this cataclysm.

Different variants of this catastrophe were kept in the memory of generations, adorned with fancy and transmitted up to the time when Islamic writers recorded them in their histories. The catastrophe that transformed a fertile plain into a barren quarter is related in the Koran (sura 34):

Seba had in their dwellings a sign: two gardens on the right hand and on the left. Eat from the provision of your Lord, and give thanks to him! a good country and a forgiving Lord! but they turned away, and we sent against them the flood of the dyke; and we changed for them their two gardens into two gardens that grew bitter fruit and tamarisk and some few lote trees.

In other narratives referring to the flood of the Dyke, and in commentaries to the

Koran, the devastation is said to have spread over all the inhabited land of South Arabia.

The story of the rupture of the dyke is one of the few recollections of ancient times in the Islamic tradition not compiled from the sacred books of the Hebrews, but received from native Arabian sources.

No one knows exactly when the dam of Marib was built. The oldest parts of the work were estimated to have been executed in the period of 1,000 to 700 B.C.E.,⁽⁵⁾ but most scholars consider this period to be too early. No one knows when it was destroyed: suppositions only were uttered.⁽⁶⁾ Neither is the cause of the destruction established with certainty. Possibly, the devastation by the water of the dam occurred more than once.⁽⁷⁾

The quoted Al-Masudi, who in general was not disinclined to render here and there a fantastic tale, gives a naturalistic explanation for this catastrophe: "The waters undermined in an imperceptible way the foundations of the dam, and its strength was sapped little by little by time and the action of the waters."⁽⁸⁾

Modern researchers also ascribe the destruction of the dyke to the action of wind and rain, which gradually disjoined the construction.⁽⁹⁾ Marib was neglected and the dam fell into disrepair.

If it is true that the dam was gradually and not suddenly destroyed and abandoned, and thus the service it rendered to the cultivation of the land ceased, how then did the many stories about the catastrophe come into existence? And if at some time a collapse really occurred, how could it be that it destroyed the whole country, even the high-lying fields and places far away? A quantity of water which a barrage of the wadi Dhenne could assemble would, at a bursting of the construction, cause a local calamity, but not a "deluge" of South Arabia. And if really only a few gardens were destroyed, how could it be that "there is hardly any historical event of pre-Islamic history that has become embellished with so much that is fanciful and related in so many different versions"⁽¹⁰⁾ as the bursting of the dam?

Were a great catastrophe that remained in the memory of the Arabs to occur at a time when Hebrew, Hellenistic, Roman and Christian historians were writing their annals, could it possibly have escaped their attention? And why does the old tradition place the catastrophe in the third or fourth generation after Ishmael, son of Abraham? Why do the old Arabian traditions connect that time with a general migration of tribes and especially with the migration of the Amalekites in the direction of Egypt and Canaan?

Could it be that the legend does not relate to the Sabeian irrigation system, but to some tremendous upheaval, when not a reservoir of rain-water, but the depths of a sea threw their volume across a dam in a plain whose ground disappeared in a rupture of

geological strata?

The catastrophe was obviously greater than a rupture of a dyke (Arim) may cause. Not only the region of Seba, but Mecca, and all the sea shore-Tehama, were shattered.

May be Arim signifies not a “dyke,” but something different?

Masoudi: All Persons versed in tradition among those peoples agree that the word Arim designates a solidly built dam.

The meaning of the word Arim was not entirely sure: it required interpretation.

* * *

The same great catastrophe, when mountain high waves rushed on land, became a theme of tradition and legends of many nations.

A Greek legend personified this upheaval in a battle of Zeus and Typhon. The origin of the legends and its historical background are put into light on a page of *Worlds in Collision*.

Strabo quoted Pindar: “It was father Zeus who once among the Arimi, by necessity, alone of the gods, smote monstrous Typhon of the fifty heads.” Strabo added “But some understand that the Syrians are Arimi.” This is the Greek legendary version of what happened at the Red Sea. The reader must look for argument in above-mentioned work of the author.

Arimi were the Hebrews, who were called Arameans: their origin was from Aram.

Toufan of the Arabian authors is the same as the Typhon of the Greeks.

MARIB

What does the designation Marib mean? “Various attempts to explain the etymology of Marib are not satisfactory.” ⁽¹¹⁾ Marib was identified with Saba by the Arab geographers. ⁽¹²⁾ It was supposed to be the name of a castle occupied by the rulers of Saba. ⁽¹³⁾

Does the name Marib occur in the Scriptures of the Hebrews? In the stony valley of Rephidim near Horeb, the Israelites met the Amalekites, more exactly at a point called Massa and Meriba (Exodus 17:7-8): “And he called the name of the place Massa and Meriba. Then came Amalek and fought with Israel in Rephidim.” This

was shortly after the Israelites had passed to the eastern shore of the Sea of Passage escaping from their persecutors.

The Amalekites, we are told by the Arab historians, when escaping from the plagues of Mecca, arrived at their native site at a time when a sudden flood overran the land; many of them perished. Their native land, according to the Old Testament, was Mount Seir, which stretches along the gulf of Aqaba and the Red Sea.

It becomes conceivable that the flood overtook a part of them near the place where the Egyptian host drowned, and where the Hebrews escaped the depths. According to al-Masudi, "the waters covered the lands . . . ruined the habitations, and let perish all the troops." The Amalekites migrated, ready for attack and battle. Why should an inundation of the Sabean gardens by the waters of the reservoir destroy all the troops?

All the troops did not perish. It is not recorded in the Scriptures that the Sea of Passage swallowed a part of the Amalekites, but the catastrophe surely was not restricted only to the place where the Israelites were: the shores of Aqaba and the slopes of Mount Seir were surely involved, and besides the Egyptians there must have been other victims.

Arabian sources also retained a recollection of some tribes that succeeded in escaping the catastrophe, being saved in a miraculous way. We are to become attentive. The story we shall hear is in no way attributed by the Arabian tellers of legends to the history of the Israelites escaping from Egypt, or to their leader. The Koran and Arabian literature generally are full of stories related to Moses (Nabi Musa), but all of them are obviously culled from Biblical or Aggadic tradition. Therefore a narration which is related by the Arab historians to the time and place of the bursting of the dyke in Merib in the Sabean realm is of value exactly because of the absence of any signs of its having been borrowed from Hebrew sources.

In the region of Marib (Meriba) was staying a tribe that had arrived there only a short time before. According to al-Masudi,

The king [in other sources the ruler of the tribe] was Amr the son of Amir; he had the surname Mozaikiya. He had a divine brother whose name was Amran. The ruler had for wife a woman skilful in the art of divination; her name was Zarifah. ⁽¹⁴⁾

This family of three persons stood at the head of the nation: two men and one woman—a ruler, his divine brother, and his wife, the prophetess. Similarly, a family of three led the Israelites according to their tradition: a ruler, his divine brother, and a sister, the prophetess. The leaders of the Israelites were sons of Amram. The leaders of the tribe rescued at Marib were sons of Amir. The divine brother of Moses was Aharon; the divine brother of the ruler of the nomads at Marib was Amran. The sister of Moses was Miriam, his wife was Zipora; the prophetess at Marib was Zeripha. If

the second and the third syllables are reversed the names become identical.

The peculiar name *Mozaikiya*, the surname of Amr, son of Amir, was an object of surmise for Arab philologists from early times. A word which sounds similar in Arabic is *mazak*, “a piece,” and folk etymology construed a forced story: the ruler was called by this surname because he was accustomed, when going to his nightly rest, to tear to pieces the garment he wore during the day.

It seems to me that the name is not an Arabic one, but rather is of Egyptian design. *Mose-ika-ya* could be a name arranged similarly to *Smenkh-ka-re*, the last syllable being the name of a divinity—god Re (or Ra) in the case of *Smenkare*; in the case of *Mosaikaya*—the God Ya (as in the names *Isa iah*, *Jerem iah*, and the like), the syllable *ka* being the Egyptian word for “soul.” If this archaic Arabian tradition brought down to us the name of the leader correctly, we may at last have the Semitic name of the great deliverer, and also his Egyptian name. The name “the soul of Yahweh” would surely be a fitting name for the man who, according to the Scriptures, was the first to whom the Divine name was revealed.

In the Arabian story the rupture of the dam and the catastrophe were foreseen by the prophetess Zerifa. As told by al-Masudi, she had a dream:

A great cloud covered the earth and ejected lightnings and flashes. Then the thundercloud burst, and thunderbolt fell and consumed everything in its path; reaching the ground it reduced to ashes all it touched in its fall. “After this,” said the prophetess, “it will happen that everything will submerge.”

On the eve of the day when the sea burst, a dreadful cloud—not in a dreamy vision, but in the sight of a multitude—darkened the heavens, and flashes of lightning intersected the darkness. “And it came between the camp of the Egyptians and the camp of Israel; and it was a cloud and darkness, but it gave light by night.” (Exodus 14:20) The *Aggada* adds that “the Lord discharged hailstones and coals of fire.”

The spirit that inspired the prophetess *Zaripha* rescued the people. She predicted “a calamity of calamities, a momentous thing, a misfortune without precedent.” A tempest would ruin the entire country.

It was the prophetic woman in the camp of the Israelites whose exaltation is especially mentioned when on the shore of the Sea of Passage, and this time she is called “the prophetess” (Exodus 15:20-21):

And *Miriam* the prophetess, the sister of *Aharon*, took a timbrel in her hand and all the women went out after her with timbrels and with dances.

And Miriam answered them, "Sing ye to the Lord, for he hath triumphed gloriously: the horse and the rider hath he thrown into the sea."

The Arab authors have embellished the story with the inevitable oriental addenda of palmy days in a paradise garden and of a suzerain enchanted by houries, but these are characteristic elaborations on the part of the tale tellers and do not belong the story of the dyke broken at the sea, nor to the description of a spoiled irrigation system.

Not only the prophetess Zeripha, but also her husband and his brother had prophetic dreams. According to one source it was the "divine brother Amran who was the first to receive the revelation concerning the impending catastrophe." This brother was gifted with magical knowledge of the right way. Thus forewarned, Mozaikiya disposed of all his possessions and emigrated with all his people (Nuwairi).

It was Aharon in the camp of the Israelites who with the help of the Urim and the Tumim oracle determined the way to go and the deed to undertake.

In the Arabian tradition, in the variants I had before me, there was no allusion to a persecuting host and no knowledge of the way the tribes passed before they reached Marib.

The Arabian philologists did not succeed in explaining the origin of the name Marib. In the books of Exodus and Numbers two similar events are recounted which occurred in two places called Meriba: in both instances the tribes complained about the absence of water; the first time at the beginning of their march through the wilderness; the second time in the last years of the wandering. The etymology of the name is explained to be "the water of discord."

Wells in an arid region were almost always waters of dispute. That the Israelite tribes many times suffered thirst in the desert is recorded in short but dramatic sentences. In the violent changes in the different strata of that region water sources disappeared; they were blocked and diverted; thermal springs appeared, such as the spring Mara. An inspired dowsing might be able to find hidden water sources in the blocks of split-apart rocks by striking one with a rod.

It even seems to me possible that the Sabeian region of Arabia was before the catastrophe "a garden across which the traveller could voyage a month on his mule without leaving the shade," similar to India, rich in water and on the same degree of latitude, where the vehement sun lets the soil sprout abundant vegetation. The southern and northern fringes of Arabia attained a high level of culture at a very early time, which would hardly be possible if these parts of Arabia had been as poor in water as they are today.

It was not the rupture of the dyke that caused the dwindling of the fortunes of the country, but drought and the disappearance of water sources, of which records are

preserved both in the Hebrew Scriptures and in the Arab annals.

The construction of the dyke in the Sabean region could have been a remedial measure to keep alive the gardens in this plain, ten days' march from the Red Sea and from the Gulf of Aden alike. The disasters—with a field of destruction that embraced not only the other plains of Arabia but also far-removed lands—were remembered as “the deluge of Marib,” and as a sudden torrent that overthrew the sanctuary at Mecca, and as a time of drought and famine and also of plagues, and as a time when whole countries were destroyed, left desolate and abandoned, while armies perished, and tribes migrated. But with the passing of centuries the real place and cause were forgotten and a deserted dyke in the south of Arabia was supposed to have been the main theater of events. Its ruined remnants were supposed to be coeval witnesses of days recollected as days of terror, when land and sea were shaken in spasms. Possibly this place had been called Marib since ancient times—what place of water is not a place of strife? Likewise the oil wells of today, being rare, are wells of strife. Or perhaps the deluge of Meriba at the sea was only later connected connected with the visible remains of the abandoned dam, the name Marib being given to it subsequently.

The drought, followed by famine and by different plagues, compelled the Amalekites to leave their ancestral home in Mecca and to migrate toward the clouds far away in the sky and “toward their native land,” where they, or a part of them, were drowned in the flood, according to *Kitab-alaghaniy*.

And then—we return to the scriptural narration—they met the migrants coming from Egypt. The latter advanced, following the mist that covered the desert in these latter days of in-the-beginning; it was like the vapor which arose from the darkness “upon the face of the deep.”

In the place where the cloud abode, there the children of Israel pitched their tents. Whether it was by day or by night that the cloud was taken up, they journeyed. And the cloud rested in the wilderness of Paran.
(Numbers 9:17, 21; 10:12)

The clouds are repeatedly mentioned in the history of the wandering. According to the *Kitab-alaghaniy*, “the Amalekites journeyed in the direction of the cloud.”

If these were the same clouds which were followed by the Israelites, the two groups must have encountered each other. And this encounter in fact took place by Rephidim. (Exodus 17:8)

Jewish tradition retained a memory of the encounter in the mist: “Joshua did not at first want to expose himself to danger and leave the protection of the cloud . . . then he set forth against Amalek.” [\(15\)](#)

The author of *Kitab-alaghaniy* did not know what befel the Amalekites after they left, following the cloud. He supposed that they found their end in a sudden flood.

At Rephidim the Israelites took up arms against the vanguard of the roaming Amalekites. When, after a prolonged sojourn at Mount Horeb, they attempted to reach Canaan from the south, the scouts they had sent out brought them the ill tidings that the Amalekites already occupied the south of Canaan (Numbers 13:29). It was a hard blow to the Israelites and their hearts grew faint. They made a desperate and unsuccessful attempt to reach the land from the south, daring to attack the Amalekites: “For the Amalekites and the Canaanites are there before you, and ye shall fall by the sword.” (Numbers 14:23). They were discomfited and driven to Horma. They proceeded on their thorny way in the land of flint, in the untrodden desert, in the labyrinthine sandy ravines, upon old basalt and limestone. As a Jewish legend relates, “When they saw the vast, extensive, utterly barren wilderness before them, their courage gave way.” After the highest pitch of expectation their hopes were revealed as vain. “He tortures us with famine,” they complained.

“With the name of a new settlement he has deceived this great multitude; after he had succeeded in leading us from a well-known to an uninhabited land, he now plans to send us to the underworld, the last road of life.” [\(16\)](#)

We are at the crossing point in the desert where the Israelites coming from Egypt met the Amalekites coming from Mecca. We followed the Scripture describing the way of the Israelites and the old Arabian traditions describing the way of the Amalekites. From this point on we shall follow the Isrealites’ wandering in the desert, according to the Biblical and Arabian traditions.

MIDIAN

Mount Seir extends along the length of the Red Sea and includes the area known as Hedjaz. The mountainous chain of volcanic formations stretches along the western border of the plateau called the Arabian Desert, and constitutes a barrier opposite the depression which composes the bed of the Red Sea. When it is said that the tribes of Israel “turned and took our journey into the wilderness by way of the Red Sea [Yam Suf]” or that they “compassed Mount Seir many days” (Deuteronomy 2:1) it means just what is said, that they went southward along the mountainous chain not far from the shore of the Red Sea in the region of Hedjaz. It is difficult to understand why the historians and Bible exegetes agreed that the decades of wandering of the tribes were confined to a very small area which may be crossed in one week or two.

Arabia is wide; nomads with cattle, looking for water and pasture, drive great distances. Defeated by the hostile Amalekites in the south of Canaan, the fugitives

from Egypt had no other choice but to return to Egypt or to move by way of the Red Sea.

Midian was the land where, according to the Scripture, Moses had spent his manhood when a fugitive from Egyptian justice; there he also became the son-in-law of a priest named Jethro. (Exodus 2:15-21) The habitation of the Midianite priest was to the south or to the east of Mount Horeb. (Exodus 3:1) Midian was not in the Negev or on the coast of the Aqaba Gulf: in order to escape Egyptian justice Moses needed to go farther than the Sinai peninsula.

The abode of the Midianites is to be looked for near the place where the city of Medina is today. This name Medina may likely be a remnant of the habitation of the Midianites there. The identification of Midian and Medina may be further substantiated by the name of the Midianite priest, Jethro. The old Arabian name of Medina is Yathrib.

But even here the Israelites did not pause, but continued on their way south. They were strangers in this land and they begged the Midianites to give them a guide for the way through the desert. “We went through all that great and terrible wilderness,” they said at the end of the way.

Would the so-called Sinai Peninsula be called “that great and terrible wilderness” in face of the Arabian desert, fifty times as great? Did the Israelite tribes really tramp one decade after another in the narrow and short strip that runs from the south shore of the Dead Sea to the Aqaba Gulf? The desert of the forty-year wandering was not the Sinai Peninsula, but a much larger area. The inclination of the historians is generally to deny the ancients long itineraries. Midian being the Medina of Moslem times, actually deep in the Arabian Peninsula, all indications in the Old Testament are for a deep penetration of the Arabian Peninsula by the wandering Israelites who escaped the land of Egypt, destroyed by the catastrophe in the mid-fifteenth century before the present era.

A wandering of nomads with their animals in years of drought would encompass large areas. Overcome by the Amalekites of southern Canaan and driven to the Red Sea, they would scarcely remain in the same region. Their path led them to the south.

MECCA

Ka’aba, the holy spot in Mecca, was a sanctuary long before the time of Mohammed. The Ka’aba has the form of a cube or chamber, and the name is interpreted as meaning “a cube.” In the immediate vicinity of this small structure—inside the walls that encircle an open-to-the-sky court—a spring enclosed in a deep well provides the faithful with health-restoring water; once it was a well of oracular decision and it is certain that the spring was held in reverence at a very early period and that the fount

determined the building of the sanctuary and the foundation of the city. It is called the well of Zam-Zam.

Zam-Zam is explained to mean in Arabic “to drink with small gulps,” or also “water in abundance.” But it may be a reminiscence of the former prehistoric dwellers in Arabia. Concerning the eastern boundaries of the land of Ammon, lost in the sand of the desert, which the tribes approached at the end of their wandering, it is said (Deut. 2:20): “Giants dwelt therein in old time; and the Ammonites call them Zam-Zum (im).”

The Israelite tribes apparently visited the plains and hills where the generation of the Zamzum lived and died away in a gray antiquity. Most probably the Israelite tribes, roaming about in a thirsty land with their little ones and with their flocks, were attracted to every well yielding drink.

Let us proceed with the annals of *Kitab-alaghaniy*, which I cited up to the point when the Amalekites, driven out of Mecca by ants and drought and famine, migrated and moved toward the clouds on the horizon and came to their native land of Marib, where a flood overcame them. When they left Mecca a tribe called the Djorhomites entered the place and took care of the sanctuary neglected by the Amalekites. But they also were mindless of the holy duties imposed on them and, as they did not listen to the admonitions of their king, they were visited by warning signs; a sudden torrent of rainy flood ruined the Ka'aba. A number of years passed and the Amalekites were not heard of. The *Kitab-alaghaniy* continues:

Meanwhile arrived the tribes, brought in a disorderly retreat by the rupture of the dam of Marib; with them was the prophetess Tarickah [Zaripha] who had announced to them the disaster, and at their head Mozaikiya, the same as Amr, son of Amir, son of Thalabah. . . . On reaching the gates of Mecca, the tribes stopped, and Amr [Mozaikiya] their leader, sent to the inhabitants his son Thalabah, who spoke to them in the name of the emigrant tribes: “Departed from our native land and going in search of another, we have not found a land the inhabitants of which will agree to restrict themselves a little as to let us have a place and to grant us hospitality until our explorers will return; for we have sent on errand some of our men to explore a territory proper for our establishing ourselves on it.

“Will you cede to us a small space of your lands and allow us to remain there for a while to rest until we shall learn from our scouts whether we must go to the north or to the east? As soon as we shall learn on what site we have more chances for relief, we shall direct ourselves without delay from this place. We do hope that our sojourn with you will be very short.”

The tribe of Djorhom refused:

“No, in God’s name, we shall not put ourselves aside, we and our cattle, for having the pleasure of receiving you. Go along wherever you like to go; we have nothing to do with you.”

Mozaikiya, informed of this answer, sent them a second message worded thus:

“It is absolutely necessary that I spend at your place a whole year awaiting the answer of the messengers that I sent to explore the north and the east. If you let me take hold here and if you will receive me with good will, I will be in accord with you and we shall divide the use of the pastures and of the water; but if you will refuse this adjustment, I will establish myself with you despite you. And then, when you will send your herds to graze on the grassland, you will find only what remains after our animals; and if you will like to drink at the well it will be measured for you by a vessel. If you will attempt to repel me by force, I will battle against you, and if I shall be the victor, I shall take your wives and kill your men; and these that may escape I shall forbid the approach to the sacred territory.”

These passages resemble another passage, in Numbers 20:14f. There is a similarity of situation, but not identity of events.

And Moses sent messengers from Kadesh unto the king of Edom,
“Thus saith thy brother Israel, Thou knowest all the travail that hath befallen us . . . we have dwelt in Egypt a long time. The Lord . . . brought us forth out of Egypt: and behold, we are in Kadesh, a city in the uttermost of thy border. Let us pass, I pray thee, through thy country: we will not pass through the fields, or through the vineyards, neither will we drink of the water of the wells: we will go by the king’s high way, we will not turn to the right hand nor to the left, until we have passed thy borders.”

And Edom said unto him, “Thou shalt not pass by me, lest I come out against thee with the sword.”

And the children of Israel said unto him, “We will go by the high way: and if I and my cattle drink of thy water, then I will pay for it . . .”

And he said, “Thou shalt not go through.” And Edom came out against him with much people and with a strong hand.

Thus Edom refused to give Israel passage through his border.

The Hebrew record cites similar approaches to Moab and Ammon, also refused.

Of these two accounts, the Hebrew record relates to an episode near the end of the wandering of the tribes in the desert; the Arabian record relates to a moment during the wandering of some tribes and before the land of settlement was explored by men sent on this errand. In one case the negotiation is about a temporary stay, and in the other case about passage. And still the correspondences are conspicuous, as they repeat the plight of the Israelites in the desert and their way of dealing with the tribes through whose land they had to pass.

Upon a cursory reading of the Arabian recollections it seems as if the tribes were looking for land for themselves towards the north or the east. It is true that mention is made of some men of the tribes sent to the north and east to look for a temporary settlement; but it is also recounted about another land of which an explorers' report is awaited.

The spies were sent from the desert of Pharan (Numbers 13:3). The desert of Pharan according to the old Arabian sources, neglected by Biblical research, is in the mountainous area of Hedjaz.⁽¹⁷⁾ The spies returned to Pharan into Kadesh and brought their report (Numbers 13:26).

The name Kadesh was given to many different places. Jerusalem was called Kadesh, as was Carchemish on the Orontes; there was a Kadesh in Galilee, Kadesh Naphtali, mentioned a few times in the Scriptures. The word means "sanctuary" and every venerated place was called Kadesh.

Difficulties were laid before the exegetes concerning the locality called Kadesh, a station on the wandering of the Israelites. Kadesh was at the beginning of the march, Kadesh was at its end: "And the space in which we came from Kadesh-barnea, until we were come over the brook Zered, was thirty and eight years." (Deut. 2:14). Accordingly it was surmised that for 38 out of the 40 years of the wandering the tribes were settled in Kadesh. The reason for the long stay of the Israelites at Kadesh-barnea was in the existence there of sources of water, while in the desert most of the rare sources became bitter. At Mecca there are sources of water, considered sacred and many legends are preserved about them. These water springs, not destroyed in the catastrophe, were the main incentive for the Israelites to congregate there.

May it be that these were two different holy spots, both called Kadesh? In one place in the Bible Kadesh is said to be situated in the wilderness of Pharan, and another time in the wilderness of Zin. Sometimes Kadesh is called by a fuller name, Kadesh-barnea. This designation is not consistently applied.

The place in the desert is called in the Scriptures "a city" (). This caused surprise. Usually the place is looked for in the northern part of the Sinai desert, and since Kadesh-barnea has been located in , about 18 miles south of el-Arish on the Mediterranean coast. This place never played any important role in the subsequent history of the nation. If this or another place located inside the borders of the future

Jewish Kingdom had been the scene of many events during the wandering in the desert, would it not have been venerated in later centuries? The place where the tabernacle stood, where the judgment court was established, where Miriam died and was buried, should have been marked if only by the slightest sign of national veneration, if at any time in history it was at the borders of Jewish land. But it was never in its boundaries.

In 1964, more than a score of years after I came to this conclusion, Bar Droma, the author of *Negeb*, independently brought arguments to show that Kadesh-barnea was Medain-Salib, formerly El-Hejr, about 450 km southeast of Petra.⁽¹⁸⁾ As explained above, I identify Kadesh-barnea with Mecca.

The Hebrews wandered in the great desert, and not in the small one. Their way from Horma was at first southeastward. Correspondingly their camps moved: the eastern camp was the first, followed by the southern camp, and then the other two (). The southern camp was called “one that is turned to Yemen.” This description appears more proper for a camp which is in the Arabian peninsula rather than the Sinaitic triangle.

In the Arabian record we read that the tribes under Mozaikiya succeeded to enter Mecca and occupy it. The Djorhomites sent an army against Mozaikiya. The ensuing battle lasted for three days; both sides were courageous. It ended with the Djorhomites being put to a disorderly retreat, only a few of them escaping death.

Another author, al-Masudi, wrote that the Djorhomites had been expelled earlier by the children of Ismael:

The Lord sent against the Djorhomites swift clouds, ants, and other signs of his rage, and many of them perished. The children of Ismael, when grown in number, expelled the Djorhomites from Mecca. These established themselves near the land of Djohainah, where an sudden torrent drowned all of them in a single night. The theater of this catastrophe is known under the name Idam (Fury). Omeyah of the tribe Takif made an allusion to this event in a the following verse: “In the time of yore the Djorhomites took the ground at Tehamah and a furious current swept all of them away.”⁽¹⁹⁾

That an earthquake was the cause of the havoc is to be inferred from the already quoted passage of Masudi:

From el-Hadjoun up to Safa⁽²⁰⁾ all became desert; in Mecca the nights are silent, no voice of pleasant talks. We dwelt there, but in a most resounding night and in the most terrible of devastations we were destroyed.

Loud sounds often accompany an earthquake. Din and roaring became linguistic substitutes for the phenomenon itself. Mecca was abandoned by the Amalekites when, shortly before its occupation by the Israelites, it was shattered by earthquakes. This was the same catastrophe that ruined the Middle Kingdom of Egypt. The Amalekites moved toward Palestine and Egypt, and soon built their fortress-capital Avaris at el-Arish. The Israelites, who were unable to break through to Palestine from the south, reached the former capital of the Amalekites.

After occupying Mecca the conquerors allowed the Ismaelite tribes, which had not participated in the battle against them, to visit the sanctuary.

THE PROMISED LAND

The tribes under Mozaikiya did not remain in Mecca. According to Masudi, after a number of years

They continued on their way and came to camp between the land of the Aharites and Akk, near a pool named Gassan, between two valleys called Zebid and Rima, and they drank the water of the pool.

In the book of Deuteronomy it is said (2:1,3): “We compassed Mount Seir many days . . . And the Lord spake . . . turn you northward.” They reached the border of Edom and Moab (Deuteronomy 2:10-13):

The Emim dwelt therein in times past . . . which also were accounted giants, as the Anakim; but the Moabites call them Emim. The Horim also dwelt in Seir before time; but the children of Esau succeeded them . . . And we went over the brook Zerid.

According to the book of Numbers (21:12-17):

From thence they removed [i.e., from the wilderness which is before Moab, toward the sunrising], and pitched in the valley of Zared. From thence they removed and pitched on the other side of Arnon . . . and at the stream of the brooks that goeth down to the dwelling of Ar, and lieth upon the border of Moab. And from thence to Beer [pool]: that is, the well whereof the Lord spake unto Moses, Gather the people together, and I will give them water. Then Israel sang this song, Spring up, O well; sing ye unto it . . .

Then follows the song rewritten by the redactor of Numbers from “The book of the wars of the Lord” (Numbers 21:14). The pool where the migrants camped and drank and exalted themselves in praise seems to be the same pool as that mentioned by

Masudi. The Aharites and the Horites are quite surely the same. Akk would stand for Anak. The valley of Zebid accordingly would be named in the Hebrew sources the valley of Zered.

Let me finish the story of al-Masudi:

They halted in that land and established their domicile in the plain, on the heights, and at all the neighboring places. This mountainous area borders upon Syria, and divides it from Hedjaz, keeping close to the territory of Damascus, the province of Jordan and Palestine, and comes to an end at the mountain of Moses. The place designated here is that part of the Promised Land that was conquered in the days of Moses, according to the Scriptures.

The author of the tenth century of our era, bringing down the record he received in his time from old sources, did not suspect any affinity of this story with the story of Moses. Therefore he designated the Mount of Moses as the border in the conquest of the tribes under Mozaikiya, tribes which escaped from a deluge and came into the depth of the great desert, and departed from there into the land between Damascus and Mount Nebo.

The Arabian tradition tells that some parts of these tribes when in the desert departed from the main stock. A similar story is preserved in the Aggada. Until recently Hebrew sects were living in the desert among the Arabs.

Is the old Arabian tradition, handed down by the Islamic historians, an authentic story of the wandering of Israel in the desert? The material is dealt with quite differently in this pre-Islamic tradition from the way the Biblical legends are repeated in the Koran. So possibly, Moses and his tribes enjoy a double existence in the Arabic tradition.

One of these two stories knows but the segment of time from the flood at Marib up to the conquest of Transjordan. In both traditions the events are ascribed to a time separated from the epoch of the patriarchs by a few generations. In both accounts destructions occurred, plagues came in abundance, water sources vanished, and an earthquake destroyed human dwellings at night. Both ages were times of the migrations of tribes. In both accounts, due to famine and drought, the migrants followed clouds through the desert. A sudden flood—in which many troops perished, having been brought to migration by former plagues—happened in both sequences of events. The places of the last occurrence were at Idam, at Tehama in one account, and at Edom and Pi-Tehom in the other. In both cases some tribes escaped with their lives from the flood. These tribes were under the leadership of a ruler, his divine brother and sister (or a wife), all of them prophetically gifted. Their names and the name of their father are not dissimilar in the two accounts. They migrated with their treasures and cattle; they sent spies to explore a land for their settlement; in peculiar expressions they asked local rulers permission for a temporary stay; they were ready to do battle in case they were refused; they had a temporary abode in some venerated

places. They did not remain there but after a stay for a year or more departed. According to the Arabian story they marched through the land of the Ahorites and Akk and “came to a well” situated “between two valleys” and “drank water of it.” The same information is given in the Hebrew story, except that the places are called “land of the Horites” and “Anak.” They conquered the land of the Jordan from Damascus to mount Nebo.

Are these two different renderings about different tribes that had similar experiences? Or two different stories of the same tribes and the same events?

Both took place at the time when the Amalekites (called by name in both accounts) left their paternal home and came to roam about. And, from what is said in the Scriptures about the desert (“all that great and terrible wilderness”); and from the description of the way (along the Red Sea, around Mount Seir) and of the plain of their encampment; and because of the political stimuli to depart from the place of defeat; and because of the necessity of going through vast spaces away from the arid quarters—it may be concluded: the desert of wandering was the immense plateau of Arabia.

The pre-Islamic traditions of the wandering of the Tribes in the Wilderness, having been written down much later than the Hebrew text, cannot claim to be the better or more correct version; but they may cast light on many issues.

References

1. Cited in Abu'l Faradj, *Kitab-Alaghaniy (Book of Songs)*, transl. by F. Fresnel, in *Journal Asiatique*, 3rd series, Vol. VI (1838), p. 204.
2. The Arab author remarked that the word *toufan* ordinarily means “deluge,” but he ascribes to it the sense of “death.” Evidently we have to reject his effort to change the meaning of the word. Fresnel changed the meaning of the word *ghayth* which, as he wrote, signifies primarily “rain” or “clouds,” into “pasture”; he remarks himself that a mirage could not deceive a dweller of Arabia. The original meaning of *ghayth*, i.e., “clouds,” must be retained.
3. See for instance the traditions collected by D. Reiske, *De Arabum Epocha Vetustissima, Sail Ol Arem, etc.* (Leipzig, 1748).
4. *Murudij el-Dhabab (Les Prairies d'or)* (Paris, 1861-77), Vol. III, 366 ff. Masudi, historian and geographer, was born at Baghdad; he voyaged extensively during his life, visiting Ceylon and Madagascar. He lived in Egypt, where he died ca. 956.
5. E. Glaser ed., *Reise nach Marib* (), p. 68.
6. Hamza al-Ispaham estimated the time of the destruction at about 400 years before Islam, and Ibn Khaldun gave a less remote date of about 250 years before Islam; Yakut referred it to the period of Abyssinian rule, i.e., 542-570 A.D. Gosselini put the date at 374 B.C.E., Reiske 30-40 B.C.E., Shulters 30-40 A.D.—see *The Encyclopaedia of Islam*.

7. Al-Masudi and Ibn Rosta speak of a first and a second devastation.
8. Al-Masudi, *Murudij al-Dhabab*, III, 370.
9. E. Glaser ed., “Zwei Inschriften ueber den Dambruch von Marib,” p. 13f.
- 10.
11. *The Encyclopaedia of Islam*, s.v. “Marib.”
12. Cf. references collected by E. M. Jomard in F. Mengin, *Histoire sommaire de l’Egypte*, (Paris, 1839), pp. 341-44.
13. “According to other traditions, Marib was the name of a castle that belonged to these kings in a remote age” —Al-Masudi, *Murudij al-Dhabab*, p. 374.
14. Masudi, *Murudij al-Dhabab*, Vol. III, pp. 374f. Cf. Nuwairi, Chap. IV. *Kitab-alaghaniy* called the prophetess of the tribe Tarikah and did not mention her relationship to the leader.
15. L. Ginzberg, *The Legends of the Jews* (Philadelphia, 1911), p. 59.
16. Ginzberg, *Legends*, III. 41-42. Cf. Philo, *Moses* I. 35; Josephus *The Antiquities of the Jews* III, 1. 3-5.
- 17.
18. *Palestine Exploration Quarterly*, July-December 1964. [In Deuteronomy (1:2) it is said that the distance between Mount Horeb and Kadesh-barnea, by way of Mount Seir, is eleven days. In antiquity a day of march was a unit of distance very close to 40 km. This would mean that Kadesh-barnea was not more than about 440 km from Mount Horeb. Assuming Mount Horeb to be located somewhere in the Sinai peninsula, the distance from there to Mecca is between 800 and 900 km. Possibly the biblical figure of eleven days of march should be understood as *days and nights* of march, in which case the distance would be ca. 880 km.]
19. Masudi, *Murudij al-Dhabab* III, chap. XXXIX. Tehamah is the stretch of land along the Arabian coast of the Red Sea. The Aggada calls Pi ha-Khiroth by the name Pi-Tehom. The first means “abyss” ; the second “entrance to the abyss.” Idam may recall Edom on the borders of which the catastrophe of the Sea of Passage took place.
20. Safa may recall the name Yam Suf (Sea of the Torrent). Also in this version we read about clouds, various plagues, and a sudden flood.





Beyond the Mountains of Darkness

This short discourse is not a part of the chronological problem discussed in the work of reconstruction of ancient history; it deals with historical geography—the whereabouts of the places of exile of the Ten Tribes of Israel.

The sentence (II Kings 17:6) which relates how the King of Assyria took Samaria and carried Israel away into Assyria and “placed them in Halah and in Habor by the river Gozan, and in the cities of the Medes,” caused much deliberation among the historians. The mystery of the Ten Lost Tribes produced also fantastic convictions such as the belief that the Britons are the descendants of the Lost Tribes who, after much wandering, reached Albion.

The sentence in II Kings 17:6 is repeated almost verbatim in 18:11. In I Chronicles 5:26, the exile of the Transjordan tribes—Reuben, Gad and the half-tribe Manasseh—to Halah, and Habor and Hara, and to the river Gozan is ascribed to “Pul king of Assyria” and to “Tilgath-pileser king of Assyria.” Modern scholars consider Pul and Tiglath-pileser to be one and the same king, Pul having been his name in Babylonia.⁽¹⁾

It is generally agreed that the location of Halah (in Hebrew with two letters *kheth*, transcribed as h in scholarly texts), or Khalakh, is not given to identification.⁽²⁾ As to Gozan, the texts of II Kings 17:6 and 18:11 speak of Habor by the river Gozan; also I Chronicles 5:26 speaks of the river Gozan. In Isaiah 37:12 it can be understood as a region or a people of a region. The correct translation of the two passages in the Second Book of Kings is “to the confluence (*habor*)⁽³⁾ of the river Gozan.”

Biblical scholars who sought for the place of exile of, first, the two and a half tribes of Israel by Tiglath-Pileser and then of all the tribes of Israel by Sargon upon the fall of Samaria, decided that the river’s name was Habor and Gozan was the region. They have therefore identified Gozan with Guzana, modern Tell Halaf in northeastern Syria. But this interpretation is a violation of the texts. Looking for a river Habor, they thought to identify it with the tributary of the river Euphrates mentioned in Ezekiel I:3 “the word of the Lord came . . . unto Ezekiel . . . in the land of the Chaldeans by the river Chebar.” However the spellings in Hebrew of Habor and Chebar are different, the river Khvor (Chebar) is not Habor, and the latter is not a river at all. Furthermore, the co-called river Chebar is actually an irrigation canal.⁽⁴⁾

In explaining why the misfortune of exile befell the population of the Northern Kingdom, the Book of Kings says that the Children of Israel “worshipped all the host

of heaven and served Baal,” and “caused their sons and their daughters to pass through the fire, and used divination and enchantments,” and therefore “the Lord was very angry with Israel, and removed them out of his sight: there was none left but the tribe of Judah only” (II Kings 17:17, 18).

“Removed them out of his sight” seems to signify that the people of Israel were removed far away, out of every contact with the remnant Judah, not even by a chance messenger.

When one hundred and thirty-eight years later, in the beginning of the sixth century, the people of Judah were also led into exile—by Nebuchadnezzar, king of Babylon—they did not find the exiled tribes of Israel in Babylonia, though they dwelt by the river Chebar (Khvor, i.e., Khabur), which flows in the central region of that country.

It appears that the places to which the Ten Tribes were removed by the Assyrian kings must have been far more remote than northeastern Syria.

Assyria, with its capital cities of Nimrud (Calah), Dur Sharrukin (Khorsabad), and Nineveh—all on the Tigris—expanded greatly in the days of its warrior kings Tiglath-Pileser, Sargon, and Sennacherib. Repeatedly, the Assyrian kings led their troops across the Caucasus northward. Not satisfied with the passage along the coastal road of the Caspian Sea, they also explored the mountainous passes. Sargon, the conqueror of Samaria, wrote in his annals:

I opened up mighty mountains, whose passes were difficult and countless, and I spied out their trails.

Over inaccessible paths in steep and terrifying places I crossed . . . [\(5\)](#)

The descriptions of Tiglath-pileser and Sargon of their campaigns in the north lead us to recognize that they passed the mountains of the Caucasus and reached the steppes between the Don and the Volga. When the barrier of the mountains was overcome, they could proceed northward in a scarcely populated area barren of natural defenses, where they would have met less resistance than in the foothills of the mountains. It is unknown how far they may have let their armies of conquest march across the steppes, but probably they did not give the order to return homeward until the army brought its insignia to some really remote point: it could be as far as the place of the confluence of the Kama with the Volga, or even of the Oka, still farther north. The middle flow of the Volga would be the furthestmost region of the Assyrian realm.

The roads to the Russian steppes along the Caspian and Black seas were much more readily passable than the narrow path along the river Terek and the Daryal Canyon that cut the Caucasus and wind at the foot of Mount Kazbek, over sixteen thousand feet high.

The fact that the “confluence of the river Gozan” is considered a sufficient designation suggests that it must have been a great stream.

A large river in the plain behind the crest of the Caucasus is the Don, and a still larger river—the largest in Europe—is the Volga. If the Assyrians did not make a halt on the plain that stretches immediately behind the Caucasus and moved along the great rivers without crossing them to conquer the great plain that lies open behind the narrow span where the rivers Don and Volga converge—then the most probable place of exile might be reckoned to be at the middle Volga. The distance from Dur Sharrukin to this region on the Russian (Scythian) plain is in fact much less than the distance from Nineveh to Thebes in Egypt, a path taken by Assurbanipal several decades later. Under Esarhaddon and Assurbanipal, Assyrian armies repeatedly invaded “Patursi and Kusi” —Upper Egypt and Ethiopia (Sudan). But Assyrian occupation of Scythia is not a mere conjecture: it is confirmed by archaeological evidence. “The earliest objects from Scythia that we can date,” writes a student of the region’s antiquities, “referred to the VIIth and VIth centuries B.C., are under overwhelming Assyrian influence. . .” ⁽⁶⁾

The exiles who were removed from Samaria, a city of palaces and temples, no doubt, bewailed the capital they had heroically defended for three years against the army of what was, in its time, the world’s most powerful nation. Accordingly they might have called their new settlement Samaria (in Hebrew Shemer or Shomron; Sumur in the el-Amarna letters).

On the middle flow of the Volga, a city with the name Samara exists and has existed since grey antiquity. It is situated a short distance downstream from the point where the Volga and the Kama join. Russian conquerors of the ninth century found this city in existence. The medieval Arab geographer Yakubi, basing himself on accounts of the ninth-century traveller Ibn Fadlan, speaks of the Khazars who dwelt in Samara. ⁽⁷⁾

This people dominated southern and eastern Russia possibly as early as the third, ⁽⁸⁾ but especially during the tenth and eleventh centuries. They passed the Caucasus mountains to participate in the wars of the Romans and the Persians, dominated the Ukraine as far as Kiev, concluded treaties with the emperors of Byzantium, and their influence and suzerainty sometimes reached as far west as Sofia. ⁽⁹⁾

The ruling class of the Khazars used Hebrew as its language, and the Hebrew faith was the official religion in the realm of the Khazars. There was a system of great tolerance, unique in the Middle Ages, in respect to other religions; the Supreme Court was composed of two persons of Jewish faith, two Moslems, two Christians, and one idolater of the Russian population; but it was not a confusion of creeds as it had been in old Samaria, which tolerated many creeds, the monotheism of Yahweh being a protesting ingredient of the confusion.

Were the Khazars or their ruling aristocracy converted to Judaism in a later age? This

position was based on what was said in a letter of the Khazar king Joseph, written about the year 961, to the Jewish grandee, Hasdai ibn-Shaprut, at the court of Cordoba. 'Abd-al-Rahman al-Nasir, the Moorish ruler of Spain, had asked the King of the Khazars to provide any available information about his people, Hasdai's brothers in religion. In the letter of reply the Khazar king recited a tradition or a legend; advocates of three religions came to some prior king of the Khazars, and he picked the Jewish faith because the Christian and the Mohammedan alike gave preference to the Jewish religion above that of their respective rival. [\(10\)](#)

The story exposes its mythical character. In the seventh or eighth centuries of the present era, the adepts of the Jewish faith were persecuted by the Christians and also by the Moslems, and would hardly be chosen to become the religion of the state. A similar legend of "choosing" a religion is told about Vladimir of Kiev: in this legend the Khazars were the delegates representing the Jewish faith.

Had the Khazars been converted to Judaism, it would be almost incredible that they would call their city by the name Samara. Samaria was a sinful city from the point of view of the nation that survived in Palestine after the fall of Samaria, and out of which eventually grew the rabbinical Judaism of later centuries.

The conversion to the Jewish religion would also not imply the adoption of the Hebrew language. It is remarkable that the state language of the Khazars was Hebrew; the king of the Khazars was quite capable of reading and answering a Hebrew letter.

Long before the correspondence between Joseph and Hasdai of the tenth century, the Khazar monarchs had Hebrew names. The dynasts previous to king Joseph were in the ascending order: Aaron, Benjamin, Menahem, Nisi, Manasseh II, Isaac, Hannukah, Manasseh, Hezekiah, and Obadiah. A conversion to Judaism in the seventh or eighth century of the present era would bring with it names common to Hebrews in the early Middle Ages, like Saadia or Nachman; the Judaism of the early Christian age was rich in names like Hillel, Gamliel, while Hellenistic names like Alexander, or Aristobul were not infrequent. Again, the Biblical names of an early period would give prominence to names like Joab, Gideon, or Iftach, and still an older group of names would be Gad, Issahar, Zwulun or Benjamin.

It is peculiar that some of the king of the Khazars were called by the names used in Israel at the time that Samaria was captured by the Assyrians. Hezekiah is said to have been the king of Jerusalem at that time (II Kings 18:10), and the name of his son and successor was Manasseh. Obadiah was one of the most common names at that time and in the preceding century. It seems not arbitrary to assume that the Khazars absorbed, or even originally were, the remnants of some of the tribes of Israel.

It is most probable that the religious reform among the Khazars, about which some tradition was preserved until the tenth century, is to be interpreted as an act of

purification of the half-pagan religion that the exiles from Samaria brought into and developed in their new abodes on the Volga, and as an act of return to the old Hebrew religion of Yahweh. This might have been performed with the help of some Hebrews who perchance left the schools of Sura and Pumbedita, where the Babylonian Talmud was composed. Old Jewish authors⁽¹¹⁾ actually mention the fact that teachers of rabbinical Judaism were invited to the kingdom of the Khazars as early as the eighth century. Possibly, the name “Khazars,” despite a difference in writing, is to be interpreted as “Those Who Return.” A long, probably illiterate period, when Hebrew was used only in speech, may have preceded the period of revival of learning and purification of faith.

I would like to express here the belief that excavation in or around Samara on the Volga may disclose Hebrew signs of the eighth and seventh centuries before the present era. Other sites of old settlements on the Volga, too, may disclose remnants of old Hebrew culture.

The Hebrew (most probably also Assyrian) name for the Volga, Gozan, seems to have survived in the name Kazan. The city Kazan is located to the north of Samara, a very short distance beyond the place of confluence of the Volga and the Kama, two equally large streams. A tributary by the name Kazanka, or “small Kazan,” flows there into the Volga.

In the days of the Khazar realm, the river Volga was called not by its Assyrian, nor by its present name, but by the name Etel (the name is given also as Itil or Atil). This name appears to derive from a Semitic root; it is also used by the medieval Arab geographers.

Many place names in southern Russia seem to be of Hebrew derivation. The name of the river Don may go back to the name of the Israelite temple-city Dan. The Caspian Sea is best explained as “The Silver Sea” from the Hebrew *caspi* (of silver). Rostov means “The Good Harbor” in Hebrew. Orel, read in Hebrew, would mean “uncircumcised” ; Saratov may mean “to make an incision.”⁽¹²⁾ With our identification of Gozan—one of the places of exile of the Ten Tribes—as the Volga, we may now investigate the question, what place is Khalakh, the other place of exile mentioned in II Kings 17:6? This place name is generally regarded as unidentifiable.

The eastern coast of the Black Sea was the goal of the Argonaut expedition in its search for the Golden Fleece. This expedition, engineered by Jason, was undertaken on the boat Argo. The land on the eastern coast of the Black Sea was called Colchis in ancient times, and the region is still known by this name. In Russian literature it is called Kolkhida.

I consider western Georgia—to which Colchis belongs, to be the Biblical Khalakh. Those of the expatriates of Samaria whose destination was Khalakh arrived there some decades after the Argonaut expedition, which was regarded by the later Greeks

as an historical event and chronologically placed two or three generations before the Trojan War.⁽¹³⁾

In the mountainous region of western Georgia, adjacent to the Colchian coast, live the so-called Georgian, or Mountain Jews. They claim to be of the Ten Tribes of Israel, their ancestors having been exiled there upon the destruction of the kingdom of Israel by the Assyrians. Ben Zvi (the second president of the modern state of Israel) tells of these people and their claims.⁽¹⁴⁾ He writes that “there is no reason to doubt the existence of a continuous Jewish settlement in both the north and south of Caucasia, whose roots were laid in very ancient times, perhaps as early as the days of the Second Temple, perhaps even earlier.” Yet he does not express any suspicion that Khalakh may have been Colchis.

The third place of exile of the Ten Tribes according to the Book of Kings were the “cities of the Medes.” Is it possible to locate also this last destination? The Medes first appear in Assyrian annals in the time of Shalmaneser III: it was in his days that they started to penetrate across the mountains of Iran to infringe on the boundaries of the Assyrian kingdom. They appear once again in the annals of Sargon II, who claims to have repelled “the distant Medes on the edge of the Bikni mountain.”⁽¹⁵⁾ Some scholars maintain that the homeland of the Medes before their occupation of the Iranian plateau in the seventh and sixth centuries was in Turan, that is, West Turkestan. Sargon’s reference to “distant Medes” would then designate their homeland in Turan.

In this context it is interesting to note that the Jews of Bukhara, the great trading city and metropolis of West Turkestan, (Turan) claim direct descent from the Ten Tribes.⁽¹⁶⁾ Some writers are even prepared to admit the possible veracity of this claim,⁽¹⁷⁾ though no one so far seems to have attempted to place the “cities of the Medes” in this region. While the greater part of the Jewish community of Bukhara may well be descended from migrants from the time of the Babylonian Exile or the Diaspora of Roman times or even later, it is not excluded that the oldest group among them are remnants of those tribes dispatched by Sargon to the “cities of the Medes.”

References

1. E.g., H. W. F. Saggs, *The Greatness that was Babylon* (New York, 1966), pp. 104, 557.
2. H. Graetz, *History of the Jews*, Vol. I (Philadelphia), p. 265.
3. [Cf. Strong’s *Concordance of the Bible*, p. 36 where (Hebrew section) *habor* is translated from the root word meaning “to join.”]
4. [See *Atlas of the Bible*, (ed. by J. L. Gardener, 1981), p. 145; also consult W. Gesenius, *Hebrew Lexicon* (Brown, Driver, Briggs), p. 140, “Kebar” —“a river (or perhaps a canal) of Babylonia, not at present identified . . .” —LMG/WBS]

5. Luckenbill, *Records of Assyria II*, par. 54.
6. Ellis H. Minns, *Scythians and Greeks* (Cambridge, 1913), p. 263.
7. Yakubi, *Kitab al-Buldan*, 262 (in *Bibl. Geogr. Arab*, VII, ed. De Goeje).
8. Masudi hands down a tradition that the Sassanid king Ardashir fought against the Khazars. Masudi, *Muruj al-Dhabab*, ed. Barbier de Meynard and Pavet de Courteille (Paris, 1861-78), VI, 124ff.
9. For general discussion and sources, see D. M. Dunlop, *The History of the Jewish Khazars*, (Princeton, 1954).
10. Cf. A. Koestler, *The Thirteenth Tribe*, pp. 63-64.
11. Jehudah bar Levi, *The Khazar*. [Such names were perhaps chosen to describe the inhabitants of the respective areas.—LMG]
- 12.
13. [Herodotus (II. 104) reports that in his time the people of Colchis practiced circumcision and claimed descent from Egypt. Although his inquiries in Egypt evinced no remembrance of the Colchians from among the Egyptians, Herodotus concluded that they must have been descended from the remnants of the army of the semi-legendary Sesostris. It seems to me that the Colchians may have told Herodotus the Mosaic tradition of the Exodus from Egypt—if they were Jews, they would have had to answer in the affirmative the question posed by Greek historian, as to whether their ancestors had come from Egypt.—JNS]
14. Itzak Ben-Zvi, *The Exiled and the Redeemed* (Philadelphia, 1957), p. 62.
15. Luckenbill, *Ancient Records of Assyria II*, par. 54. The location of “Bikni mountain” is uncertain.
16. See the eighteenth-century report of Joseph Maman of Tetuan, summarized in A. Ya’ari, “Emissaries of the Land of Israel” (Hebrew) (Jerusalem, 1951), p. 664.
17. Itzak Ben-Zvi, *The Exiled and the Redeemed*, p. 62.





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Introduction

A student of Greek lore on the one hand and on the other of the Old Testament and of rabbinical books and their description of the calamities that first visited Egypt, but later also the tribes of Israel for their iniquities, cannot but see the great difference in the attitude of the gods of the Greek pantheon that cause disturbances on Earth, but omit to connect them with any moral imperatives. Mount Sinai and Mount Olympus are two different, almost opposite symbolic structures.



Notes and Themes

Malki-Zedek

The name of the High Priest of Jerusalem in the days of the Patriarch Abraham indicates that Jupiter's (in Hebrew "Zedek") was the cult of that city. Malki-Zedek means "Jupiter is my lord (king)". The story of a ram in the scene of the purported sacrifice of Isaac, points also to Jupiter, ram being the animal representing that planet. Malki-Zedek, the High Priest of the Highest, plays an important role in Christian catechism.

The time of the Middle Bronze I and II was the age of Jovian dominion; and probably also the Early Bronze.

Siwa-Shiva

The oracle of Zeus-Ammon was the oracle of Jupiter (Herodotus IV.181). The name "Siwa Oasis" must have been attached to the oasis by the Macedonians, like Ptolemy I, returning from the invasion of India, Shiva or Siva being the name of Amon there. The salts of ammonia in the neighborhood of the Siwa Oasis resulted from an electrical discharge. The oracle was established in memory of the event and in honor of the deity. Jupiter has ammonia in the atmosphere. Is it not strange that ammonia was found in the neighborhood of the oasis of Amon-Zeus?

Zeus-Amon

Zeus of the Greeks, Jupiter of the Romans, Mazda of the Iranians, Amon of the Egyptians, Shiva of the Hindus, were all the same planetary god, optimus maximus. The Io, Jahwe coorelation to Io, Jupiter was already made, I assume, so obvious it is.

The Planetary Gods

Hinduism is not one but three relations closely connected. In one, Brahma is the supreme deity, in another Shiva, and in still another Vishnu. The worshippers of Agni and of Shiva were also in conflict. Equally so the worshippers of Mitra in Iran, who were in conflict with the worshippers of Mazda; and in Palestine the worshippers of El (Saturn) were in conflict with the worshippers of Jupiter and of Venus (Astarte); in Babylonia the worshippers of Enlil, of Marduk, of Ishtar, of Nergal.

The Astral Religion of Egypt

When J. Wilson writes (volume to honor Albright) that it is an admission of failure that the chief cultural content of Egyptian civilization—the religion, with its mythology again and again narrated and alluded in texts and pictured in statues and temple reliefs, is not understood—he is right. The astral meaning of Egyptian deities was not realized and the cosmic events their activities represent was not thought of.

Amon was Jupiter—and this we know from classical writers.

Another cult—Isis is Jupiter and Osiris is Saturn. The death of Osiris and its return to life; the birth of

Venus-Horus, the fight of Horus and Seth (the head of the Venus comet and its tail)—all refer to celestial drama played before the peoples of the world—and of Egypt.

Monotheism

In the days of Menashe—understanding that the sun is the supreme planetary body. In the days of Jeremiah, that the Supreme Deity is no planetary body. Is there any opposition to the worship of planetary bodies in the prophets before Jeremiah? Only Abdi-Ashirta sounds like a monotheist in his letters. Yet according to the book of Jeremiah, the Jews of Israel worshipped the planet Venus and brought her cakes till the close of the time of Josiah, the grandson of Menashe.

Many passages in the psalms and in the prophets are monolatrous, not monotheistic. Hillel ben Shazar (Hillel son of the Morning Dawn) in Isaiah, was the planet Venus. Many of the psalms reflect astral religion. The psalms “Hallel” may have been adopted from the “pagan” worship of the Morning Star. The visions of the Lord traversing the sky with rays streaming from his body, as in Habbakuk, are not monotheistic. These passages, and on the other hand, the passages in the books of law that establish a worship of sacrifices to the Supreme Being are not enhancing the sacred value of the Old Testament. To expose these alien motifs may be necessary to ruin the idolatrous Christian church, built on the Old Testament.

Tragic is for ethical relation between man and his God that when the Israelite nation conceived a God not an astral being but a Supreme Creator and ruler of the world, and this in the days of Jeremiah and King Josiah, the destruction of the state was only years away.

Whereas Nebukhadnezzar was a worshipper of astral deities, a monolator, who changed his protective deity several times in his life, Josiah was a monotheist, whose God was abstracted from anything material. To experience the collapse of the state and the destruction of the temple must have been [experienced as] a great letdown of man by his God.

Menashe's Iniquity

In the days of the King Menashe, accused of reverting to idolatry and the worship of celestial bodies, a great advance in the understanding of celestial processes took place, a change comparable to that of the Copernican revolution. It was understood that the Sun is not a body dependent on the will of the planets, especially Jupiter, but that it is the central body.

In cataclysmic events, the disturbance in the motion of the Sun was ascribed to the planet at a close approach, Jupiter, Venus, or Mars, as the case would be. The Sun played a very little role on the Greek Olympus, dominated by Zeus. In global catastrophes, the Sun seemed to be powerless—at the approach of a celestial body (planet or comet) to the Earth, the Sun was disturbed in its motion, and therefore appeared to be subservient to planets of violent temper, like Jupiter. The name of the sun—shamash (Akkadian) or shemesh—the servant—reflects this understanding of the ancients.

In the ninth and eighth and seventh centuries before the present era, the understanding that the Sun may be the most powerful started to penetrate the oriental mind, possibly first in Egypt. To understand its central role was the achievement of the seventh-century astrologers in Judea and also in other countries of the Near East. Menashe, son of Hezekiah, built solar chariots for the temple of Jerusalem, which points toward a Copernican revolution in that period of history.

The realization of the leading position of the Sun, though itself never the cause of a cataclysmic event on earth, was a major step forward. A greater step was made in the next generation, when the Supreme Being was abstracted from planetary or solar body. But the idea of the invincible sun, “sol invictus” continued to live into the Roman times.

Menashe actually returned to the faith of Moses, when he killed Isaiah, opponent of Moses. At that time in Egypt was resurgence of Set's cult. However Menashe called his son Amon.

Isaiah and Moses

The complete absence of references to Moses in Isaiah I leads to the thought that Isaiah was not at all reverent to Moses's memory. The fact mentioned in the Book of Kings that, urged by Isaiah, king Hezekiah destroyed the brazen serpent made by Moses, an object of worship three centuries of a millennium after Moses, strengthens the impression that Isaiah was antagonistic toward Moses and his cult. Also in the rest of the prophets Moses is mentioned very rarely and mostly not at all. Compare with this the references to Moses in the Koran. There is hardly a sura where Moses is not mentioned, and mostly more than once.

Moses-Zarathustra-Quetzalcoatl

In the times following the global cataclysms the survivors banding into groups of migrants looked in their despair for leaders. Such a figure was Moses—for the migrant masses that retreated from Egypt toward Asia. Such a leader was also Quetzalcoatl in Mexico. Zoroaster of the Persians arose in a similar role, possibly, after the same catastrophe. These leaders became lawgivers. However, it is hardly possible that the temple or traveling sacrarium regulations were authored by such leaders in the form the tradition ascribes to them.

Of Moses' monotheism more proofs are needed. The battles in the sky were visualized by all men as contests of the gods; in such times to abstract the religion from the visual planetary gods must have been near impossible. The making of the serpent carried on a pole by Moses and the making of the golden calf by Aharon, appear to be not dissimilar actions. It is remarkable that the prophets of the Israelites hardly ever referred to Moses. It is possible that Ezra, returning from Persia to Palestine, ascribed to Moses many laws and beliefs that were actually of a later date. A prophet of uncompromising monotheism is Jeremiah.

Sukkoth

The holiday of Sukkoth with building of sukka and palm branches was instituted in the days of Ezra; in his book it is said that it was not observed this way since the days of Joshua, son of Nun. It must have been a Persian custom and I saw a reference to a Persian festival when palm leaves were a part of the ceremonial.

Four Span in the Sky

The vision in the sky in the days of Joshua was that of a chariot with a driver and a span of four horses. The four horses idea repeats itself in apocalyptic literature, but also in Olympic charioteering and can be traced in ancient folklore and usage, with its mythic undertone.

Maccabees' revolt, Hannukkah

The revolt of the Hashmanaim (better known by the name of one of his sons Judah Maccabi) coincides with the conquest of Greece by Rome ca -160. It appears that the Romans fomented the revolt in the Hellenized provinces at the time of their conquest of Greece. The introduction of Hannukkah feast seems to be an adaptation of the Roman Saturnalia, and the way of praying with covered head, a taking over of the Roman usus, while the Greek usus was to pray with uncovered head. Some hundred years later, with Pompey, the Romans wished to terminate the alliance, making Judea into a province.

Hannukkah was introduced to the memory of Saturn and the Deluge, by the time Israelites looked for alliance with Rome against Greece and Antiochus dynasty. Christmas, like Hannukkah, are memories of seven days of light that preceded the Deluge when Saturn became a nova.

The seven-branch candlestick was to serve the seven planets. But the "shamash" with a special

position—is to serve the sun. It gives light to all other candles, it has also a special position; and its name indicates that it obtained that position on realization of the role of the sun.

The Ball Play

In Egypt religious observations had a counterpart in Mexico. It probably symbolized the change in the direction of the sun across the firmament.

Illumination of Bel

Compare with “Illumination of Osiris” (hayes 328) Ch. VI of the Book of the Dead.
(Explosion of Saturn: nova)

Shaddai

Shaddai may mean “breasts,” or the heavenly breasts that supplied the wanderers in the desert with nectar and ambrosia. The Lord of the Breasts, the God of compassion and motherly love for mankind, received this appellative. For the Indians (Hindu) it was a holy heavenly cow.

Ashera

The worship of Ashera or a tree goes back to the time when the world was covered by an envelope of clouds that let food fall on the ground. The idea of a tree covering the entire earth was born in the experiences of that period when only from the heaven came food and nothing grew on the ground.

Circumcision

Behind the story of Saturn swallowing his children there must be a factual story of satellites absorbed by the body of the giant planet.

Behind the story of Saturn emasculating his father Uranus there might have been a scene in the sky. The similar story of Jupiter emasculating his father Saturn may be “transfer” or borrowing, but may be a reflection in mythology of similar events.

Circumcision might have originated as an emulation (but *pars pro toto*) of the acts displayed in the sky—of Uranus being emasculated by Saturn, or Saturn by Jupiter. Having been “commanded” in the days of the patriarch Abraham, it may reflect the latter event. Circumcision has a hygienic value; it could have been found out and sanctified by the astral events.

Christianity

The Christian religion and its mysteries originated in Osirian death and resurrection, and also in the flood of fire caused by the Morning Star.

The first century’s world expected a repetition of cataclysmic events and the end of the world—Sibylline literature, the Apocrypha and other such books, the Gospels and the book of Revelation.

It is possible that the upsurge of such fear was motivated by the fact that between the 15th century catastrophes of the days of the Exodus and of the time of Joshua (Phaethon’s story) and the catastrophes caused by the close approaches of Mars to the Earth in the last act of the theomachy, ca. 700 years passed. After another span of 700 years the fear was intensified.

The Christian religion appealed partly because it could in visual demonstration—painting and sculpture—respond to so many instincts in man and woman—

- adoration of a newborn child
- young mother and child

- a wonder healer
- a young dead
- a mother dolorosa

but also the bi-sexual nature of Jesus (with hair of a woman and beard of a man), whatever was his appearance in life, and especially the masochistic-sadistic tendencies and expressions and experiences of his story, found an echo in many a soul.

Themes for *Sinai and Olympus*

| | | |
|------------------------------|--------------------------------|--------------------------------------|
| Malki-Zedek | Filekterie | 8-year feast in Mexico-Passover cake |
| circumcision; Kronos, Uranos | Isaiah and Moses, cf. Koran | Athena-Aten |
| Angels at Mamrech | Baal | Mitra-Metatron-Mazda |
| Mazza-Manna | God's Land | Plato and God |
| Sabbath | Angels, Archangels | Cicero and planets |
| Shaddai | Star of David | Astrology |
| Amon | Seven lamps | Jupiter and Venus |
| Num | Festival of Sukkoth, fruits | Mars and Moon |
| Gad | grove, ashera | Four span in the sky |
| Tammuz | Leviathan (Satan) | Exodus-Passover-Mexico |
| Azazel | Jeremiah and monotheism | Disc of Saints |
| red cow | Baal psalms | God as creator |
| Jubilee | Habakkuk | Job and monotheism |
| Atonement day | Moses-Zarathustra-Quetzalcoatl | Olympus |
| Mora | Glilim* | Isaiah against Venus |
| Calendar; New Year | Disk between horns | Seth |
| Hanukkah; Saturnalia | Brahma-Saturn | Jupiter and Venus cults |

*Glilim

references in the Scriptures - Jeremiah, Ezekiel? Kings? Deuteron. Philol. of the word. Idea of Ben-Yahuda (Osiris). Planets. Opposition to astral religion. Hezekiah? Menashe-sun & planets. Jeremiah. Complaints of the exiled to Egypt. Planets as circling orbs. End of kingdom. When monotheism prevailed.





A Hebrew Cosmogony

This world came into existence out of a chaos of fluid driven by a divine blast: This is the epic beginning of the Book of Genesis.

The earth was chaotic and void; and darkness was upon the face of the deep; and God's wind moved upon the face of the fluid.

From this primeval matter, in a process of subsequent creations, was born the home of the living.

Already before the birth of our earth, worlds were shaped and brought into existence, only to be destroyed in the course of time.

Nor is this world, inhabited by man, the first earth created by God. He made several earths before ours, but he destroyed them. But even this land would have no permanence if God had executed his original plan of ruling it according to the principle of strict justice. It was only when He saw that justice by itself would undermine the world that He associated mercy with justice, and made them to rule jointly.

This earth, too, was not created from the beginning to satisfy the Divine plan. It underwent re-shaping: Six consecutive remouldings; the primeval creation did not delight the Creator; destruction was called upon the ungainly world of flesh and when it did not ameliorate, another destruction was sent to chastise it and still another.

Six times this earth was rebuilt - without entire extirpation of life upon it, but with major catastrophes New conditions were created after each of these catastrophes; new chances were given to men to improve their inclinations, evil from the beginning.

This is the seventh creation, the time in which we live.

*Several heavens were created, seven in fact.
Seven earths were created: the most removed
the seventh Erez,
the sixth Adamah,
the fifth Arka,
the fourth Harabah,
the third Yabbashah,
the second Tebel,*

and our own land called Heled, and like the others, it is separated [from the foregoing] by abyss, chaos, and waters.

The description permits an interpretation that all the seven heavens and earths exist simultaneously; but a deeper insight will allow us to recognize that the original idea did not admit seven concurrent and separate firmaments and worlds in space but only consecutive in time, and built one out of another:

The seven heavens form a unity, the seven kinds of earth form a unity, and the heavens and the earth together also form a unity.

The separation of one world from another by abyss and chaos primarily means, it seems, the fiery nearness to the precipice and primeval matter which it encountered and into which it could be—by only a hairbreadth—reduced forever.

The heavens and the earth were changed at every catastrophe. This idea is concealed in the legend of the wandering of Man (Adam).

When Adam was cast out of Paradise, he first reached the lowest of the seven earths, the Erez, which is dark, without a ray of light, and utterly void. Adam was terrified, particularly by the flames of the ever-turning sword.

After he had done penance. God led him to the second earth, the Adamah, where is light reflected from its own sky.

After the murder of Abel, Cain was sent back to the Erez. Accepting his penitence, God permitted him to ascend to the third earth, the Arka, which receives some light from the sun.

In the Ge, the fourth earth, live the generation of the tower of Babel and their descendants - it is not far from Gehenna, close to the flaming fire.

The inhabitants of the Ge are skilful in all arts, and accomplished in all sciences, and their abode overflows with wealth.

When an inhabitant of our earth visits them, they give him the most precious thing in their possession, but then they lead him to the Neshiah, the fifth earth, where he becomes oblivious of his origin and his home.

The inhabitants of Neshiah have no memory [Neshiah = forgetting].

The fourth and fifth earths are like the Arka; they have trees, but neither wheat nor any other of the seven species.

The sixth earth, the Ziah, is inhabited by handsome men, who are the owners of abundant wealth, and live in palatial residences, but they lack water, as the name of their territory, Ziah, 'drought' indicates. They hasten to any waterspring that is discovered. They are men of steadfast faith, more than any other class of mankind.

Adam passed all these earths, and came to the Tebel, the seventh earth,

the earth inhabited by men.

In the myth of Man (Adam) travelling through all the seven earths is a transparent allegory of the physical and human history of the earth. It is even provided with a suggestion which makes it possible to recognize the periods.

The generation which built the Tower of Babel inhabited the fourth earth; but it goes over to the fifth earth, where the men became oblivious of their origin and their home: those who built the Tower of Babel after the catastrophe are told to forget their language.

In accordance with this scheme the catastrophe which destroyed Babel and dispersed the nations was the fourth one. How are the three previous ones pictured or symbolized?

The first catastrophe was symbolized by the expulsion of Man from the blessed land of Eden. It was not a single human pair; the tradition ascribes to Adam the invention of seventy languages.

Hebrew mythology ascribes to the period preceding Adam's expulsion different physical and biological conditions.

The sun was shining permanently on the earth and the Garden of Eden, placed in the East, it must be conceived, was under the permanent rays of the dawn. The earth was not watered by rain, but mist was ascending from the earth and falling as dew upon the leaves.

The plants looked only to the earth for nourishment.

Man was of exceedingly great stature.

The dimensions of Man's body were gigantic.

His appearance was unlike that of the later men.

The body was overlaid with a horny skin.

But Man did not keep the precepts of his Creator and a day came, and

The sun had grown dark the instant Adam became guilty of disobedience.

The flames of the ever-turning sword terrified Adam. In another legend it is told that celestial light shone a little while in the darkness. And then

The celestial light ceased, to the consternation of Adam, who feared that the serpent would attack him in the dark.

The illumination of the first period never returned.

Anticipating the wickedness of the sinful generations of the deluge and the Tower of Babel, who were unworthy to enjoy the blessing of such light. God concealed it, but in the world to come it will appear to the pious in all its pristine glory.

The sky that Man saw never appeared before him again.

The firmament is not the same as the heavens of the first day.

The moon was bigger before, and suddenly grew smaller,

“because he spake ill of the sun.” “As a punishment thou mayest keep but one sixtieth of thy light.”

The moon, says the Aggada, was envious and desired to be brighter than the sun. According to another legend:

The moon alone laughed when all the celestial beings were grieved by the transgressions of Adam, wherefore God obscured her light. Instead of shining steadily she must be born and reborn again and again.

The earth, too, had to suffer punishment.

Independent before, she was hereafter to wait to be watered by the rain from above. She must produce all sorts of noxious vermin; thenceforth she was to be divided into valleys and mountains; she must grow barren trees, bearing no fruit; thorns and thistles sprout from her; much is sown in the earth, but little is harvested.

Man (Adam) shrank in size.

A vast difference between his later and his former state—between his supernatural size then and his shrunken size now.

The punishment of Adam was manifold:

The food he ate was to be turned from good into bad; his children were to wander from land to land; his body was to exude sweat,

and he lost his horny skin.

It was but since the fall of Man, according to the Aggada, that the sun set for the first time.

The first time Adam witnessed the sinking of the sun he was seized with anxious fears. All the night he spent in tears. When day began to dawn, he understood that what he had deplored was but the course of nature.

It was also since the same time that the days began to grow shorter and again longer. And this is told in the following story:

Cast out of the Garden of Eden, Adam and Eve sat in great distress, mourning and lamenting.

Adam noticed that the days were growing shorter and feared lest the world be darkened on account of his sin, and go under soon.

But after the winter solstice, when he saw that the days grew longer again, he spent eight days in rejoicing.

The narrator adds: "This is why the heathens celebrate the calends and the saturnalia in honor of their gods, though Adam had consecrated those days to the honor of God."

The myth presents the foe of Man in the form of a fallen angel, Satan, who was dismissed from the heavenly host, and whose representative on earth, and the cause of the disgrace, was the serpent.

The serpent had previously another appearance.

Before the fall of Man it stood upright, had feet, and was of extraordinary size.

The mouth of the serpent was closed, his hands and feet were hacked off. "Because thou becomest the vessel of the Evil one: Upon thy breast and thy belly shall thou go, and of thy hands and thy feet thou shalt be deprived, Thou shalt not remain in possession of thy ears, nor of thy wings."

Not only the dragon and Man, whom he had brought into distress altered their ways, but the whole of nature as well. Thistles and thorns were generated by the soil. The variety of species diminished. The change was brought about partly in connection with the sin of Cain.

Earth quaked under Cain. The ground changed and deteriorated at the very moment of Abel's violent death.

The trees and the plants in the part of the earth whereon the victim lived, refused to yield their fruits, and only at the birth of Seth they began to bear again. But never did they resume their former power. While, before, the wine had borne nine hundred and twenty-six different varieties of fruit, it now brought forth but one kind. And so it was with all other species.

The third generation—that of Enosh—was also told to have been visited by disgrace.

God caused the sea to transgress its bounds, and a portion of the earth was flooded. This was the time also when the mountains became rocks, and the dead bodies of man began to decay.

For the sin of idolatry the following generations were no longer in the likeness and image of God: they resembled apes.

Since that time came a greater change in the habits of human beings:

The remnants of men began to trespass against the birds, beasts, reptiles, and fishes, eating their flesh and drinking their blood.

It was in the celestial harmony and disharmony that the secrets of the upheavals were conceived to lie; this was known to mankind already in the Adamite age, according to the Aggada.

In Hebrew mystic teachings there is the story of the book of the Angel Raziel.

After Adam's expulsion from the Garden of Eden he prayed to God: "Grant me knowledge and understanding, that I may know what shall befall me, and my posterity, and all the generations that come after me, and what shall befall me on every day and in every month." There appeared to him the angel Raziel, bearing a book in his hand.

"Thy words were heard. I have received the charge to teach thee pure words and deep understanding, to make thee wise through the contents of the sacred book in my hand.

And all thy descendants and all the later generations, if they -will but read this book in purity, with a devout heart and an humble mind, will, too, foreknow what things shall happen, and in what month and on what day or in what night. All will be manifest to them -they will know and understand whether a calamity will come..." At the moment when Adam took the book, a flame of fire shot up and the angel rose heavenward with it.

Adam of the Aggada invented seventy languages, Cain his son built cities and monuments and ruled over kings. They were representatives of generations. It is also said that the measure of the Genesis—"a day"—is meant to be a God's day, or a thousand years. Thus Adam, who lived 930 years, did not live even one day:

“Now, ye know not what manner of day I meant—one of My days of a thousand years, or one of your days.”

The science about the times in which calamity could return and fall on our earth was cultivated among populations that had a vivid remembrance of days of misfortune or of lucky escape.

It is told about the children of Seth, the son of Adam that

they were the inventors of that peculiar sort of wisdom which is concerned with the heavenly bodies and their order. And that their inventions might not be lost before they were sufficiently known, they made two pillars upon Adam’s prediction that the world was to be destroyed at one time by the force of fire and at another time by the violence and quantity of water. The one was of brick, the other of stone, and they inscribed their discoveries on both, that in case the pillar of brick should be destroyed by the flood, the pillar of stone might remain, and exhibit these discoveries to mankind, and also inform them that there was another pillar, of brick, erected by them.

This means that stelae with calendric and astronomical calculations were made public knowledge in the second or third era. According to the Aggada it was the pious Enoch (the seventh generation) who achieved the deepest knowledge of the celestial secret. He was the man who

walked with God: and he was not; for God took him. (Genesis 5:24)

In this ascension to heaven was taken away the man who more than any other knew the plan of the world, and of its creation. He had already visited heaven in his vision

Once before he had been permitted to see all there is on earth and in the heavens. Once, a time when he was sleeping, a great grief came upon his heart and he wept in his dream, not knowing what the grief meant, nor what would happen to him.

Two men, their faces shone like the sun, their wings were brighter than gold, their hands whiter than snow, said to him: “Be of good cheer, be not afraid; the everlasting God hath sent us to thee, and lo! to-day thou shalt ascend with us into heaven. And tell thy sons and thy servants, and let none see thee, till the Lord bring thee back to them.”

He saw all the seven heavens.

He saw the fifteen myriads of angels who go out with the sun and attend him during the day, and the thousand angels who attend him by night.

Each angel has six wings, and they go before the chariot of the sun, while one hundred angels keep the sun warm, and light it up...

They showed him also the six gates in the east by which the sun goes forth, and the six gates where he sets, and also the gates by which the moon goes out, and those by which she enters.

In another variant of the *Book of Enoch* it is said:

I went to the West to the end of the earth. And I saw a burning fire which ran without resting, and paused not from its course day or night, but ran regularly.

And I asked saying: "What is this which rests not?" Then Raguel, one of the holy angels who was with me, answered me and said unto me:

"This course of fire which thou hast seen is the fire in the west which persecutes all the luminaries of heaven." —The Book of Enoch, p. 23

Enoch in his prophetic vision reached the seventh

In the seventh heaven he saw the seven bands of archangels who arrange and study the revolutions of the stars and the changes of the moon and the revolution of the sun, and superintend the good and evil conditions of the world.

After he had received all the instructions from the archangel. God revealed unto him the great secret, which even the angels do not know. He told him how, out of the lowest darkness, the visible and the invisible were created, how he formed heaven, light, water, and earth, and also the fall of Satan and the creation and sin of Adam He narrated to him, and further revealed to him that the duration of the world will be seven thousand years, and the eighth millennium will be a time when there is no computation, no end, neither years, nor months, nor weeks, nor days, nor hours.

Go upon the earth, and tell thy sons what things I have said to thee. Give them the works written out by thee and the writings of thy fathers, and they shall read them, and shall distribute the books to their children's children and from generation to generation and from nation to nation.

The account of what I shall do may not be lost in thy family in the deluge to come. For on account of the wickedness and iniquity of men, I will bring a deluge upon the earth.

A numerous generation will rise again, I will show them the books of thy writings and of thy father, and the guardians of them on earth will show them to men who are true and please me. And they shall tell to another generation.

The *Book of Enoch* recites the vision that visited him,

“I had laid me down in the house of my grandfather when I saw a vision how the heaven collapsed and was borne off and fell to the earth.

And when it fell to the earth, I saw how the earth was swallowed up in a great abyss, and mountains were suspended on mountains, and hills sank down on hills, and high trees were rent from their stems, and hurled down and sunk in the abyss.” —The Book of Enoch 83: 3-5

Enoch assembled his sons and instructed them faithfully about all the things he had seen, heard, and written down, and he gave his books to his sons, to keep them and read them, admonishing them not to conceal the books, but tell them to all desiring to know.

After thirty days the Lord sent darkness upon the earth, and there was gloom, and it hid the men standing with Enoch. And the angels hastened and took Enoch, and carried him to the highest heaven. And the people saw, and did not understand how Enoch was taken.

He was a great man in his generation.

Kings and princes, no less than one hundred and thirty in number, assembled about him, and submitted themselves to his dominion, to be taught and guided by him. Peace reigned thus over the whole world for all the two hundred and forty-three years during which the influence of Enoch prevailed.

The story of his ascension is drawn also in these features: Enoch predicted the disaster.

Enoch was carried into the heavens in a fiery chariot drawn by fiery chargers. The day thereafter, the kings who had turned back in good time sent messengers to inquire into the fate of the men who had refused to separate themselves from Enoch, for they had noted the number of them. They found snow and great hailstones upon the spot whence Enoch had risen, and, when they searched beneath, they discovered the bodies of all who had remained behind with Enoch; he alone was not among them; he was on high in heaven.

What the Aggada means to tell is that a human being -and one gifted with the greatest “wisdom concerning the heavenly bodies and their order”, was brought away in a fiery storm, which killed many, brought snow and meteorites, and which had been predicted by that one who disappeared.

In this story the seven heavens correspond to seven millennia; the six changes, those that have occurred or are still to occur, correspond to the six gates of the sun and the moon; the eighth revolution and the eighth millennium will have no end, no years, no time; this millennium means endlessness in chaos.

Some exact knowledge of the revolutions of the bodies in the sky is ascribed here to the antediluvian generations.

The myth says that Enoch was transformed into one of the celestial host.

His body was turned into celestial fire—his flesh became fire, his bones glimmering coals, the light of his eyes heavenly brightness, his eyeballs torches of fire, his hair a flaring blaze, all his limbs and organs . burning sparks, and his frame a consuming fire. To the right of him sparkled flames of fire, to the left of him burned torches of fire, and on all sides he was engirdled by storm and whirlwind, hurricane and thundering.

It was with the last day of the long age of Methuselah, the long-living son of Enoch, that the next catastrophe began. Seven days before the deluge

The people heard a great commotion in the heavens, and saw as if nine hundred of celestial mourners in the sky were deploring the end of the age.

After these “seven days of grace” when frightful sights and sounds were seen and heard, began the deluge. The deluge and its time had already been predicted by Enoch, and even more ancient generations were said to have erected tablets with calendric and astronomical calculations predicting the catastrophe. ⁽¹⁾

It is said that the real period of grace endured for 120 years. During this time the flood was over mankind as a threat.

But men did not abandon their evil ways; the very favorable conditions under which they lived contributed to their sinfulness.

They knew neither toil nor care, and as a consequence of their extraordinary prosperity, they grew insolent.

In the last seven days before the deluge, when the terrifying signs and commotion filled the heavens, in those “last days of respite.” God changed the way of nature—as already stated.

“After seven days” [Gen. 7:4, 10] - in these seven days the Holy One changed the order of the creation and the sun was rising in the west

and setting in the east.—Talmud Sanhedrin, Fol. 108b:

Then began the deluge.

All the fountains of the great deep were broken, and the windows of heaven were opened. (Genesis 7:11)

The water was extracted from the earth and driven to the surface, and at the same time a rain poured—not out of the clouds, but out of heaven, even out of a definite direction.

The upper waters rushed through the space left when God removed two stars out of the constellation Pleiades.

These upper waters were hot, not as waters of a common rain.

The sinners were hot (in their sin) and were punished by a hot rain, God bade each drop pass through Gehenna before it fell to earth.—Talmud Sanhedrin Fol. 108b

Since the day when the waters flooded through the “windows of heaven” and during the deluge, the sun was veiled, and the earth trembled and volcanoes erupted.

The Lord shook that day the whole earth, the sun was darkened, and the foundation of the earth trembled, and all the earth vomited lava, lightnings flashed, thunders roared, and a loud din grew all over the earth, as never known before to its inhabitants.⁽²⁾
All the time the deluge lasted the sun and the moon shed no light.

The story of the ark is well known from the biblical tale. The Aggada adds details; The waters were in no way quiet; it was dark outside; the inside of the ark was illuminated by a precious stone.

The flood began to toss the ark from side to side. All inside of it were shaken up like lentils in a pot. The lions began to roar, the oxen lowed, the wolves howled, and all the animals gave vent to their agony.

The duration of the flood is described differently—forty days and also much longer.⁽³⁾

Like the former catastrophe of the fall of man, this catastrophe of the deluge, according to the Hebrew cosmogony, changed the nature of herb, animal, and man. The prosperity of the time before the great flood was gone without return; the world lay in ruins. The earth was changed—even the sky was not the same.

The continents changed their places in the former and in this catastrophe. The areas where now the shores of the Mediterranean sea are, were once the shores of an open ocean: this may be concluded from the following statement, if true:

Before Noah, the sea was in the habit of transgressing its bounds twice daily, morning and evening. Afterwards, it kept within its confines.

The constellations of the sky in this part of the world, it seems, moved after the deluge from their place.

To put a stop to the flood. God had to transfer two stars from the constellation of the Bear to the constellation of the Pleiades. That is why the Bear runs after the Pleiades. She wants her two children back, but they will be restored to her only in the future world.

Before the deluge there were peoples of gigantic size. The first man grew smaller after the fall, but his dimensions were still great, and after each catastrophe the giants became increasingly rare.

A myth of the Hebrews and of many other peoples knows to recite the story of some beings called ‘the sons of God’ who came from the universe, or from another planet, and whose offspring with the women of the earth were giants.

*The sons of God saw the daughters of men that they were fair; and they took them wives of all which they chose.
There were giants in the earth in those days; and also after that when the sons of God came in unto the daughters of men, and they bare children to them, the same became mighty men which were of old, men of renown. (Genesis 6: 2, 4)*

‘There is nothing new under the sun.’ The fancy about the men from Mars of modern novelists was already a legend and a tradition of old. Enoch was brought away in a cyclone of stones. The sons of God of the heaven reached the earth.

The Emim, Rephaim, Zamzumim or Anakim, races of giants, were supposed to be the descendants of these sons of heaven. Few of them succeeded to survive the later catastrophes, those that followed the deluge, and were destroyed entirely shortly afterwards.

From the huge species that were found on the earth in former times, fewer and fewer specimens survived through the ages» and those only in remote countries, where they were still said to be seen, and were described by the travellers of Biblical times. Their fantasy was impressed especially by the greatest sea-animal, leviathan, the greatest mammal “Behemoth,”⁽⁴⁾ the greatest of the reptiles “reem,” and the greatest among volata, “ziz.”

Leviathan is more than merely large and strong. His fins radiate brilliant light. His food consists of the fish which go between his jaws of their own accord. When he is hungry a hot breath blows from his nostrils. "So enormous is leviathan that to quench his thirst he needs all the water that flows from the Jordan into the sea." As leviathan is the most notable representative of the fishkind, so behemoth is the most notable representative of the mammal kind.

Behemoth matches leviathan in strength, and he had to be prevented, like leviathan, from multiplying and increasing, else the world could not have continued to exist; after God had created him male and female He at once deprived him of the desire to propagate his kind.

Formidable though behemoth is, he feels insecure until he is certain that leviathan has satisfied his thirst.

When the leviathan and the behemoth will enter a duel with each other

the issue will be that both will drop dead, behemoth slaughtered by a blow of leviathan's fins, and leviathan killed by a lash of behemoth's tail.

With these descriptions (sometimes exaggerated like all travelers' stories), the cosmogony and natural science of the Hebrews belabor a field which seems to be restituted by the excavations of fossils.

The combat of the monsters was verified by the finding of their bones together, from the position of which a duel and a devouring of one by the other was imagined.

The question was asked, what could have been the defensive or offensive weapon of the brontosaurus, the largest of these animals? ; no horns, no strong teeth, no nails to attack. In the above description the answer, and a plausible one, is delivered: they struck with their mighty tails, about thirty feet long.

The peer of the leviathan and behemoth between the reptiles was reem, a giant animal which was so rare in the time it was described that the traveler stated: "only one couple, male and female, was in existence".

The act of copulation results in the death of the male. He is bitten by the female and dies of the bite. At the end of a long period she gives birth to twins, a male and a female. The year preceding her delivery she is not able to move. For a whole year the animal can but roll from side to side, until finally her belly bursts, and the twins issue forth. Their appearance is thus the signal for the death of the mother reem. Its horns measure one hundred ells, and their height is a great deal more.

In the realm of birds ziz is the king.

When, at the time of the autumnal equinox, it uses to flap its -wings and utter its cry, the birds of prey, the eagles and the vultures blench.

The travelers reported that:

“Its wings are so huge that unfurled, they darken the sun.”

Even greater exaggerations were composed, e.g., that it is able to protect the earth against the storm of the south. The huge animal, the narrator agrees, could not be placed in the Ark of Noah. The survival of one of them is explained in a childish manner: it was tied to the ark and swam behind it.

Other animals were described. In the name of Enoch was told about the existence of

flying creatures, wonderful and strange in appearance, with the feet and tails of lions, and the heads of crocodiles; their appearance is of a purple color like the rainbow.

Leaving aside the color, which cannot be proved from the fossils, the bones of an animal of this description may be identified with the fossils of the Pterodactyl.

Through time only a few of these huge animals remained, and these even were “deprived of the desire to propagate their kind” ; they were not equipped to bear their monstrous mass upon the earth, when the conditions of gravitation changed with the change of the orbit. Only with great difficulty could they support themselves on their hind legs; in a state of pregnancy they were not able any more to erect themselves.

The places from where the travelers brought the stories of these animals were situated beyond the ocean.

*The ocean is situated to the west, and it is dotted with islands upon islands, inhabited by many different peoples. Beyond it, in turn, are the boundless steppes full of serpents and scorpions...
To the north of it are the supplies of snow, hail, ice, darkness and windstorms.*

The Hebrew history of developments in the animal knows also to relate about other changes, occurrence of which belongs to the period of the deluge.

Before the catastrophe of the deluge

the dog united with the wolf, the cock with the pea-fowl, and many

others paid no heed to sexual purity.

The “impurity” was abandoned; but the sentiment of repulsion of one species against other species grew, and developed into cruelty.

*Cats and mice, foes now, were friends originally.
Similarly, dogs and cats maintained a friendly relation to each other,
and only later on became enemies.*

A legend connected with the sojourn of the animals in the ark brings the belief that

*Even the physical peculiarities of certain animals were not original
features with them, but owed their existence to something that occurred
subsequent to the creation.*

It was asserted that the mole lost its eyes, the frog its teeth, and the mouth of the mouse became widened, and a fable connected with the sojourn in the ark was appropriated to this alleged metamorphosis.

Lesser changes in the haircover of the steer were described in another tale.

Before the deluge the animals that are impure (for food) were in large majority; after the deluge the proportion was inverted. This tradition might be the source of the legend about the presence of seven pairs of pure and only one pair of impure animals in the ark.

As in animals, so in the human being, the sexual inclination to unite himself with not of his kind was said to have been changed into a hostile attitude towards his own kind and sex.

*The descendants of Noah began to quarrel and slay, eat blood, wage
wars, people against people, and nations against nations and cities
against cities and do all manner of evil.*

According to this cosmogony and natural history, the hunger for flesh and the thirst for blood was an obvious result of the catastrophe. Was it a sudden anemia, due to changes in the atmosphere, the oxygen of which, with the exogenous hydrogen became the water of the flood? It is said:

After the flood each and all began to bite.

*And the fear of you and the dread of you shall be upon every beast of
the earth, and upon every fowl of the air. (Geensis)*

And every moving thing that liveth became meat of the human being like the green

herb of the soil.

Restriction was to be put upon the vampirous lust:

But flesh with the life thereof, which is the blood thereof, shall ye not eat.

And surely your blood of your lives will I require. (Genesis 9:4-5)

Those animals and men who escaped the catastrophe with their lives were rescued, only to start a struggle of annihilation among themselves.

This stimulated lust of sadism is a corollary of the inversion of the sexual impulse. The story is told in Genesis. Ham tried to execute on his father the act of castration, or an indefinite act also belonging to the complex of inversion.

But another Aggadic story ascribes the carnivorous lust to the impulse implanted in the generations of the giants by their forefathers, who had once come as “sons of God” from the sky to this earth. Together with the longing for blood they are said to have brought their knowledge in every field of science, and especially in astronomy and astrology. This legend is in discord with the legend about the book of the angel Raziel brought to the first generation.

With the spread of mankind, corruption increased.

A civilization was destroyed the real value of which is incalculable. In the next age the whole population of the earth amounted to a few millions. Even this number if brought forth from a few rescued families is very large, but the Aggadist admits this amount:

Ten years before Noah's death, the number of subjects to the three princess Nimrod, Joktan and Phenech amounted to millions.

The knowledge of astronomy and the secrets of its reckoning were rescued and it is said in this manner and variant:

God gave to Adam the book of the angel Raziel, which he studied day and night...

Upon the death of Adam, the holy book disappeared, but later the cave in which it was hidden, was revealed to Enoch in a dream.

It was from this book that Enoch drew his knowledge of nature, of the earth and of the heavens; and he became so wise through it, his wisdom exceeded the wisdom of Adam.

Once he had committed it to memory Enoch hid the book again.

When God resolved upon bringing the flood on the earth. He sent the archangel Raphael to Noahs “I give thee the holy book, that all the

*secrets and mysteries written therein may be made manifest unto thee.
Noah took the book, and when he studied it, the holy spirit came upon
him, and he knew all things needful for the building of the ark.
The book, which was made of sapphires, he took with him into the ark,
having first enclosed it in a golden basket.
All the time he spent in the ark it served him as a time-piece, to
distinguish night from day.
Before his death he entrusted it to Shem, and he in turn to Abraham.
From Abraham it descended through Jaacob, Levi, Mose and Joshua to
Solomon.*

This might even have been the knowledge of months, years and periods of comets that the remote generations had acquired—and the hope grew into faith that no such or similar destruction would come any more to decimate mankind.

A new and till then unknown atmospheric phenomenon was said to be the rainbow. In this colored reflection of the sun in small and suspended drops of water the rescued believed to see the divine promise not to repeat the flood.

The next destruction was that of the tower of Babel. A strong commotion caused that a part of the tower sank into the earth; another part was consumed by fire. Remained only a rest...

*[The builders of the tower] were scattered from thence upon the face of
all the earth... The Lord did there confound the language of all the
earth. (Genesis 11:8-9)*

(In Arabic traditions the destruction and the subsequent confusion of memory was related to the south of Arabia: it was a paramount catastrophe).

In the Aggadic cosmogony this generation is called “the people of men who lost their memory” ; the earth they inhabited was “the fifth earth”, that of oblivion.

Whether the Hebrew cosmogony reckoned one more destruction of universal character to occur between the time of the deluge and the Exodus depends on the following:

Altogether six catastrophes are supposed to have occurred, and we live on “the seventh earth”. The later catastrophe of the time of Joshua is not reckoned. The catastrophes of the Exodus could be numbered as two: one in Egypt and one at the shores of the Red Sea. If they were thought of as one, the fifth catastrophe would have been either in the time of Abraham, when in an upheaval the earth swallowed the tetrapolis, or, more probably, in the time of Peleg, about whom it is said: “in his days was the earth divided.” (Genesis 10:25.) The meaning is likely to be: “when the continents were separated”.

It is some lost knowledge that is concealed in these few words. In antiquity the traditions were vivid, were guarded as precious knowledge, and transmitted from generation to generation. It is said that Serug son of Reu taught his son Nahor the arts of the Chaldeans and the signs of the heavens; a legend told that when Abraham was born “one great star came from the east and ran athwart the heavens and swallowed up the four stars at the four corners.” It is said that in the days of Abraham the planet Jupiter appeared in the east instead of in the west;⁽⁵⁾ it is said that Abraham during his sojourn in Egypt

taught the inhabitants of that country astronomy and astrology, unknown in Egypt before his time.

The sixth earth is called Ziah, the earth which thirsts for water; her inhabitants rush to any place where they hope to find a well. This description is in accord with the stories of the patriarchs, the wells being the object of dispute. But with even more justification the earth Ziah or the sixth earth would fit the time following the Exodus, when brooks disappeared, the populations of entire countries wandered to find pastures.

The description of the catastrophe of the Exodus was narrated *in extenso* in *Worlds in Collision*; here it will be only mentioned in short.

The destruction of the world in the days of the Exodus was not smaller than in the days of the deluge. It closed, in the conception of the Hebrews, the age of creation. The hurricane that twice during five or six weeks crossed the orbit of our earth signified the end of the time when the earth and men were to be shaped and reshaped;

the old covenant was kept only in its promise not to bring a paramount flood upon the earth: a flood of fire came instead of the flood of water. The covenant, according to the moral conception of the Hebrews, was a reciprocal deed. The one partner, that who was obliged not to shed the blood of the fellow-man was in no way a fair accomplisher of his part of the covenant.

The Israelites were tortured in Egypt. More than one legend insists that the Israelites when behind the imposed number of bricks, were punished in a cruel manner which had to horrify them and keep them in a steady check: Israelite children were put into the mortar and inserted into the walls, between the rows of bricks. There is nothing improbable in this story.

The world was shattered, and it reeled to and fro as a reed in the wind. In a crescendo came the ten plagues.

First came the thin red coloring dust; the hot blast brooded the insects and small reptiles, quick in multiplying. Unquietude seized all creatures, and they began to migrate. Then, when the earth was deeper in the trail of the comet, meteorites flew

and killed everything in the field; then followed the neck of the comet and a “touchable darkness” that endured for three days; when the head of the comet passed just at its closest approach to the surface of our earth in darkness of charcoal and night, an earthquake of immense power ruined every house everywhere.

When six weeks later the Hebrews were .at the Red Sea the head of the comet was approaching on its return from perihelion. The last night before its arrival darkness again draped the world.

It was a cloud and darkness but it gave light by night. (Exodus 14:20)

The Aggada says: the darkness at the Red Sea was the same darkness of Egypt that returned once more.

The atmospheric and hydrospheric parts of the planet are the most likely to be driven towards a new gravitational field. Just as in the days of the deluge when the waters of the deep and lava were driven out of the core of the planet to its surface, the waters of the ocean and of every sea were heaped high in double tides; on the other side of the planet the waters ran asunder to find the nearest possible place to the celestial body that was passing close by; and the air moved still swifter, tossed and driven in the encounter of two celestial bodies: it was a hurricane, this “strong East wind all the night” (Exodus 14:21).

Lava flowed like in the days of the deluge; the earth trembled; the mountains melted; lands rose and others submerged; springs disappeared in one place and appeared in another; cultivable land, desert and sea, all changed their places. The desert was showered with inflammable fluid, and months and years later ignited over and again; the earth cracked and swallowed men and beasts.

The Hebrew tradition ascribes to Moses the prediction of most of these phenomena, especially of those which took place in Egypt. The Hebrew legends ascribe to him also the knowledge of the celestial movements and the art of prediction. If the periods were known to him, he could prophesy guided not only by his spirit, but also by his knowledge.

In the pitiless destruction by tempest and fire the Israelite refugees were graced; they saw nature keep the old faith and old covenant with them; not only were they graced, they were saved by the destructions. A few weeks later they stood around the mountain of Horeb and heard in a stormy night of a roaring desert the ten commandments. A new covenant was closed between the Creator of the universe and a people roaming around in a trackless desert, in a time when the entire world became once more void and waste. For them it was a rebirth of freedom.

The work of creation and the repeated reshaping of the earth and man were accomplished. It began the seventh day which lasts up to today and will last up to the final destruction.

According to the initial Hebrew conception of the creation, which I tried to reconstruct here, the six ages were terminated by six destructions; the world of today is the result of six metageneses. The story of the first chapters of the Bible is of a later, mythological, and very probably alien origin. The “six-day creation” is a mythological remodeling of an historical knowledge or belief. The whole of ancient history preceding the Exodus is the time of genesis, and therefore is also included in the book of Genesis.

With the Exodus, the end of Genesis, and the new flow of time, a new calendar was to be established.

And the Lord spake unto Moses and Aaron in the land of Egypt, saying, This month shall be unto you the beginning of months; it shall be the first month of the year to you. (Exodus 12:1-2)

The seventh age which started since then shall not be interrupted until the end of the world; the world in the perception of the remainder was by a hair breadth near to peril, and the next time it would not survive.

The sabbath, the seventh day, is a symbol and an assurance that no other metagenetic catastrophe will come. In keeping this solemn day of rest on the seventh day, the creator is implored to refrain from reshaping the earth similarly.

The seventh day was simultaneously the symbol of the grace displayed by Providence to slaves chased by their pursuers and a memorial to the Exodus. It had to become the day of freedom to all who work, man and animal.

The prayer of the Jews on the evening of Saturday, composed of two old fragments, brings together: the end of creation and the final harmony among the heavenly host, stars and planets; the beginning of a new time-reckoning from the last act of genesis, and the leaving of Egypt, house of bondage.

The sixth day. Accomplished were heaven and earth and all their host. And God accomplished at the seventh day all work He did, and abstained in the seventh day from all work He did. And God blessed the seventh day.

Blessed be God, Lord of the universe, who sanctified us by his ordinances and who was benevolent to us, and in love and good will gave us the day of rest, the memorial to the act of genesis, because this day is the beginning of the reckoning of days, memory of the Exodus from Egypt. Thou didst choose us, and didst sanctify us from amidst all the peoples. And the sabbath, thy holy one, in love and good will thou endowest us. Blessed be the Lord, who sanctifies the day of rest.

The assembling of three different causes for the establishment of the sabbath would seem to be a confusion, had they not been simultaneous occurrences: the last act of creation, the new flow of time, the Exodus from Egypt.

Some fifty years passed since the morning at the Red Sea. The world was once more in flames. Once more it was brought out of its path. But what happened in the days of Joshua, when the sun and the moon stood in the heaven and hot stones in myriads fell on this earth -was minimized in the Hebrew tradition. A combustion of the world was an episode, though a main episode, in the life of this disciple of Moses, who was said to be the successor of the knowledge of Enoch, and who could know what may happen after the rain of stones announced the approached of the still unvanishing errant planet; on his grave was inserted a memorial inscription to the event, which was emphasized as of no equals the Lord listened to the wish of a mortal who ordered the sun and the moon to stop and fulfilled his wish.

But this time the Israelites were the offenders; therefore the link of ethos and pathos lacked between the cosmic event and the assault by the Israelites.

References

1. Josephus, *Antiquities of the Jews* 11.8, borrowed by Yashar Bereshit 10a: These tablets with their Hebrew characters could still be seen on some island in India in the time of Alexander the Great. (L. Ginzberg, *Legends*, vol. V, p. 149).
2. *Sefer Hayashar*, new edition by L. Goldschmidt.
3. It appears that the tradition of “a year” of the deluge led to confusion in calculations, and the traces of this confusion seem to be found in the double redaction of the story of the deluge. The age of Noah when he married is told by the Aggada to have been 498 years; this would indicate that the year was shorter; it could still consist of a number of months, but not of months of thirty days; the days themselves could have been shorter.
4. *Talmud*, Shabbat 156.
5. Behemoth means the “huge animal” or “animals”—not to be identified with the behemoth of today.





Astrology

Astrology interested itself chiefly with the relative positions of planets and with their conjunctions. Diodorus of Sicily, after recording the Chaldeans assert that planets change their velocities and periods of time, says: “These stars exert the greatest influence for both good and evil upon the nativity of men; and it is chiefly from the nature of these planets and the study of them that they know what is in store for mankind.”⁽¹⁾

It is perfectly correct to say as Diodorus did because of the great changes which were brought upon mankind and the nature of everything living on this planet by encounters with other planets. But from the truth of this belief of the Chaldeans and to the wrong conclusions was but a short distance. If the planets at their different encounters caused flood, hurricane, or conflagration, destruction of animals, or appearance of new plants, man could easily conclude that this or that consequence is the result of a special character of this or that planet.

The Chaldeans tried to build their astrology empirically: they noticed every year the movements of the stars, the conjunctions that took place and the political and natural changes in the realm. Very many such observations were made and written down.⁽²⁾ From the idea that the position of planets influences the nature and the life of nations and kings, to the idea that it influences a single individual, was but one step. A fiery character of some men could be compared with the fiery character of Venus or Mars. In the *Tractate Sanhedrin* of the *Babylonian Talmud* it is said that “He who is born under Venus will be wealthy and unchaste. What is the reason? Because fire was created therein. . . He who is born under Mars will be a shedder of blood.”⁽³⁾

It was supposed that the position of planets in the hour of conception is fateful for the building of the character and also for the future of the individual. So for example in the book of Hindi; astrology. *The Bri-hajgatakam* of Varaha Mihira, it is said: “When Venus and Saturn are in one sign, persons become short-sighted, earn money, and increase it through their wives or young women, are authors and painters . . .”⁽⁴⁾ Sahagun reports that among the Aztecs “soothsayers who tell the good or bad fortune children are going to have, according to the date, time or signs of their birth.”⁽⁵⁾

References

1. Diodorus Siculus, II. 31.1.

2. R.C. Thompson, *The Reports of the Magicians and Astrologers of Nineveh and Babylon in the British Museum* (1900).
3. Fol. 156a, transl. by H. Freedman (London, 1938).
4. *The Bri-hajgatakam* of Varaha Mihira, translated by Swami Vijnanananda (Allahabad, 1912), p. 321.
5. Bernardino de Sahagun, *Historia de las Cosas de la Nueva España*, Bk. I, ch. 1.





Amen and Aten

Amenhotep IV, who is better known by the name he adopted—Akhnaton, is described in books on Egyptian history and in those books on the development of religion as a great heretic and also as the “first monotheist.” These claims are built upon the fact that he abrogated the cult of Amon or Amen, until then the chief deity in the Egyptian pantheon, and substituted it by the worship of Aton or Aten, a reform audible in the change of names—from Amenhotep to Akhnaton. The reform was carried on with great zeal—the name of the god Amon was erased from the inscriptions of the capital Thebes and the name of Aten substituted. The name of Akhnaten’s father—Amenhotep III—was subjected to the same mutilation. Akhnaten built a new capital to the north of Thebes and called it Akhetaten, the place where Aten rises. The claim of being the “first monotheist” of world history was made for Akhnaten on the basis of his hymn to that deity, by Egyptologists and then turned again in books of authors writing on religion or history in general. The question of whether Akhaten was the first monotheist (or even a monotheist in general) requires revision already because of the fact that Akhnaten lived not in the 14th but in the 18th century. But, first of all, the identity of the rejected deity and that of the substituted require elucidation.

One is usually told that Amon was a solar deity and that Aten was also a solar deity. thus it comes to a rather unclear reform: one deity that symbolized the sun was rejected and another deity that symbolized also the sun was elected. In this presentation the revolutionary character of the reform is hardly obvious: it amounts, actually to only little more than to a change of names. It would be, actually not a greater reform that substitution in a modern Christian creed of a Madonna of Lourdes by a Madonna of Guadalupe. In this example, the chapel at a place where an apparition of the deity took place and the cult connected with it, are in competition with the cult and a chapel at another location, with similar claims. But hardly would the name of a deity of one place be erased and its cult debased in the second place. Therefore there is something unexplained in the violence with which the votaries of the Aten cult exterminated all what pertained to the Amen cult. If Amen and Aten were both solar deities, then the passions that accompanied the change of the cult—first from Amen to Aten and, after Akhnaten, back from Aten to Amen—must have had their origin in something that is yet unexplained.

Actually the statement that Amen was the divine personification of the sun, or the sun itself, is based on nothing known from any Egyptological source. Just because Amen was the supreme deity and the sun is the supreme luminary in the sky it is assumed without any further inquest, that Amen was the sun. Following this kind of logic, Zeus must have been a solar deity, too. However we know that Zeus was the Roman

Jupiter, was the god of that planet; Helios—the solar deity, was certainly not the highest deity; and even in the form of Apollo, the sun was not supreme on the Greek Olympus. Actually, we have statements of Greek authors that Amen was the Egyptian Zeus-Jupiter. Thus the authors who describe the visit of Alexander to the sanctuary of Amon in the oasis of Siwa in the western desert identified Amen with Zeus-Jupiter. Thus we see that the identification of Amen with Helios or the sun is not built on anything but a priori thinking, as expressed by E. Renan, who wrote that the only astral religion that appears natural is the worship of the sun, the great luminary, the giver of light and warmth, and life itself.

The cult of Jupiter was abrogated by the king-heretic and in its place was elevated the cult of Aten. Which deity was worshipped in the Aten?

The famous hymn composed by Akhnaton or by a royal poet, ⁽¹⁾ says in parts:

Thou appearest beautifully on the horizon of heaven,
Thou living Aton, the beginning of life!
When thou art rise on the eastern horizon,
Thou has filled every land with they beauty....
Thy rays encompass the lands to the limit of all that thou hast made....
When thou settest in the western horizon,
The land is in darkness in the manner of death...
At daybreak, when thou arisest on the horizon,
When thou shinest as the Aton by day,
Thou drivest away the darkness...

This description is strongly suggestive of Aten being the sun. Additional indirect argument for this identification can be found in the way the Palestinian potentates used to address the pharaoh: “You shine like the sun in the heavens.” The king being compared to the sun, the sun must been considered the highest deity. However, already Amenhotep II , the father of Akhnaton, was compared with the sun in the letters of these potentates. Yet these very letters disclose which was the supreme deity of the correpondents from Palestine.

The most prolific writer of letters form Palestine was the king whose name is usually read Rib Addi, but in translation into Hebrew would be the “eldest brother (or son) of the father,” or equivalent of Ahab. The identification of Rib Addi with Ahab was offered and substantiated by us in *Ages in Chaos*, Vol. I, by a very extensive and detailed analysis. More than sixty letters of this king of Sumura (Shemer or Shomron-Samaria) were preserved in the archive of el-Amarna to Akhetaten the capital of Akhnaten. He usually opened his letter with this blessing: “May Belith of Gubla...” In *Ages in Chaos* we identified the deity Belith with the female consort of the god Belus, of which Josephus Flavius wrote that it was brought to Israel from Phoenicia by Jezebel, the chief wife of Ethbaal. ⁽²⁾ We have also identified Gubla with the name of Jezreel until Jezebel’s death.

From the Scriptures we know of the great and passionate struggle which went on in the days of Ahab in Palestine. At a time when the southern kingdom, that of Judah, the chief deity was Yahwe, in the Northern Kingdom, that of Israel, the chief deity was Baal and according to the testimony of Josephus, Baalith, which is the female form of the name. We have also the multiple testimony that Belith or Baalith was the planet Venus, or the Queen of Heaven in the language of Jeremiah, two and a half centuries later. The planet Venus or Ishtar of the Babylonian cult, as we have shown in *Worlds in Collision*, was worshipped in the Greek world as Athene. Athene was second only to Zeus and in Athens, the city called by her name, she was the most honored deity. Athene being recognized as the offspring of Zeus, that sprang fully armed from his head, it was not antagonistic to Zeus, already because of the polytheistic character of Greek religion that made it possible to worship many astral deities simultaneously. A century or two after the time we describe here, the time of Akhnaton and Ahab, the celestial conflict between Athene and Ares (Mars) made the tribes on earth to take sides and in the time the Achaeans (the Greeks) had chosen Athene for their protecting deity, the Trojans of Priam had Ares as their protector. In another description of Athena's birth, the Greeks had it being cleaved out of a pillar of cloud by Zeus. In Palestine, however, the protracted debate—which was the astral deity that was dominating the scene in the days of the Exodus-Passage and theophany on Mt. Sinai, caused a long and bitter schism its beginning can be seen in the dispute that made Moses and Aaron...

Eliahu.

Again the hymn of Akhnaton.

Venus rivalled the sun in light.

Similarity to Ishtar hymns.

Solar cult only with Menasseh.

Aten=Athene.

Struggle also in Mazda & Mithra

References

1. The Hymn to the Aton, translated by John A. Wilson, in *The Ancient Near East, Vol. I. An Anthology of Texts and Pictures*, edited by James B. Pritchard.
2. Josephus, *Jewish Antiquities* 8:316 (Whiston translation): "Ahab... also took to wife the daughter of Ethbaal, king of the Tyrians and Sidonians, whose name was Jezebel, of whom he learned to worship her own gods. This woman was active and bold, and fell into so great a degree of impurity and madness, that she built a temple to the god of the Tyrians, which they call Belus, and planted a grove of all sorts of trees; she also appointed priests and false prophets to this god."





World Catastrophes as Punishment

In his great fright and looking back on what did happen to a former generation, the thinking man imagined that the catastrophe must have been provoked by the iniquity of the ancestors, their vices and evils. Such thought could provide a hope for a non-repetition of catastrophes: should humankind abstain from wretched acts, it would be spared. By this, man assumed that the planetary gods could be kept at bay by his own decency - and if he already formulated for himself what is good and what is evil, or ate already from the tree of knowledge of good and evil, he needed a covenant with the outraged deity and commandments for behavior.

Whether the catastrophes were really provoked by sinful behavior or not - the answer is not easily provided: is always a good deed rewarded and a sinful behavior punished?

Rabbi Abuya, surnamed Acher, one of the greatest rabbinical authorities of the second century of the present era, became an agnostic when his pious colleagues were flayed of skin and burned alive; and millions of the martyrs that were gassed in our time have raised the question of whether mercy and righteousness save from doom, and the tens of thousands of their tormentors living to a good old age raise the same question from its other side.

The saying of the sage, "I have reached an old age and I have not seen a pious man given to evil fate," is most certainly self-deception and actually an injustice and mockery: it adds insult to injury. It is an assertion to justify the unseen power, that must be wise, good, and omnipotent; if such attributes are not the qualities of the deity, then all hope for an insurance against evil by righteousness is dissipating. But if the power against which man is pitted, is sensitive to the distinction of good and evil, then the only hope is to placate it by abstention from evil and furtherance of good.

When the chronicler tells us that the Deluge was caused by the population of the world growing evil and that the Lord repented of his act of creation and decided to destroy it, he needs to ascribe to the animal world the same depravity and moral wretchedness that he ascribed to man. G. Couvier, paleontologist and catastrophist, asked with sarcasm: Was the fish free from ardent passions that it was spared in the common destruction? (But, to a great extent, it perished, too).

Man grew evil, a catastrophe destroyed him, but did the few survivors come purified by the disaster and by their own miraculous salvation? The biblical story of the deluge tells us that as soon as the waters subsided, Noah drank himself drunk, and his son, Ham, committed some act of indecency, the Midrashic version of the act being

castration of his drunken father; and this scene on the large stage of the devastated world, does not convey the thought that the worth-while ones were the object of salvation, nor does it lend support to the conviction that a global catastrophe is called for to rejuvenate humankind.

It is asserted that the Lord made a covenant with the survivors - Noah and his descendants - as he made another one, more detailed, with the survivors of the holocaust of the days of the Exodus - the deluge of fire - when, amid the groaning nature, Moses interpreted the groans as commandments. It is clearly in the domain of a psychological truth - this imposition of self-restraint, an awakening of the sense of good and evil. Man and the animal kingdom - all on this earth together - are bound by a common bond to placate the great power by self-restraint in pursuit of pleasures, by suppression of instincts, and by sacrificing pleasurable things to the all-powerful deities.

The deity must have created man good, if it, itself, is good; if it created man bad, then there is no point in punishing him for the nature with which he was endowed from the beginning. Where is left room for absolving the deity from being unjust? Obviously, in the self-accusation by man of having lost his innate purity and of having selected evil when he was free not to do so. Here again, man, by accusing himself of degeneration, grasps for the only hope of mollifying the Great Power, or great powers; he accuses his free will and behavior for what happened in the past and ascribes to the Deity a good plan, a perfect creation, a just attitude towards its creatures, though not a merciful one. Therefore, the Lord has to repent of having created man and animal; but where is, then, the prescience of Omnipotent?

And what particular sinfulness can be ascribed to animals? If one insect places its eggs into the body of another creature and the larvae when hatched will devour the host from the inside of his body - and if the Creator is not responsible for this arrangement, is the animal kingdom to be rightly accused of cruelty and insensitivity to the sufferings of others?

But the catastrophes did not eradicate or change such cruel urges, and witness to this is any book on zoology, especially on insects and their most cruel parasitic schemes needed for survival and procreation, or on the widespread urge to suck blood, and the almost omnipresent need to devour. With the last of these urges man is endowed, too; but strangely, the talmudic tradition tells us that only after the Deluge did man become carnivorous. Can this be regarded as a change from vice to holiness? Then is the belief that the world's population was nearly completely destroyed because its nature and behavior became unchaste or violent, only an invention to justify the act of uncontrollable powers? Was it invented to give solace and hope in the face of the unchained terrors of the past and equally horrifying prospects for the future? If bad inclination and outrage did bring chastisement, would not an upright spirit and good acts assuage the powers and avert the repetition of the act that carried the world to the brink of annihilation?





The Birth of Monotheism

Zeigt es sich so, dass die Religion Israels auch in der Gottesidee selbst dem Wandel unterworfen war, so kann das nur dem befremdlich order anstössig erscheinen, der an den Fortschritt menschlichen Denken nicht glaubt.

H. Torzyner, *Die Bundeslade und die Anfänge der Religion Israels*, (2nd ed., 1930), p. ii

The Israelites lived on the same planet as the other peoples; the same world catastrophes impressed them as the other peoples. The cause of the catastrophes, as far as it was known to the Babylonians or Egyptians, must have been known also to them. Since the world catastrophes were caused by planets, each of these planets must have been deified not by a single people, but by all peoples, without exception. The fact that the ancient Hebrew word for God, *Elohim*, is plural can be accounted for by this. The Bible critics since Julius Wellhausen⁽¹⁾ paid much attention to the fact that in diverse parts of the Bible God is named by diverse names: Adonai, Elohim, Jahwe. Accordingly the Bible critics discern those parts which were composed by the followers of the cult of Elohim, who supposedly lived in the Northern Kingdom (Israel) from those which were composed by the adepts of the cult of Jahwe, whose religious center was in Jerusalem (Judah). Then, in the opinion of these critics, at a later date the literary remnants of these two cults, together with the material composed by—and in the interest of—the priesterly cast (Priesterly codex) were edited together and thus the syncretized Bible came into being. No doubt, there are sections in the Biblical narrative where one or another name of God is persistently used to the exclusion of other of the Lord's names. The origin of this syncretized religion which eventually brought the Jewish people, and then through them a large portion of the human kind to monotheism is sought in local and regional deities which became gods of single tribes, then rising to the status of protective national gods; thus Jahwe is sometimes described as the local deity of the Sinai volcano who became the god of Israel; similarly Chemosh of Moab or Chiun of Amalek were local gods of those nations.

The historical facts are different. Gods of all nations were planetary gods, and actually the same gods. For one or another reason one or another tribe or people chose one or another deity as its protector and paid especial tribute to it. A new world catastrophe caused by another member of the planetary family would easily raise it to the position of the supreme deity; on the other hand the fidelity to the protective deity of the previous age would cause one or another tribe to remain faithful to the old cult;

religions and gods are tenacious contents of the human soul and peoples do not part easily from them. Thus we see how the worship of Jupiter superceded that of Saturn; the worship of Venus (Minerva, Athena, Astarte, Baal) in many regions eclipsed the worship of Jupiter; and the advent of Mars and its participation in celestial wars brought new schisms into religious thinking and caused new religious wars. Thus the Greeks battled under the patronage of the planet Venus (Athena) whereas the Trojans battled under the protection of Mars (Ares); but Ares was also recognized as god by the Greeks and Athena as a goddess by the Trojans. Similarly the Toltecs, faithful to the cult of Quetzalcoatl, the planet Venus, warred and succumbed in the war against the Aztecs, the younger race that proclaimed Mars (Huitzilopochtli) as their god. The Romans regarded Mars as their protective deity but their main sacrarium was dedicated to Jupiter and Minerva (Athena). Egyptians also regarded Amon as their supreme deity and Ra was its other name. In another cult center of Egypt Osiris and Isis were worshipped as supreme gods; in early times they represented Saturn and Jupiter; at a later time Isis became synonymous with Astarte-Athena, the planet Venus.⁽²⁾

A few peoples through consecutive planetary ages kept fidelity to the ancient Kronos (Saturn), whose age was previous to that of Jupiter. Thus the Scythians were called Umman-Manda by the Chaldeans,⁽³⁾ and Manda is the name of Saturn.⁽⁴⁾ The Phoenicians regarded El-Saturn as their chief deity; Eusebius informs us that El, a name used also in the Bible as a word for God, was the name of Saturn.⁽⁵⁾

The different names for God in the Bible reflect the process of going through the many ages in which one planet superceded another and was again superceded by the next one in the celestial war. El was the name of Saturn: Adonis of the Syrians, the bewailed deity, was also, like Osiris, the planet Saturn; but in the period of the contest between two major planets, Adonai, which means “my lords” became the appellation of the dual gods; then, with the victory of Jupiter, it came to be applied to him alone; thus Adonai and also Zedek was the name of Jupiter, and in the days of the patriarch Abraham, the cult of Jupiter was prominent in Jerusalem of the high priest Melchizedek (my king is Zedek).⁽⁶⁾ Zedek remained the name of Jupiter in the astronomy of the Jews in later ages and is used as such in the Talmud.⁽⁷⁾ There we find also the legend that in order to teach Abraham not to believe in astrology God reversed rising of the planet Zedek (Jupiter) and it began to move towards the west.⁽⁸⁾ In another passage of the Talmud it is said that “the planet Zedek made the night bright for him (Abraham)”⁽⁹⁾ meaning that his time was under the aegis of the planet Jupiter.

We recognize in the reversion of the revolution of Jupiter the cause of great catastrophes in the solar system which affected also the earth in the age of the patriarchs, or at the close of the Old Kingdom in Egypt. In that period Jupiter became the supreme deity having removed Saturn from its orbit. Meichizedek was the priest of the “Most High”—the name by which Jupiter was known to the Greeks: “all-

highest, mighty Zeus.”⁽¹⁰⁾

The end of the Middle Kingdom in Egypt was caused by a new world catastrophe: a period of a few centuries only intervened between this catastrophe and the previous one caused by Jupiter. Actually it was caused again by Jupiter, because the comet Venus was expelled from its body; this expulsion followed the contact of Saturn and Jupiter, and the fantasy of the peoples regarded Venus as a child of Jupiter, conceived to him by Saturn. But more than this origin of Venus, the fact that the peoples of the entire earth were confused and in many instances regarded Zeus-Jupiter as the planetary god that battled with the pillar of smoke or the trail of the comet, was of far-reaching consequences for the development of religion and the progress toward monotheism.

Yahwe was the name of the deity that caused the Middle Kingdom of Egypt to fall into ruins, bringing equally great or greater disasters to the rest of the world. The name of the deity became known only a little time before the catastrophe, and this is asserted in the Book of Genesis.

The sound “yahwe” heard, amidst the catastrophe was understood as the revelation of the name of the superior deity,⁽¹¹⁾ and since and since other planets were submissive to and dependent on the planet Jupiter it grew to the position of the supreme god, other gods being its messengers; angels or archangels. It is probable that Moses in his time, as Plato eleven hundred years later understood the supreme deity as existing above and beyond the planets, regulating them, ordering them, but not one of them; Plato speaks of God and also of gods or planets; and characteristically Numenius calls Plato “Moses speaking in an Attic dialect.”⁽¹²⁾ The fact that the Decalogue contains the prohibition to make an image of the god is a strong support to this idea of Moses being aware of a Supreme Power behind the terrible planets. According to the Biblical tradition Aaron made an image of a calf (Apis) at Mount Sinai, which is the image of Venus for many centuries to come; but due to the confusion concerning the agent of the catastrophe, Zeus is also often figured as a bull. As a bull it carries the Evening land to the east⁽¹³⁾—a reversal of the poles about which we spoke at an appropriate place.⁽¹⁴⁾ The cult of Apis actually started after the end of the Middle Kingdom, in the days of the Hyksos⁽¹⁵⁾ or, according to my reconstruction of ancient history (Ages in Chaos) in the very days which followed the Exodus of the Israelites from Egypt.

But it should not go unnoticed that Moses also built an image in the desert, the image of a serpent, and though there is found a rationalistic explanation of this his deed in the assumed fact that the contemplation of the serpent was a remedy for those who were bitten by snakes—an interesting psychosomatic idea—and though an abundance of reptiles, and especially snakes, was observed also in other places at that time—so in China of the Emperor Yahu,⁽¹⁶⁾ and the Arabian desert abounded with snakes still in the time of Esarhaddon in the seventh century,⁽¹⁷⁾ yet we are not persuaded that the

serpent made by Moses was not a religious symbol, a competitor of the calf image. It could have been the image of the pillar of smoke that went before the camp when the Israelites left Egypt. The Hyksos who at the same time invaded Egypt deified the snake deity known as Seth, Apopi, identified by the Greeks with on Typhon.⁽¹⁸⁾

Chiun, in the words of Amos: “Chiun, your images, the star of your god”⁽¹⁹⁾ denoting Saturn, in the opinion of Max Seligsohn,⁽²⁰⁾ is identified by Jerome as Lucifer⁽²¹⁾ or Venus; being an image of a star carried in the desert, it could be this serpent. The fact that Moses made an image—in violation of the second commandment of the Decalogue — is not necessarily inconsistent with his being a monotheist: there are many churches today where symbolic and even human figures are deified by people who profess to be monotheists. But as time passed, the presence of the serpent of Moses in the Temple of Jerusalem became so objectionable to the spirit of the prophets that in the days of Isaiah the serpent was broken into pieces.⁽²²⁾ Even though its original purpose may have been curative, it being the image of the angel who was sent in the pillar of fire and cloud to save the people of Israel from slavery, the brazen serpent with the lapse of time became an object of worship.

Whatever the sublime height to which the spirit of Moses carried him in the days of a cosmic catastrophe, with the passing of time the Jewish people reverted. to idolatry—and the pages of the Bible are full of testimony to this fact.⁽²³⁾

There were no images of the deity in the Temple of Solomon as there were in Egyptian and Babylonian temples, full of statues of the planetary gods. The ark of the covenant contained the tablets with the ten commandments and the holy spirit; the holy spirit, a metaphysic nebula of the theologians, may have partaken a little of the divine clouds that surrounded the Israelites in the desert and which were of extraneous origin; it was a portion of the deity, its emanation. Also a jar with manna of the same origin was preserved in the sacrum.

The god Yahwe was the supreme Deity of the Judeans and they excluded all other rival deities from their pantheon. But in the four odd centuries of the time of Wandering and the Judges the astronomical science made progress. Soon after the sky of the desert of Wandering became free from the carbogenous clouds and the Israelites emerged from the desert they saw the comet Venus, Noga, illuminating the sky. In the days of Joshua it caused the second derailment of the earth from its path in the short interval of fifty-two years. The Israelites could believe that it was still the old and furious planet Jupiter that descended close to the earth. But as time passed, and the new orientation of the sky became better known, and the old constellations were recognized in their new positions, and the planets in their new orbits, the astronomers of Babylon, Egypt and Palestine became aware that Jupiter is not the comet Venus. During the time of the Judges the name Baal was often applied to the deity of the most popular cult, as the names of many Israelites of that period attest.

When in the fifth year after the death of Solomon the Northern part of the kingdom was separated from Judah, Benjamin, Simeon and part of Levi a temple was built in Dan to compete with the temple in Jerusalem;⁽²⁴⁾ this temple of Dan was called “the house of High Places,”⁽²⁵⁾ which translates that it served also as an observatory or center for the cult of astral deities. Jeroboam actually renewed there the cult of Aaron: a calf was worshipped, at Dan.⁽²⁶⁾ On the Phoenician coast the deity Baal, or Belith (Baalith), which is Baal in its female form, or Ishtar (Astarte), which was also a male and a female deity⁽²⁷⁾ was worshipped, this being also the comet Venus.

The supremacy of Yahwe in the Jerusalem cult rose to monotheism. Elijah was its apostle in the Northern Kingdom, and he was in strife with the priests of Venus. The spreading of the cult of Venus (Baal, Baalith, Ishtar) in the Northern Kingdom was due not only to the external influence of the Phoenicians or Babylonians, but in the first place to the fact that Venus was the most conspicuous object in the sky, which illuminated as brightly as the sun,⁽²⁸⁾ and also to the fact that it threatened the world with new catastrophes, and finally to the fact that like the Babylonians, Egyptians or Brahmans, the Israelites could find out that it was Venus, not Jupiter, that caused the catastrophes in the middle of the second millennium, which in terms of the Israelite history meant that Venus is the celestial body which had ruined the Egypt of oppression and opened the way through the Sea of Passage. This astronomical understanding of facts, together with the brilliancy of Venus, caused many to fall away from “the God of the fathers,” or from the deity of the ancient age that, after all, was not the deliverer from the yoke of Egypt. This explains the long struggle between the adherents of Yahwe and the adherents of Baal. The adherents of the cult of the “God of our fathers,” pressed by the revelations of astronomical science, ceded so far as to say that if it was not the ancient Lord who caused the deliverance from Egypt, then it was his messenger, or angel. And though Jupiter became a modest looking object in the sky when compared with Venus, it is still the stronger one. Similarly in Greece the planet Jupiter (Zeus), which looks less imposing than Venus, was recognized as the stronger deity; although in the beginning there was also a confusion as to who had battled Typhon-Pallas, the pillar of cloud—Zeus or Athena—already in the days of Homer the supremacy of the planet Jupiter which is able to remove all other planets, the earth included, from their orbits, was recognized fact.⁽²⁹⁾

In Palestine, like in Mexico and in other places, Venus was appeased every fifty years, the sending of a goat to Azazel, or Venus, into the desert⁽³⁰⁾ was not a sacrifice to a worshipped deity but. the removal of a threatening and vicious deity. It seems that the Day of Atonement was observed in the beginning only once in fifty years, at the beginning of the year when Venus was expected on its cometary orbit. A number of instances in the Scriptures can be referred to to substantiate this point.⁽³¹⁾ And that Azazel is Venus is clear from the fact that Azazel was regarded as a fallen star-angel, which is Lucifer, another name of Satan. Set, the Egyptian name of the damaging comet, is the origin of the very name Satan. Uzza, the other form of Azza,⁽³²⁾ was

“thrown into the Red Sea”⁽³³⁾ which implies that the authors of this legend knew the role of Venus in the cataclysm of the Sea of Passage. Also in the Arab pantheon el-Uzza is the planet Venus,⁽³⁴⁾ and as late as the Middle Ages it was venerated in Mecca, and Mohammed also paid homage to it.⁽³⁵⁾ Thus Azazel to whom the scapegoat was sent was Venus.

When in the eighth pre-Christian century Mars supplanted Venus as the threatening planet the Hebrew prophets did not regard it as a deity by itself, but as a messenger of the Supreme Deity: “Behold, the Lord hath a mighty and strong one, which is a tempest, hail and a destroying storm, as a flood of mighty waters overflowing, shall cast down to the earth with the hand,”⁽³⁶⁾ said Isaiah. And Amos spoke of the Lord who makes Khima and Kesil, or Saturn and Mars.⁽³⁷⁾

It can easily be that hymns to Baal found place in the Scriptures, and only the name of the Hebrew God was substituted instead of Baal, though I would not vouch for this.⁽³⁸⁾ The chapter of Habakkuk makes the impression of describing an apparition of the comet Venus:

“His glory covered the heavens...and his brightness was as the light; he had horns coming out of his hand... burning coals went forth at his feet ... [he] drove asunder the nations; and the everlasting mountains were scattered... Was thine anger against the rivers? Was thy wrath against the sea, that thou didst ride upon thine horses and thy chariots of salvation...? Thou didst cleave the earth with rivers. The mountains saw thee, and they trembled: the overflowing of the water passed by: the deep uttered his voice... The sun and moon stood still in their habitation: at the sight of thy arrows they went, and at the shining of thy glittering spear. Thou didst march through the land in indignation, though didst thresh the heathen in anger... Thou didst walk through the sea with thine horses, through the heap of great waters.”⁽³⁹⁾

In Judea Jupiter by-and-by became the Supreme God, not connected with any planet, a process that can be traced also in the writings of Greek philosophers, Plato in the first place, some five hundred years later. Thus religion was at odds with astronomy of the age. But in the Northern Kingdom the process of disassociating the deity from the celestial object had not yet been completed when the Kingdom was destroyed (-723 or -722), and its population was led away into captivity, from which they did not return. “And they [the tribes of the Northern Kingdom] left all the commandments of the Lord their God, and made them molten images, even two calves, and made a grove, and worshiped all the host of heaven and served Baal” (II Kings 17:16).

Since the day when Israel became a people, this Earth was severely threatened at two periods: in the days of the Red Sea passage with an epilogue at Gibeon and in the days of Jerusalem and Sennacherib, with prologues in the days of Ussiah and on the

burial day of Ahaz. At the Red Sea as well as at Jerusalem heavenly wrath destroyed the host of a cruel oppressor.

Great was the wonder at the natural phenomenon which took place at the sea, but it had its physical cause. Really wondrous was the coincidence: Escaped slaves, encircled by a pursuing foe, stood before the stormy sea, when it was rent asunder before the persecuted ones, and shortly thereafter swallowed up the pursuing host of the tyrant.

When, some seven hundred years later, the Earth was again drawn out of its path, once more the wonder lay not in the retrograde rotation of the Earth for a few hours or minutes, but in the coincidence: the army of the despot before whom the whole world trembled, who had just blasphemed against the Lord of Heaven and Earth, was encamped on its way to storm Jerusalem, and the very night before the attack could begin it was scorched by a heavenly blast of combusting gases. In the morning the army was but a heap of one hundred eighty five thousand dead bodies.

Two great catastrophes, two great salvations—how could a people fail to believe that it was preserved for some great destiny?

After -687, one hundred years passed by. Not only did Hezekiah receive a period of grace, but also the people of Jerusalem—from -687 to -587.

The result of the great wonder in the days of Hezekiah was the reverse of what it should have been. Only a few years after the deliverance of Judea from the hand of Sennacherib, Manasseh, son of Hezekiah, who at the age of twelve succeeded his father Hezekiah on the throne of Jerusalem, came under the influence of diviners hostile to Isaiah, and alienated himself from the spirit that dominated the palace in the days of his father. He “observed times,” which means that he followed the advice of the astrologers, who read in the constellation of the planets orders and vetoes for kings and their peoples. During the greater part of Manasseh’s reign, which endured for more than half a century, planets were officially worshipped in Jerusalem. Manasseh “built altars for all the host of heaven in the two courts of the house of the Lord” (II Kings 21 : 5). “For he [Manasseh] built again high places which Hezekiah his father had broken down, and he reared up altars for Baalim, and he made groves, and worshipped all the host of heaven, and served them” (II Chronicles 33 : 3). This was actually a realistic interpretation of the matter.

It was in the time of Josiah, grandson of Manasseh, and shortly before the exile of Judah to Babylon, that a pure monotheism emerged as an outcome of the progress the Jewish people had made during its long struggle for national existence, on the one hand, and for purification of its concept of God, on the other. “And the king [Josiah] commanded Hilkiyah the High Priest ... to bring forth out of the Temple of the Lord all the vessels that were made for Baal and for the grove, and for all the host of heaven: and he burned them without Jerusalem in the fields of Kidron, and carried the ashes of them into Bethel. And he put down the idolatrous priests, whom the kings of Judah

had ordained to burn incense in the high places in the cities of Judah, and in the places round about Jerusalem; them also that burned incense unto Baal, to the sun, and to the moon, and to the planets, and to all the host of heaven” (II Kings 23 : 4-5).

In the last passage the division of the astral gods is the same as that used by Democritus, who spoke of “Venus, sun, and moon, and the planets, thus affording to Venus a special position, a fact that surprised the commentators.”⁽⁴⁰⁾

Jeremiah had a clear conception of a God who is over the entire creation. “Do not I fill heaven and earth? saith the Lord” (Jeremiah 23:24).

The Scriptures do not hide the fact that in Judea, as well as in Israel, the planetary cult was the official cult with the priests and with kings, with many prophets and with the people. Thus Jeremiah, contemporary of King Josiah, says: “At that time, saith the Lord, they shall bring out the bones of the kings of Judah, and the bones of his princes, and the bones of the priests, and the bones of the prophets, and the bones of the inhabitants of Jerusalem, out of their graves: and they shall spread them before the sun, and the moon, and all the host of heaven, whom they have loved, and whom they have served, and after whom they have walked, and whom they have sought, and whom they have worshipped” (Jeremiah 8 : 1-2). And again he says: “And the houses of Jerusalem, and the houses of the kings of Judah, shall be defiled as the place of Tophet, because of all the houses upon whose roofs they have burned incense unto all the host of heaven” (Jeremiah 19 : 13).

In the days of Jeremiah and King Josiah, a scroll was found in a chamber of the Temple (II Kings 22). It is generally thought that it was the book of Deuteronomy, the last book of the Pentateuch. The text of the scroll made a strong impression on the king (Deuteronomy 4:19):

And lest thou lift up thine eyes unto heaven, and when thou seest the sun, and the moon, and the stars, even all the host of heaven, shouldest be driven to worship them, and serve them, which the Lord thy God hath divided unto all nations under the whole heaven.”.

The scroll continued: “Thou shalt not make thee any graven image, or any likeness of any thing that is in heaven above, or that is in the earth beneath...” (5:8), which is a passage of the Decalogue (Exodus 20 : 4) verbatim.

If there be found among you...man or woman, that hath wrought wickedness... and hath gone and served other gods, and worshipped them, either the sun, or moon, or any of the host of heaven, which I have not commanded... then shalt thou bring forth that man or that woman... and shall stone them with stones, till they die. (17: 2-5).

Thus we see the centuries-long struggle for the Jewish God, Creator and not

unanimated planet, itself a creation, being carried on in the closing decades before the exile to Babylon with the help of the book whose authorship was ascribed to Moses.

In -587 Jerusalem underwent a long siege by the host of the Chaldeans. Nebuchadnezzar, a fourth-generation descendent of Sennacherib, beleaguered Jerusalem. Jeremiah did not tell the king and the people, as did Isaiah a century before, that the Lord would save them from the hand of the conqueror. Jerusalem heroically defended itself for eighteen months; at last its walls were broken through and soon thereafter the temple and the city were destroyed by the host of Nebuchadnezzar, and became a desolation. The people was dragged into slavery.

When the people of Jerusalem were exiled to Babylon, and group of refugees succeeded in escaping to Egypt, taking with them Jeremiah, they said to him: "But we will certainly ... burn our incense unto the queen of heaven, and to pour out drink offerings unto her, as we have done, we, and our fathers, our kings, and our princes, in the cities of Judah, and in the streets of Jerusalem: for then had we plenty of victuals and were well, and saw no evil. But since we left off to burn incense to the queen of heaven, and to pour out drink offerings unto her, we have wanted all things, and have been consumed by the sword and by the famine" (Jeremiah 44:17-18).

It is apparent from this passage that the population of Jerusalem that sought refuge in Egypt thought the national catastrophe fell upon their people, not because they had left the Lord God, but because in the days of Josiah and his sons they had ceased to worship the planetary gods of Manasseh and especially the Queen of Heaven, the planet Venus.

Of this remnant of the people that went to Egypt in the beginning of the sixth century a military colony was established in Ebb (Elephantine) in southern Egypt. Documents (papyri) of this colony were unearthed in the beginning of this century. The Jewish colony in Elephantine faithfully worshipped Yahu (Yahwe), the Lord of the sky, as the theophoric names of many members of the colony testify. Scholars were puzzled, however, to find on one of the papyri the name Anat-Yahu; they were uncertain whether it belonged to a goddess or a place or a person. "Anat is the familiar name of the Canaanite goddess identified with Athene in a Cyprian inscription."⁽⁴¹⁾ The historical facts revealed in the present research make the understanding of such cult easier. The dark tradition that it was the planet Venus that played such an important role in the days when the forebears of these refugees in Egypt left that land and passed through cataclysms of fire and water, sea and desert, was responsible for this syncretism of names.

But at that time the ideas of Jeremiah and other prophets of monotheism grew to a strong flame in the soul of the people, and the moral code of the Jewish people was carried with the exile towards the east, and only a few decades after the destruction of the Temple of Jerusalem by Nebuchadnezzar, Buddha in India and Laotze and Confucius in China started their gospels.

The idea of some Bible critics that the Jewish people obtained their idea of monotheism in the Exile of Babylon is wrong. The Assyrians and Babylonians, according to the inscriptions which survived in abundance, worshipped simultaneously all planets. Marduk or Jupiter was the Supreme God, but in various times or even in single periods in the life of a single person, this or that deity was obtaining preeminence. So we see that Nebuchadnezzar in his younger years worshipped Astarte (Ishtar)-Venus and in later years Marduk-Jupiter; and his name indicates a reverence for Mercury (Nebo).

The Jewish people did not obtain all of its “supremacy”⁽⁴²⁾ in that one day at the Mountain of Lawgiving; this people did not receive the message of monotheism as a gift. It struggled for it; and step by step, from the smoke rising from the overturned valley of Sodom and Gomorrah, from the furnace of affliction of Egypt, from the deliverance at the Red Sea amid the sky-high tides, from the wandering in the cloud-enshrouded desert burning with naphtha, from the centuries-long battle for freedom against the Amalekite-Hyksos tyranny, from the internal struggle, from the search for God and for justice between man and man, from the desperate and heroic struggle for national existence on its narrow strip of land against the overwhelming empires of Assyria and Egypt, it became a nation chosen to bring a message of the brotherhood of man to all the peoples of the world.

In years to come, one from their midst was made god by many from among the most cultured peoples of the world; the Jews dispersed in exile among the nations were required to believe that one of their midst was god, or God’s “only son.” After having achieved pure monotheism seven hundred years earlier they would not retreat to worship god in the effigy of man. Which other people would reject the demand to believe in one of their own as the god for all nations and the lord of the universe? How much preference they could draw from it, being the nation from which God’s only son had sprung? Probably every nation of the world would have exploited such an opportunity for its own benefit, becoming priests of the world. But the Jewish people achieved its idea of God through too many sacrifices, and it was too conscious of this fact to make a deal and to succumb to this temptation; and it went to all sufferings, consciously, for the right to proclaim the faith in the only God. With this sentence they went on the *auto da fé* of the Inquisition of the Church of Love: “Hear, O Israel, there is but One God.” With these words on their lips, no doubt, most of the six million Jews who were murdered in our days ended their lives in the gas chambers built by Germans or on the gallows built by the British. The Jewish people did not invent monotheism, nor did it receive it in an easy way: it struggled to come to it, and when it came to it, it carried the message to all corners of the globe, suffering everywhere for not abandoning its conviction in an only God and one mankind.

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22. This was done by King Hezekiah. See II Kings 18:4.
23. Cf. Moses' warning against the worship of the heavenly bodies in Deut. IV:19, XVII.3; also Exodus XX:4, Deut. V;8; II Kings XVII:16, XXI:5; XXIII:4-5, 11-12; Zeph. 1:5; Jeremiah VIII:2, XIX 13, also VII.8.
24. I Kings 12: 26-29.
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Anaxagoras

Science started in the shadow of prison bars. Anaxagoras, who was born on the western shore of Asia Minor about the year 500 before the present era, taught “the moon has a light which is not its own, but comes from the sun.” From this it followed: “The sun is eclipsed at the new moon through the interposition of the moon.” ⁽¹⁾

“He was the first to set out distinctly the facts about the eclipses and illuminations,” wrote Hippolytus, a father of the Church, in his *Refutation of All Heresies*.

In the first century of the present era Plutarch gave this account:

Anaxagoras was the first to put in writing, most clearly and most courageously of all men, the explanation of the moon’s illumination and darkness. . . . His account was not common property, but was [still] a secret, current among only a few . . . For in those days they refused to tolerate the physicists and stargazers, as they were called, who presumed to fritter away the deity into unreasoning causes, blind forces, and necessary properties. Thus Protagoras was exiled, and Anaxagoras was imprisoned and with difficulty saved by Pericles. ⁽²⁾

Anaxagoras was accused of impiety and sentenced for holding that the sun is a red-hot stone and the moon is of earthy nature. This was in disagreement with the view that these luminaries were deities. He taught: “The sun, the moon, and all the stars are stones of fire, which are carried round by the revolution of the aether.” ⁽³⁾

Anaxagoras was put in prison and was marked for death, but Pericles barely succeeded to release him from the death house and set him free. ⁽⁴⁾ According to another account he was fined the heavy fine of five talents of silver and banished. ⁽⁵⁾ Possibly, the fine and expatriation were imposed upon him in lieu of capital punishment, by Pericles’ endeavor.

According to Theophrastus, Anaxagoras held that the moon was sometimes eclipsed by the interposition of other bodies (besides the earth) traveling below the moon. ⁽⁶⁾ Modern science does not know of such occultations of the moon and therefore denies such an explanation. Only large swarms of meteorites or comets, if interspersed between the earth and the moon, could cause the phenomenon.

Anaxagoras taught also that the terrestrial axis changed its direction in the past.⁽⁷⁾ But if to give credence to Hippolytus, he thought that “the earth is flat in form.”⁽⁸⁾ However, he believed that there are many earths like ours. According to a fragment of his,

Men were formed and other animals which have life; the men too have inhabited cities and cultivated fields as we do; they have also a sun and a moon and the rest (of the stars) as we have, and their earth produces for them many things of various kinds.⁽⁹⁾

In this there was already an initial departure from the belief in the uniqueness of the earth and its central position in the universe.

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Aristarchus

The first of the Greek philosophers and mathematicians to unravel the celestial plan and announce the discovery was Aristarchus of the isle of Samos. Others before him assumed that the Earth is a sphere and that it moves, but he was the first to formulate plainly the heliocentric theory, the scheme which has the Sun in the center.

Aristarchus lived from about the year 310 before the present era to about 230, and among the geometers he succeeded Euclid and preceded Archimedes. In -288 or -287 he followed Theophrastus as the head of the Peripatetic School established by Aristotle.

Aristarchus' only extant treatise is "On the Sizes and Distances of the Sun and Moon." In it he calculated the diameter of the Sun as about seven times the diameter of the Earth, thus estimating the Sun's volume as about 300 times the volume of the Earth (the actual diameter of the Sun is about 300 times the diameter of the Earth; the solar volume is equal to 1,300,000 volumes of the Earth). In this work of Aristarchus there is nothing indicating his heliocentric theory. It was probably this his realization of the superior mass of the Sun that brought him to his discovery. Or should a celestial body three hundred times larger than the Earth revolve around it each day?

Aristarchus' book on the planetary system with the Sun in the center did not survive, and we know of it only through references to its content, chiefly by Archimedes. Archimedes, who was twenty-five years his junior, wrote: "Aristarchus brought out a book consisting of certain hypotheses. . . . His hypotheses are that the fixed stars and the Sun remain unmoved, and that the Earth revolves about the Sun in the circumference of a circle, the Sun lying in the middle of the orbit." He also added that according to Aristarchus who is in contradiction to "the common account" of astronomers, the universe is many times larger than generally assumed by astronomers, and the fixed stars are at an enormous distance from the Sun and its planets.⁽¹⁾ Aristarchus regarded the Sun as one of the fixed stars, the closest to the Earth. "Aristarchus sets the Sun among the fixed stars and holds that the Earth moves round the sun's circle (i.e., ecliptic)" referred another author, centuries later.⁽²⁾

As Archimedes said, the view of Aristarchus conflicted with the common teaching of the astronomers, and he also quoted it only to put it aside disapprovingly. One of the contemporaries of Aristarchus, Cleanthes, wrote a treatise "Against Aristarchus."⁽³⁾ Whatever his scientific argument may have been, he accused Aristarchus of an act of impiety. Plutarch wrote in his book *Of the Face in the Disc of the Moon* (*De facie in orbe lunae*) that Cleanthes "thought it was the duty of the Greeks to indict

Aristarchus of Samos on the charge of impiety for putting in motion the Hearth of the Universe, this being the effect of his attempt to save the phenomena by supposing heaven to remain at rest and the Earth to revolve in an oblique circle, while it rotates, at the same time, about its own axis.” (4)

We do not know whether there was any actual court action and verdict; however, we know that a verdict of judges, even if unanimous, could not make the Sun a satellite of the Earth. Not even a scientific tribunal can do this, not even if it is presided over by Archimedes and the most illustrious men of the generation sit as judges.

The spokesman of the scholarly world was Dercyllides, who announced that “we must assert the Earth, the Hearth of the house of the Gods, according to Plato, to remain fixed, and the planets with the whole embracing heaven to move and reject the view of those who brought to rest the things which move and set in motion the things which by their nature and position are unmoved, such a supposition being contrary to the theories of mathematicians.” (5)

Aristarchus had no followers in his generation, nor in the next generation. About a century after Aristarchus, Seleucus, a Chaldean of Seleucia on the Tigris, who lived and wrote about the year 150 before the present era, adopted the teaching of Aristarchus.

Hipparchus was a contemporary of Seleucus. Hipparchus is thought to be the greatest astronomer of antiquity, and even today there are worshippers of his among the members of the faculties. But he rejected the heliocentric system of Aristarchus, and this he did not on a religious ground, but on a scientific one. A system with the Sun in the center of circular orbits could not account for the peculiarities in the visible motions of the planets, but the theory of epicycles could, and this theory had the Earth immobile in the center of the universe.

Thus the religious dogma and the mathematical analysis, both, condemned Aristarchus and his teaching that the Earth circles around the Sun.

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Plato

In -399 Socrates was made to drink poison to expiate his crimes by the verdict of an Athenian court. Following his death, Plato, his disciple then about twenty-eight years old, left Athens for a short sojourn at Megara, followed by a longer stay in Italy and Sicily (Syracuse); he also traveled to the Middle East. Only very little is known of this travel.

When a boy of about ten, Plato heard the story of Atlantis from his friend and playmate Critias the younger, what the latter was told by his grandfather, Critias the older, who in his turn had heard it from his friend Solon, who came to Sais in Egypt to learn wisdom and hear the ancient lore. From a very old priest he learned that in the past there had occurred several global catastrophes; in one of them Atlantis was swallowed by the waters of the Atlantic Ocean; in another—the one which the Greeks associated with Phaethon—there was a great conflagration caused by “a deviation of the bodies that revolve in heaven round the earth.” [\(1\)](#)

On his travels, Plato, too, endeavored to learn wisdom from the wise men of the East. But since the time of Solon’s visit in Egypt that country went through a spiritual debasement and it is questionable whether anyone of the priestly class there could be counted as a spiritual peer of Ezra, or a worthy teacher of Plato in search of wisdom.

Later Greek philosophers regarded Plato as influenced by Mosaic teaching. “Plato derived his idea of God from the Pentateuch. Plato is Moses translated into the language of the Athenians,” wrote Numenius and was quoted by Eusebius. [\(2\)](#)

If one considers Plato’s monotheism, his concept of an invisible and supreme spiritual Being, so different from the prevalent polytheism of other Greek philosophers and so remote from the pantheon of Homer and its scandalous Olympians with their permanent strife and marital and extra-marital affairs with mortal women, one is inclined to think that Plato, at the time of his travel to Egypt thirty years old, happened to sit at the feet of Ezra. A late Greek tradition has it that Aristotle on his travel to the lands of the eastern Mediterranean met a very wise Jew from whom he learned much wisdom. [\(3\)](#) However, it is not known whether Aristotle ever went to Palestine and Egypt. Besides, in Aristotle, a pupil of Plato, one feels a return to a polytheistic astral religion. Could it be that the indebtedness of Greek thought in the days of Plato to the Semitic idea of one and single invisible Creator stemmed from Ezra? We also don’t know of any “wise and knowledgeable man” approximating Ezra’s stature in the next few generations. All this belongs to the

realm of the possible but unproven, and the probable presence of Ezra in Jerusalem after -398 (in the days of Artaxerxes II) is of interest for this intriguing problem. [\(4\)](#)

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4. See *Peoples of the Sea*, "Ezra."





Cicero and Seneca

Cicero in the last century before the present era, the statesman and philosopher of republican Rome, declared the stars to be gods. The divinity of the planets he explained by their occupying the sublime positions and by their following unerringly their paths.

Since the stars come into existence in the aether, it is reasonable that they possess sensation and intelligence. And from this it follows that the stars are to be reckoned as gods. For it may be observed that the inhabitants of those countries in which the air is pure and rarefied have keener wits and greater powers of understanding than persons who live in a dense and heavy climate. . . . It is therefore likely that the stars possess surpassing intelligence, since they inhabit the ethereal region of the world.

Again, the consciousness and intelligence of the stars is most clearly evinced by their order and regularity . . . the stars move of their own free will and because of their intelligence and divinity. . . . Not yet can it be said that some stronger force compels the heavenly bodies to travel in a manner contrary to their nature, for what stronger force can there be? It remains therefore that the motion of the heavenly bodies is voluntary. . .

Therefore the existence of the gods is so manifest that I can scarcely deem one who denies it to be of sound mind.

This dogmatic thinking, changing the statute of faith but not the mode of thinking, existed in all ages: in the Rome of Cicero and Caesar, in the Rome of the Catholic Church, in modern observatories. The categorical manner in which the dissidents are castigated as being of unsound and vicious mind can be seen again in the burning of Giordano Bruno, in the compelling of Galileo to recant on his knees, in the coercing of the publisher of *Worlds in Collision* to give up the publication.

The notion expressed by Cicero that planets are divine bodies endowed with divine intelligence was deduced not from the fact of their occupying the ethereal heights and moving unerringly—these attributes were only called upon to prove the existing idea of planets and stars being gods. And the source of this belief, deep-rooted and widespread, was in natural phenomena and extraordinary events of the past that grew dimmer with every passing generation.

Pliny, the Roman naturalist of the first century, knew to tell of interplanetary discharges: “Heavenly fire is spit forth by the planet as crackling charcoal flies from a burning log.” Interplanetary thunderbolts, according to him, have been caused in the past by each of the three upper planets—Mars, Mercury and Saturn.

Seneca, the contemporary of Pliny, mentor of Nero and philosopher, was no mathematician and no astronomer; however, he rose to a clearer concept of comets as members of the planetary system. The prevailing view was that of Aristotle, according to whom the comets are exhalations of the earth in sublunar space, something of the nature of rainbows. Seneca regards them as bodies akin to planets, yet not planets, on very elongated orbits, and he knows that the Chaldeans have determined their orbits: “Apollonius of Myndus asserts that comets are placed by the Chaldeans among the number of the wandering stars (i.e., planets) and that their orbits have been determined.” ⁽¹⁾ He knows that comets are seen only when they come close to the sun, or when they reach the lowest portion of their course. He opposes the view that the comets are unsubstantial bodies; the argument is brought forward that the sight can penetrate through comets and see the stars behind; Seneca answers that this is the case with the tails of the comets, not with their heads, through which one cannot see. He knows the view expounded by Artemidorus that “the five planets are not the only stars with erratic courses, but merely the only ones of the class that have been observed. But innumerable others revolve in secret, unknown to us, either by the faintness of their light, or the situation of their orbit being such that they become visible only while they reach its extremities.”

“The day will yet come,” wrote Seneca in his treatise *De Cometis*,

when the progress of research through long ages will reveal to sight the mysteries of nature that are now concealed. A single lifetime, though it were wholly devoted to the study of the sky, does not suffice for the investigation of problems of such complexity. And then we never make a fair division of the few brief years of life as between study and vice. It must, therefore, require long successive ages to unfold all. The day will yet come when posterity will be amazed that we remained ignorant of things that will to them seem so plain. The five planets are constantly thrusting themselves on our notice; they meet us in all the different quarters of the sky with a positive challenge to our curiosity.

The man will come one day who will explain in what regions the comets move, why they diverge so much from the other stars, what is their size and their nature.

Many discoveries are reserved for the ages still to be when our memory shall have perished. The world is a poor affair if it does not contain matter for investigation for the whole world in every age . . . Nature does not reveal all her secrets at once. We imagine we are initiated in her mysteries. We are, as yet, but hanging around her outer courts.

Seneca was compelled to take his own life when accused of plotting against Nero, his pupil. He was born in the same year as Jesus of Nazareth. In less than three hundred years Rome was to become the citadel of the new religion. Three forces kept science from progressing and brought about the dark ages: the invasion of the hordes coming from the east and north; the influence of the Church that imposed dogmas and made the human spirit unfree; and the scientific dogma that petrified itself in a thousand-year-long worship of Aristotle—through all the years of the Middle Ages, with their crusades, scholasticism, and Black Death.

A strange amalgam of the Christian dogma and Aristotelianism became the credo of the Church, that regarded the world as finite, the earth as the center of the universe, and also immovable. The codification in the science of astronomy was performed by a distant pupil of Aristotle, Claudius Ptolemy, an Alexandrian astronomer and mathematician, the greatest authority in those sciences for his own age—he lived in the second century—and for all successive centuries until the time of de Brahe and Kepler, almost fifteen hundred years later, it was the undisputed dogma.

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Newton

In the year Galileo died (1642), Newton was born. At the age of twenty-four, when a plague was ravaging the cities of England, he secluded himself at his parental home in Lincolnshire and there contemplated the motions of the heavenly bodies. This work of his was put aside for two decades; it was not until the year 1686 that the first edition of *Philosophiae Naturalis Principia Mathematica* was published. A testimony is preserved that says the figures Newton had of the size of the earth and thus of the terrestrial radius were rather inexact—and consequently his computations of the Earth's gravitational pull did not agree with observations. And, it is said, when the French savant, J. Picard upon measuring the meridian in Lapland, came to the correct result, that Newton became confident of his formula for inertia and gravitation. ⁽¹⁾

Life—claims (Hooke, Flamsteed, Leibnitz). Light corp.; space empty; how does gravitation act? nature of gravitation; law of simplicity.

When explaining his theory of celestial mechanics, Newton used the following example. A projectile—a stone—is thrown horizontally from the top of a high mountain; because of its weight it is

forced out of the rectilinear path, which by the initial projection alone it should have pursued, and made to describe a curved line in the air; and through that crooked way is at last brought down to the ground; and the greater the velocity is with which it is projected, the farther it goes before it falls to the earth. We may therefore suppose the velocity to be increased, that it would describe an arc of 1, 2, 5, 10, 100, 1000 miles before it arrived at the earth till at last, exceeding the limits of the earth, it should pass into space without touching it. ⁽²⁾

At a very definite curve, the result of a very precise and definite velocity of projection, the stone would follow the circumference of the earth and “return to the mountain from which it was projected” without falling to the ground or flying off into space.

For the sake of this example, “let us suppose that there is no air about the earth or at least that it is endowed with little or no power of resisting,” and that only the weight of the projectile causes it to bend its path.

One can observe that these two figures differ by seven percent, and that therefore complete correspondence is an exaggeration. There are other, much more close

correspondences involving our moon, and they still belong in the domain of coincidences. The moon, for instance, is placed so on its orbit that it appears nearly the same size as the sun, and actually, during the full eclipses, the moon chances so to cover the sun that only the solar corona is seen over the dark zone of the moon. Also the already mentioned fact that the moon's mean distance is very nearly equal to sixty terrestrial semi-diameters, the number of seconds in a minute; or the fact that light travels 186,000 miles in a second, and the diameter off.

At the age of fifty, when the biological process of involution generally sets in in man, Newton became ill and depressed. The excessive exploitation of his brain, his unrelenting search for answers to nature's unsolved problems undermined and disturbed the mental balance of the genius. When Newton was forty-five years old, his *Principia* was published. Then he worked on optics. The story goes that he left his manuscript on the table close to a burning candle and went out of the room to look at a procession; a pet overturned the candle and the manuscript burned. This misfortune started his depression. It is questionable whether this is a true story. In a young man mental depression usually sets in when the person faces a big task and is afraid to fail; in the second half of life, the person becomes depressed mostly as the result of slighting and humiliation. It would be wrong to think that a person who is great is protected by his greatness from the feeling of slighting and humiliation. Newton's experiences with Hooke, with Leibnitz, and with Flamsteed could have been the real cause.

Edlestone, *Correspondence*, p. LXIII.

Brewster, *Life of Newton*, II, 142.

Dr. Ferd. Rosenberger, *Isaac Newton und seine physikalischen Prinzipien* (Leipzig, 1895).

Letter to Pepys (p. 278 in Rosenberger)

It is possible and even probable that if Newton lived in our time he would not support his theory of the mechanical movement of the planets. At the end of the *Principia* he wrote:

But hitherto I have not been able to discover the cause of those properties of gravity from phenomena, and I have no hypotheses; for whatever is not deduced from the phenomena is to be called an hypothesis; and hypotheses, whether metaphysical or physical, whether of occult qualities of mechanical, have no place in experimental philosophy.

Thus he felt that he left his theory of gravitation unjustified because he was unable to explain the cause of gravity and the nature of this phenomenon. However, he must have had some intuitive inkling of where to look for explaining gravitation, because

on the same page, which is at the end of the third book of *Principia*, he wrote:

References

1. But cf. the comments of F. Cajori in his edition of Newton's *Principia* (Berkeley, 1946), p. 663. Cf. also the *Mathematical Gazette* 14 (1929), p. 415.
2. Isaac Newton, *The System of the World*, Sec. 3, published with his *Principia* , transl. Motte, ed. F. Cajori (1946).





Descartes

In 1633 Rene Descartes, philosopher and geometer, then thirty-seven years old, was preparing for publication a great work, *Le Monde et le Traite de l'Homme*, when at the end of November of that year the news arrived at Deventer, Holland where Descartes was staying at that time, of the persecution to which Galileo had been subjected in Rome. Not desirous of coming into conflict with the Catholic Church, Descartes decided against the publication of his work and, being also a practicing Catholic, he wrote to the mathematician Marin Mersenne:

This [the condemnation of Galileo] came as so much of a surprise to me that I have all but made up my mind to burn my papers in their entirety, or at least not allow them to be seen by anyone. For I could not imagine that Galileo would have been prosecuted for anything else but that, no doubt, he must have wanted to establish the motion of the Earth which, I am well aware, was at one time censured by several cardinals; but I thought I heard it said that even afterwards the public teaching of it was not discontinued, not even in Rome; and I confess that if it is wrong, so are the entire foundations of my philosophy, for it [i.e., the motion of the Earth] is demonstrated by them, evidently. And it is so closely tied to all parts of my treatise that I would not know how to separate it without making the rest defective. But since I would not for anything in the world want that from me should come so much as a word disapproved of by the Church, I would prefer to suppress it, rather than to let it appear mangled. . . . I beg you also to send me whatever you know about the Galileo affair.

Descartes never again picked up the manuscript, and it was not published until decades later, long after his death. Instead, in 1644, Descartes published his *Principes de la Philosophie*, in which he developed his theory of the mechanism of planetary motions. The universe is filled with subtle matter, some kind of effluvium, not much different from the ether of later authors; the sun by its rotation causes this effluvium to be concentrated in vortices that carry the planets around the sun on their orbits.

Whatever was the manner whereby matter was first set in motion, the vortices into which it is divided must now be so disposed that each turns in the direction in which it is easiest for it to continue its movement for, in accordance with the laws of nature, a moving body is easily deflected by meeting another body.

Descartes' theory of vortices soon became the accepted teaching about the

mechanism of the solar system.

Descartes himself proved, however, that philosophers who solve the mysteries of the world can commit fatal mistakes. After some deliberation and wavering, he accepted the insistent invitations to teach philosophy to Queen Christina of Sweden. As so many shallow persons, she was flattered to have the most famous philosopher of Europe at her feet—and actually at her bedside—for she ordered him to appear every morning at five to start the lesson. He cared for nothing more in his habits as for a late rising. The cold nights and early morning hours in the winter of Sweden broke his health, and four months after arrival in Sweden he died there from pneumonia.

Cartesian philosophy finds many followers until today. But his scheme of things celestial has long been regarded as discredited: this teaching prevailed on the continent in his lifetime and still in the lifetime of Newton, but not much longer.





Laplace

On February 10, 1773, Pierre Simon Laplace, a twenty-three years old scientist, read before the Academy of Sciences in Paris a paper in which, on the basis of the Newtonian theory of gravitation, he announced the invariability of planetary mean motions. "This was the first step in the establishment of the stability of the solar system," says the *Encyclopaedia Britannica* (14th ed.). A mathematical genius, Laplace showed in a mathematical analysis that the planets must proceed on their paths to the end of time and that, accordingly, they have been on their present orbits since the very beginning. In a series of papers Laplace and Lagrange, another mathematical genius whose ideas went in the same direction, vied in a complete substantiation of this thesis of invariability of the planetary mean motions. No planet could ever have joined the family of the planets; no planet has ever changed its orbit. It was a work of stability in the cosmos carried through to the very eve of the French Revolution. In 1796, in a note to the *Exposition du systeme du monde*, Laplace offered his idea of the origin of the solar system. it was a large nebula, it rotated, and because of the gravitation of the mass to its center, a sun formed itself in the middle, and condensed. The outer parts of the nebula broke into rings, and the rings rolled themselves into globes—the planets. He insisted that there could be no accident in the fact that the sun, all known planets, all known satellites, roll in the same direction, counterclockwise. And, being a master of the theory of probabilities, he concluded that there are four billion chances against one that this plan is not the result of chance. Even the best known historical events have not been authenticated at the same ratio of four billion against one. By today we known that Laplace was wrong: with the discovery of the first retrograde satellite—and today more than ten retrograde satellites are known. The rotation of Venus is also retrograde, as is that of Uranus, discovered in 1781. The four billion against one odds became zero against one: there may still be a common plan in the arrangement, but this plan was no more evident.

Nevertheless, the estimate of the twenty-three year old Laplace that the planetary orbits are eternal became the principal statute of faith, or the supreme dogma of the astronomers of the nineteenth and twentieth centuries. On it is based the astronomy of today.

According to Laplace, gravitation, in order to keep this system together, must propagate with a velocity that, compared to the velocity of light, is at least fifty million times greater. And since light propagates with the velocity of 300,000 kilometers in a second (186,000 miles), the velocity with which gravitation must propagate in order that the solar system should not fall apart must be infinite, or instantaneous. This last postulate of Laplace was sometimes silently dropped out of his theory; and the permanency of the celestial orbits remained, and served as alpha

and omega of all subsequent thinking.





Voltaire

Francois Marie Arouet de Voltaire (1694-1778), wit, liberal, and freethinker, at the age of thirty-one was insulted by Chevalier de Rohan and answered with a biting sarcasm. A little time later, when dining at the table of the Duc de Sully, he was asked to step out and was beaten by the servants of Rohan, who looked on. For three months Voltaire postponed to challenge Rohan to a duel; then he challenged, but on the morning set for the encounter, he was arrested and put into the Bastille; after two weeks there he, in accordance with his own wish, was deported to England. there he stayed for three years, from 1726-1729.

When Voltaire returned to France, he was a self-appointed agent of all things British. In the world of thought the supreme point of difference between the French and the British lay in the conflict of views of Descartes and Newton on the mechanics of the universe. Descartes was long dead, and Newton died in 1727, during Voltaire's stay in England. The French scientists in general kept to the teaching of Descartes about the vortices that compel the planets to follow their paths; the British scientists adopted the Newtonian teaching of universal gravitation, and the debate was going on upon Voltaire's return to France. In the years that Voltaire spent at Cirey as a guest of Madame du Chatelet, he wrote, with her assistance, a long treatise on the Newtonian system of the world. The singular influence Voltaire gained in France, in Germany, and in the rest of Europe was responsible for the early acceptance of the Newtonian system and the rejection of the Cartesian. Although himself no mathematician, Voltaire set himself up as the supreme judge and decided in favor of Newton and against his compatriot. He actually stopped the debate. His influence was also responsible, more than anything else, for making the deeply Catholic France into a nation of freethinkers, thus paving the road to the French Revolution of 1789, that took place eleven years after his death.





Nicolas Boulanger

The name Nicolas Boulanger is not found in most encyclopedias and is known only to a few scholars. He was a contemporary of Jean-Jacques Rousseau, Voltaire, and Diderot, illustrious names in the history of French letters. He lived only thirty-seven years, from 1722 to 1759. I came across the name very late in my research,¹ actually in 1963 and read in his works a few years later. I found that in some aspects he was not only my predecessor, but also a predecessor of Jung and Freud, actually solving the problem Freud and Jung left unsolved. Namely, he understood that the irrational behavior of the human species together with all the heritage of religious rites and much of the political structure of his own and other ages, were engendered in cataclysmic experiences of the past, in the Deluge, or deluges, of which there could have been more than one.

In Boulanger's time geology as a science was in a prenatal stage. But as a road engineer he made observations in the valley of the Marne that made him draw conclusions which he substantiated in reading the then existing books of folklore and sacred writings; also classical writers were available to Boulanger, either in originals or in translation. He was convinced that the Deluge was a global occurrence, but this was no innovation on his part, because it was an accepted notion in his time: actually, he was the author of the entry "Deluge" in the great French *Encyclopédie*, edited by Diderot. In his books he referred sometimes to the Deluge as to a singular occurrence, but then he spoke of multiple cataclysms. He seems not to have had an idea from where the water of the universal flood could come, and did not show awareness of any extraterrestrial agent as causing the world-wide calamity. Thus Saturn does not figure as connected with the upheaval. Human beings witnessed the catastrophes and the human race suffered one or several traumatic experiences; the scars the human psyche sustained are buried deep in the souls of all of us.

"We still tremble today as a consequence of the deluge and our institutions still pass on to us fears and the apocalyptic ideas of our first fathers. Terror survives from race to race... The child will dread in perpetuity what frightens his ancestors."²

Boulanger's works were published after his premature death by Diderot, but his geological observations were not included in the printed volumes; extracts from these observations and selections appear in a recent work on Boulanger,³ and do not impress as compelling. But one has to keep in mind that the age of geology as a science did not start but after Boulanger's death. In the broad realization that our society as well as the savage society still lived in the shadow of the traumatic experience of the past, Boulanger not only preceded Jung and Freud but also spelled

out the nature of the traumatic experience or experiences that caused the memory of them to submerge in the racial mind.. Thus he not only could claim priority in the understanding of the phenomenon of racial memory and collective amnesia, but also could claim the fact, unrecognized by Freud, that catastrophic events served as the trauma. Neither Jung nor Freud knew anything of Boulanger, and his name is not found in the psychological literature. Not so much his claim that catastrophic events took place in the past deserves attention—such view was already found in the writings of William Whiston; again, Buffon, Boulanger’s contemporary thought that a massive comet hit the sun and caused the origin of the planetary family; and after Boulanger the scientific thought of the eighteenth century and of the first half of the nineteenth again and again sought for the cause of the global upheavals. However Boulanger’s distinction lay in his contemplating the consequences of such upheavals for the human psyche.

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Adams

The greatest triumph of the celestial mechanics built on gravitation and inertia to the exclusion of any other forces took place in 1846 when Neptune was discovered in the place in the sky calculated by Adams and Leverrier independently of each other; they indicated the direction where the planet would be found with the exactness of one degree; they calculated its position by considering the unaccounted for perturbations of Uranus. The story of its discovery is an exciting chapter in the history of astronomy: how the poor student Adams stood in the antechambers of the Royal Astronomer Airy and was sent away by the valet because Sir Airy was at the table, and how he tried to convince the powerful astronomer of the existence of an eighth planet by sending in his calculations; and how the Frenchman Leverrier was much more fortunate by having performed very similar calculations and by having sent them to the observatory at Potsdam where the young astronomer Galle, the very first night at the very first look at the indicated direction found the new planet. The excited scientific community in Europe was soon plunged into the debate who of the two was the true discoverer, or better prognosticator, since Galle was the discoverer of the planet; the passions were divided by the national line, with the French and British rivalries inflamed, and the Royal Astronomer had to defend his behavior; there exists quite a literature on the subject. The French insisted on their priority and even named the new planet “Leverrier,” and it took some time before its new name Neptune prevailed. Till today the case is debated and the pride of Britannia, in any event deprived of priority, of the greatest discoveries, is still not completely healed.

The discovery was hailed by the British and the French—and by everyone—as the greatest triumph of the Newtonian theory of gravitation. Uranus showed certain irregularities in its motion unaccounted for by the gravitational pull of the known planets, and the existence and the position of a planet not yet seen was claimed by Adams and Leverrier alike. This was possibly the best prognostication in the annals of science. But was it really so precise and was it such a triumph for Newton as always asserted?

The so-called Bode’s Law is the empirically established regularity, covered by a simple formula, in the mean distances of the planets from the sun. This regularity can be traced through the planetary system from Mercury to Uranus (the one vacant place, between the orbits of Mars and Jupiter, was filled in, when in the first night of the nineteenth century Ceres, the first of the many asteroids was discovered by Piazzi Smyth). Adams and Leverrier alike assumed that the planet which causes unaccounted perturbations in Uranus must be located at a distance dictated by Bode’s Law. And since Saturn, the sixth planet, is smaller than Jupiter, the fifth, and Uranus, the seventh, is smaller than Saturn, it would be quite logical to expect a planet smaller

than Uranus at a distance of 1,750,000,000 miles from its orbit. But next the calculations showed that the distance of the two planets when in conjunction is not 1,750,000,000 miles but only roughly 1,000,000,000; and with the gravitational attraction decreasing with the distance as the inverse square of the latter, the mass of the newly discovered planet was grossly overestimated: it was supposed to exert the influence from a much greater distance than one actually found. It was not enough to show the direction where the planet would be found; it was necessary, in order that the prediction should be true, that the planet would be at the distance predicted, and it was not with Adams, nor with Leverrier, both of whom committed the same error. Therefore, when the great controversy raged between the supporters of Adams and those of Leverrier, some voices were heard that neither of them was a true prognosticator and there was no point in the rivalry. To make a distance error of 75 percent was equal to a threefold overestimate of the mass of the planet. In order to produce the effects from its true distance Neptune needed to be three times as massive as it actually is. Bode's Law broke down with the discovery of Neptune. And though Neptune is a little more massive than Uranus, the discrepancy between what was expected and what was found in no manner can be regarded as a rigid confirmation of the Newtonian celestial mechanics with an exact formula of attraction between masses at changing distances. The story is not yet at its end, and we need to tell of the discovery of Pluto, the ninth planet, which should have explained what Neptune left unexplained, but failed to do so, either, and by a still larger margin.

Yet in 1846 the discovery of Neptune was acclaimed, and because of the inertia of the human mind, is still acclaimed as the greatest proof of the truth of Newtonian celestial laws of gravitational mechanics.





Nicola Tesla

In the beginning of this century a Croatian* engineer, emigrant to America, Nikola Tesla, measured the electrical charge of the planet Earth and found it of a very high potential. He made his observation during thunder storms.

My instruments were affected stronger by discharges taking place at great distances than by those near by. This puzzled me very much. . . . No doubt whatever remained: I was observing stationary waves. As the source of the disturbances [thunderstorm] moved away, the receiving circuit came successively upon their nodes and loops. Impossible as it seemed, this planet, despite its vast extent, behaved like a conductor of limited dimensions. The tremendous significance of this fact in the transmission of energy by my system had already become quite clear to me. Not only was it practicable to send telegraphic messages to any distance without wires, as I recognized long ago, but also to impress upon the entire globe the faint modulations of the human voice, far more still, to transmit power, in unlimited amounts, to any terrestrial distance and almost without loss.⁽¹⁾

Nikola Tesla was a pioneer in many fields of electrical theory and technology. He was the first to utilize alternating current, conceiving an effective system for its generation, transmission, and utilization. Edison appealed to the public, warning that the alternating current of Tesla would cause great harm to its users, being dangerous, and that only direct current can be harmlessly used. Tesla referred to Edison as an inventor, to himself as a discoverer. Today everyone knows that alternating current, with the help of the polyphase induction motor, can be converted into mechanical energy more effectively and economically than direct current. He invented new forms of dynamos, transformers, condensers, and induction coils. He discovered the principle of the rotary magnetic field, upon which the transmission of power from the Niagara Falls and other waterfalls and dams is carried on. A regal recluse, he despised the short-seeing men of science. Many of his pioneer inventions he carried with him to his grave. But he believed in the destiny of man who, in his words, “searches, discovers and invents, designs and constructs, and covers with monuments of beauty, grandeur and awe, the star of his birth.”

This teaches us that not only have the contemporaries of a revolutionary idea in science repeatedly rejected the idea, but also that a rejection of such an idea even by the best qualified men in the field in the generation of the revolutionary, and often still in the following generations, has occurred not once or twice, but many times. Archimedes rejected the heliocentric system of Aristarchus; Brahe rejected the system of

Copernicus; and Galileo was deaf and blind to the discoveries of Kepler, just as Edison warned against the alternating current developed by Tesla. And who was more competent to judge than Archimedes, in his time, Brahe in his, Galileo in his, and Edison in his?

References

1. *Electrical World and Engineer* May 5, 1904; see also *Century*, June 1900. Quoted from J. J. O'Neill, *The Prodigal Genius: Life of Nikola Tesla*, 1944, p. 181.

* [Tesla was in fact a Serb who was born in the Croatian village of Smiljane in the Lika region, which at the time was part of Austrian monarchy. His father was an orthodox priest.— Eds.]





Einstein

Einstein was born in 1879, the year Maxwell died. It was the year when Michelson made the first in the series of his experiments in investigating the velocity of light. Einstein was born in Ulm, the town in which Kepler, his favorite scientist of earlier times, had spent some of the last months of his life, before dying in 1630. In high school the geography teacher declared Einstein to be moronic; in the Zurich Polytechnic his physics professor, as Einstein told me, once said to him: "In this college the poorest class is of experimental physics, and the poorest pupil are you." Upon graduation he was unable to secure a teaching position and, after years of private tutoring of students deficient in mathematics, he was happy to receive the position of a patent examiner in the Bern Patent Office. There he profited in learning to express himself in short and exact terms. At the age of twenty-six, in 1905, he offered the theory of relativity, later called the "special" or "restricted" theory of relativity, in distinction from the theory he offered eight years later, the "general" theory of relativity.

Should I try to put into one single sentence the gist of the theory in 1905, I would do it thus:

Space and time, regarded as absolute and unvariable entities (hour is always an hour, a meter is everywhere a meter), were declared to be relative, or changing, entities; the speed of light in a vacuum, thought to be a relative quantity (depending on the relative motion of the light source and the observer) was declared to be an absolute, unvarying entity.

A second is no longer a second for all observers. A second of time is of different duration for observers in motion and at rest; but 186,000 miles per second, whatever miles or whatever seconds, was always true.

A mile-long spaceship travels and overtakes our earth. A light signal is sent in the very middle of the spaceship; for the traveler in the spaceship the light will arrive simultaneously at both of its ends; for the observer on earth (assuming he could observe such small differences) the light will come first to the rudder that travels toward the light and then to the bow that travels away from the light. Thus the very notion of simultaneity was emptied of real content.

The theory of Fitzgerald made the matter shorter when crossing through ether and thus masked the change in velocity of light; Einstein, however, made the velocity of light in a vacuum an immutable quantity, or a constant for all observers in whatever

relative motion to the source of light they might be.

This is a sentence that can be expressed mathematically; but it is not easy to visualize it by reason. A light leaves its source and whatever object it meets in motion, toward or away from the source of light, the relative velocity of light and the object is always 186,000 miles per second.

Thus a ray of light speeds from the place of explosion in Coventry with the velocity of 186,000 miles per second to Birmingham and with the same velocity in the opposite direction toward Rugby; but the two photons of light speeding in opposite directions have a relative speed of 186,000 miles per second, not of 392,000 miles per second: nothing can be swifter than 186,000 miles per second, the velocity of light.

In those early years of Einstein's career, he spent often his time in discussions with another mathematical genius, W. Ritz. The latter could not see that the velocity of the source would not add itself to the velocity of light: in mechanics, a stone thrown by a passenger in a train acquires not only the velocity of throw but also the velocity of the train that carries the passenger. Ritz printed a paper to oppose the notion of Einstein. De Sitter answered Ritz and proved his point on an astronomical reasoning. There are double stars so placed in space that one partner eclipses the other at regular intervals. If the velocity of the retreating star would reduce from the speed of light reaching the observer and the velocity of the advancing star would add to the speed of light emitted by it, the system would appear to deviate from Keplerian motions. Such is definitely not the case.⁽¹⁾ the earth would be such that the reduction in the speed of light would let the light of one star of the binary arrive to the earth when the star would appear to be in the same place where its companion would appear at the same time. [phrase better].

The special theory of relativity explained why an ether drift cannot be detected through the experiment with the velocity of light; but it went a step farther and disclaimed any necessity of an ether. This makes a very great difference—probably the next question after the perennial “Is there a God?” is “Does a medium fill all space or is space between the material masses empty?” And not just *between* material masses—ether is supposed to fill everything, all space and all matter. Between the electrons and protons of an atom there is comparatively very wide space, as it is between the sun and the planets. Is the space all filled or is it empty?

References

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On Prediction in Science

In order to bring into proper focus the significance of correct prediction in science, I offer at the start a short survey of the most celebrated cases, and it is not by chance that almost all of them come from the domain of astronomy. These cases are spectacular and, with one or two exceptions, are well known.

The story of scientific “clairvoyance” in modern astronomy starts with Johannes Kepler, a strange case and little known. When Galileo, using the telescope he had built after the model of an instrument invented by a Danish craftsman, discovered the satellites circling Jupiter, Kepler became very eager to see the satellites himself and begged in letters to have an instrument sent to Prague; Galileo did not even answer him. Next, Galileo made two more discoveries, but before publishing them in a book, he assured himself of priority by composing cryptograms, not an uncommon procedure in those days: statements written in Latin were deliberately reduced to the letters of which the sentences were composed, or, if the author of the cryptogram so wished, the letters were re-assembled to make a different sentence. The second way was chosen by Galileo when he thought he had discovered that Saturn is “a triple” planet, having observed appendices on both sides of Saturn, but not having discerned that they were but a ring around the planet, a discovery reserved for Christian Huygens in 1659, half a century later. Kepler tried to read the cryptogram of letters recombined into a non-revealing sentence, but did not succeed. He offered as his solution: “Salute, fiery twin, offspring of Mars” (“Salve, umbistineum geminatum Martia proles”). Of this, Arthur Koestler in *The Sleepwalkers* (1959) wrote (p. 377): “He [Kepler] accordingly believed that Galileo had discovered two moons around Mars.” But Galileo did not discover them and they remained undiscovered for more than two hundred fifty years. Strangely, Koestler passes over the incident without expressing wonder at Kepler’s seeming prescience.

As I have shown in *Worlds in Collision* (“The Steeds of Mars”) the poets Homer and Virgil knew of the trabants of Mars, visualized as his steeds, named Deimos (Terror) and Phobos (Rout). Kepler referred to the satellites of Mars as being “burning” or “flaming”, the same way the ancients had referred to the steeds of Mars.

Ancient lore preserved traditions from the time when Mars, Ares of the Greeks, was followed and preceded by swiftly circling satellites with their blazing manes. “When Mars was very close to the earth, its two trabants were visible. They rushed in front of and around Mars; in the disturbances that took place, they probably snatched some of Mars’ atmosphere, dispersed as it was, and appeared with gleaming manes” (*Worlds in Collision*, p. 230).

Next, Galileo made the discovery that Venus shows phases, as the Moon does. This time he secured his secret by locking it in a cryptogram of a mere collection of letters —so many A's, so many B's, and so on. Kepler again tried to read the cryptogram and came up with the sentence: "Macula rufa in Jove est gyratur mathem etc." which in translation reads: "There is a red spot in Jupiter which rotates mathematically."

The wondrous thing is: how could Kepler have known of the red spot in Jupiter, then not yet discovered? It was discovered by J. D. Cassini in the 1660's, after the time of Kepler and Galileo. Kepler's assumption that Galileo had discovered a red spot in Jupiter amazes and defies every statistical chance of being a mere guess. But the possibility is not excluded that Kepler found the information in some Arab author or some other source, possibly of Babylonian or Chinese origin. Kepler did not disclose what the basis of his reference to the red spot of Jupiter was — he could not have arrived at it either by logic and deduction or by sheer guesswork. A scientific prediction must follow from a theory as a logical consequence. Kepler had no theory on that. It is asserted that the Chinese observed solar spots many centuries before Galileo did with his telescope. Observing solar spots, the ancients could have conceivably observed the Jovian red spot, too. Jesuit scholars traveled in the early 17th century to China to study Chinese achievements in astronomy.

Kepler was well versed in ancient writings, also knowledgeable in medieval Arab authors; for instance, he quoted Arzachel to support the view that in ancient times Babylon must have been situated two and a half degrees more to the north, and this on the basis of the data on the duration of the longest and shortest days in the year as registered in ancient Babylon.¹

Jonathan Swift, in his *Gulliver's Travels* (1726) tells of the astronomers of the imaginary land of the Laputans who asserted they had discovered that the planet Mars has "two lesser stars, or satellites, which revolve about Mars, whereof the innermost is distant from the center of the primary planet exactly three of [its] diameters, and the outermost Five; the former revolves in the space of ten hours, and the latter in twenty-one-and-a-half; so that the squares of their periodical times are very near in the same proportion with the cubes of their distance from the center of Mars, which evidently shows them to be governed by the same law of gravitation that influences the other heavenly bodies."

About this passage a literature of no mean number of authors grew in the years after 1877, when Asaph Hall, a New England carpenter turned astronomer, discovered the two trarbants of Mars. They are between five and ten miles in diameter. They revolve on orbits close to their primary and in very short times: actually the inner one, Phobos, makes more than three revolutions in the time it takes Mars to complete one rotation on its axis; and were there intelligent beings on Mars they would need to count two different months according to the number of satellites (this is no special case — Jupiter has twelve moons and Saturn ten*), and also observe one moon ending its month three times in one Martian day. It is a singular case in the solar system among the natural satellites that a moon completes one revolution before its

primary finishes one rotation.

Swift ascribed to the Laputans some amazing knowledge—actually he himself displayed, it is claimed, an unusual gift of foreknowledge. The chorus of wonderment can be heard in the evaluation of C. P. Olivier in his article “Mars” written for the *Encyclopedia Americana* (1943):

“When it is noted how very close Swift came to the truth, not only in merely predicting two small moons but also the salient features of their orbits, there seems little doubt that this is the most astounding ‘prophecy’ of the past thousand years as to whose full authenticity there is not a shadow of doubt.”

The passage in Kepler is little known—Olivier, like other writers on the subject of Swift’s divination, was unaware of it, and the case of Swift’s prophecy appears astounding: the number of satellites, their close distances to the body of the planet, and their swift revolutions are stated in a book printed one hundred and fifty years to the year before the discovery of Asaph Hall.

Let us examine the case. Swift, being an ecclesiastical dignitary and a scholar, not just a satirist, could have learned of Kepler’s passage about two satellites of Mars; he could also have learned of them in Homer and Virgil where they are described in poetic language (actually, Asaph Hall named the discovered satellites by the very names the flaming trabants of Mars were known by from Homer and Virgil); and it is also not inconceivable that Swift learned of them in some old manuscript dating from the Middle Ages and relating some ancient knowledge from Arabian, or Persian, or Hindu, or Chinese sources. To this day an enormous number of medieval manuscripts have not seen publication and in the days of Newton (Swift published *Gulliver’s Travels* in the year Newton was to die), as we know from Newton’s own studies in ancient lore, for every published tome there was a multiplicity of unpublished classical, medieval, and Renaissance texts.

That Swift knew Kepler’s laws, he himself gave testimony, and this in the very passage that concerns us: “. . . so that the squares of their periodical times are very near in the same proportion with the cubes of their distance from the center of Mars” is the Third Law of Kepler.

But even if we assume that Swift knew nothing apart from the laws of Kepler to make his guess, how rare would be such a guess of the existence of two Martian satellites and of their short orbits and periods? As to their number, in 1726 there were known to exist: five satellites of Saturn, four of Jupiter, one of Earth, and none of Venus. Guessing, one could reasonably say: none, one, two, three, four, or five. The chance of hitting on the right Figure was one in six, or the chance of any one side of a die’s coming up in a throw. The smallness of the guessed satellites would necessarily follow from their not having been discovered in the age of Newton. Their proximity to the parent planet and their short periods of revolution were but one guess, not two,

by anybody who knew of the work of Newton and Kepler. The nearness of the satellites to the primary could have been assumed on the basis of what was known about the satellites of Jupiter and Saturn, Io, one of the Galilean (or Medicean) satellites of Jupiter, revolves around the giant planet in 1 day 18.5 hours (the satellite closest to Jupiter was discovered in 1892 by Barnard and is known as the “fifth satellite” in order of discovery; it revolves around Jupiter, a planet ten thousand times the size of Mars, in 1 1.9 hours). The three satellites of Saturn discovered by Cassini before the days of Swift - Tethys, Dione and Rhea - revolve respectively in 1 day 21.3 hours, 2 days 17 hours, and 4 days 12.4 hours. (Mimas and Enceladus, discovered by Herschel in 1789, revolve in 22.6 hours and 1 day 8.9 hours.) The far removed satellites of Jupiter were not yet discovered in the days of Newton and Swift.

It remains to compare the figures of Swift with those of Hall: there was no true agreement between what the former wrote in his novel and what the latter found through his telescope. For Deimos, Swift’s figure, expressed in miles from the surface of Mars, is 18,900 miles; actually it is 12,500 miles; Swift gave its revolution time as 21.5 hours—actually it is 30.3 hours. For Phobos, Swift’s figures are 10,500 miles from the surface and 10 hours revolution period, whereas the true figures are 3,700 miles and 7.65 hours. Remarkable remains the fact that for the inner satellite Swift assumed a period of revolution, though not what it is, but shorter than the Martian period of rotation, which is true. However, Swift did not know the rotational period of Mars and therefore he was not aware of the uniqueness of his figure. If he were to calculate as an astronomer should, he would either have decreased the distance separating the inner satellite from Mars - a distance for which he gave thrice its true value - or increased its revolution period to comply with the Keplerian laws by assuming the specific weight of Mars as comparable with that of Earth. But Swift had no ambitions toward scientific inquiry in his satirical novel.

References

1. The reference is found in the collected works of Kepler (*Astronomica opera omnia*, ed. C. Frisch, vol. VI, p. 557) published in 1866.





H. H. Hess and My Memoranda

On August 25, 1972, three years elapsed since the death of Professor Harry Hammond Hess. He died of a heart attack while presiding over a meeting (convened at Woods Hole, Massachusetts) of the Space Science Board of the National Academy of Sciences. The Board had the task of overseeing the activities of the National Aeronautics and Space Administration, with its multi-billion dollar spending. At the Woods Hole meeting Hess had intended to discuss the role of thermoluminescence (TL) tests in the lunar programs, an issue I had discussed with him.

When I moved from Manhattan to Princeton in the early summer of 1952, I became steeped in library work for *Earth in Upheaval*, and the library of Guyot Hall (Princeton's geology department) was a place I frequented. Already known for my *Worlds in Collision* and the discussion it provoked, I caused some curiosity among the numerous faculty members of the department. I do not remember my first contact with Hess, but from our first meeting something in both of us attracted each other.

Hess was the chairman of the department. Once when I mentioned the Vening Meinesz submarine expedition for gravitational measurements in the Caribbean in the 1930's, during which, paradoxically, a positive anomaly was regularly detected and the greater it was the deeper was the sea, or the less mass there was, Hess surprised me by telling that he participated in that expedition.

Another highlight of his career took place during World War II. In command of a naval vessel in the Pacific with certain exploratory assignments, he utilized the opportunity to explore the bottom of the ocean in a certain area. Under the water he discovered flat-topped mountains, which he named "guyots," honoring the late Princeton professor of geology, Arnold Henry Guyot (1807-84),

By the end of the war, Hess was retired from active duty with the rank of a rear admiral. In the university he taught mineralogy and crystallography, but marine geology remained his favored subject.

In November, 1955, *Earth in Upheaval* was published. Soon it was made required reading in paleontology under Professor van Houten at Princeton — along with an antidote: Loren Eiseley's *The Firmament of Time*. Hess several times during those years gave me the opportunity to address the faculty and graduate students of his department. Since from 1953 (when I spoke before the Graduate College Forum of Princeton University) to 1963 practically no college or university or scientific society extended to me an invitation to speak, those appearances at the behest of Hess meant much to me.

He gave me his published paper on guyots. Upon reading it I wrote a rather merciless criticism of his idea that the accumulation of sediment caused the submergence of the sea bottom and with it the submergence of the flat-topped guyots. In his response he showed graciousness.

By mid-1956 preparations for the International Geophysical Year were gaining momentum. On December 5, 1956, I gave to Hess a memo describing, in brevity, several projects for inclusion in the IGY. (The Year, due to start July 1, 1957, would continue until the end of 1958.) There was not yet a Space Science Board, so I gave the memo to Hess in his capacity as chairman of the geology department. Hess sent the memo to Dr. Joseph Kaplan, one of the scientific organizers of the Year. The answer came from Edward O. Hulburt, another scientist in charge of the program, and it was addressed to the “chairman of the department of physics” at Princeton. The first of the suggested projects — to investigate the earth’s magnetic field above the ionosphere — had been, according to Hulburt, considered by the planning committee. (In my Forum Lecture [October 14, 1953] I had already claimed the existence of a magnetosphere above the ionosphere — the lecture was printed as a supplement to *Earth in Upheaval*.)

Three months after the beginning of the IGY the Russians startled the world by launching the first Sputnik (October 4, 1957), opening the Space Age. I was then on a visit to Israel, my second since I came to the States in July, 1939.

Although Hulburt referred to the plan of measuring the strength of the magnetic field above the ionosphere as considered for the program, the fact is that the discovery of the van Allen belts, the main achievement of IGY, was not anticipated or considered: when no charged particles were registered at a certain altitude, van Allen of the University of Iowa was startled, but one of his co-workers suggested that possibly the recording apparatus was jammed by too many charged particles; the apparatus was modified and the belts were discovered. At the beginning they were featured in the form of two halves of a doughnut; only much later was it recognized that the half on the anti-solar side is stretched far out. But in my memo as also in the Forum lecture, I visualized a magnetosphere reaching as far as the lunar orbit.

Another claim made in my Forum Lecture of 1953 — namely, that Jupiter could be a source of radio signals — was already confirmed in the spring of 1955. I never came out with “claims confirmed” until I read in the *New York Times* that nobody ever thought of Jupiter as a source of radio noises before they were discovered by chance. I turned to Lloyd Motz, Columbia University astronomer, and V. Bargmann, Princeton University physicist, both of whom were entrusted by me with the script of my Forum Lecture soon after its delivery. They wrote a joint letter to *Science*, which published it in the December 21, 1962 issue, concurrent with the yearly convention of the American Association for the Advancement of Science, publisher of *Science*. It almost coincided with the first reports of Mariner II, which had passed its rendezvous with Venus a week earlier, on December 14. The high temperature of Venus was

confirmed.

This last announcement was made by Dr. Homer Newell for NASA in February, 1963. The presence of hydrocarbons in the clouds surrounding Venus was also announced as confirmed — this on the basis of the work of Dr. L. D. Kaplan (Jet Propulsion Laboratory): only compounds containing the radical CH (polymerized) could lend to the 15-mile thick cloud the same properties at the -25° F temperature at the top of the cloud and at the $+200^{\circ}$ F temperature at the bottom of the cloud separated by 45 kilometers of lower atmosphere from the sizzlingly hot ground surface of the planet.

I wrote an article, “Venus — A Youthful Planet,” and sent it to the editor of *Science*. I found it back in my mailbox less than 48 hours later, returned unread.

I discussed the case with Hess, and he decided to offer it for publication in the American Philosophical Society *Proceedings*. As a member of the society he was entitled to sponsor a paper by a nonmember. The paper was submitted, and its fate was related by *Yale Scientific Magazine* (April, 1967, p. 8): “The paper was discussed at the editorial board meeting of the Society and caused prolonged and emotional deliberations, with the Board split between those favoring the publication and those opposed to it. For several months a decision could not be reached ... the decision was made, in order to safeguard the very existence of the Board, to delegate the decision on the article to three members of the society, not members of the Board. Their names were not disclosed but on January 20, 1964, Dr. George W. Corner, Executive Officer of the Society and the editor of the *Proceedings*, informed Dr. Hess that the decision had been made to reject the article.

“Subsequently it was also rejected by the *Bulletin of Atomic Scientists*. In that magazine in April, 1964, an abusive article was published by a Mr. Howard Margolis, attacking Velikovsky and his work. The editor of the *Bulletin*, Dr. Eugene Rabinowitch, in a letter to Professor Alfred de Grazia, editor of the *American Behavioral Scientist*, offered Velikovsky an opportunity to reply with an article ‘not more abusive’ than that of Margolis, or, instead, to have some of his views presented in the *Bulletin* by some scientist of repute. Then Professor H. Hess submitted the article “Venus — A Youthful Planet,” to Dr. Rabinowitch. The latter returned it with the statement that he did not read Velikovsky’s book, nor the article.”

In July *Harper’s* printed an article by Eric Larrabee calling for an “agonizing reappraisal” of my work. Menzel of Harvard College Observatory, who not so long previously had revoked his earlier estimate of Venus’ temperature as much too high, now wrote in *Harper’s* that “hot” is a relative term and liquid helium is hot in relation to liquid hydrogen. As to my claim concerning the magnetosphere, Menzel argued that since I claimed that the magnetosphere reaches as far as the lunar orbit, I made a wrong prediction. The magnetosphere, he said, does not reach more than a few terrestrial radii, whereas the moon is 60 terrestrial radii distant.

Hess was adversely impressed by the attitude of the scientific community toward me and my work; still subscribing to the accepted uniformitarian doctrine, he had sympathy for my independent stand. He wrote a letter that was intended for public record and which Doubleday incorporated in its "Report on the Velikovsky Controversy," printed in the Book Review Section of the *New York Times* (August 2, 1964).

While a debate was going on in several issues of *Harper's*, the Australian physicist/cosmologist, V. A. Bailey, joined the fracas and accused Menzel of pre-space age thinking.

Hess, now president of the American Geological Society and chairman of the Space Science Board, suggested that I put together a program for space investigation. I responded without delay; the memo of September, 1963, resulted.

About that time de Grazia published a special issue of the *American Behavioral Scientist* dealing, with the reception of my work. When he came to see me, Hess came too.

Once or twice I asked Hess to organize a panel of members of various faculties of Princeton University that would investigate what was right and what was wrong in my theory and what was proper or improper in the attitude of my critics. Before he decided whether to follow this course (perhaps, expecting a negative attitude by faculty members, he tarried), an initiative came from Dr. Franklin Murphy, at that time chancellor of the University of California at Los Angeles. He asked UCLA's geophysicist, Professor Louis Slichter, to organize a committee for the same kind of inquiry I had proposed to Hess. Murphy's initiative, however, foundered and the story needs to be told separately. It embraced the period from January to November, 1964.

In January, 1965, Hess took the initiative to organize the Cosmos and Chronos Study and Discussion Group, and he placed in the Bulletin of the University an announcement of the first open discussion. Originally we planned a debate on evolution based on the uniformitarian principle vs. evolution based mainly on cataclysmic events. My opponent was to have been Princeton professor of biology, Colin Pittendrigh. "There was a mutual respect between us (earlier he had visited me and also inscribed to me a biology text which he co-authored with G. G. Simpson, my early antagonist), but Pittendrigh insisted that the problem of extinction in the animal kingdom should not be a part of the debate. I could not see how the two parts of the evolutionary problem — the evolution of new species and the extinction of the old — could be separated in a meaningful debate. It appeared that the friendly relations between us were in jeopardy. Hess, without fanfare, offered to be my opponent.

The debate took place in the auditorium of Guyot Hall and fared well. Next, Professor Lloyd Motz came from Columbia University to debate me on astronomical subjects. The third open debate was between me and philosopher Walter Kaufmann of the

Princeton faculty. Other study groups spontaneously organized themselves on various campuses. The story of the first four or five years of Cosmos and Chronos and what changes in the structure of the organization I had to demand is a story by itself;

In the fall of 1966 I spoke in the new auditorium of the Wilson School of Princeton University, under the aegis of the Princeton chapter of the American Institute of Aeronautics and Astronautics. The lecture was described by Walter Sullivan, science editor of the *New York Times*, in his column of October 2, 1966. As he described it, he first visited Hess to find out whether Velikovsky is a person of integrity. Hess assured him of my complete integrity and added something about my memory, ascribing to me more than I deserve.

An unusual memory was actually one of Hess' own characteristics. Things spoken or letters read were remembered by him years later. Once, when I exhorted him to reread a chapter in *Earth in Upheaval*, he replied that he knew the book by heart. His many very large tables that served him as desks were covered with stacks of papers, but it seemed that he could always find the necessary document; he was helped by a devoted secretary, Mrs. Knapp, who, it seems, also relied on his memory.

Despite his heavy schedule (he never stopped teaching crystallography), Hess was available for many a demand on his time. I remember the case of an uneducated but dedicated man who, living in Michigan, collected many rocks, obviously burned, and wrote me regularly of his belief that the lake was scooped out by an asteroid impact. He mailed me, at intervals, boxes with stones. I sent some of them to a scientist at the University of Pittsburgh whom I knew, and brought some others to Hess. The former did not answer; the latter took a few of them to investigate their possible meteoritic nature.

Hess ascribed the reversal of the rocks' magnetic orientation to a spontaneous process in the minerals, as he had claimed in debate with me at my occasional lectures at the geology department. But when he finally realized that such spontaneous reversals could not occur simultaneously in rocks of various compositions, he volunteered to tell me that he was wrong.

When, years after my first memo of December 5, 1956, he read or heard a paper concerning the reversal of the direction of winding in fossil vines and shells from both southern and northern hemispheres, he was pleased to let me know that the claims the IGY would not investigate were confirmed by independent research.

In 1967 I gave him a memorandum on radioactivity hazards for astronauts in several localized areas of the moon and Mars, results of interplanetary discharges. Dr. Homer Newell of NASA sent the memo to scientists on the staff who he thought would be the ones to consider the subject. By that time Hess and I started to call one another by our first names.

In 1968 Hess was named by the Italian government and Academy of Sciences the

recipient of a major prize (in monetary value, approaching the Nobel prize) for his old work on the guyots. Despite all the distinctions he received, he remained a quiet and humble man. I never heard him speak in a loud voice. He did not pull or push and, which was unusual in the academic atmosphere of the time, he was sought out for his fairness.

Not long before his death he purchased a new home. Until then he had lived in a university house on Fitzrandolph Street, The house, built with its gables like a chalet, was occupied by Woodrow Wilson when he was president of Princeton University. At one of my rare visits, Hess drew my attention to the book cases built at Wilson's behest.

The last and possibly the most exciting event was quickly approaching. Hess, usually shy of publicity, made himself available to the press to state his belief that water in quantity would be found under the lunar surface. I remember how he showed me a winding rill or rift photographed on the moon and wished me to agree with him that it was caused by running water. I discussed with him my views, namely that the moon was once showered by water of the universal Deluge, but that all of it or almost all of it dissociated before the later cosmic catastrophes. The face of the moon we see was formed in those later catastrophes.

On May 19 I wrote down a few of my advanced claims concerning the moon and handed it to Hess' research assistant, who strongly supported the view that large water reservoirs lay under the moon's surface. Hess said to me, "this time you will be wrong." Until then, closely following my record, he found that all my expectations ("predictions") turned out to be true. Once, on our way from Guyot Hall to our respective homes, he ascribed my record to intuition. When I asked which of my claims does not follow from my thesis, he replied, "noises from Jupiter." He was right, but only to the extent that I have not yet published the story of the earlier cataclysms, promised in the final chapter of *Worlds in Collision*.

The events surrounding the first manned landing on the moon had a dramatic urgency, and they, too, need to be recorded separately. My two telephone conversations in which I tried to obtain Hess' support for thermoluminescence tests of lunar core extracts, as also envisioned in my article in the *New York Times* on the evening of the first lunar manned landing, can be read in the correspondence.

I saw Hess once more — he was with his secretaries and assistants, preparing for the Woods Hole meeting. He was not in a cheerful mood — that morning the news came that hydrocarbons (petroleum derivatives) were discovered on the moon, but no water yet. (Now, almost three years later, signs of the one-time presence of water have been detected.) He was, it appeared to me, gloomy.

About half a year earlier he had suffered a heart attack. He was always a chain smoker. The load of work, the excitement of the last few weeks, and possibly a discouragement, but quite probably his premonition that he would not be able to

witness the entire lunar program of many landings, must have weighed heavily on him.

On the morning of August 26, 1969, I picked up a newspaper at the Princeton Junction railway station and saw Hess' friendly face on a page carrying a eulogy.

The day the university arranged a memorial service in its chapel, I was delivering a lecture to the faculty of the Ocean County College. I spoke of Hess.

On October 21, exactly three months after the first landing on the moon, at my initiative, the geophysical department (the new name for the geology department), together with the Cosmos and Chronos Study Group, arranged a memorial lecture at the auditorium of Guyot Hall. The opening part of my lecture, "From Sputnik to Apollo XI," was dedicated to Hess.

In Hess' passing I lost the only member of the scientific elite who demanded a fair treatment for me and my work. When in November the assistant to the president of the university came to see me, I spoke of Hess and could not hide the tears in my eyes. For the rest of 1969 I felt depressed.

Of people who were prominent in their fields and who, since the beginning of my work and through the years showed me more than casual interest and sympathy, I name Robert Pfeiffer, orientalist and Biblical scholar (d. 1958); Horace M. Kallen, philosopher and educator; Walter S. Adams, astronomer (d. 1956); Albert Einstein (d. 1955); and Harry Hess, who died in his sixty-fourth year, three years ago. Kallen alone of all of them is alive, having these days reached the venerable age of ninety, still active as writer and lecturer, with time having dimmed none of his mental abilities.

They were few, but each of them was great as a human being.

[Velikovsky to Hess - December 5, 1956](#)

[Hess to Velikovsky - January 2, 1957](#)

[Hulburt to Hess - January 18, 1957](#)

[Hess to Velikovsky - March 15, 1963](#)

[Velikovsky to Hess - September 11, 1963](#)

[Velikovsky to Hess - March 14, 1967](#) (Memorandum)

[Velikovsky to Hess - May 19, 1969](#) (Memorandum)

[Velikovsky to Hess - July 2, 1969](#)

[Velikovsky to Hess - August 7, 1969](#)





The Ocean

SEDIMENTS

Poseidon, lord of the Ocean, was the first to come to my defense. A basic assumption of geology for the past century has been that, though the sea may encroach on land by covering coastal areas with shallow water, the continents and the oceans are primeval; what is now ocean was always ocean and the continents were always land masses, independent of whether they do or do not move slowly, as a certain theory (continental drift) proposes.

In *Worlds in Collision*, the permanency of land and sea was denied. In the presence of external forces, with attendant pulling and shearing, land submerged into the depths of the sea, and sea bottom rose to become land. Prior to certain catastrophes, earlier than those described in *Worlds in Collision*, the highest mountain ridges of the Himalayas must have been under sea, as the fossil content of their rock formations testifies.

Stupendous meteorite showers occurred in the past, and the red clay on the bottom of the sea must have iron and nickel content of meteoric origin. Speaking of the cataclysm that closed the period known as the Middle Bronze II (Middle Kingdom in Egypt), I wrote in *Worlds in Collision* (p. 48):

“One of the first visible signs of this encounter was the reddening of the earth’s surface by a fine dust of rusty pigment. In sea, lake and river this pigment gave a bloody coloring to the water. Because of these particles of ferruginous or other soluble pigment, the world turned red.”

In paroxysms of nature, especially during the catastrophe of the fifteenth century before the present era, ash fell on land and sea.

“Following the red dust, a ‘small dust,’ like ‘ashes of the furnace,’ fell ‘in all the land of Egypt’ (*Exodus* 9:8), and then a shower of meteorites flew toward the earth. Our planet entered deeper into the tail of the comet. The dust was a forerunner of the gravel.” (*Worlds in Collision*, p. 51).

The ash must be still found on the bottom of the ocean, its final repository.

The Earth was “in a vise” — in the grip of external forces, which altered the terrestrial rotation; the sphere was twisted, and the Atlantic ridge and African rift are

only two of the visible signs of the strain to which the Earth was subjected.

“The earth groaned: for weeks now all its strata had been disarranged, its orbit distorted, its world quarters displaced, its oceans thrown upon its continents, its seas turned into deserts, its mountains upheaved, its islands submerged, its rivers running upstream — a world flowing with lava, shattered by meteorites, with yawning chasms, burning naphtha, vomiting volcanoes, shaking ground, a world enshrouded in an atmosphere filled with smoke and vapor. Twisting of strata and building of mountains, earthquakes and rumbling of volcanoes joined in an infernal din.” (*Worlds in Collision*, P. 97).

In *Earth in Upheaval*, I discussed the problem in two chapters, “Poles Displaced” and “Axis Shifted” . In “The Bottom of the Atlantic” and “The Floor of the Seas” I discussed sedimentary rock: it was not deposited evenly through the geological ages but erratically, most rapidly following natural disturbances on land. Further, the sedimentary layers were displaced in global catastrophes. Thus, it follows that the relative thicknesses of the sedimentary layers are not true indices for measuring the age of the oceans.

With such heretical ideas, my work flew in the face of accepted notions in oceanography and marine geology.

The book, *Worlds in Collision*, though already three years in the hands of Macmillan, was not yet off the press when Maurice Ewing, the Columbia University marine geologist, published an account of an expedition to the Atlantic Ocean and the mid-Atlantic ridge. This ridge runs north-south the entire length of the ocean. More than one surprise was in store for the expedition.

Whereas its members expected to find a uniform layer of sediment, the bottom of the ocean revealed no such uniformity, and I quoted from the record of the finds (*Earth in Upheaval*, p. 101: M. Ewing, “New Discoveries on the Mid-Atlantic Ridge,” *National Geographic Magazine*, Vol. XCVI, No. 5 [November 1949]):

“Always it had been thought the sediment must be extremely thick, since it had been accumulating for countless ages. . . . But on the level basins that flank the Mid-Atlantic Ridge our signals reflected from the bottom mud and from the bedrock came back too close together to measure the time between them. . . . They show the sediment in the basins is less than 100 feet thick.”

The absence of thick sediment on the level floor presents ‘another of many scientific riddles our expedition propounded’ .” The bottom of the Atlantic Ocean on both sides of the Ridge must have been formed only in recent times.

But even more unexpected was the find of beach sand at a great depth and far away from any land. “One [of the ‘new scientific puzzles’] was the discovery of prehistoric

beach sand . . . brought up in one case from a depth of two and in the other nearly three and one half miles, far from any place where beaches exist today.” One of these sand deposits was found twelve hundred miles from land.

Ewing recognized the uncomfortable dilemma: “Either the land must have sunk two to three miles, or the sea once must have been two to three miles lower than now. Either conclusion is startling. If the sea was once two miles lower, where could all the extra water have gone?” I shall return to the problem of the fallen ocean level, which I consider to have been the result of rapid evaporation due to catastrophic heating.

Five months after the publication of *Worlds in Collision*, another marine expedition — led by Professor Hans Pettersson, director of the Goteborg Oceanographic Institute (Albatross Expedition of 1947) — made a preliminary report of the findings of its fifteen-month exploratory voyage. Writing in *Scientific American* (August 1950: “Exploring the Ocean Floor”), Professor Pettersson spoke of evidence of “great catastrophes that have altered the face of the earth.”

“Climatic catastrophes, which piled thousands of feet of ice on the higher latitudes of the continents, also covered the oceans with icebergs and ice fields at lower latitudes and chilled the surface waters even down to the Equator. Volcanic catastrophes cast rains of ash over the sea.” Also, “tectonic catastrophes raised or lowered the ocean bottom hundreds and even thousands of feet, spreading huge ‘tidal’ waves which destroyed plant and animal life on the coastal plains.” Pettersson also found, in addition to the ash, a “lava bed of geologically recent origin covered only by a thin veneer of sediment.”

In the red clay on the bottom of the ocean Pettersson found “a surprisingly high content of nickel” (Pettersson, “Chronology of the Deep Ocean Bed,” *Tellus* 1, 1949). Nickel is not present in sea water and therefore could not have been deposited by water. “Nickel is a very rare element in most terrestrial rocks and continental sediments, and it is almost absent from the ocean waters. On the other hand, it is one of the main components of meteorites.” But the quantity of nickel in the clays in the bottom of the ocean was prodigious. Pettersson assumed very copious falls of meteorites in the geological past. He wrote in his account of the expedition, *Westward Ho with the Albatross* (1953), p. 150:

“Assuming the average nickel content of meteoric dust to be two percent, an approximate value for the rate of accretion of cosmic dust to the whole Earth can be worked out from these data. The result is very high — about 10,000 tons per day, or over a thousand times higher than the value computed from counting the shooting stars and estimating their mass.”

In other words, at some time or times there was such a fall of meteoric dust that, apportioned throughout the entire *assumed* age of the ocean, it would increase a thousandfold the daily accumulation of meteoric dust since the birth of the ocean based upon the estimated present potential rate of accretion; but since the shower of

meteorites was most likely an event of short duration, measured in days or weeks only, the “thousandfold” must be changed to some astronomical figure — a figure also dependent upon ascertaining the correct age of the ocean.

In a subsequent publication (“Manganese and Nickel on the Ocean Floor” in *Geochimica et Cosmochimica Acta*, 1959, Vol. 17), Pettersson wrote: “Of all the elements found in deep-sea deposits few have a more puzzling distribution than the two ferrides, manganese and nickel.” Not only their high concentration, much higher than in continental rocks, but especially their vertical distribution appear “most enigmatic.” Pettersson concluded that “the former being largely due to sub-oceanic volcanic action, the latter [was] due to contributions from the cosmos.” It must have occurred by “an unusually heavy incidence from the cosmos.”

In a still more recent paper, Professor Pettersson discussed “The Accretion of Cosmic Matter to the Earth” (*Endeavor*, July 1960): “We found surprisingly large numbers of typical cosmic spherules in deep-sea sediments.” These magnetic particles (in diameter between 0.03 to 0.25 mm.) were not only found in very great numbers in the red clay of the oceanic bed, in the equatorial region of the Pacific, but also all over the world. In the Pacific, “their number varied from about one hundred up to several thousands per kilogram of sediment.” “In general the number of spherules is greatest in the more recent sediments.”

Pettersson observed ash on the bottom of the ocean, and such ash had already been observed by the famous expedition of the last century, that of H. M. S. *Challenger* (see Sir C. Wyville Thompson, *Voyage of the Challenger*) between the year 1873 and 1876. However, Pettersson failed to observe that the layer of ash is not just distributed here and there on the bottom of the oceans and therefore possibly attributable to volcanic eruptions, but is spread quite uniformly—and the account of an expedition led by J. Lamar Worzel, of Columbia University’s Lamont Geological Observatory, brought out this fact. The expedition of the vessel *Verna*, made in 1958, covered 500,000 square miles of the southwestern Pacific and found white ash between about 750 miles north and 850 miles south of the equator.

Writing in the *Proceedings of the National Academy of Sciences* in its March 15, 1959 issue (vol. 45, pp. 349-355), Worzel made the surmise:

“Since the layer is fairly near the surface and is not discolored and contains nothing but the glassy ash material it must have been laid down fairly quickly.” It must have been deposited in a single act, over a short period, “perhaps within a year or so.”

“The white ash immediately suggests a volcanic origin and the proximity of the Andes suggests the source. However, the great extent of the ash and its shallow cores would imply such a great amount of recent activity for a short time that it may be difficult to ascribe it to the Andes.” “. . . It may be necessary to attribute the layer to a world-wide volcanism or perhaps to the fiery end of bodies of cosmic origin.”

Maurice Ewing, as director of the Lamont Geological Observatory, joined Worzel in describing and evaluating the layer of ash; and on the basis of the random detection of similar ash in other parts of the oceanic world, he wrote (pp. 355-361):

“A single ash layer of 5 to 30 cm. thickness over such a wide area must record a notable event in the history of the area. It could hardly be without some recorded consequence of global extent.

“A re-examination of the file of Vema echograms is now in progress. It shows that sub-bottom echoes, similar to those found in the eastern Pacific, have also been recorded in the South Atlantic and Indian Oceans, [as well as] the Gulf of Mexico.

“The remarkable uniformity of thickness of the Worzel ash layer within the large area which has been cored is additional evidence suggesting that the layer may well have great extent.

“. . . The total volume of ash must be so great and the mechanism of dispersal so effective that the possibility of world-wide coverage must be considered.

“. . . Such an event could hardly fail to produce a variety of significant effects global in scale conceivably a cometary collision.”

In the New York *Herald Tribune* of March 31, 1959 Dr. Worzel was quoted as saying that this ash may represent “the remains of a fantastic collision of heavenly bodies from outer space.”

A collision of the Earth with a huge comet was postulated or, at least, preferred to a huge and simultaneous eruption of a multitude of volcanoes, because of the evenness of the layer of white ash. Its position, very close to the surface, almost touching the water layer, makes it appear that the time elapsed since the deposit is very short, geologically speaking.¹

But only five or six years earlier, the consensus of scientific opinion — and it was expressed in no indefinite terms by my critics—insisted that there never was any collision of the Earth with a comet; furthermore, if such a collision were to occur, there would be no noticeable results. After all, the Earth passed through the tail of Halley’s comet in 1910 and there was no major phenomenon to register, not even flashes of shooting stars (e.g., I. Asimov).

In order to cover the expanse of the oceans with Worzel ash—this is its given name—some more significant collision must have taken place than that which occurred during the approach of Halley’s comet in 1910. A phenomenon observed in the bottom of the oceans bespeaks a collision in which the Earth would have hardly

proceeded undisturbed on its path.

RIFTS

In *Worlds in Collision*, it is claimed that the terrestrial sphere underwent great stresses—with resulting rifts and mountain formations—during the global catastrophism that occurred 3400 and 2700 years ago.

Professor T. Y. H. Ma of the National Taiwan University in Formosa published an article in the journal *Oceanographia Sinica* (Vol. II, No. I, September, 1955), in which he claimed a sudden shift in the oceanic bottom several times in the geological past. He found that changes in the sedimentary strata on the sea bottom must be attributed to “changes in latitude due to the sudden total displacements of the solid earth shell and the intermittent readjustments.” The last disturbance of the ocean bottom “ended only 2,600 years ago,” judging from the cores taken at the bottom of the Atlantic, while samples taken in the Pacific allow the displacement to be estimated at about “2,800 years ago.” These figures closely resemble the date of the last cosmic catastrophe fixed in *Worlds in Collision* as 27 centuries ago.

In 1960 Bruce C. Heezen of the Lamont Geological Observatory made known the results of an expedition that, in the previous months, had traversed all the longitudes and, going up and down the latitudes, had discovered a huge and strange formation twice encompassing the globe.

The structure has the form of a large and high ridge, split along its length by a deep canyon.

In a preliminary report published in *Scientific American* of October 1960, Heezen described it thus:

“It is a submarine mountain ridge that runs for 40,000 miles across the bottom of all the oceans and covers an area equal to that of all the continents. The existence of the mid-ocean ridge is a recent discovery of oceanography, and the mapping of it still far from complete. But the stretches that have been charted show a most curious aspect. Down most of its length the ridge is split by a deep canyon, or rift, in which many earthquakes originate. The ridge is apparently the locus of a crack in the crust that runs nearly twice around the earth. The discovery at this late date of the mid-ocean ridge and rift has raised fundamental questions about basic geological processes and the history of the Earth and has even had reverberations in cosmology.”

The Earth was, for some agonizing moments of its past, in a vise; and its coupling action wrenched the Earth and welled up the ridge and split it with a deep rift. The mid-Atlantic ridge known from before is but a segment of the entire serpentine formation. The area of the ridge is so great that it was estimated to equal the area of the five continents.

In *Earth in Upheaval* (1955), I wrote of the shearing action to which the Earth's crust was subjected when caught in force fields of extraneous origin. In *Worlds in Collision* (1950), I described the same occurrence as reflected in the sundials and water clocks of antiquity that certify to a changed length of the day on solstices, and thus to changed latitudes and a changed inclination of the terrestrial axis to the plane of the ecliptic (Chapter 7). The fact that the Moon does not circle the Earth on its equatorial plane and that this plane is inclined by over 23 degrees to the plane of the ecliptic - whereas the plane of the lunar orbit almost coincides with the plane of the ecliptic — made H. Jeffreys (*The Earth*, 2nd ed., 1929) speculate that the Earth was once, or several times, in a vise that turned its axis in a new direction; and I quoted him in the chapter "Axis Shifted" of *Earth in Upheaval*.

THE OCEAN LEVEL

The stress which resulted in the formation of the immense undersea rifts must have been accompanied by widespread volcanic activity, irruptions of the sea, and changes in the level of the land and in the bottom of the sea. The level of the ocean must have also changed suddenly as a consequence of such upheaval; and in *Worlds in Collision* (Chapter 4), I cited various sources in support of the fact that the sea bottom was heated and rivers and parts of the ocean evaporated ca. 1500 before the present era.

Professor Cecilia Payne-Gaposchkin, astronomer of Harvard University, wrote: "There is no evidence of a wholesale disturbance of the ocean level near 1500 B. C.," or 3500 years ago (*The Reporter*, March 14, 1950). However, Professor Reginald Daly, geologist of the same university, had claimed since the 1920's that "a recent worldwide sinking of ocean level" of twenty feet occurred "about 3500 years ago" (Daly, *Our Mobile Earth*, 1926, pp. 177-179).

Subsequent to the publication of *Worlds in Collision* and this first of a series of articles by Gaposchkin on the book, Professor Philip H. Kuenen of Leyden University made the following statement: "In thirty-odd years following Daly's first paper many further instances have been recorded by a number of investigators the world over, so that this recent shift is now well established." As to the time of this sudden drop of the ocean level, Kuenen wrote: ". . . the time can be fixed at roughly 3000 to 3500 years ago" (*Marine Geology*, 1950, p. 538).

In a paper that Dr. Rhodes Fairbridge of Columbia University read before the International Oceanographic Congress on September 7, 1959, he brought evidence from many parts of the world that 6000 years ago the oceans rose forty-five feet; he even expressed the belief that the Great Flood described in *Genesis* is an echo of that oceanic rise.

Dr. Fairbridge found in many places along the eastern coast of the United States, from Maine to North Carolina, drowned forests which had lived 2830 years ago, with

a possible error of 200 years. This points to the 8th century before the present era. In *Worlds in Collision*, Part 2, are described global catastrophes of the eighth and beginning of the seventh centuries (-776 to -687) which, while being worldwide, were less violent when compared with the one that occurred in the middle of the second millennium, ca. 3500 years ago, or earlier ones. Such submerged forests are found all around England and Wales and are described in *Earth in Upheaval* (1955), pp. 185ff.

Volcanic activity on the bottom of the oceans and seas must have been stupendous; likewise island building. On the latter we have the testimony of earlier centuries passed on in the writings of classical authors. For example, the origin of many islands as well as changes in the coastline of the Mediterranean are recorded in *Pliny's Natural History*. But, in *Worlds in Collision* I did not cite this and many other ancient chronicles, having presented only a fraction of the historical material I had before me; and again, the material I had before me and left unused is but a fraction of what is to be found in the ancient literature of the world. In *Earth in Upheaval*, however, I was careful not to include any historical or literary material at all, the work being built on the records of modern geology and paleontology.

CONCLUSION

The oceans as we know them are not tens of millions or hundreds of millions years old, as the accepted view assumes. In a sequel to *Worlds in Collision*, dealing with the catastrophic events preceding the second millennium before the present era, I shall discuss the origin of the oceans and shall try to show that their expanse grew greatly after the event known as the Universal Deluge, when cosmic water descended on Earth following the disruption of Saturn.

If this unsupported statement sounds unbelievable, the reader may rest assured that I shall underpin this thesis with as much essential documentation as I did my thesis of the youthful Venus, a newcomer to the planetary family. The provenance of the water will also explain the origin of chlorine in sea water — a problem that plagues marine geologists. For, while the land could provide sodium through erosion by rain, terrestrial rocks do not contain the requisite quantity of chlorine and are quite poor in that element. Some chlorine could have been added from volcanic eruptions but not as much as is needed to form the salt content of oceans and seas. The source of the greater part of the chlorine in oceans is of cosmic origin, and a few more words on this subject are contained in the pages of my book dealing with Saturn.

To the claims in my published work, the ocean responded with invariable support: the sediment on the bottom was not formed uniformly; the nickel content of the red clay in the sediment is of meteoric origin — cosmic dust that rained furiously on the Earth; the Worzel ash also came from cosmic sources; the Heezen ridge and rift are signs of the external torque applied to the Earth, probably more than once; the violent displacement of marine sediment layers, the changing level of the sea, coastal beach at great depths—all speak of catastrophic events temporally so close to us that our

minds refuse comprehension.

References

1. See also E. Anders and D. N. Limber, "Origin of the Worzel Deep-sea Ash" in *Nature* 184 (1959), pp. 44-45.





Mercury

Mercury, the planet closest to the sun, is like Venus, a morning and evening star. But whereas Venus circles the sun in 224.7 terrestrial days, Mercury completes its orbital revolution in 88 days. Being so close to the sun it is rarely visible. Copernicus never saw it in the murky sky of Pomerania and wrote of it in his *De Revolutionibus* from what he learned in Claudius Ptolemy, the by then fourteen century old authority. Mercury is smaller than Venus and its mass was computed to be less than one eighteenth of the mass of the earth, whereas Venus is more than four-fifths of it. Mercury's diameter is by one half larger than our moon's diameter. Its orbit is a rather stretched ellipse whose perihelion, the point closest to the sun, and aphelion, the furthest point, are in the approximate ratio of two to three.

As the moon is locked with one side to the earth, its primary, so, and for the same reason, Mercury was thought to be locked permanently with one side to its primary, the sun. It was estimated that when the planet was in the process of formation, the sun must have caused in it tides, and this, in turn, must have exerted a tidal friction, and breaking of axial rotation. Thus the planet, so close to the sun for billions of years, must be permanently locked with one face to the sun.

In 1845 Adams and, independently, Leverrier, calculated in advance of its discovery, from perturbations of Uranus, the existence and the position of Neptune, thus supplying the world of physics and astronomy with what was (and often still is) regarded as the best confirmation of the scheme in which only gravitation and inertia direct the run of the celestial bodies. But in the same year Leverrier also calculated that the perihelion of Mercury advances in the direction of the planet's motion; it is the precession of the perihelion, or what is the same, a slow rotation of the long axis of the Mercurial orbit.

Laplace, who preceded Leverrier by half a century, acquired fame at the age 23 by showing that all kinds of irregularities in the celestial motions that have the appearance of "running down" and were so viewed by Newton himself who thought that Divine intervention is needed from time to time to rewind the mechanism, all these irregularities are not of a kind that accumulate, but are temporary, are actually swings or oscillations that after certain intervals reverse their direction and that therefore the celestial mechanism will never need rewinding.

Mercury's anomaly was obviously continually accumulating, and therefore not of an oscillating nature, not a swing. The anomaly was actually very minute. The observed precession amounts to 570 seconds of the arc in a century; of this amount, over 530 seconds of the arc of precession was attributed by Leverrier to the action of the

planets perturbing Mercury; but some 35 seconds of the arc were unaccounted for, a figure increased by later investigation to 43 seconds. Since Mercury revolves in 88 terrestrial days around the sun, it makes more than 400 revolutions in a century and the anomaly amounts to as little as circa one tenth of a second of an arc of unaccounted precession at each revolution. How small this angle of deviation is one may perceive if one imagines a penny, 1.9cm, nearly three-quarters of an inch in diameter, viewed without magnification from a distance of about thirty miles. But so proud was the world of the mathematics of the first half of the nineteenth century, with its achievements, that such an unaccounted discrepancy in the Mercurial motions was paraded to show the acumen of science.

Leverrier, who predicted the existence of Neptune, a planet on an extreme orbit, thought that the residue of the Mercurial precession would be accounted for if yet another planet, still undiscovered, revolves inside the Mercurial orbit; because of the proximity of the sun it would not be easily observed, but Leverrier thought he had detected it. No confirmation came in the decades that followed. Other conjectures were made, such as a surmise that the mass of the Sun is not uniformly distributed, or that the Sun is a slightly “loaded” body; but there was nothing to support this particular claim apart from the fact that the anomaly of Mercury needed to be accounted for. Thus Leverrier in the same year 1845, by discovering Neptune confirmed the gravitational theory of Newton, and by discovering the anomaly of Mercury he cast doubt on the theory’s infallibility.

Seventy years after Leverrier calculated the anomaly, Einstein offered his explanation of it in his General Theory of Relativity (1911-1915) Ten years earlier he had published his Special Theory of Relativity (so named when the General Theory was adduced). In the Special Theory (1905) he deprived space and time, or their units, of the attribute of constancy--a second or a meter on a body moving in relation to an observer is no longer exactly a second or a meter, and he attributed constancy to the velocity of light, independently of whether the source of light is or is not in motion in relation to an observer. In the General Theory Einstein tackled the nature of gravitation. Space not being endowed with the attribute of constancy, Einstein visualized it as curved in the presence of a mass.

For the General Theory of Relativity Einstein offered three observational cases as proofs. The Mercurial anomaly is almost exactly what his theory would presuppose of a planet that moves in the curved space caused by the proximity of the huge mass of the sun. The next observational evidence accountable by the General Theory was the shifting towards the red (red shift) in the spectrum of light emanating from the sun, compared with the light of laboratory sources, a phenomenon in Einstein’s explanation resulting too from bending of space by the presence of heavy mass (sun).

The third phenomenon would be in light emitted by a star and passing near the solar disk (bending of the ray).

Einstein did not make “three predictions” for the validation of the General Theory of

Relativity as it is often said; Sir James Jeans in his article on Relativity in the Encyclopedia Britannica refers in such terms to the three phenomena:

Einstein, knowing the mass of the sun, found himself in a *position to predict absolutely* what the motion of the perihelion of Mercury must be. It was found to be 42.9" a century, a figure which agreed with observation to well within the limits of errors of the observation The theory makes one further prediction which admits of experimental test: The light received from a calcium atom situated in the intense gravitational field near the sun's surface ought to be of slower period, and therefore of redder colour than the similar light emitted by terrestrial atoms . . . W. S. Adams found an actual shift of 0.32 A. It is hardly possible any longer to doubt that the spectral shift predicted by Einstein really exists . . .

A star or other massive body distorts the continuum [of space] in its neighborhood . . . in the neighborhood of such a body a ray of light does not travel in a straight line; it is deflected by the gravitational field of the body . . . None of the expeditions had of course measured the deflections of the stars actually at the sun's limb; most of the stars were several diameters away from the limb, the observed deflections being corrected so as to bring them to the limb. The deflection of stars at all distances were found to agree well with the predictions of Einstein's theory.

Actually in a paper published in 1911 Einstein, claiming redshift in solar light writes in a footnote:

L. F. Jewel (*Journal de Physique*, VI (1897), 84), and especially Ch. Fabry and H. Boisson *Compt. rend.* 148 (1909), 688-90) have actually established noticeable shifts of fine spectral lines from the sequence(?) here calculated, but have ascribed them to the effect of pressure in the absorbing layer.¹

As to the Mercury's anomaly, it was announced by Leverrier in 1845 and often discussed since. Thus only the bending of light passing near a mass was in the category of prediction. A paper was printed by Soldner in the Bode's Annual but Einstein evidently did not know of that paper. Soldner calculated that following Newton's concepts of light as a stream of particles the ray of light passing near the Sun is deflected by a small angle; Einstein, however, claimed a deflection twice as large.

Every textbook on astronomy used to relate that Mercury is locked with one and the same face in relation to the Sun as the Moon is in relation to the Earth; tidal forces must have produced such effect.

With one side turned to the Sun and the other facing the cold space, it was estimated that Mercury must be as extremely hot on the lit side while the temperature on the other side must be very close to absolute zero.

Space probes have obtained the surprising result that the non-illuminated side of Mercury is comfortably warm, actually is 60 degrees F., or of room temperature. In order to explain such phenomenon it was assumed that Mercury, thought to be without atmosphere, actually has one consisting of gases of heavy atoms; the atmosphere could carry the temperature from one side of Mercury to the other. Mercury had been thought to be void of any atmosphere because the small planet could not keep the molecules of gases from dissipating into space; first, lighter gases, but then also heavier would need to be lost to space; but in view of the observed temperature on the night side of Mercury, the assumption was made that heavy gases must have still survived on it. Great was, however, the surprise when Nicholas Kozyreff, investigating Mercury on presence of an atmosphere, announced the detection of hydrogen, the lightest of all gases. This was in sheer conflict with all theoretical computations. In the effort of finding the cause of the Mercurial temperature on the side turned away from the Sun, a new riddle that instead of explaining a phenomenon needed its own explanation, and this was not forthcoming because Mercury, millions or billions of years on its orbit, could not preserve an atmosphere of hydrogen.

In further search of the cause of Mercurial thermal “anomaly,” the evident thing was undertaken and the planet was investigated by radar. There was another surprise lying in wait. The planet was rotating. This, too, was in conflict with the theoretical computations. Mercury had to be locked with one face to the Sun. But it is not. The rate of rotation was found to be once in 58.65 days, whereas one orbital rotation of the planet equals 88 terrestrial days. The heated state of the night side of Mercury appeared to have now an explanation, though a more careful analysis must show that rotating once in 58 days, Mercurial surface temperature must drop far below 60 degrees F. It is, for instance, observed that the surface temperature of the Moon warmed by the Sun precipitously falls when during lunar eclipses Earth interposes itself between the Sun and the Moon—and the duration of an eclipse is counted in minutes, not days, as in the case of Mercury’s rotation.

With the discovery of the Mercurial rotation, not sufficient to explain the thermal question, the question of why Mercury is not locked with one face to the sun became a matter of new perplexity. The observation was made by a team of Cornell University scientists. Thomas Gold speaking for the team announced that Mercury could not have been stationed on its orbit for long—400,000 years was, in the opinion of Gold, the longest stretch of time that could be allowed for Mercury to remain unlocked. On the assumption that the solar system is six or nine billion years old, 400,000 years represent only 1/10,000 of the time since the planets, following the accepted view, obtained their positions and acquired their rotational rates—and this is the upper limit. Neither the tidal nor the nebular theories can square with the newly discovered fact.

Mercury is beset by riddles: it should not have a hydrogen atmosphere, but, if Kozyrev is right, it has such atmosphere. It should not rotate, but it rotates. It should have the night side much cooler than 60 degrees F. but it has this temperature.

Actually all three unexplained phenomena point toward an adventurous past, a past counted by thousands of years, but not by millions. Mercury has heat of its own, not just reflected heat of the Sun; Mercury has still an atmosphere of hydrogen, the last vestiges of a more extensive halo and trail (caduceus) seen by our ancestors in the fourth or third millennium before the present era; Mercury rotates because it is on its orbit for only several thousands of years. It is on a stretched orbit—a relic of its recent arrival at its present orbital path. As to the last point, I would reserve an opinion because magnetic forces near the Sun need to be calculated in any motion of the planet. These forces are most probably also responsible, in our understanding for the precession of the perihelion of the planet, and Leverrier's discovery of this precession does not require a geometric curvature of space.

Mercury, Hermes of the Greeks, was thought to keep well his secrets. The ancient writings not intended for circulation but for the study of the initiated only were called hermetic books. In our days Mercury disclosed four secrets: first that it is warm on the darkened side; then that it has a hydrogen atmosphere; next, that its axis is wobbling, and finally that it is not locked with one and the same face toward the Sun. Each of the four revealed facts is in conflict with accepted solutions. All together offer a solution—a planet on a new position since, in astronomical sense, recent times.

In the story as told in the volume *Worlds in Collision* the planet Mercury plays no role; however in the projected volume about earlier events on the celestial screen, Mercury was a participant and was not an idle spectator of the theomachy, the battle of the gods. It had an epoch of its own, or an act in which it was the principle actor, in the early historical times, in an age antecedent to the events in the solar system, dominated (as seen by man from the earth) first by Venus, then by Mars. But despite my not having introduced Mercury into the narrative of those later times (15th-7th century before this era) it could not remain even then as a completely inactive member of the planetary family. Especially if planets are charged bodies, the entrance of a new planet (Venus) into the system must have caused much havoc also on planets not in collision or near collision. One should think of the changes which the entire solar system would undergo and also keep in mind what the entrance of a new proton or electron would signify for an atom—the result could amount to the transmutation of an element.

The Romans as well as the Greeks pictured Mercury with wings, either on his headgear or at his ankles, and with an emblem, caduceus, twin snakes winding. The Babylonian name of the planet was Nebo, and he was an important deity, as the name of the mountain Nebo, on which tradition lets Moses die (Sinai, by the way, was consecrated to the Moon, Sin in Babylonian); Nebo in the names of the Kings Nabopolassar and Nebukhadnezzar testifies to its significance in the Babylonian

pantheon as late as the seventh and sixth centuries. Equally pronounced was the role of Thoth, the planet Mercury of the Egyptian pantheon, the theophoric part of the name Thutmose or Tut-ankh-amen.

Mercury, or Hermes of the Greeks, was a swift messenger of the gods that speeded on his errand sent by Jupiter or Zeus.

In my understanding Mercury was once a satellite of Jupiter or of Saturn and under circumstances not understood by me, was directed toward the sun and caught there in an orbit still elliptical. It could, however, have been a comet passing near Jupiter and the entwined snakes of the caduceus may memorialize the appearance it had when seen by the inhabitants of the Earth. There are indices that point toward Mercury's involvement in the catastrophe that is described in Genesis as the confusion of the builders of the Tower of Babel, something that in modern medical terms seems like a consequence of a deep electrical shock.

The claim is that Mercury travels on its present orbit only since some five or six thousand years. This view conflicts with both standard alternatives—of nebular and of tidal theories of the origin of the planetary family and with the assumption that the planets occupy the same orbits since billions of years. Since the early days of modern science, actually since Aristotle, it was considered undisputable that since the origin of the solar system, Mercury has been moving on the very same path. The study of ancient texts convinced me that there was nothing to this belief besides wishful thinking: the entire solar system was repeatedly rearranged. Mercury does not occupy its orbit since six billion years—the assumed age of the universe (which by the way was repeatedly re-assessed from 2 billion when I started my studies till by now 10 and 12 billion years are occasionally heard).

Already before the publication of *Worlds in Collision* I considered (and let it be set in print) a system of the world in which the sun, being a charged body in rotation, creates a magnetic field; the planets, being charged bodies, move in that magnetic field and are compelled to proceed on their orbits; to this phenomenon I gave the name “circumduction” (see my *Cosmos Without Gravitation*, 1946), borrowed from J. Kepler. I considered Mercury's precession, discovered by Leverrier in 1846, as resulting from such an effect, and, possibly, from a growing charge on Mercury (besides its not having completely settled after the celestial “battles”). I considered Einstein's use of Mercury's precession as an *ad hoc* argument for the General Theory of Relativity (certainly not a prediction, as James Jeans wrote in *The Encyclopedia Britannica*).

In my debate with Einstein, already early, in a letter written in August or September, 1952, I drew his attention to charges and consequences for Mercury, traveling in the extended corona of the sun. I returned to this also later in our correspondence.

Dr. Dicke came up with an oblate sun as a partial cause of the Mercurial anomaly. I drew his attention to the fact that he disregarded the by then discovered solar plasma

and the magnetic field centered on the sun and permeating the solar system. He gave me a strange answer: "That is something we have to disregard."

In my paper at the San Francisco Symposium, "Velikovsky's Challenge to Science," I once more drew attention to the problem and its consistent evasion in discussions of the General Theory of Relativity. Even in the days of Einstein he must have known of the general magnetic field of the sun, discovered by Hale a few years before Einstein used the argument for his theory; the magnetism of the solar spots was discovered earlier by Hale. Einstein corresponded with Hale on other matters.

As a matter of methodology it appeared to me improper that Einstein selected the case of Mercurial anomaly (precession of the perihelion) for the support of the General Theory of Relativity, without eliminating first the possible effect of the solar magnetic field on the precession of Mercury.

According to Newton an inverse cube effect when superimposed on an inverse square effect would result in a precession. A regular dipole magnetic field would produce an inverse cube effect when superimposed on an inverse square effect, due to gravitation.

The general magnetic field of the Sun was made known by G. E. Hale in 1912 at the time when Einstein was constructing his General Theory. The magnetic property of solar spots had been discovered at the beginning of the century by the same Hale.

On the 14th of October, 1913, Einstein wrote to Hale on the issue of another of his advance claims, actually the only one that could put claim to this definition. In his letter he inquired whether there was a possibility to observe in broad daylight, very close to the rim of the sun, some fixed star, this with the help of the powerful telescope that Hale built (Mt. Wilson 100-inch telescope). It was a naive inquiry; however, it was suggested to Einstein by another physicist in Zurich and he followed the advice—the idea was that if the answer were positive there would be no need to wait for a full solar eclipse for observing whether the sun (or any large mass) deflects a ray of light from its rectilinear path. Writing to Hale, Einstein showed much respect—but where he had to take into account Hale's great discoveries, he omitted to do so. Only by excluding the possibility that magnetic fields deflect a ray of light from rectilinear passage, would Einstein have cleared the way for offering an explanation based on a new principle in science.

In my understanding that goes back to the forties, the Sun being a rotating charged body creates a magnetic field that stretches far into interplanetary space. This field rotates with the Sun on which it is centered; at the distance of any planet, the field travels the length of the planetary orbit in the same time it needs for one axial rotation, or one turn of the Sun on its axis.

Mercury is a charged body and it moves in the solar magnetic field that rotates swifter than Mercury proceeds on its orbit.

In August 1952 I started my long debate with Einstein on the question whether inertia and gravitation are the only forces responsible for all the movements of the celestial clock, or whether electricity and magnetism, to whatever extent, need to be considered, too. I put the problem of Mercury squarely before him on this issue. I wrote:

Now the visible streamers of the sun that conveyed to Hale the idea that the sun is a magnet reach a long way towards Mercury, almost half the way. Was the electromagnetic state of the sun ever considered as the cause of the anomaly? The effect of the electromagnetic action must have been reckoned, and possibly excluded, but not disregarded.... Also the fact that the sun radiates at the expense of splitting (or building-up) of atoms was never followed through to the inevitable conclusion that the sun *is* a charged body in motion. At least the action of the magnetic spots of the sun with a field intensity reaching four or five thousand gauss should have been, if only once, taken into computation for its influence on planetary motion, Mercury in the first place, if only for the purpose of showing it as ineffective.

When, nine years later, Prof. H. H. Hess, upon being appointed, or elected, chairman of the Science Space Board of the National Academy of Sciences, wished to hear from me some suggestions for the activities of NASA (National Aeronautics and Space Administration), I offered, on September 11, 1963, a program for a series of investigations; concerning Mercury I wrote:

The cause of the precession of the perihelion should be re-examined in the light of the presence of a magnetic field of solar origin and solar plasma through which Mercury ploughs. An artificial satellite with a perihelion close to the sun could be tracked as to the precession of its perihelion.

Since I wrote this suggestion for experiment more than twelve years have passed. I have not heard or read of such a satellite having been dispatched.

At the symposium “Velikovsky’s Challenge to Science” organized by the AAAS in San Francisco in February 1974, in my paper, entitled “My Challenge to Conventional Views in Science,” I returned to the problem of the electromagnetic nature of the solar system and of the universe in general, and said concerning Mercury’s anomaly:

It was, of course, known since Gilbert that the Earth is a magnet and G. E. Hale discovered that solar spots are magnetic and that the Sun possesses a general magnetic field. But this did not keep Einstein, a few years later, from accounting for the Mercurial precession by a new principle instead of first eliminating the effect of the newly discovered

solar magnetic field on Mercury's movement.

If I was completely at odds with the cosmogony that had the solar system without history since creation, I was also carrying my heresy into a most sacred field, the holy of holies of science, to celestial mechanics. I had a chapter on the subject at the end of *Worlds in Collision*, but I kept those galleys from inclusion in the book and instead I included only one or two paragraphs—and the only italicized words in the book are found in them—namely: “The accepted celestial mechanics, notwithstanding the many calculations that have been carried out to many decimal places, or verified by celestial motions, stands only *if* the sun, the source of light, warmth, and other radiation produced by fusion and fission of atoms, *is as a whole an electrically neutral body*, and also if the planets, in their usual orbits, are neutral bodies.” I showed how the events I reconstructed could have occurred in the frame of classical celestial mechanics, but coming from the field of studying the working of the brain—I was the first to claim that electrical disturbances lie at the basis of epileptic seizures—I was greatly surprised to find that astronomy, the queen of sciences, lives still in the pre-Faraday age, not even in the time of kerosene lamps, but of candles and oil. It was, of course, known since Gilbert that the earth is a magnet and G. E. Hale discovered that solar spots are magnetic and that the Sun possesses a general magnetic field. But this did not keep Einstein, a few years later, for accounting for the Mercurial precession by a new principle, instead of first eliminating the effect of the newly discovered solar magnetic field on Mercury's movement.

Thus I did not omit once more to challenge the accepted view that Mercury's anomaly serves as confirmation of Einstein's concept of space curved in the presence of a mass, independently of whether Einstein was right or not in the theory itself. But if the Mercurial precession has a different cause than that which Einstein envisaged, the absence of the effect expected by him could not but be damaging to his theory of the nature of gravitation.

It did not take long after the symposium in San Francisco and the Mariner X probe passing upon passing and surveying Venus, approached Mercury.

Even from a great distance the photographs of Mercury taken by the unmanned probe showed a surface that attested to a very stormy past of the planet and as the probes came closer, the features grew in detail. It revealed itself as a battered world. Its surface features were never before observed by a telescope from the Earth; but after the scientific world accustomed itself to the Martian photographs of American and Russian space probes, there was no outcry of surprise anymore, though this planet closest to the sun was the least known as to its surface features. But the explanations applied to Mars and Moon for the phenomenon of cratered surface, namely, that these celestial bodies are in travelling, Mars more, the Moon less, in the zone of the

asteroids that supposedly by collisions with Mars and the Moon have caused these features, could not well be applied to Mercury, out of reach of almost all asteroids. And there were other features on the Mercurial surface that bespoke a violent past.

Very shortly after the February, 1974 symposium, Mariner X, passing near Mercury, established to the great surprise of all scientists, that it possesses a magnetosphere. Since it rotates slowly, in my opinion the magnetosphere results from the speedy relative motion of the space satellite and Mercury on its orbit. On the second passage, and third, of the satellite, the existence of the magnetic field around Mercury (magnetosphere) was confirmed. Now it becomes possible to abstain from considering the effect of the Mercurial magnetosphere traveling with the planet through the magnetic field lines centered on the sun.

“The accepted celestial mechanics, notwithstanding the many calculations that have been carried out to many decimal places, or verified by celestial motions, stands only *if* the sun, the source of light, warmth, and other radiation produced by fusion and fission of atoms, *is as a whole an electrically neutral body*, and also if the planets, in their usual orbits, are neutral bodies.” (*Worlds in Collision*, Epilogue, p. 387). “In the Newtonian celestial mechanics, based on the theory of gravitation, electricity and magnetism play no role.”

The precession of Mercury, the planet closest to the sun, is claimed by the General Relativity theory as one of the proofs of the curvature of space around mass; but since Mercury moves close to the charged sun and actually in the outer reaches of the solar corona, the magnetic field of the sun must act on its motion; therefore the claim of the relativity theory needs reexamination as to its validity. (Already Laplace showed that should a celestial body attracted by its primary as inverse square of distance be subject to another attraction that changes as the inverse cube of distance, a precession by that body would result.)

Things axiomatic need to be repeated again and again over a score of years; the omission to take into account physical realities and calculate their effects should not be placed solely at Einstein's door; in over sixty years since the publication of the General Theory nobody was disturbed by this situation and in nearly a score of years since the space investigation started, with by now probably a thousand artificial satellites having been launched, an experiment intended to observe the behavior of a satellite on the Mercurial orbit and on an orbit perpendicular to it have not been performed or even planned.

An electromagnetic effect must be incalculated in the celestial mechanics, whether its action equals to a substantial part of the gravitational attraction, or to only a minute part: the precision of the celestial motions and the advance knowledge of planetary positions to a small degree of a fraction of a second of the arc, raises the question as to the part the electromagnetic interrelation must account for.

The discovery by John H. Nelson of certain dependence of the radio transmission and

reception on the relative position of the planets (March 1951 issue of *RCA Review*) points in the same direction of an electromagnetic interdependence of planetary bodies. If an electromagnetic effect is present between these bodies, the exact masses of the planets must be recalculated, in order to leave also for the newly detected forces a role, small, however yet detectable, in the phenomenon of perturbation, or attraction of a planet by another.

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Jupiter's Radio Noises

One of the major deductions from the study of ancient civilizations was the recognition that the planetary and cometary bodies are charged objects and the solar system itself is regulated not solely by the law of gravitation; that electromagnetic interactions must exist and where following the inverse square law must be unrecognizable in their effects on the calculations of celestial mechanics - charge can, so to say, be hidden in or masked by the mass. Thus the problem of Pluto influencing Uranus and Neptune more than its mass can account for is a case of a substantial charge on a small planet. But where the less pronounced electromagnetic inverse cube relations take place, like in Mercury's precession of its perihelion, divergences from the celestial computations are registered as anomalies. Mercury moves through a general magnetic field of the Sun that influences it more strongly than it influences the remoter planets besides the influence on it and on them of the magnetic solar spots and solar wind.

In catastrophic conditions, with two celestial bodies approaching one another closely, the electromagnetic interactions may become most pronounced - the cometary protoplanet Venus produced a display of discharges between its head and its trailing part when the orbital movement of the protoplanet was disrupted by the close approach to the Earth; in the latter, eddy currents were generated with the effects due to such phenomenon (see *Worlds in Collision*, "Epilogue"). Interplanetary discharges took place when Mars and Earth came into close contact (*Worlds in Collision*, "Synodus"). The projected volumes dealing with catastrophes preceding those that took place at the end of the Middle Kingdom in Egypt carry the titles "Saturn and the Flood" and "Jupiter of the Thunderbolt".

The planet-god Jupiter (Zeus, Ormuzd, Shiva, Marduk) was pictured with a thunderbolt because of the spectacles witnessed by the inhabitants of the Earth —like a discharge that was directed toward Venus when it approached its parental body (*Worlds in Collision*, "Blazing Star"), or when the Earth itself might have been the target, as the content of the volume "Jupiter of the Thunderbolt" will reveal.

The understanding that the solar system is not neutral in its components but possibly neutral as a whole led me to the conclusion that the charge of the Sun may be equal to the combined charge of the planetary bodies and that quite possibly in Jupiter is assembled the major portion of it; thus, being ca. 1000 times smaller than the Sun it is charged to a very substantial potential.

Its potential could have been greater in the past; certainly planetary bodies exchanging discharges neutralized themselves to some degree; Mars, for instance,

must have been much more charged in the past before the events of the first half of the first millennium before the present era. The charge of the planet, I thought, may even be decisive in the position the planet occupies in the planetary system. I even considered theoretically a system in which gravitation is completely supplanted by electromagnetic effects with the charged planets traveling in the magnetic field of the Sun, itself being a charged body that by its rotation creates the magnetic field permeating the solar system; I also contemplated the existence of magnetic shells that would be the determinative of the planetary distances (Bode's Law).

Since 1941, I insisted that electromagnetic interrelations in the solar system cannot be ignored - this was the theme of my long debate, in writing and oral, with Einstein - from August 1952 to his death in April of 1955. At some point in our debate (in a letter written in June 1954) I offered to stake our debate on whether Jupiter sends out radio noises (of non-thermal nature, as I already claimed in my Forum Lecture of 14 October, 1954), to which he reacted skeptically, yet was greatly surprised when nine days before his death I brought to him the news (New York Times of April 6, 1955) that such radio noises were accidentally detected.

It has been long known that Jupiter possesses an angular momentum that is superior to the angular momentum of the Sun, even of the Sun with the rest of the planets combined. This appeared to me not without a definite role of charges accumulated in Jupiter.

Jupiter was believed to be a cold planet - since the 19th century it was thought to be covered by a frozen mantle of ices over ten thousand miles thick. To me, however, from the knowledge of its activities in ancient times, it did not appear as an inert gravitational body; I thought also of Jupiter as a dark star (*Worlds in Collision*, p. 373); but the radio noises that I expected it to be sending out I considered as of non-thermal origin and so I also expressed myself in the mentioned Forum Lecture. But whereas I expressed myself in October 1952: "The planet is cold, yet its gases are in motion. It appears probable to me that it sends out radio noises as do the sun and the stars. I suggest that this be investigated," in June 1954 in a letter to Einstein, I took a most definite stand: "Of course, I am a heretic, for I question the neutral state of celestial bodies. There are various tests that could be made. For instance, does Jupiter send out radio-noises or not? This can easily be found if you should wish." This claim was also vindicated in the announcement made by Burke and Franklin on April 6 of 1955.

The relevance of the orbital periods of Jupiter and Saturn to the sunspot cycle appeared to me, if real, based on electromagnetic, interdependence. The highly charged Jupiter must create a powerful magnetosphere; it may even create magnetic shells, for distribution of its satellites, a thing not yet proven; but certainly the large satellites of Jupiter, and especially the innermost of the Jovian satellites, must be much affected by its magnetic field. Jupiter itself appeared to me to be of contrasting charges on various levels which would account for the potential difference observed in celestial battles by the ancients between the head and the trailing part of the Jovian

progeny - protoplanet Venus (*Worlds in Collision*, "The Battle in the Sky"), the head having been expelled from Jupiter's deeper parts, the trailing part of debris and gases from a more superficial layer.

Thus discharges on Jupiter could be dictated by potential difference. The closest of the Galilean satellites must be acting as a target independent of whether a spark discharge actually takes place or a stream of charged particles is directed toward it and to a lesser extent toward other satellites (the fifth, however is only 112,000 miles mean distance from the planet). A purely gravitational relationship between Jupiter and its satellites appeared to me unthinkable; and on this phenomenon, in my estimate, the purely gravitational system of the World must stumble, as also on the case of the behavior of the comets when approaching, then circling the Sun in their perihelia a subject much discussed by me with Einstein in my effort to convince him of the fallibility of a purely gravitational system of the solar system (and of the universe in general).

The discovery of the Jovian noises (1955), and of the terrestrial magnetosphere (1958), claimed by me also in the Forum Lecture of 1953, and of the interplanetary magnetic field centered on the Sun and rotating with it (1960), and of the solar wind or uninterrupted streams of plasma (1960), made the purely gravitational system of the World untenable. Yet among astronomers, as late as 1971, the full significance of the fact for the understanding of the structure of the universe only very slowly finds its way, as can be exemplified by a paper by Prof. Ivan King, "The Dynamics of Star Clusters", where no mention is found of any electromagnetic participation in the mechanics of the galaxies.

The realization that Jupiter, which participated in a vigorous way in the theomachy (celestial battles), is not inert and cold led me to the conclusion that Jupiter must be also hot under its cloud cover, at some depth. This afterthought made me also claim that Jupiter is hot in a discussion with Prof. I. I. Shapiro of M.I.T., well-known authority in astrophysics, who denied such a possibility. This claim was confirmed recently by probes of the temperature underlying the surface clouds.

This leads me to the necessity to discuss some other aspects of the recent history of Jupiter, which all ancient peoples of the World elevated to the role of the supreme deity, the role it took over from Kronos-Saturn. But such a discussion I will undertake separately and at some length.





Saturn

Of Saturn I intended, already for some two decades, to write in a volume “Saturn and the Flood,” in which, as the title discloses, I would endeavor to identify this planet as the prime cause of the greatest of all catastrophes in human memory—the universal flood, or Deluge. This part of *Worlds in Collision* was conceived and drafted together with the parts dealing with Venus and Mars, but the elaboration of details was postponed and other labors claimed my attention and I am still before work unfinished. I will, however, disclose in a few sentences what is the subject of that part of reconstruction of world history.

The age that man later called the Age of Cronos (Saturn) was remembered with nostalgia as the age of bliss. It was the the earliest age of which man retained some, however dim, memories, but farther into the past, the dimness amounts almost to darkness. Saturn was also a more massive body than it is now, possibly of the volume of Jupiter, $\frac{1}{7}$ whereas now the proportion is approximately 7 to 13.

At a date that I would be hard put to task to identify even with approximation, but possibly about ten thousand years ago, Saturn was disturbed by Jupiter and exploded, actually became a nova. The solar system and reaches beyond it were illuminated by the exploded star, and in a matter of a week the earth was enveloped in waters of Saturnian origin.

Told in such brevity, the story sounds fantastic. I had the choice not to mention these events here at all or to refer to them and ask indulgence on the part of the readers for having said something unusual, and at the same time ask them to wait for a detailed narrative at some indeterminate time. I selected the latter. I have already mentioned that the major planets were in some way connected with the earlier cataclysms, one of which was the Deluge (*Worlds in Collision*, p. 373).

When in 1946 the manuscript of *Worlds in Collision* was first offered to the publishers (Macmillan and Co., New York), it contained the story of the Deluge and of the catastrophe that terminated the Old Kingdom in Egypt. But, at the suggestion of the reader for the publishing company, the book should have concentrated on one event; we compromised and presented in the published volume two series of catastrophes—those that took place in the fifteenth century before the present era and were caused by near approaches of Venus, and those which occurred in the eighth century before this era, and were caused by close approaches of Mars. The unused material was left for elaboration in two volumes: “Saturn and the Flood” and “Jupiter of the Thunderbolt.”

With this hardly even a summary, as told on this page, I should possibly dispel any misconception as to what is the design of my manuscript, too slow in the making. As to “predictions,” I could make several and I offer them cognizant of the fact that a prediction in science needs to be elaborated on the reasons that led to it.

I assumed, in the first place, that the planet Saturn must contain water to the extent that it is a “water planet.” It is also possible that water that enveloped the earth following the explosion of Saturn was at least partly formed by hydrogen combining with the oxygen of the terrestrial atmosphere—and there are indications that I intend to discuss in my book on the Deluge which point toward a sudden drop in oxygen content in the terrestrial atmosphere. But the fact that comets were observed consisting of water (ice), according to their spectral picture, permits the conclusion that water “ready-made” came from the planetary “nova.” Actually, in years subsequent to my concept of *Worlds in Collision*, water was identified as present on Saturn.

Further, I assumed that sodium chloride, or common salt, is an ingredient of the Saturnian atmosphere. Geophysicists have long wondered as to the origin of salt in the ocean. Sodium could have been derived from terrestrial rocks; but they are poor in chlorine. To some extent chlorine in oceans could have come from volcanic eruptions but it would require eruptions on an almost unimaginable scale to produce all of the chlorine locked in the salt of the oceans. The ancient traditions of Deluge refer also to the water arriving from space as salty and warm.

I have thought also of free chlorine (not combined into salt) on Saturn; but it is possible that vegetable life, at least, is present on Saturn, and free chlorine would interfere with vegetation; the reasons, though not compelling, for this assumption of vegetation on Saturn are also reserved for the detailed discussion. The tradition found in ancient texts refers to innumerable new forms of life in animal and plant kingdom following the Flood, which could have been solely a result of multiple mutations. But there exists in ancient lore an ever recurring association of seeds and new plant forms, with Saturn, Osiris, Tammus, Cronos, all of whom I understand as personifications of the planet Saturn.

In recent years I have chanced to read the view of Josif Shklovsky, a Russian astrophysicist, that a nova would be a source of cosmic rays even thousands of years after the explosion. Shklovsky and his collaborators offered the suggestion that at some past time the earth, or the entire solar system, passed through clouds of cosmic rays, resulting from a nova star, that caused the extinction of various forms of life on earth, dinosaurs and others. This thought found an echo in me because the same thoughts had been put on paper by me two decades earlier. But their assumption that cosmic rays may be discharged by a nova thousands of years after the explosion led me to think that if such is the case, Saturn may still emit cosmic rays, if, by now, only of low energy. Therefore when asked at some college gatherings what new “prediction” I would make, and desirous to tell something that in case of detection could not be ascribed to a lucky guess, I volunteered to suggest that there is a good chance that Saturn emits low energy cosmic rays. This on the assumption that the

Russians were right in saying that a nova would still be sending out such radiation after so long a period.

Finally, Saturn must emit more heat than it receives from the Sun. Reasons for such conditions of Saturn are at least two: first, the residual heat of the catastrophe in which Saturn was derailed from its orbit; second, the radioactivity that resulted from the catastrophe must still be pronounced on Saturn. In addition, Saturn can be regarded as a star and may have some mechanisms that make our sun burn with intense light. Because the surface clouds of Saturn are cold and the distance of Saturn from the sun renders the heat from this source very limited, the conclusion was drawn that Saturn must be very cold, frozen to its core. We came to a different conclusion also concerning the temperature of Saturn below the surface cloud layer.

In 1966 Dr. K. I. Kellermann described in *Icarus* the surprising fact that Saturn, at the wavelength of 21.3 cm. shows a temperature of 90 degrees F., which cannot be explained by solar radiation. It will be found of still higher temperature.

The rings of Saturn are formations of less than ten or twelve thousand years old. They must consist largely of water in the form of ice, but since the ancient lore all around the world tells that it was Jupiter who put these rings around Saturn, they may have some other components, too. Since these lines were written, spectroscopic study of the Saturnian rings has revealed that they consist mainly of water in the form of ice (1966).

Sodium chloride and cosmic rays are two phenomena still waiting to be investigated. Therefore, when I presented to Dr. H. H. Hess in his capacity as chairman of the Space Board of the National Academy of Science, a memorandum (dated September 11, 1963), subsequently submitted also to Dr. Homer Newell in his capacity as Director of NASA, I included these lines concerning Saturn:

“Saturn. Tests should be devised for detection of low-energy cosmic rays emanating from Saturn, especially during the weeks before and after a conjunction of Earth-Jupiter-Saturn.”

“Chlorine should be looked for in the Saturnian spectrum of absorption.”

References

1. Interestingly, for certain reasons G. Kuiper assumed in recent years that Saturn originally was of a mass equal to that of Jupiter. *Sky & Telescope*, March 1959, p. 259.
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Shapley's Scientific Record

In 1920 a debate on “The Scale of the Universe” took place between two astronomers, the older and respected Heber D. Curtis, and the young and ambitious, but little known, Harlow Shapley.⁽¹⁾ Curtis argued that the many spirals and nebulae visible through telescopes are galaxies or universes outside the Milky Way, which with its billions of stars is but another nebula to a viewer from a distant galaxy. Shapley argued that the solar system is located in an off-center position in the Milky Way, but that the Milky Way is the only galaxy in the entire universe, the spirals and nebulae being some nebular formations on its periphery.

A. Pannekoek described the position taken by these two astronomers in this way:

Curtis held that they [spiral nebulae] were ‘island universes’, separate stellar systems outside and comparable to the galactic system. . . . Shapley on the other hand, pointing to the accumulation of the spirals at the galactic poles, considered them not as distant galaxies but as belonging to our galactic system, itself regarded as larger, a ‘continent universe’. The fact that no stars were visible in these not very distant nebulae, though the spectrum was continuous, he ascribed to strongly scattering nebulous matter within them; and he held as a tentative hypothesis that the ‘spirals’ are not composed of typical stars at all but are truly ‘nebulous objects’. His chief argument, however—their accumulation at the poles and their absence in the Milky Way—lost its validity when it was found to be only an appearance produced by the absorption in the galactic plane.⁽²⁾

It is known today that there are many billions of galaxies in the Universe, not just the one galaxy of the Milky Way, as Shapley argued. He also grossly overestimated the size of the Milky Way, assessing it at 100,000 parsecs. “The figure is certainly too large,”⁽³⁾ as Pannekoek notes.

Forty years later Otto Struve concluded an article describing that debate thus:

To summarize the historic debate, I believe it correct to state that our present picture of the universe’s structure is a blend of the ideas of Shapley and Curtis. Shapley had correctly concluded that our solar system is located far from the center of our galaxy, and that the latter is considerably larger than previously believed. Curtis was correct in advocating that the spirals are other Milky Ways, comparable with our

own galaxy.⁽⁴⁾

This seems to be said with tongue in cheek, because hardly anyone would justly evaluate the outcome of the debate as a draw. Shapley's claim that there exists only one galaxy, the Milky Way, whereas it is known that billions or hundreds of billions of galaxies like the Milky Way exist, is a much greater deviation from the truth than Curtis' misjudging of the non-central position of the solar system in the Milky Way. Nevertheless, exploiting the fact that Curtis soon died, Shapley was left to claim the victory for himself and the story was worked up to his having been a second Copernicus: as Copernicus had demonstrated that this world of ours is not in the center of the solar system, so Shapley was said to have demonstrated that our solar system is not located in the center of the galaxy, but more toward the periphery. Several times I read and heard this proclamation being made on Shapley's behalf. Once it was on television, said so in his presence, and he basked in the halo of a genius before the multitudes of viewers.

The actual picture that emerges from this debate is a far cry from the story familiar from books, articles, radio and television, which repeats the same theme that while Copernicus discovered that the Earth is not in the center of the solar system, Shapley discovered that the Solar System is not positioned in the center of the Milky Way. Such a story gives Shapley credit for a discovery—and victory in the debate—both of which were undeserved.

Not even the claim that the solar system is located off-center in the Milky Way can be credited to Shapley. Immanuel Kant in his *Universal Natural History and Theory of the Heavens* (1755) wrote: “But perhaps it is reserved for future times to discover hereafter the region at least where is to be found the centre of the system of the fixed stars to which our sun belongs. . . .”⁽⁵⁾

Kant observed that “the zone of the Milky Way is broadest in the part that lies between the constellations of the Swan and Sagittarius,”⁽⁶⁾ and offered the surmise that “this will be the side where the place of our sun is nearest the outermost periphery of the circular system.”⁽⁷⁾

Moreover, Kant realized that the Milky Way is not the only galaxy. He wrote:

It is far more natural and conceivable to regard them [“nebulous stars”] as being not such enormous single stars but systems of many stars, whose distance presents them in such a narrow space that the light which is individually imperceptible from each of them, reaches us, on account of their immense multitude, in a uniform pale glimmer. Their analogy with the stellar system in which we find ourselves, their shape, which is just what it ought to be according to our theory, the feebleness of their light which demands a pre-supposed infinite distance: all this is in perfect harmony with the view that these

elliptical figures are just universes and, so to speak, Milky Ways

[\(8\)](#)

Kant cited as a source for some of these views Mr. Wright of Durham, an Englishman.

As for Shapley, in the years following his debate with Curtis, he did not produce any work of importance, and this was also pointed out in the literature. Forty-five years later he persistently claimed this great “discovery” as his own accomplishment and triumph.^{[\(9\)](#)}

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2. *A History of Astronomy* (New York: Interscience Publishers, 1961), p. 485.
3. *Loc. cit.*
4. “A Historic Debate About the Universe,” *Sky and Telescope* (May, 1960), 401.
5. Immanuel Kant, *Universal Natural History and Theory of the Heavens*, New Introduction by Milton K. Munitz (Ann Arbor: University of Michigan Press, 1969), p. 164.
6. *Loc. cit.*
7. *Loc. cit.*
8. *Ibid.*, p. 63.
9. [In the last several years astronomers have found that the solar system is not nearly as far from the center of the galaxy as Shapley had estimated.]





Worlds in Collision and the Natural Sciences

Although many articles were written against the theory of *Worlds in Collision*, and its author was called many names, there are but two arguments that are of real significance and with which the theory of “worlds in collision” stands or falls. One argument is of astronomical, the other of geological nature. Astronomers believe that the Earth and the entire solar system have been moving unperturbed for billion-years-long eons, every planet and every satellite on the same unchanging orbit. Geologists believe that the earth passed through a process of slow evolution, and that no vast catastrophe occurred in the age of man, if at all.

Since these two beliefs are the foundation of these two sciences, a theory that opposes them threatens to overturn the entire edifice. It is branded as heresy and is summarily rejected as being incompatible with the basic notions of natural sciences as taught in all textbooks and from all professorial chairs of natural sciences in general, not only astronomy and geology. If celestial mechanics went astray, the physics upon which it is built contains some basic error, and if the accepted view of geology is wrong, the theory of evolution that excludes past catastrophes must be based on a wrong notion. But astronomy is said to be the most exact of all sciences, being almost the embodiment of mathematics, and modern physics is the mainstay of all natural sciences, and the theory of evolution is the cornerstone of modern biology now for more than ninety years. No wonder that a theory that would contradict so much had to be rejected even without attention being paid to it; then it is also no wonder that *Worlds in Collision* was paid an unusual amount of attention.

It was the cumulative weight of the historical, literary, and folkloristic material from almost every culture of the past and every region of the world, or the collective memory, that made “worlds in collision” to a contention that could not have been disposed of without being answered. The emotional outbursts and the efforts to suppress the book in the hands of its first and, then, the second publisher, were no arguments; and the fact that now for over three years, again and again, the theory is “disproved” for “the first time” proves only that it was not sufficiently disproved at all, and that ever new efforts are necessary to discredit a theory which, if right, dislocates the very foundations of the natural sciences, and with them, of humanistic studies—history, archaeology, folklore, history of religion.

Aware of the consequences of the theory of cosmic disturbances in a recent past, I explained in the concluding chapter of my first book the various problems that come up. It could easily have happened that the author of a work based on ancient literary

sources would not feel himself capable or willing to go out of the pale of his particular field, and would let the scholars and scientists take up the problem in their fields. If the cumulative evidence of the book is strong enough to give to the events detected the validity of historical facts, then scholars of other fields are under the obligation to re-examine their tenets and try to find how a harmony between facts and laws can be brought about. And if the laws and the facts conflict, should the facts be annulled, or the man-made laws revised?

But a revolutionary revision of our heritage and the detection of unexpected but omnipresent records of frightening events in the history of human, animal and plant populations of the globe, and of the globe itself, and of other celestial bodies of the solar system, makes it most probable that under accepted contentions of eventless geology and astronomy, these sciences would not be found prepared to accommodate their views to a new theory in a foreign field. Therefore, it can be expected that either this field must be invaded and cleansed from the newly detected “facts,” if this is possible, or other fields must defend their contentions. Nobody invaded the field examined in *Worlds in Collision* to show that the thousands of coordinated references there could be torn apart or all of them given a different interpretation—and such a work would be almost unthinkable. Therefore the line of combat moved into other fields. And not expecting that natural sciences, or even archaeology, would revamp their views in response to a work in collective human memory, I took upon myself to carry the conclusions of my work in this field into other fields, too.

In order to be able to do this, I decided to postpone the presentation of the story of the earlier world catastrophes—of the third and fourth millennia before the present era—and dedicate myself to the exploration of the ensuing problems in astronomy and geology. And before this I had the obligation to elaborate on the problems of chronology and cultural history of the peoples of antiquity. This I had to do first, because in *Worlds in Collision* I asked the permission of the reader to use a synchronical scale of Egyptian and Hebrew histories which is not orthodox. And though *Ages in Chaos* was not written as historical argument for *Worlds in Collision*, being a work of its own purpose, it answers the argument the my synchronization of stories about catastrophes, especially the catastrophe of the days of the Exodus and the fall of the Middle Kingdom in Egypt, was arbitrary. It was not arbitrary, and a reconstruction of the history of the ancient East for twelve centuries, until the days of Alexander the Great and even beyond, was built upon the premise of a simultaneity of the fall of the Middle Kingdom and the Exodus, both events having taken place during a great natural catastrophe.





The Acceptance of Correct Ideas in Science

Should the question be asked why my books caused such great enmity and agitation (several writers have compared it with the violent natural events I described), the answer should not be simplified into the formula—“because the theories argued in them run counter to the established views.” Such an explanation requires elaboration within a larger historical perspective.

Fundamentally, it has been true that any new concept that carried seeds of truth and dispensed with many accepted tenets was apt to provoke some opposition. But this is not all. There must be deeper reasons for the extraordinary outburst on the part of the scientific community that greeted and pursued my works. This manifested itself in immense efforts to make me appear to be unscientific or unscholarly, an outcast, and my work of no worth.

The cases of Galileo, Darwin, and Pasteur were often brought into comparison by many reviewers and numerous correspondents. But, without losing historical perspective, the attacks in these cases were far less vituperative, far more mixed with praise, than the attacks made on the substance of *Worlds in Collision* and *Earth in Upheaval*, and personally upon their author.

Galileo was received in many honorary assemblies with great pomp, even by the Pope himself: the initial unwillingness to believe what Galileo saw through the telescope soon turned into great admiration for his achievement. A case in point is Clavius, author of the Gregorian calendar reform. At first a vehement opponent of Galileo, Christopher Clavius, with other Jesuits of the Roman College, repeated Galileo's observations in 1611, a year after Galileo published his *Sidereus Nuncius*. “John Adam Schall von Bell, later to be the first European director of the Chinese Bureau of Astronomy, was present as a young man in the hall of the Roman College in May 1611 when Galileo received a triumphant welcome from Clavius and his mathematicians after their confirmation of his discoveries.”⁽¹⁾ It was the scorn to which Galileo exposed the Pope, putting his views on cosmology into the mouth of Simplicius, that caused Galileo's brush with the Inquisition.

From the beginning, Darwin had many followers among scientists; and actually not he as much as his opponents were the targets of emotionally charged abuse. It was Huxley, not Bishop Wilberforce—the main opponent of Darwin—who in their famous encounter lost his temper and used insulting language.

Pasteur had envious and disbelieving colleagues, and some scientists in exalted positions, like Virchow, did not hurry to his side; yet Lord Lister did so. Before long Pasteur's name rang throughout Europe, and people traveled to his laboratory — this despite the fact that Pasteur had no formal medical training, as Darwin had no formal training in natural history. Darwin's only degree was that of Bachelor of Theology.

Galileo, Darwin and Pasteur, the standard examples of the persecution to which innovators are subjected, did not experience nearly as much abuse, either in sheer quantity (though the comparative scarcity of the press in the seventeenth and nineteenth centuries needs to be taken into account), or in its intensity, as became the lot of the author of *Worlds in Collision*.

In the history of science only the case of Copernicus caused a comparable objection and agitation. But Copernicus spared himself the abuse by the intentional postponement of the publication of his book until his very death. In his last days he was persuaded by his only pupil, Rheticus, to permit him to publish his work, *De Revolutionibus*, which he dedicated to Pope Paul III. On May 24, 1543, a few hours before Copernicus died, the first copy was put in his hands. In it he said:

“I can easily conceive . . . that as soon as some people learn that in this book which I have written concerning the revolutions of the heavenly bodies, I ascribe certain motions to the Earth, they will cry out at once that I and my theory should be rejected. Accordingly, when I considered in my own mind how absurd a performance it might seem to those who know that the judgement of many centuries has approved the view that the Earth remains fixed as center in the midst of heaven, if I should on the contrary assert that the Earth moves — when I considered this carefully, the contempt which I had to fear because of the novelty and apparent absurdity of my view, nearly induced me to abandon the work I had begun. How did it occur to me to venture, contrary to the accepted view of the mathematicians, and well-nigh contrary to common sense, to form any conception of any terrestrial motion whatsoever?”

The only opposition Copernicus experienced in his lifetime was not from the Catholic Church, but from Martin Luther who, having heard of the theory of the Canon of Frauenburg, spoke against the “new astrologer who wanted to prove that the earth was moving and revolving rather than the heaven and the firmament, sun and moon. . . . This fool wants to turn the whole area of astronomy upside down. But as the Holy Scripture testifies, Joshua ordered the sun to stand still, not the earth!”

The Copernican theory was, as its author saw in advance, silenced for almost a hundred years' scientists were afraid to study or to teach it the only exception being Giordano Bruno. After nine months in the dungeon of the Venetian Inquisition and seven years in the cell of the Roman Inquisition, Bruno was burned at the stake in Rome for his denial of the Immaculate Conception—a theological heresy—and for

his teaching of the Copernican theory, which he extended by claiming the plurality of worlds. For Bruno, the fixed stars were not lights attached to an enormous sphere that bounded the universe, as Copernicus thought them to be. They were suns, like our Sun, encircled by planets, and some of these he believed were populated by intelligent beings. “You are perchance more afraid to pronounce your judgement,” Bruno said at the last hearing of the tribunal, “than I am to hear it.” On February 17, 1600, from the pile of faggots kindled in Campo dei Fiori in Rome, he was sent to the Inferno by the Inquisition.

These were no longer the dark Middle Ages. It was an illustrious time. The same year, 1600, Shakespeare wrote his *Hamlet*, Bacon had published his *Essays* in 1597, and both of them remained steadfast adherents of the Ptolemaic, geocentric system of the world, almost one hundred years after Copernicus. Bruno had spent his time and zeal in England, having made only one convert—William Gilbert, who published his great opus, *De Magnete*, in the same 1600. But when I said that Bruno was despised and pursued by both the Church and by scientists, I had in my mind that Galileo, whose later (1633) detention by the Inquisition was of a much shorter duration, in no book and in no letter of his enormous extant correspondence mentioned Bruno. Johannes Kepler, whose great discoveries became known as Kepler’s Laws, himself wrote of Bruno’s concept of the plurality of worlds as that “horrible theory.”

It was this that Bruno feared most: and though Bruno’s ideas are acknowledged to have been the greatest influence on Spinoza’s (17th Century) pantheism, he otherwise was all but forgotten for fully two hundred years and rediscovered only in the nineteenth century. God’s mills grind slowly. In August of 1597, Galileo wrote to Kepler:

“Many years ago I became a convert to the opinions of Copernicus, and by that theory have succeeded in fully explaining many phenomena which on the contrary hypothesis are altogether inexplicable. I have drawn up many arguments and confutations of the opposite opinions, which however I have not hitherto dared to publish, fearful of meeting the same fate as our master Copernicus who, although he has earned for himself immortal fame amongst a few, yet amongst the greater number appears as only worthy of hooting and derision: so great is the number of fools.”

Galileo became bolder only when, having observed Jupiter and its satellites through his telescope, he recognized a structure similar to that described by Copernicus: a sun encircled by planets. But his open defense of the Copernican theory caused a storm of opposition.

What was so unacceptable in the heliocentric system? Most generally it threatened humankind’s psychological need for the feeling of security, itself most probably based on a deep hidden insecurity. A moving Earth is a less secure place than an unmoveable one. Additionally, mankind was denied the central role in the universe.

This not only was injurious to his ego but was also interpreted to be in conflict with the tenets of the Christian Church. Did Jesus come just to a very secondary planet, one of many? But more than these considerations, the awakened feeling of insecurity was the basis of the great anguish that greeted the belated announcement of the Copernican theory.

Man as a species needs security from the elements, from the beasts; and not until he aggregated into communities and built shelters and walls could he feel himself protected from the outrages of nature and from the predatory animals. But it was not the daily vicissitudes of the ever-lurking predators that put such deep-seated fear into his soul: it was the great derailment of this planet on its travels that left its deepest impression on him; and as the deepest traumas are put in oblivion in the soul of an individual, so also is the case with humankind.

It was very unpleasant, therefore, to find out that the Earth, the whole Earth under our feet, moves. (How spontaneously and instinctively correct when the entire population of a city runs outside in panic at the first rumblings of an earthquake.) Later it was also very unpleasant to be told by the biologists that animal species are not immutable, that there is change and evolution in the animal kingdom, and that these natural mechanisms had produced humankind itself. Still more recently, it was markedly unpleasant to learn from psychoanalysis that man's motives are not always those that he thinks; that in his instincts he is much more primitive and animal than he wishes to admit: and that consciousness thus has understructures of an unconscious mind, and that these are quaking and uncontrollable domains, ruling over his conscious acts and motives.

But nothing of this compares with the insecurity engendered (especially if one is a scientist) when it comes to understanding that the planet on which we travel has been involved in cosmic accidents: even more if it seems that the plan of propagation and evolution has made the role of such accidents of collision not incidental but a precondition of evolutionary progress and destruction alike.

This is, in my view, the main cause of the emotional outbursts that have followed *Worlds in Collision*. The idea of a great fear living in man since the days of the great catastrophes presented itself early to me I was a student of psychology before I became a student of history, natural history, and folklore: and I was aware that there is some "blocking," in the psychoanalytic sense, to see obvious things. Why have students of mythology failed to discover why the gods of the pantheons of all ancient races should have been identified with the planets? Why do the traditions of all races speak of celestial *theomachy*, of great natural perturbations, with the Sun, stars, and meteors taking part? Or, why do modern students of religion not wonder at the grandiose natural events described in the holy books and the concepts of eschatology so prominent in the Gospels and the Koran? Why do students of geology strain themselves to explain, or explain away, catastrophically-formed phenomena they observe on the bottoms of the seas, in mountain ridges, in great fields of lava, and great deserts?

I have called this psychological phenomenon *collective amnesia*. and I have explained the term elsewhere: it is not that we have no historical evidence: it is rather the inability to read the texts as they are—Mars for Mars, Jupiter for Jupiter, fire for fire, hurricane for hurricane, and deluge for deluge.

To elaborate on this subject and to show how the unconscious mind works in all areas of our activities, even in our many sporadic wars, I have written *Mankind in Amnesia*. If Jung was right in his concept of a collective unconscious mind, then its probing must reveal the persistent racial memories of great catastrophes of the past when the sea, the sky, and the earth competed in destruction—for we are “survivors of survivors.”

Are there no other reasons for the outcry and concerted opposition to the reconstruction offered in *Worlds in Collision*? True, most scholars have a vested interest in accepted theories. There is also a psychological urge to reject anything contrary to what we have learned.

But these are additional reasons; vested interests and resistance to change one’s thinking are both secondary to the great and primary reason: the fear of the repetition of the events, grown in the racial memory of the survivors of these crises, when the Earth was carried to the brink of destruction. It is this hidden fear which is behind the scientists’ vehement denial of the available evidence for global catastrophes in historical times. The same fear manifests itself in many forms of irrational behavior—directed, above all, against *anyone* whose findings threaten to bring the archaic trauma into the open.

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Precursors

Nicolaus Copernicus had a passage in the manuscript of his *De Revolutionibus* in which he gave credit to Aristarchus of Samos as his predecessor in announcing the heliocentric view of the solar system. Archimedes and Plutarch, widely read in the Middle Ages, as well as other writers of antiquity referred to this teaching of

Aristarchus:⁽¹⁾ the Sun, not the Earth is the center of the solar system, and the Earth with the other planets revolves around the Sun. But Copernicus suppressed this mention of Aristarchus in his manuscript, and it did not appear in the printed *De Revolutionibus*.⁽²⁾

Galileo Galilei proved that all objects, independent of their weight, fall with the same velocity and the small difference is due only to the resistance of the air through which the objects fall. But already Lucretius in the first century before the present era wrote: “All things that fall through the water and thin air . . . must needs quicken their fall in proportion to their weights, just because the body of water and the thin nature of air cannot check each thing equally, but give place more quickly when overcome by heavier bodies. But, on the other hand, the empty void cannot on any side or at any time support anything, but rather, as its own nature desires, it continues to give place; wherefore all things must needs be borne through the calm void, moving at equal rate with unequal weights.”⁽³⁾

In 1605, Simon Stevin of Bruges published a book in which he described his experiment: he let fall two balls of lead, one ten times the weight of the other, and they landed evenly.⁽⁴⁾

Isaac Newton explained that gravity attracts the Moon to the Earth and calculated this basic notion of his theory assuming that “the mean distance of the moon is equal to sixty semi-diameters of the earth”.⁽⁵⁾ “*The moon gravitates towards the earth, and by the force of gravity is continually drawn off from a rectilinear motion and retained on its orbit.*”⁽⁶⁾ Thus he concluded that the Moon, like terrestrial objects, is governed by universal gravitation. Now Plutarch already in the first century wrote: “They who place the moon lowest say that her distance from us contains six and fifty of the earth’s semi-diameters, that is, that she is six and fifty times as far from us as we are from the center of the earth: which is forty-thousand stadia, according to those that take their calculations moderately. Therefore the sun is above forty millions and three hundred thousand stadia distant from the moon; so far is she from the sun by reason of gravity, and so near does she approach the earth. So that if substances are to be distinguished by places, the portion and region of the earth challenges to itself the moon, which, by reason of neighborhood and proximity, has the right to be reputed

and reckoned amongst the terrestrial natures of bodies.”⁽⁷⁾

Classical authors referred to the belief of the Chaldeans that comets move on orbits and return at periodic intervals.⁽⁸⁾ However, it is Edmund Halley who is credited with the discovery of the periodic return of comets.

Thus, the authors of basic discoveries of the laws of nature borrowed from the ancients or rediscovered the truths known to the ancients, but kept the ancients' names out of their discourses.

The conclusions of my own research, that the Earth underwent successive catastrophes of a cosmic nature and that the constitution of the solar system changed in historical times, are actually based on testimonies of the ancients. The idea of a cosmic catastrophe in historical times came to me one evening in October 1940: it was inspired by the chapter in the Book of Joshua where it is told about the stasis of the Sun and Moon, and the stones that fell from the sky. In a few weeks the major part of the theory presented in *Worlds in Collision* was conceived. The first impulse after reading the Book of Joshua was to investigate Chinese records in order to see whether anything is known about the stasis of the Sun; then I addressed myself to authors who narrate the ancient history of the New World.

In the Friar Charles Etienne Brasseur de Bourbourg (1814-1874), I found an author who was very much impressed by the constant references in old sources to the fact that the continent of the New World underwent great catastrophes each of which terminated a world age. He was on an absolutely right track when he posed the principle which I had in my own mind, that of looking for references to a stasis of the Earth in Mexican traditions. “In order to rediscover the remotest history of the earth it is necessary to compare the ancient traditions of Asia and Egypt with those of the primitive peoples of America.”⁽⁹⁾ But, strangely enough, the reverend author did not feel that the Scriptures contain any parallels to the Mexican traditions; and the Egyptian material in which he looked for comparisons was insufficiently known in his time. And, therefore, all his efforts to find parallels were repaid with no success. Nor did he understand the cause of the continental catastrophes, leaving to scholars in the natural sciences the task of dealing with the problem, which he felt they were compelled to do on the basis of the traditions of pre-Columbian days.

There are three more authors whom I feel obliged to mention, although I did not find in them more than one or another quotation which I could trace and re-employ, since my theory was ready when I came across their books, and it went far beyond the ideas of these authors.

The first of them is William Whiston (1667-1752), professor at Cambridge, who succeeded Newton there. Newton chose him as his successor but later opposed his being admitted as a member of the Royal Society of which Newton was the first president. In 1696 Whiston wrote a book, *A New Theory of the Earth from its*

Original to the Consumption of All Things, in which he tried to prove that the Earth had contacted a comet which was the cause of the Deluge. He did not explain how a comet could cause a flood, and apparently ascribed this to the displacement of the seas. The idea that the Deluge was caused by a comet was not his: it is mentioned in the Talmud and used by Rashi (Rabbi Isaac ben Solomon), a Mediaeval rabbinical author often quoted by Christian authors during the Renaissance. [\(10\)](#)

A mention of the presence of a comet in the sky during the Deluge, though not described as its cause, is found also in the works of the chronographers of the sixteenth and seventeenth centuries who preceded Whiston: Abraham Rockenbach, Henricus Eckstormius and David Herlicius; and he refers to them as the factual sources for the basic assumptions of his theory. Whiston supposed that before the Deluge the year was equal to 360 days, and that the Earth had its pole of daily rotation perpendicular to the plane of its yearly revolution. He thought that this was the only world upheaval of which any memory survived and, not recognizing cosmic catastrophes in such events as the story described in Joshua 10:12, wrote: “The sun and moon, as if they were two globes of fire and light pendulous in our air, and hanging over certain places, are ordered to stand still, the one upon Gibeon, the other in the valley of Aijalon. . . . All which expressions, with many others through the whole Bible, plainly shew that the Scripture did not intend to teach men philosophy, or accommodate itself to the true and Pythagorick system of the world. The holy writers did not consider the heavenly bodies absolutely, as they are great and noble in themselves, main and glorious parts of the universe, very distant from our earth, placed at various and immense distances from it, and from one another ... disposed in a regular order, in proportionate and harmonious periods and revolutions. Under such consideration we might have expected another sort of presentation of the heavenly bodies, their original, designs, courses, and circumstances, than the foregoing texts, or other parallels, everywhere afford us.” [\(11\)](#)

Whiston did not see natural disturbances of world dimensions in the descriptions of Scripture, the Deluge excluded. He believed that the comet which caused the Deluge has a period of 575½ years and that it was the same comet which appeared in September -44 after Julius Caesar was killed, in the year 531 in the consulate of Lampadius and Orestes, in February 1 106, and at the end of the year 1680; and he believed that it will return again in 2256. He also came to the idea that the Earth was a comet before it became a planet. He did not recognize the role of the planets in historical cataclysms.

The second author whom I would like to mention is Baron Georges Cuvier (1769-1832). He is regarded as the father of the paleontology of the vertebrates. Investigating the strata of the ground, he came to the conclusion that the Earth underwent a series of cataclysms: “We discover in the midst of even the oldest strata of marine formation, other strata replete with animal and vegetable remains of terrestrial and fresh-water productions; and amongst the more recent strata, or, in other words, those that are nearest the surface, there are some in which land animals are buried under heaps of marine productions. When the traveller passes over those

fertile plains where gently flowing streams nourish in their course an abundant vegetation, and where soil, inhabited by a numerous population, adorned with flourishing villages, opulent cities, and superb monuments, is never disturbed, except by the ravages of war, or by the oppression of the powerful, he is not led to suspect that Nature also had her internecine wars, and that the surface of the globe has been broken up by revolutions and catastrophes. But his ideas change as soon as he digs into that soil which now presents so peaceful an aspect. . . . If there is anything certain in geology, it is that the surface of our globe has been the victim of a great and sudden revolution, whose date cannot go back more than five or six thousand years.

“But these countries which today are inhabited, and which the last revolution has turned into dry land, have already been inhabited formerly, if not by men, then by land animals; consequently, a previous revolution had, at the least, brought them under water; and if one can judge by the different orders of animals whose remains one finds in them, they have perhaps undergone as many as two or three irruptions of the sea.”⁽¹²⁾

But he confessed that he was unable to find the cause of these cataclysms, and wrote: “It is these alterations which now appear to me to be the problem in geology that it is of the greatest importance to solve or, rather, to define, or even to circumscribe; for in order to resolve it satisfactorily it would be necessary to discover the cause of these events - an undertaking which presents a difficulty of quite a different kind.”⁽¹³⁾

“*In fine*, it is in those events that approach nearer to our own times, that we may hope to find some traces of more ancient events, and of their causes; if, indeed, after so many fruitless attempts as have already been made, one may be permitted to flatter himself with such a hope.”⁽¹⁴⁾

“These ideas have haunted, I may almost say, have tormented me, during my researches among fossil bones.”⁽¹⁵⁾

In a single passage Cuvier mentioned the idea of Whiston and mocked it, saying: “Whiston fancied that the earth was created from the atmosphere of one comet and that it was deluged by the tail of another. The heat which remained from its first origin, in his opinion, excited the whole antediluvian population to sin, for which they were all drowned in the deluge, excepting the fish, whose passions were apparently less violent.” He was thus supporting the attitude of Voltaire against the ideas of Whiston. As it is known, Lamarck before Cuvier, and Lyell and Darwin after him, “proved” that there were no cataclysms, and thus Cuvier was put on dusty shelves.

Ignatius Donnelly (1831-1901), a member of the American Congress in the days of Lincoln (1863-1869), ran in 1900 as a candidate for the Vice-Presidency on the “middle-of-the-road-populists” ticket. In between his political activities he wrote a few books which brought him the title the “Prince of U. S. Cranks” . In one of the

books he tried to solve the authorship of the Shakespearian plays, ascribing them to Bacon; in another he tried to locate Atlantis; and in a third (the second in order of chronology), called *Ragnarok*, he came upon the idea that the Earth in the past met a mighty comet, and he attributed the deposits of clay, gravel, and silt on the Earth's surface to contact in some bygone age with this comet. He supposed, for the sake of his theory, that clay, gravel, and silt cover only one half of the Earth, that which was facing the comet when it passed; thus China and eastern Siberia would have no clay or gravel.

Donnelly's assumption regarding the distribution of clay and gravel is not based on any source or authority, and is entirely erroneous. He did, however, ascribe the catastrophe to the period when man already peopled the Earth; and I found in his book a number of references, especially to a few of those quoted by Brasseur, which I already possessed. The section in his book titled "Legends of the Age of Darkness" provides an abundance of references to a period of gloom. Nevertheless, Donnelly drew almost none of the conclusions to which he was obliged by his theory. He did not mention Whiston as his predecessor, and apparently was ignorant of him.

I do not know of any other modern authors who anticipated one or another point in my reconstruction of planetary disturbances in historical times.

* * *

HOERBIGER'S THEORY To the Editor of The New York Times:

One of my teachers in my adult life, a wise man, made the following observations: a newly discovered truth is first attacked as being false; but when it is finally accepted as true it is attacked as not being new.

During my writing of "Worlds in Collision" "I often told my friends that I should like to arrive rather early at the time when my theory would be attacked as not original; it would be a sign that it was starting to become accepted.

R. Heymanson in a letter to The New York Times published on May 7 accuses me of offering what he says are "ideas which have long been old stuff to educated people in England and on the Continent of Europe" ; in his opinion my work does not possess "the virtue of originality. " More specifically, he says that "everything" in my book is to "be found" in Hoerbiger's theory.

Hoerbiger's theory of cosmic ice is as follows: the space between the stars is not empty but is filled with thin ice; this ice offers a very minute obstacle to the movement of planets; every movement is thus slowed down; there were at least half a dozen small planets on concentric orbits between earth and Mars. The planet closest to earth was captured because of the slow-down movement and became a moon. After millions of years, again because of the obstacle presented by the cosmic ice, this moon on its orbit around the earth came so close to the earth that it was pulled down

and crashed on the ground. This caused a world catastrophe. After millions of years another planet was captured, after more millions of years it also crashed on the earth and so on.

The present moon is at least our sixth moon and will also fall on the earth in some millions of years to which, according to Hoerbiger and his followers, the Book of Revelation of John carries testimony. Then Mars will be captured and will become our next moon.

The geological ages, according to Hoerbiger, must have been much longer than accepted by the geological scientists — in the range of billions of years; and for tens of millions of years human beings have existed and also carried their traditions.

The views expressed in “Worlds in Collision,” which hold that the geologic ages must have been much shorter (with all the implications for the theory of evolution), are diametrically opposed to Hoerbiger’s theory.

In two or three instances where I used a source learned by me from Hoerbiger or Bellamy, his interpreter, I gave the proper credit by indicating book and page.

IMMANUEL VELIKOVSKY

New York. June 21. 1950

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Foreword to Alice Miller's *Index to the Works of Immanuel Velikovsky**

Mrs. Alice Miller, unknown to me, worked for over six years on the composition of this Index. In December of 1970 she wrote me a letter expressing her appreciation of my work and her desire to be of assistance, vaguely mentioning her ability to work on indexing. I am not certain that I have answered her letter, since through the years I was unable to reply to every one of my readers-correspondents.

Then, a few months ago, I was surprised by the arrival of a large envelope, containing the 278-page Index. I was unaware that through all the six intervening years Mrs. Miller labored on the project she had faintly indicated in her letter of 1970. It came at a time when I discussed with a few of my close collaborators the necessity of a work of preparation of an "Index of Deviations" (or "Innovations") that would serve as a guide to those who would undertake the ambitious project of preparing material for a thorough overhaul of the existing encyclopedias and textbooks in numerous fields touched upon by the heresy born in the first years of World War II and brought to the attention of the scholarly world and of the literati (the reading and thinking public) between 1950 and 1960.

Today the heresy of that decade is occasionally found as accepted truth in conventional texts, but usually without a reference to the iconoclast who first offered it - and did so not in a piecemeal way, but in the course of a reconstruction of events in nature and history not of grey antiquity, but of the times when man could record the events and did so in many languages; actually all the ancient civilizations left records of the same events, as did also nature in records of bones and stones.

The oneness of these great fields, of natural and cultural histories, came to light, and so to the consciousness of the readers. In this process many an enshrined law proved to be only an assumption - and often a wrong assumption at that: and what was considered as ancient history down to Hellenistic times showed itself to be but a web of baseless speculations.

The work of Alice Miller will be of inestimable value to researchers in various topics dealt with in my published books and articles, and, as I just said, is already preparing the way for the summation of that achieved synthesis - by itself only a beginning of a new world view.

13 June 1977

Immanuel Velikovsky

*[Index to the Works of Immanuel Velikovsky by Alice Miller](#) 278 pages. \$30.00.
1977. ISBN: 0-917994-07-8. Published by [Kronos Press](#)





Joseph and Potiphar

The story of Joseph is one of the best known in the Bible: Joseph who dreamed prophetic dreams, and wore a shirt of many colors—a distinction of his father—and was sold into Egypt by his brothers. There he became housekeeper in the household of a high official, but later was thrown in the dungeon. Then, after he had interpreted the dreams of Pharaoh about the seven years of plenty and seven years of famine, he was freed and was appointed to gather and store the produce during the good years and distribute it during the lean years.

The person of Joseph was searched for by the historians among the grandees of Syro-Canaanite origin at the court of the Egyptian Pharaohs. He was identified with Dudu, the courtier in the palace of Akhnaton; or with Iaanhamu, who was in care of the food supply in the same reign: his name is often mentioned in the el-Amarna letters as that of an official who sold food to the people of Canaan on behalf of the Pharaoh.

In *Ages in Chaos* it was demonstrated that Dudu was probably a grandson of Hadad—mentioned in I Kings 2; that the letters of el-Amarna described the famine, also known from the Scriptures, that occurred in the days of Ahab, King of Israel.

In *Ages in Chaos* and in *Worlds in Collision* I was able to establish the fact that the Exodus took place on the day when the Middle Kingdom of Egypt had its end. Thus we are carried to the conclusion that the sojourn of the Israelites in Egypt falls in the period of the Middle Kingdom. This sojourn begins, according to the Scriptures, with the arrival of Joseph, son of Jacob, who at the same time is the only figure of discern in the Egyptian Jewry before the time of Moses and Exodus. Thus, realizing that the sojourn of the Israelites in Egypt took place not during the New Kingdom but during the preceding Middle Kingdom, in order to find out whether the personality of Joseph or the patron of the early stage of his career, Potiphar, is referred to in the historical documents, we have to look into those of the Middle Kingdom. The task appears simple. According to the Book of Genesis Potiphar was “an officer of Pharaoh, captain of the guard.” In the register of the private names to the *Ancient Records of Egypt* by James Breasted, we find the name Ptahwer.

Ptahwer was at the service of the Pharaoh Amenemhet III of the Twelfth Dynasty of the Middle Kingdom. According to an inscription of Ptahwer at Sarbut el-Khadem in Sinai dated in the forty-fifth year of Amenemhet III, his office was that of “master of the double cabinet, chief of the treasury.” Ptahwer’s text reads:

I was one sent to bring plentiful _____ from the land of _____, ready in his reports to his lord, delivering Asia to him who is in the palace,

bringing Sinai at his heels, traversing inaccessible valleys, bringing unknown extremities (of the world), the master of the double cabinet, chief of the treasury, Ptahwer, triumphant, born of Yata.

The inscription records the successful accomplishment of some peaceful expedition. Since there is only one Ptahwer in the historical documents, and since he lived in the time when we expect to find him, we are probably not wrong in identifying the biblical Potiphar with the historical Ptahwer.

This being the conclusion concerning Potiphar, we are curious to find whether any mention of Joseph is found in historical documents, too. The fact that from the great and glorious age of the Middle Kingdom only a very few historical inscriptions are extant. Since a great famine took place in the days of Joseph, it is, of course, important to trace such a famine in the age of which we speak. In the days of Amenemhet III there occurred in Egypt a famine enduring nine long years. Of this period we have a revealing document, which reads:

With these expressions the words of the Scriptures can be compared (Genesis 41:54):

And the seven years of dearth began to come, according as Joseph had said; and the dearth was in all lands; but in the land of Egypt there was bread.

Thus it seems that the Pharaoh in whose days was the seven years' famine was the successor of the Pharaoh in whose days began the rise of Joseph's career (if Yatu is Joseph). Potiphar, who lived under Amenemhet III, probably lived also under his successor.

The inscription which deals with Ptahwer mentions a man whose name is transliterated by Breasted as Y-t-w. Among the monuments of Amenemhet III's reign is one of the Storekeeper who was honored together with two other persons, and, with a royal If we remember that according to the Scriptural narrative Joseph was appointed storekeeper of the State (Gen. 41:40-41) in anticipation of the seven lean years, with the powers of a chief Minister of State or Vice-King, we may suspect in Yatu the Biblical Joseph. In the Scriptures it is said that his name was changed by Pharaoh to Zaphnath-paaneah, but still his original name may have been in use until he became next to the Pharaoh in importance.

The inscription that mentions Ptahwer refers to his activity in the mines of the Sinai peninsula. In this respect it is of interest to find that the Jewish traditions connect Joseph with the area of the Sinai Peninsula saying that he kept a large quantity of treasuries near Baal Zaphon, the scene of the Passage of the Sea.

The beautiful story of Joseph appears to be a narrative in the style of Egyptian literature of the Middle Kingdom. It should be noted that Egyptian literature achieved its apogee in this period of Egypt's history. Literary creations such as "The Story of

Sinuhe” or “The Tale of the Shipwrecked Sailor” were equalled neither before nor after the Middle Kingdom. And the beautiful style of the story of Joseph seems to be a product of the same time; it could have been written at the end of the Middle Kingdom, before the end of the sojourn of Israel in Egypt.





Hammurabi and the Revised Chronology

King Hammurabi is the best known of the early monarchs of ancient times due to his famous law code, found inscribed on stone. This great lawgiver of ancient Babylon belonged to the First Baby-Ionian Dynasty which came to an end, under circumstances shrouded in mystery, some three or four generations after Hammurabi. For the next several centuries, the land was in the domain of a people known as the Kassites. They left few examples of art and hardly any literary works—theirs was an age comparable to and contemporaneous with that of the Hyksos in Egypt, and various surmises were made as to the identity of the two peoples. A cartouche of the Hyksos king Khyan was even found in Babylonia¹ and another in Anatolia,² a possible indication of the extent of the power and influence wielded by the Hyksos.

Until a few decades ago, the reign of Hammurabi was dated to around the year 2100 before the present era. This dating was originally prompted by information contained in an inscription of Nabonidus, the last king of Babylon, who reigned in the sixth century until the conquest of his land by Cyrus. Whereas his son and co-ruler, Belshazzar, occupied himself with the administration of the land, Nabonidus indulged in an avocation: he showed a marked interest in archaeology, and excavated the foundations of ancient temples, looking for old inscriptions.³

In the foundations of a temple at Larsa, Nabonidus found a plaque of King Burnaburiash. This king is known to us from the el-Amarna correspondence in which he participated. On that plaque Burnaburiash wrote that he had rebuilt the temple erected seven hundred years before by King Hammurabi. The el-Amarna letters, according to conventional chronology, were written about -1400. Thus, if Burnaburiash lived then, Hammurabi must have lived about -2100.

When Egyptologists found it necessary to reduce the el-Amarna Age by a quarter of a century, the time of Hammurabi was adjusted accordingly, and placed in the twenty-first century before the present era. It was also observed: “The period of the First Dynasty of Babylon has always been a landmark in early history, because by it the chronology of Babylonia can be fixed, with a reasonable margin of error.”⁴ The period of Hammurabi also served as a landmark for the histories of the Middle East from Elam to Syria, and was used as a guide for the chronological tables of other nations.

Since the dates for Hammurabi were established originally on the evidence of the plaque of King Burnaburiash found by Nabonidus—which indicated that King Hammurabi had reigned seven hundred years earlier—the revision of ancient history

outlined in *Ages in Chaos* would set a much later date for Hammurabi, for it places the el-Amarna correspondence and King Burnaburiash in the ninth, not the fourteenth, century. Burnaburiash wrote long letters to Amenhotep III and Akhnaton, bore himself in a haughty manner and demanded presents in gold, jewels, and ivory. In the same collection of letters, however, there are many which we have identified as originating from Ahab of Samaria and Jehoshaphat of Jerusalem, and from their governors.⁵

Therefore, seven hundred years before this correspondence would bring us to the sixteenth century, not the twenty-first. Also, the end of the First Babylonian Dynasty—in circumstances recalling the end of the Middle Kingdom in Egypt—would point to some date close to -1500, or even several decades later.

A connecting link was actually found between the First Babylonian Dynasty and the Twelfth Dynasty of Egypt, the great dynasty of the Middle Kingdom. At Platanos on Crete, a seal of the Hammurabi type was discovered in a tomb together with Middle Minoan pottery of a kind associated at other sites with objects of the Twelfth Egyptian Dynasty,⁶ more exactly, of its earlier part.⁷ This is regarded as proof that these two dynasties were contemporaneous.

In the last several decades, however, a series of new discoveries have made a drastic reduction of the time of Hammurabi imperative. Chief among the factors that demand a radical change in the chronology of early Babylonia and that of the entire Middle Eastern complex—a chronology that for a long time was regarded as unassailable—are the finds of Mari, Nuzi, and Khorsabad. At Mari on the central Euphrates, among other rich material, a cuneiform tablet was found which established that Hammurabi of Babylonia and King Shamshi-Adad I of Assyria were contemporaries. An oath was sworn by the life of these two kings in the tenth year of Hammurabi, The finds at Mari “proved conclusively that Hammurabi came to the throne in Babylonia after the accession of Shamshi-Adad I in Assyria”.⁸

Shamshi-Adad I could not have reigned in the twenty-first century since there exist lists of Assyrian kings which enable us to compute regnal dates. Being compilations of later times, it is admitted by modern research that “the figures in king lists are not infrequently erroneous”.⁹ But in 1932 a fuller and better-preserved list of Assyrian king names was found at Khorsabad, capital of Sargon II. Published ten years later, in 1942, it contains the names of one hundred and seven Assyrian kings with the number of years of their reigns. Shamshi-Adad I, who is the thirty-first on the list, but the first of the kings whose regnal years are given in figures, reigned much later than the time originally allotted to Hammurabi whose contemporary he was.

The Khorsabad list ends in the tenth year of Assur-Nerari V, which is computed to have been -745; at that time the list was composed or copied. By adding to the last year the sum of the regnal years, as given in the list of the kings from Shamshi-Adad to Assur-Nerari, the first year of Shamshi-Adad is calculated to have been -1726 and

his last year -1694. These could be the earliest dates; with a less liberal approach, the time of Shamshi-Adad needs to be relegated to an even later date.

The result expressed in the above figures required a revolutionary alteration in Babylonian chronology, for it reduced the time of Hammurabi from the twenty-first century to the beginning of the seventeenth century. The realization that the dating of Hammurabi must be brought forward by three and a half centuries created “a puzzling chronological discrepancy”,¹⁰ which could only be resolved by making Hammurabi later than Amenemhet I of the Twelfth Dynasty.

The process of scaling down the time of Hammurabi is an exciting spectacle. Sidney Smith and W. F. Albright competed in this scaling down; as soon as one of them offered a more recent date, the other offered a still more recent one, and so it went until Albright arrived at -1728 to -1686 for Hammurabi, and S. Smith—by placing Shamshi-Adad from -1726 to -1694—appeared to start Hammurabi at -1716.¹¹

If Hammurabi reigned at the time allotted to him by the finds at Mari and Khorsabad—but according to the finds at Platanos was a contemporary of the Egyptian kings of the early Twelfth Dynasty—then that dynasty must have started at a time when, according to the accepted chronology, it had already come to its end. In conventionally-written history, by -1680 not only the Twelfth Dynasty, but also the Thirteenth, or the last of the Middle Kingdom, had expired. On the accepted timetable, the Hyksos (Dynasties 14 to 17) ruled from that year for one century, until, in -1580, the Eighteenth Dynasty initiated the era of the New Kingdom.

We have previously discussed the difficulties that followed from leaving only one hundred years for the Hyksos period.¹² The great change in scenery between the end of the Middle Kingdom and the New Kingdom made Flinders Petrie claim that an additional period of 1461 years (one Sothic period) must be placed between the two eras; but this view did not prevail. Nor were retained as valid the historical sources (Josephus-Manetho) that allotted 511 years for the Hyksos period; nor was the consideration of cultural changes, as advocated by H. R. Hall—who pleaded for four or five centuries for the Hyksos period—given a chance.

When the end of the Twelfth Dynasty was brought down to -1680, there was no time left for the Thirteenth; and with only one century for the Hyksos, the bottom of the Middle Kingdom had apparently reached a level below which it could not be reasonably or securely dropped. This also constituted a barrier against any further reduction of Hammurabi’s time. Nevertheless, an attempt was made to eliminate the Hyksos period altogether: of the five hundred and eleven years of Hyksos rule, as given by Manetho and preserved by Josephus, not a single year was left.¹³ This proposed elimination of the Hyksos period, though made by a qualified scholar, was received with mixed reactions. But even this elimination did not bring the scales of the balance to rest.

Even without a further reduction of Hammurabi's time, the scaling down of his date by Albright and Smith was sufficient to call for a general lowering of the dates assigned to all west Asian and Aegean material.¹⁴ Consequently, three to four centuries were subtracted from all west Asian and Aegean chronology of the period corresponding to the Middle Kingdom in Egypt. Only the beginning of the New Kingdom was not moved from -1580, for it was regarded as "absolutely certain" and "mathematically certain".¹⁵

Yet the finds in Mesopotamia required a further lowering of the dates of the First Babylonian Dynasty. In one case of Middle East chronology before the New Kingdom—the date of the so-called Cappadocian tablets—a full six hundred years was excised. On tablets from Araphkha and Nuzi, seal impressions of the First Babylonian Dynasty were found. These tablets dated from the fifteenth century, "which points to a much later date than currently accepted".

If Hammurabi lived in the sixteenth century and the First Baby-Ionian Dynasty ruled until the beginning of the fifteenth century, then many dates of early history must be revised even more drastically. But the Middle Kingdom in Egypt could not be lowered below -1580 because such a shift would make a portion of the Middle Kingdom contemporary with the New Kingdom.

In my reconstruction of ancient history, the beginning of the New Kingdom is shown to correspond with the later part of Saul's reign, in the second half of the eleventh century. The Middle Kingdom (Thirteenth Dynasty) ended not in -1720 or -1680 but shortly after -1500. The Hyksos period regains its place in history: it continued for over four hundred years and corresponds in Biblical history to the time of the Wandering in the Desert, the Conquest of Canaan, the Judges, and to a part of Saul's reign.

The Assyrian king lists lend support to our reconstruction by exposing the need to lower the dates of the Twelfth Egyptian Dynasty. With Hammurabi belonging to the sixteenth century, the time of Burnaburiash is in the ninth century. This is also the period to which we ascribed the el-Amarna correspondence; and not the Assyrian and Babylonian material, but the Biblical and Egyptian evidence compelled us to move the beginning of the New Kingdom from -1580 to ca. -1040, and the time of el-Amarna to ca. -860 until -840 or -830.

The archaeological facts discussed above lead to the conclusion that the First Babylonian Dynasty reigned from the eighteenth century to the very beginning of the fifteenth and was contemporaneous with the Egyptian Twelfth and Thirteenth Dynasties—the Middle Kingdom. The time of the Kassites in Mesopotamia corresponds more precisely to the time of the Hyksos in Egypt and Syria. The fall of this Amalekite (Hyksos) Empire brought down their power "from Havila [in Mesopotamia] to Shur, over against Egypt" (I Samuel 15:7).

The discoveries at Platanos, Nuzi, Mari, and Khorsabad demand that the Middle Kingdom in Egypt be brought down to the fifteenth century, and though they involve archaeological material of an epoch preceding the period discussed in *Ages in Chaos*, they give strong support to the reconstruction presented therein

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5.

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6.

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11.

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The Šulmán Temple in Jerusalem

In the el-Amarna letters No. 74 and 290 there is reference to a place read (by Knudtzon) Bet-NIN.IB. In *Ages in Chaos*, following Knudtzon, I understood that the reference was to Assyria (House of Nineveh).⁽¹⁾ I was unaware of an article by the eminent Assyriologist, Professor Jules Lewy, printed in the *Journal of Biblical Literature* under the title: “The Šulmán Temple in Jerusalem.”⁽²⁾

From a certain passage in letter No. 290, written by the king of Jerusalem to the Pharaoh, Lewy concluded that this city was known at that time also by the name “Temple of Šulmán.” Actually, Lewy read the ideogram that had much puzzled the researchers before him.⁽³⁾ After complaining that the land was falling to the invading bands (*habiru*), the king of Jerusalem wrote: “. . . and now, in addition, the capital of the country of Jerusalem — its name is Bit Šulmáni —, the king’s city, has broken away . . .”⁽⁴⁾ Beth Šulmán in Hebrew, as Professor Lewy correctly translated, is Temple of Šulmán. But, of course, writing in 1940, Lewy could not surmise that the edifice was the Temple of Solomon and therefore made the supposition that it was a place of worship (in Canaanite times) of a god found in Akkadian sources as Shelmi, Shulmanu, or Salamu.

The correction of the reading of Knudtzon (who was uncertain of his reading) fits well with the chronological reconstruction of the period. In *Ages in Chaos* (chapters vi-viii) I deal with the el-Amama letters; there it is shown that the king of Jerusalem whose name is variously read Ebed-Tov, Abdi-Hiba, etc. was King Jehoshaphat (ninth century). It was only to be expected that there would be in some of his letters a reference to the Temple of Solomon.

Also, in el-Amama letter No. 74, the king of Damascus, inciting his subordinate sheiks to attack the king of Jerusalem, commanded them to “assemble in the Temple of Šulmán.”⁽⁵⁾

It was surprising to find in the el-Amama letters written in the fourteenth century that the capital of the land was already known then as Jerusalem (Urusalim) and not, as the Bible claimed for the pre-Conquest period, Jebus or Salem.⁽⁶⁾ Now, in addition, it was found that the city had a temple of Šulmán in it and that the structure was of such importance that its name had been used occasionally for denoting the city itself. (Considering the eminence of the edifice, “the house which king Solomon built for the Lord”,⁽⁷⁾ this was only natural.) Yet after the conquest by the Israelites under

Joshua ben-Nun, the Temple of Šulmán was not heard of.

Lewy wrote: “Aside from proving the existence of a Šulmán temple in Jerusalem in the first part of the 14th century B.C., this statement of the ruler of the region leaves no doubt that the city was then known not only as Jerusalem, but also as Bet Šulmán.”—“It is significant that it is only this name [Jerusalem] that reappears after the end of the occupation of the city by the Jebusites, which the Šulmán temple, in all probability, did not survive.”

The late Professor W. F. Albright advised me that Lewy’s interpretation cannot be accepted because *Šulmán* has no sign of divinity accompanying it, as would be proper if it were the name of a god. But this only strengthens my interpretation that the temple of Šulmán means Temple of Solomon.

In the Hebrew Bible the king’s name has no terminal “n”. But in the Septuagint — the oldest translation of the Old Testament — the king’s name *is* written with a terminal “n”; the Septuagint dates from the third century before the present era. Thus it antedates the extant texts of the Old Testament, the Dead Sea Scrolls not excluded.

Solomon built his Temple in the tenth century. In a letter written from Jerusalem in the next (ninth) century, Solomon’s Temple stood a good chance of being mentioned; and so it was.

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1.

Immanuel Velikovsky, Ages in Chaos, vii: “The Second Siege of Samaria.”

2.

The Journal of Biblical Archaeology 59 (1940), pp. 519 ff.

3.

Cf. Weber in Knudtzon: *Die El-Amarna Tafeln*, p. 1160 and p. 1343, for the various attempts to read the ideograms for NIN.IB. Lewy solved the problem: “The ideogram ^dNIN.IB may be pronounced Šulmánu.”

4.

In an article preceding that of Lewy, P. Haupt (*Orientalistische Literaturzeitung* XVIII, 1915, cols. 71-2) translated the verse in EA 290: “Die Landeshauptstadt Namens Jerusalem, die Stadt des Ninib-Tempels, die

Königsstadt.” Replacing Ninib by Shulman or Shalmi, we arrived at the conclusion that the sentence deals with Solomon’s Temple. Latest is an article in Hebrew *Eretz-Israel* IX (Jerusalem, 1969), by Tadmor and Kalai, who read the ideogram as Beth-Ninurta and locate it in Beth-Horon. This is an error; but they have brought the pertinent literary references together.

5.

The idea that the reference in EA 74 to Beth-Ninurta or Beth-Shulman is to some other place is based on the erroneous location of Sumur on the Syrian coast; in *A in C* it was shown that Sumur is Samaria, a short distance from Jerusalem.

6.

See *A in C*, vi: “Jerusalem, Samaria, Jezreel.”

7.

I Kings 6:2





Assuruballit⁽¹⁾

There are two letters in the el-Amarna collection signed by Assuruballit. These letters, though rather unimportant, are given much attention by the chronologists, not for their content, but for the name of their author. Assuruballit is not an unusual name, but the existence of an Assuruballit in the fourteenth century would link the Assyrian king lists with the Egyptian dynasties of the New Kingdom. Thus, the letters play an important role in conventional chronology, being the sole link in the space of many centuries between the Egyptian and Assyrian histories.

In Assyria were found king lists in which the names of the kings and the number of years of their reigns are given, and nothing more. The extant versions of the lists are of a later origin, since they give the succession until the end period of the Assyrian Kingdom.

If in the Assyrian lists there is a king who wrote letters to a pharaoh known by name, then a first and single link in the space of many centuries could be established between Egypt and Assyria. And, actually, efforts were made to synchronize Egyptian and Assyrian histories starting with Assuruballit I, who is called upon to hold together the two histories which otherwise appear to have no contact—and a great strain it is: This link was destined to carry the load of many centuries of disjointed histories, not only of these two lands but, more than that, of the entire history of the ancient East for the second half of the second millennium before the present era.

Probably such efforts would not have been made to accommodate this matter if it were not for the fact that in the period before Shalmaneser III, who mentions a tribute from Mizri (the name of the pharaoh is not mentioned), the Assyrian annals are silent on Egypt; and Egyptian annals, aside from the tribute paid to Thutmose III by Assur, interpreted as Assur (the name of the king is not mentioned), are silent on Assyria.

ASSURUBALLIT WAS NOT AN UNUSUAL NAME

I will offer here a few observations that may erode the link. In the first place, Assuruballit is not an unusual name among the Assyrian kings. Actually, the very last king of Assyria, who continued to resist the Chaldeans and the Medes from his hideout in Harran, upon the destruction of Nineveh in ca. -612, also bore the name of Assuruballit. His number in the succession of monarchs is 117, whereas that of Assuruballit of the fourteenth century is no. 73: Shalmaneser III (-858 to -824) has the 102nd place.⁽²⁾ A linking of two histories, the Egyptian and the Assyrian, is rather arbitrary if it is founded on nothing else than on the provenance of one name.

ERIBA-ADAD VS. ASSUR-NADIN-AHE

In the list of Assyrian kings, Assuruballit is the son of Eriba-Adad. But Assuruballit of the letters was, as he himself attests in one of the letters, son of Assur-nadin-ahe.

The idea of Schnabel and Weber that Assur-nadin-ahe, called “Abu” by Assuruballit, was “not father but forefather”, is a strained argument,

because—according to the king lists—Assuruballit was neither a son, nor a grandson, nor a descendant of Assur-nadin-ahe. Assur-nadin-ahe II was a cousin of Assuruballit and he had no offspring on the throne.⁽³⁾

On this problem Luckenbill had wondered:

In the second of the two letters Assur-uballit . . . refers to “the time when Assur-nadin-ahe, his father, wrote to Egypt.” The word “father” may here have the meaning “ancestor”, as often in the Assyrian texts, but even so our difficulties are not all cleared up. In the texts given below, Assur-uballit does not include Assur-nadin-ahe among his ancestors, although he carries his line back six generations. ...

On a clay table, having the common Assyrian amulet form, we have Assur-uballit’s account of the rebuilding of the palace in the new city (text, *KAH*, II, No. 27).

. . . Assur-uballit, priest of Assur, son of Eriba-Adad; Eriba-Adad, priest of Assur, son of Assur-bel-nisheshu; Assur-bel-nisheshu . . . son of Assur-nirari; Assur-nirari . . . he is the son of Assur-rabi, Assur-rabi . . . son of Enlil-nasir; Enlil-nasir . . . son of Puzur Assur.⁽⁴⁾

And, in Section 60, Luckenbill brings another such list by Assuruballit of his ancestors where again there is no mention of Assur-nadin-ahe.

Assur-uballit, viceroy of Assur, son of Iriba-Adad; Iriba-Adad, viceroy of Assur, son of Assur-bel-nisheshu; Assur-bel-nisheshu, viceroy of Assur, son of Assur-nirari; Assur-nirari . . .⁽⁵⁾

DO ASSURUBALLIT’S AND AKHNATON’S DATES COINCIDE?

Then the computations made on the king lists showed a discrepancy of several decades between the reign of Assuruballit and the time allotted to Amenhotep III and Akhnaton, his supposed correspondents.⁽⁶⁾ When the el-Amarna letters were found in 1881 they were ascribed to the fourteenth century because they were partly addressed to Amenhotep III and Akhnaton. Since these kings, by the conventional chronology, were placed in the 14th century, the Assyrian king Assuruballit was looked for in the then available king lists. Thus, the desire to find the names mentioned in his letters in the king lists was already there. This required quite a bit of stretching.

In 1917 Weidner admitted:

The dates we have established for the Assyrian and Babylonian kings do not fit those established by Egyptian historians for the dates of the Egyptian kings.⁽⁷⁾

In order to make the reign of Assuruballit and the time of these pharaohs contemporaneous, it was necessary to shift both chronologies, the Egyptian and the Assyrian. The Amarna Period, in order to meet the the earlier found king lists,⁽⁸⁾ was moved back into the 15th century. For, as Professor Mahler brought out, the leveling of these histories required the placing of Amenhotep III at the end of the fifteenth century and Akhnaton in the years -1403 to -1391 —far too high by the standards of the next generation of chronologists. What had first led to raising the age of Amenhotep III and Akhnaton into the Fifteenth century, then

required lowering it. (Due to “Poebel’s publication of the contents of the Khorsabad List in 1942/43, which proved that all previous chronologies were too high”, the age of the Assyrian kings of the period had to be reduced by 64 years.⁽⁹⁾) However, to lower the age of Akhnaton enough, in order to make him a contemporary of Assuruballit, was impossible because conventional Egyptian chronology is built on the premise that Ramses I started to reign in -1322 and after Akhnaton and before Ramses I, Tutankhamen, Smenkhkare, Aye, and Haremhab must have reigned.

About this M. B. Rowton wrote:

The Mesopotamian evidence discussed in this article indicates 1356 for the accession of Assuruballit 1. . . . Egyptologists believe that the lowest possible date for the death of Akhnaton is 1358. . . a discrepancy of only two years may not seem very significant. But closer examination reveals that the discrepancy is considerably greater . . . Moreover if the Menophres theory is accepted that the Sothic cycle began in the first year of Seti I, the date 1358 for the death of Akhnaton does not allow for a sufficient interval between Akhnaton and Seti. . . . But if this discrepancy is a matter of ten years or more we are no longer entitled to regard it as insignificant.⁽¹⁰⁾

The difference in years would be greater if the reign of Assuruballit, son of Eriba-Adad were not already brought as close as possible to the reign of Amenhotep IV, the uncertainty in the duration of some reigns of later Assyrian kings being exploited to make the most of it, with all ruling years being regarded as full years—though kings, like other mortals, die on every day of the year—which in a long list may make a difference of a few decades. Also, no allowance was left for co-regencies or common occupation of the throne, of father and son, a possibility which is always taken into account by chronologists.

Presently, Akhnaton is placed between 1375 and 1358 and Assuruballit between 1362 and 1327. This enables the Assyrian king Assuruballit I to write letters to the Egyptian king Akhnaton.

However, as late as 1974, Ronald D. Long was making the same point as Rowton:

Mesopotamian chronology . . . does not coordinate with the eighteenth dynasty chronology which is dependent on the era of Menophreos dating. Assuruballit I and Akhnaton were contemporaries, yet if the era’s dating is maintained their contemporaneity is non-existent.⁽¹¹⁾

THE CIRCULAR EVIDENCE

Since great stress has been put on the reliance of the chronology of the ancient world on the Assyrian king lists, a lesson needs to be drawn. The case of Hammurabi and the entire First Babylonian dynasty being lowered in age by four hundred years, because of a correlation with Egyptian material of the Middle Kingdom,⁽¹²⁾ exemplifies the dependence of cuneiform chronology on the Egyptian time-table.⁽¹³⁾ This is appropriate to remember during any effort to fortify the accepted Egyptian chronology by evidence coming from the Babylonian or Assyrian king lists.

The following quotes emphasize the direct dependence of Assyrian and Babylonian chronologies on that of Egypt:

Sidney Smith *in Alalakh and Chronology* wrote:

an approximate dating, subject to a very small margin of error, is possible for the period from 1450 *on the basis of Egyptian chronology*, which

can be fixed within narrow limits.⁽¹⁴⁾

Or, as J. D. Weir wrote:

objects of Egyptian origin had been unearthed at various levels of the site. These discoveries made it possible to synchronise the development of the town of Alalak, with the main periods of Egyptian history. So *Egyptian chronology* could now be used as a guide to *Babylonian dating*. The result of this link-up was a provisional date of ± 1600 for the end of the First Babylonian dynasty.⁽¹⁵⁾

In the chapter “Astronomy and Chronology”,⁽¹⁶⁾ I showed on what unfirm foundations the chronology of Egypt has been erected and how chronologies of countries that do not possess an absolute chronology of their own are built on the chronology of Egypt by the strength of archaeologically discovered contacts.

A SHORT SUMMARY

- Assurballit was a common name, still in use 750 years later.
- Assurballit of the list was the son of Eriba-Adad; Assurballit of the letters was the son of Assur-nadin-ahe.
- The time of Assurballit of the king lists was not exactly the time of Akhnaton; and efforts to synchronize them were made at the cost of inner contradictions in the Egyptian chronology (which is based on the Sothis-Menophres theory).
- Assyrian chronology is itself dependent on Egyptian chronology and therefore cannot be used as proof of its validity.

Thus, if there is no other synchronization of the Eighteenth Dynasty in Egypt with the Assyrian kings, the case of Assurballit cannot present an invincible argument.⁽¹⁷⁾

ONE VS. MANY LINKS

But if it were only a matter of evaluating my dating of the el-Amarna letters contra the conventional dating, we would use names alone. The list of identified persons in the el-Amarna letters in chapters of the Scriptures of the time of the middle of the ninth century, as presented in *Ages in Chaos*, is imposing. Among those names mentioned in both the letters and in the books of Kings and Chronicles are such unusual ones as Jehozabad, Adaja, Ben Zichri, Biridri, and many more. And is it little that, from five generals of king Jehoshaphat named by the Scriptures, four of them signed their letter by the very same names and one is referred to by his name?

| | |
|-------------------------|--------------------------|
| Captains of Jehoshaphat | el-Amarna correspondents |
| Adnah (II Chr. 17:14) | Addudani (EA 292) |

| | |
|-------------------------------|-----------------------------|
| Son of Zichri (II Chr. 17:16) | Son of Zuchru (EA 334, 335) |
| Jehozabab (II Chr. 17:18) | Iahzibada (EA 275) |
| Adaia (II Chr. 23:1) | Addaia (EA 285, 287, 289) |

Not only personal names, but dozens of parallels are found between the texts of those tablets and the scriptural narrative in the books of Kings and Chronicles, and also between them and the Assyrian texts of the ninth century. Events—down to the smallest details—were illuminated in the chapters dealing with el-Amarna: actions, wars, sieges, a seven-year famine, and geographical names were compared.

Although the el-Amarna correspondence covers only a few decades at the most, the many details that could be and have been brought to comparison lend an unshakeable support to the reconstruction of the larger period covering the time from the end of the Middle Kingdom to the time of the Ptolemies in Egypt, a span of twelve hundred years. Therefore, a single name, even were it to appear in the king lists and in the letters, would not amount to much without any support from the entire sum of evidence.

WHO THEN WAS ASSURUBALLIT, THE CORRESPONDENT OF AKHNATON?

Was Assuruballit I, son of Eriba-Adad of the 14th century, the king who wrote to Akhnaton?

In the Assyrian sources there is no reference to any contact of the king Assuruballit, son of Eriba-Adad, with Amenhotep III or Akhnaton, and nothing that would substantiate the claim that he was the author of two letters in the el-Amarna collection.

All her history long, Assyria was an important kingdom in the ancient world. Assuruballit, son of Eriba-Adad of the king list, is regarded as one of the greatest kings of ancient Assyria, ⁽¹⁸⁾ and his grandson Adad-Nirari was proud to be an offspring of this great king. The letters of Assuruballit in the el-Amarna collection do not convey the impression of their author being an important suzerain. It is worthwhile to compare the meek way of writing of Assuruballit, and the self-assured way of Burraburiash. And letters of other kings on the Near Eastern scene, extensive as they are, make it by contrast little probable that Assuruballit was an important king. But decisive is the fact that the author of very extensive letters, Burraburiash, clearly refers to his “Assyrian subjects” .

Assuruballit, son of Assur-nadin-ahe, could have been a provincial prince, or a pretender to the crown of Assyria. In a later age we find a prince Assuruballit installed by his brother Assurbanipal as the governor of the Harran province. Assuruballit could have been a provincial pretender in the days of Burraburiash; and Burraburiash actually complained to the pharaoh Akhnaton for entering into direct relations with some Assyrian potentates, despite the fact that he, Burraburiash, is the lord of Assyria.

Letter 9: Burraburiash to Amenophis IV

31 - Now as to the Assyrians, my subjects

32 - have I not written thee? So is the situation!

33 - Why have they come into the land?

34 - If thou lovest me, they should not carry on any business.

THE IVORY OF SHALMANESER

In *Ages in Chaos*, in chapters VI-VIII, it is claimed that Shalmaneser III, was a contemporary of Kings Amenhotep III and Akhnaton, and that Burraburiash must have been the Babylonian name of Shalmaneser III, who had actually occupied Babylon. To the reader of these lines, if unfamiliar with *Ages in Chaos* (and he should judge the discussion only upon its reading), it is not superfluous to report that the kings of Mesopotamia regularly applied to themselves different names in Assyria and in Babylonia. In the el-Amarna correspondence, he signed his Babylonian name (used more in the sense of a title) also on the tablet in which he referred to his Assyrian subjects (letter no. 9).

Our identifying Shalmaneser III as Burraburiash of the letters and as a contemporary and correspondent of Akhnaton ⁽²⁰⁾ could receive direct archaeological verification. In the section “The Age of Ivory”, I quoted from the letters of Burraburiash in which he demanded as presents, more in the nature of a tribute, ivory objects of art, “looking like plants and land and water animals”, and from letters of Akhnaton in which he enumerated the very many objects of ivory art, vases, and carved likenesses of animals of land and water and of paints that were sent by him to Burraburiash.

Calakh (Nimrud) was the headquarters of Shalmaneser: what could we wish for more than that ivory objects made in Egypt in the time of Akhnaton should be found there. This also happened.

The excavation project at Nimrud on the Tigris in Iraq was initiated by M. E. L. Mallowan (1959) and continued by David Gates. Recent excavations there have been carried on in Fort Shalmaneser III that served as headquarters from the ninth to the end of the eighth century before the present era.

The reader of *The New York Times* of November 26, 1961, ⁽²¹⁾ must have been surprised to find a news story titled “Ancient Swindle is Dug Up in Iraq” . The report carried news of the finds of the British School of Archaeology’s Nimrud Expedition:

When archaeologists dug into the ancient Assyrian city of Nimrud in Iraq earlier this year, they were surprised to find not Assyrian but “Egyptian” carvings. . .

The explanation given . . . by David Oates, director of the British School of Archaeology’s Nimrud Expedition, is that the archaeologists had dug into an ancient Assyrian antique shop. The “Egyptian” carvings had been cut by local craftsmen . . . to satisfy their rich clients’ demands for foreign “antiquities” .

There could be no question that this was Shalmaneser’s loot or collection, for in one of the storage rooms was found his statue and an inscription attests to the king’s approval of the portrait as “a very good likeness of himself” .

Although the cut-away skirts worn by the bearers are typically Assyrian, the carvings are of a style that antedates by hundreds of years the period in which they were made. If found elsewhere, they would have been identified as Egyptian . . . they are considered to be “manufactured antiquities”, designed to satisfy a rich man’s taste for antiques.

The quantity of ivory found was so great that, in three seasons, the excavating team did not empty the first of the three storage rooms. The excavators strained

their wits to understand why so much ivory work reflecting Egyptian styles of over five hundred years earlier should fill, of all places, the military headquarters of Shalmaneser III. Mallowan and his representative archaeologist on the site, David Oates, could not come up with anything better than the theory that, in the military headquarters of Shalmaneser, a factory for manufacturing fake antiques had been established.

No better explanation was in sight. Neither did the late Agatha Christie (the spouse of Mallowan), who took an intense interest in the archaeological work of her husband, know of a better solution to the mystery. Yet, the first volume of *Ages in Chaos*, with its el-Amarna chapters, had been on the shelves since 1952.

In complete accord with our historical scheme, Egyptian art of Akhnaton was found in the headquarters of Shalmaneser III. I could not say, “as we expected”, because this was too much to expect. From the point of view of the reconstruction, we could only wish that these objects would be found in Assyria, but we could hardly expect that they would be found almost intact in the fort of Shalmaneser III. Again it is too much to expect, but maybe there will still be found, in the same compound or in a room of archives to be discovered in Nimrud, original el-Amarna letters.

References

1.

[This article was put together from several different versions written by I. Velikovsky at very different times; from a [letter to Mercer written in 1947](#) and up to an unfinished drafted answer to Burgstahler’s article in *Pensée IVR V* (1973). Almost all the quotes were added, but at the locations that Velikovsky had indicated. Combining such different versions and adding quotes and their connecting sentences probably caused some shift in emphasis. Also, in combining such different versions, some changes seemed necessary; and I take the responsibility for such editing pitfalls.—*Shulamit F. Kogan*]

2.

A. Poebel. “The Assyrian King List from Khorsabad”, *The Journal of Near Eastern Studies* (1942-1943). [In the eponym list, as published by Daniel D. Luckenbill, an Adad-uballit appears as the *limmu* in -786 (in the time of Adad-Nerari III), between Shalmaneser II and Shalmaneser IV. A Nergal-uballit appears in -731. *Ancient Records of Assyria and Babylonia* (1926), Vol. II, pp. 434, 436.]

3.

Though, according to Poebel in “The Assyrian King List from Khorsabad”, Assur-nadin-ahe II was a cousin of Assuruballit’s father, Eriba-Adad. I. J. Gelb in “Two Assyrian King Lists” brings the following list where Assur-nadin-ahe was a first cousin of Assuruballit:

| | |
|---|-------------------------|
| <i>JNES</i> , Vol. XIII, no. 4, Oct. 1954, pp. 216-219: | |
| 69 Assur-bel-nisesu | son of Assur-nirari |
| 70 Assur-rim-nisesu | son of Assur-bel-nisesu |

| | | |
|-----------------------------------|-------------------------|--|
| 71 Assur-nadin-ahe | son of Assur-rim-nisesu | |
| 72 Eriba-Adad (I) | son of Assur-bel-nisesu | |
| 73 Assur-uballit | son of Eriba-Adad | |
| This can be tabulated as follows: | | |
| Assur-bel-nisesu | | |
| Assur-rim-nisesu | Eriba-Adad | |
| Assur-nadin-ahe | Assur-uballit | |

4.

Daniel D. Luckenbill, *Ancient Records of Assyria and Babylonia* (1926), pp. 21-22.

5.

Ibid., p. 22.

6.

Actually, after the el-Amarna tablets were first published, Weber and Knudtzon had disagreed where to place Assuruballit. Weber had him reigning not only in the days of Thutmose IV, but also of Seti, because Seti was the Egyptian king who waged war against Merosar son of Subbiluliuma, and Merosar simultaneously waged war against Assuruballit in Harran. But nobody could reign from the time of Thutmose IV through the reign of Seti. Therefore, Knudtzon sounded more acceptable having two kings by the name of Assuruballit, one grandson of the other; but the second was not found in the lists. It was also stressed by M. Müller and Breasted (*Records*) that Subbiluliuma of the el-Amarna letters could not have been the grandfather of Hattusilis, or father of Merosar, because of the same chronological difficulty: there must have been a minimum of 105 years from some point in the reign of his grandson, which is regarded as unusual.

7.

Weidner, 1917, quoted in E. Mahler, *Scripta Universitatis atque Bibliothecae Hierosolymitanarum*, 1924.

8.

The Khorsabad list was found in 1933 and the almost identical SDAS list was published in 1953.

9.

F. W. Albright, “An Indirect Synchronism between Egypt and Mesopotamia, circa 1730 B. C.”, *Bulletin of the American Schools of Oriental Research* 99, Oct. 1945, p. 10.

10.

M. B. Rowton, “Mesopotamian Chronology and the ‘Era of Menophres,’” *Iraq* 8 (1946), p. 94.

11.

Ronald W. Long, *Orientalia*, 43 (1974), pp. 261-274; *Ibid.*, KRONOS 11:4 (Summer, 1977), pp. 89-101 (p. 96).

12.

[See I. Velikovsky, “[Hammurabi and the Revised Chronology](#)”, KRONOS VIII: I (1982), pp. 78-84. -SK]

13.

Of this, Bickerman writes: “The fixing in time of the famous Babylonian legislator, Hammurabi, on whose dating many others depend . . . illustrates the inherent difficulty of working with king-lists.” *Chronology of the Ancient World*, p. 84.

14.

Alalakh and Chronology (1940), p. I (emphasis added). (See also W. F. Albright, “An Indirect Synchronism Between Egypt and Mesopotamia”, *BASOR*, 99 (1945), pp. 9-18, where synchronism between prince Entin of Byblus and Nefer-hetep of the Middle Kingdom in Egypt helped date Hammurabi.)

15.

John D. Weir, *The Venus Tablets of Ammizaduga* (1972), p. 6 (emphasis added).

16.

Written for *Ages in Chaos*, Vol. II, and published as a supplement to *Peoples of the Sea* (New York, 1977).

17.

Concerning the Kassite kings - Burnaburiash (Burraburiash), Karaindash, Kadashman-Harbe, and Kurigalzu—who are listed in the synchronistic tables

the following excerpts can be cited:

Edward F. Campbell writes:

The synchronistic histories and king lists cannot establish the dates of Burnaburias' reign, nor those of his predecessors. But information from the letters written by them can give some clear information as to the spread of the letters in the reigns of the contemporary Egyptian kings.

It is to be remembered that this particular period lies just before the time when specific information about the Kassites begins to appear in the king lists.

(Edward F. Campbell, Jr., *The Chronology of the Amarna Letters* (Johns Hopkins Press, 1963), pp. 44-47.)

Or as A. Goetze writes:

The *names* of the [Kassite] kings 16-23 have securely been *recovered from* the chronicles and contemporaneous sources like *the Amarna letters* . . . This leaves the places 10-15 still . . . open. To fill the gap attention should be called to three groups of Kassite kings of whom we have record but whose place in the dynasty still remains to be determined:

(a) Firstly, there is Burna-burias who, according to the "Synchronistic History" . . . concluded a treaty with Puzur-Assur of Assyria . . .

(b) Secondly, the available material forces us to posit another group of Kassite kings in which again a Burna-burias figures. . . .

(A. Goetze, "The Kassites and Near Eastern Chronology", *The Journal of Cuneiform Studies*, 18 (1964), pp. 97-98.)

Obviously these names are not independent evidence. In the synchronistic table published by Van der Meer, the sequence of the four kings Burraburiash, Karaindash, Kadashman-Harbe, and Kurigalzu, is exactly repeated twice in succession, besides appearing separately in the list repeatedly. See Van der Meer, *Chronology* (1963), pp. 35-36. See also D. Courville on Kurigalzu, *The Exodus Problem and its Ramifications*, Vol. 11(1971), pp. 316-317.

18.

"Assuruballit was really the first of those great men who created the Assyrian empire." S. A. Mercer, *The Tel El Amarna Tablets*, p. 820.

19.

Mercer, *op. cit.*, p. 31. See Mercer's note to the letter (no. 15) of Assuruballit: "As we learn from no. 9, Burraburiash II reminded Amenophis IV that the Assyrians, his subjects, had against his will intercourse with Egypt."

20.

[See I. Velikovsky, "[Hammurabi and the Revised Chronology](#)", *op. cit.*, p. 78-79, about the inscription found by Nabonidus, according to which Hammurabi reigned a few years before Burraburiash. Since the time of Hammurabi was reduced from the 21st to the 17th century, the time of Burraburiash should also be reduced by the same amount of time. - SK]

21.

The same story can be found in *Science Digest* of March, 1962.





World Fire

The point of origin of *Ages in Chaos* was in the realization that the Exodus of Israelites from Egypt took place amid a stupendous natural catastrophe. The question arose: Would not such a catastrophe serve as a synchronical point between the Israelite and Egyptian histories, in the case that among Egyptian literary documents reference to such a catastrophe were found? And, when such documents were properly identified as to their historical content, the next questions to arise were these:

1) at what time point did such catastrophe occur? Here was promise for a synchronization of two histories—Israelite and Egyptian. Out of this consideration arose *Ages in Chaos*, a reconstruction of ancient history.

2) the second problem was, of what nature was the catastrophe? In answering this question I wrote *Worlds in Collision*, a collection of literary and oral traditions from all parts of the globe. The catastrophe was ubiquitous.

The catastrophe that ended the Middle Kingdom (the Middle Bronze Age of the ancient East) made me start on *Worlds in Collision*. Between 1944 and 1946 I submitted *Worlds in Collision* to several publishers, with Macmillan, at last accepting *Worlds in Collision* for publication. In 1945 I published in the form of *Theses for the Reconstruction of Ancient History* the entire plan of *Ages in Chaos*, enumerating the changes, but leaving the substantiation for later. In *Ages in Chaos* the fact that the Middle Kingdom terminated in a catastrophe serves only as the point of departure, and in the *Theses* I put it in the form:

14. The Exodus took place at the close of the Middle Kingdom: the natural catastrophe caused the end of this period in the history of Egypt. This was in the middle of the second millennium before the present era.

The rest of the 284 theses deal with the problems of synchronism, and the order of events, always political or cultural in nature. The catastrophe in nature constituted but the starting point for the inquiry in chronology and true order of succession of political events. As the reader certainly noticed, it was not my prime concern in *Ages in Chaos* to establish an absolute chronology; the proper sequence of events and a correct synchronization of happenings among national histories of ancient peoples was my first concern. It was of prime importance to establish that the end of the Middle Kingdom and the Exodus were simultaneous events; their simultaneity required either an extension in the length of the Israelite history or reduction in the

length of the Egyptian history; the common event could not have taken place after about -1450 nor before -1500, and the exact determination of absolute chronology was of little concern, when both histories required a major readjustment in order to make the common moment synchronical. Thus not absolute but relative chronology was my concern. I was led to synchronize the Wandering in the Desert and the time of settlement in Canaan until the time of Saul with the time of the Hyksos domination in Egypt and the Near East, and the Hyksos themselves with the Amalekites. Saul, the victor over the last Amalekite king Agog, and Kamose and Ahmose, the first kings of the Eighteenth Dynasty and the New Kingdom, were contemporaries and also allies; David and Amenhotep I (both of them retained the nimbus of saintliness in the memories of their nations) lived at one and the same time; Thutmose I married a daughter of his to Solomon; and Hatshepsut, his other daughter and heir, visited Jerusalem of Solomon; Thutmose III, her younger brother and heir prepared the split of Solomon's empire after the latter's death, and Jeroboam was his instrument. In a campaign in the year of his reign he made Rehoboam, now the king of a small state, into a vassal. The exact date of this or other events I did not try to elucidate; such task is left to future researchers. The time of Asa was the time of Amenhotep II, with whom he successfully battled at Shamash-Edom; and the time of Jehoshaphat was that of Amenhotep III and IV (Akhnaton), to whom he also wrote letters, found in el-Amarna. With the age of el-Amarna the first volume was brought to its end. The time was about -825.

The task of synchronizing the Nineteenth and Twenty-second to Twenty-sixth Dynasties of Egypt with other kingdoms and dynasties is undertaken in *The Assyrian Conquest*, and *Ramses II and His Time*. In this period falls a series of great natural upheavals that shook the world in the eighth century and climaxed in the cosmic catastrophe of March 23, 687. The reader of *Worlds in Collision* knows how this date is arrived at on the basis of material collected from countries as far apart as China, Judea, and Italy. Therefore, should we wish to construe a timetable of absolute, not just of synchronical (relative) chronology, we are offered such a chance in that date: the event took place during the second campaign of Sennacherib against Judah, his last.

The entire scheme of so-called astronomical chronology is based on the assumption that no violent disturbances in nature have taken place that changed the relative motions of the celestial bodies and required a reform of the calendar. The solar eclipse of -763 serves, for instance, as a pivotal point for establishing Assyrian chronology. The sentence that we possess is as follows: "Insurrection in the city of Ashur. In the month of Siwan the sun was obscured." Solar eclipse tables, calculated by Oppolzer, Ginzel, and Mahler, were used, and an eclipse calculated to have taken place in -763 was selected for the event. Upon this date the Assyrian king list of succession of kings, Assyrian chronology was composed, and the biblical chronology corrected (by several decades) to conform with the Assyrian chronology. But in -763 there was no solar eclipse in that part of the world; I would even question whether there were lunar and solar eclipses generally, because their occurrence depends on a lunar orbit that lies generally in the ecliptic. Once in a while the moon passes between

the sun and the earth, causing a solar eclipse, and at other times the earth passes between the sun and the moon, causing a lunar eclipse.

Calendar reform was executed in the Old and New worlds in the seventh century. Material for this is found in *Worlds in Collision*, chapter 8. Before this, calendar changes followed the great upheavals of the middle of the second millennium. Then what sense does it make to trace the Sothic period or the lunar festivals, or other astronomical dates, on the assumption that there had been no changes in the celestial order, when such changes occurred at the end of the Old Kingdom and the end of the Middle Kingdom, and half a century later again, and several times during the eighth century? I have also shown that the so-called Nabonassar era, was a result of a reform following a certain new arrangement in the celestial motions. ⁽¹⁾

The fact that the Egyptians introduced the calendar reform under the Hyksos, increasing the number of the days in the year, ⁽²⁾ and another under the Libyans in the eighth century, ⁽³⁾ and that they possessed no less than three calendars --suffices by itself to cancel every effort to build absolute chronology on astronomical dates of lunations, eclipses, conjunctions, and the like.

* * *

Independently of my effort to construe a synchronical history starting with the common event that overwhelmed all nations of the globe--the great catastrophe that ended the Middle Kingdom, a similar effort was made by Claude F. A. Schaeffer, professor at College de France. The reader of *Ages in Chaos* is familiar with his work of excavating Ras-Shamra (Ugarit) from the chapter carrying this name. He observed in Ras-Shamra on the Syrian coast clear signs of great destruction that pointed to violent earthquakes and tidal waves, and other signs of a natural disaster. At the occasion of his visit to Troy, excavated by C. Blegen, he became aware that Troy was destroyed by a natural catastrophe, and repeatedly so, at the same time when Ras-Shamra was destroyed.

The distance from the Dardanelles near which the mound of Troy lies, to Ras-Shamra in Syria is about six hundred miles in a straight line. In modern annals of seismology no earthquake is known to have affected so wide an area. Schaeffer investigated the excavated places in Asia Minor, and the archaeologists' reports, and everywhere found the same picture; he turned his attention to Persia, far to the East--and the very same signs of catastrophes were evident in each and every excavated place. Then he turned his attention to the Caucasus, and there, too, the similarity of the causes and effects was undeniable. In his own excavations on Cyprus he could establish the very same order of events and their causes. He was so impressed by what he found that during the next few years, in the time of World War II, he put into writing a voluminous work, *Stratigraphie comparée et chronologie de l'Asie occidentale (IIIe et IIe millénaires)*, published by Oxford University Press in 1948. In over five hundred hundred pages he showed conclusively that the ancient East was several

times disturbed by stupendous catastrophes during the third and second millennia before the present era; he also indicated that his acquaintance with European archaeology made him feel certain that Europe, too, was involved in that catastrophe; thus, it would be more than continental, perhaps global in character.

The Old Kingdom and the Middle Kingdom of Egypt ended in natural catastrophes, the catastrophes that put an end to the Early and Middle Bronze Ages. Later a catastrophe ended the Late Bronze Age in Greece. Schaeffer intended to add a volume about catastrophes in the first millennium. I, however, came to the same conclusions by another route. Actually, if I was right, it could not be but that these great upheavals would leave clear marks in the archaeological sequence all over the world. Thanks to the diligent investigations of Schaeffer such signs have been identified over a wide area of the ancient East; the enumeration of the excavated sites discussed by him, just by their names alone, would fill several pages.

In the concluding chapters of his work, Schaeffer wrote:

The great perturbations which left their traces in the stratigraphy of the principal sites of the Bronze Age of Western Asia are six in number. The oldest among them shook, between 2400 and 2300, all of the land extending from the Caucasus in the north down to the valley of the Nile, where it became one of the causes, if not the principal cause, of the fall of the Egyptian Old Kingdom after the death of Pepi II. In two important sites in Asia Minor, Troy and Alaca Huyuk, the excavators reported damage due to earthquakes. Under the collapsed walls of the buildings contemporaneous with the catastrophe, the skeletons of the inhabitants surprised by the earthquake were retrieved. . .

Like myself, Schaeffer came to the conclusion that the invasion of Hyksos was in the aftermath of the great catastrophe that put an end to the Middle Kingdom:

This brilliant period of the Middle Bronze Age, during which flourished the art of the Middle Kingdom in Egypt and the industry of art so refined of the Middle Minoan, and in the course of which the great commercial centers such as Ugarit in Syria enjoyed a remarkable prosperity, was ended between 1750 and 1650 by a new catastrophe, equal in severity and in scope to the two preceding perturbations. Again Egypt is invaded by the North and loses its political unity along with its position of great power which it had enjoyed in Syria-Palestine and beyond . . .

The catastrophe was hardly of terrestrial causes, because the climate changed abruptly, too. Schaeffer intended to investigate the causes, but admitted his ignorance of them. Upon reading *Earth in Upheaval* he invited me to come to Cyprus to see his work there and so to become aware of the great paroxysms of nature that left their visible traces in Alasia, the capital of the isle, which he was excavating.

The work of Schaeffer gives a striking verification of the claims made in *Ages in Chaos* and *Worlds in Collision* concerning the catastrophes, their number, their destructive effects, and their at least continental spread. Not only the number and character of the catastrophes but also their timing was exactly the same in Schaeffer's and my work: we came, moving separately, and without knowledge of the work of each other, to the same conclusion--actually *to a day*, namely, both of us located the catastrophe at the very end of the Middle Kingdom (as before that at the very end of the Old Kingdom). This correspondence of results, not to a century, or a year, or a month, but to a day, could not be but the result of our having each in his own way discovered the historical truth.

The presence of archaeological signs of catastrophes in every place in Asia Minor, Syria, Cyprus, Palestine, Caucasus, Persia (Schaeffer's large volume covers only these countries, though Mesopotamia and Egypt are repeatedly referred to) created a need and an obligation to find the synchronisms between these events, and this was done by Schaeffer himself. Schaeffer used his finds to compose a comparative stratigraphy of all excavated places. He admitted that absolute chronology might be in need of revision; nevertheless, in his work he kept in rough figures to the accepted, or conventional chronology. The shortcoming of Schaeffer's work was in not making the logical deduction: if catastrophes of such dimensions took place in historical times, where are the references to them in ancient literary sources? More specifically, if a catastrophe of such dimensions took place at the end of the Middle Kingdom, decimated the population, but also left survivors, then some memory of the events must have also found its way to be preserved in writing; if not by survivors, turned to vagrancy and having to care for the first necessities of life, then by the descendents of survivors. Actually, the Pentateuch, as well as many portions of prophetic writings and psalms are a constant rehearsal of the events that took place when the sky, the land, and the sea contended in the work of destruction. Should not these references be compared with the signs of destruction actually found?

As soon as we enter this gate, we observe that not only was the world disturbed, but that our concept of historical sequence is wrong as wrong could be. If the Book of Exodus and the Naos of el-Arish describe the same event, and actually in the Naos of el-Arish, following the hurricane during which "nobody could leave the palace during nine days." As in the Exodus, the pharaoh perished "in the place of the Whirlpool" near Pi-Kharoti, so the pharaoh of the days of the Exodus perished in an avalanche of water at the sea near Pi ha-Khiroth. We have here a point of synchronism; the same with the description of the plagues in the Book of Exodus, and in the Papyrus Ipuwer. They are so similar that when I sent a comparison of the two text to Garstang, the late archaeologist of Jericho, he wrote in answer that the papyrus must be a copy from the Book of Exodus. But how could it be a copy if, as the conventional chronology maintains, the events in the text preceded the Exodus by centuries?

Here the breakthrough took place. I concluded that the catastrophe that enveloped all the lands of the ancient East can serve as a synchronizing point. From there on my

research did not depend on natural events—unless we shall use the catastrophes of the eighth and beginning of the seventh centuries for the similar purpose of synchronization.

These catastrophes offer a chance to synchronize events not only in Egypt or the Near East, but all over the globe. I also made such synchronization in *Worlds in Collision* I have lengthened the accepted ages of Mesoamerican civilizations by a full thousand years; the radiocarbon dating method later completely justified this conclusion.

In the near East we have probably in no other place as good as in Jericho the chance to compare the results of chronological research with the literary traditions of catastrophic events.

References

1.

It is often asserted that the Era of Nabonassar was Ptolemy's invention; but it is a fact that one of the most important of the Babylonian historical texts, the so-called "Babylonian Chronicle" (B.M. 92502), starts with the reign of Nabonassar, or the year -747. See H. Winckler and J. N. Strassmeier, *Zeitschrift fuer Assyriologie*, II (1887), pp. 163-168. Cf. D. J. Wiseman, *Chronicles of Chaldean Kings* (London, 1956), pp. 1-2.

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Von Bissing, *Geschichte Aegyptens* (1904), pp. 31, 33; Weill, *Chronologie égyptienne*, p. 32.

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Breasted, *Ancient Records of Egypt* IV. 756. Cf. R. Caminos, *The Chronicle of Prince Osorkon*, *Analecta Orientalia* 37 (1958).





Jericho

Jericho was the first city west of the Jordan to be conquered by the Israelites under Joshua. It was surrounded by a huge wall that was wide enough to have houses built on it. Joshua sent spies into the city, and Rahab, the harlot “let them down by a cord through the window: for her house was upon the town wall.” “About forty thousand prepared for war passed over before the Lord unto battle, to the plains of Jericho.” “Now Jericho was straitly shut up because of the children of Israel: none went out, and none came in.” After a few days of siege, the earth groaned loudly - the Israelites thought in answer to their invocation and their blowing the horns, and “the wall fell down flat.” The conquerors entered the defenseless city and “utterly destroyed all that was in the city” (Joshua 2:3; 4:13; 6:1; 6:20-21).

Joshua proclaimed a curse upon anyone who would rebuild Jericho: “He shall lay the foundation thereof in his firstborn, and in his youngest son shall he set up the gates of it” (6:26). Next the Israelites went against Ai.

Jericho’s fortress wall was famous, for it was huge and impenetrable, and only thanks to a violent earthshock did the besiegers obtain entrance. This wall became even more famous after it fell, because the story of it is one of the best-known episodes of Biblical ancient history.

For about five centuries no attempt was made to rebuild the city accursed by Joshua. In the ninth century, in the days of Ahab, king of Samaria, a certain Hiel the Bethelite built Jericho: “he laid the foundation thereof in Abiram his first-born, and setup the gates thereof in his youngest son Segub, according to the word of the Lord, which he spake by Joshua the son of Nun” (I Kings 16:34).

This short record—contained in a single verse—tells not a little. In order to mollify the Deity and overcome the curse, this private man sacrificed two of his own sons. The ardor of Hiel, unsupported by the king of Israel, did not result in a true resurrection of the doomed city. For some time in the closing days of Ahab, a little band of prophets had its seat there, as we learn from II Kings 2:15. Near Jericho or its mound, Zedekiah, the last king on the throne of David, was seized by the pursuing Chaldeans, in -586. Eight centuries after Hiel, in the last pre-Christian century, Herod the Great built his winter palace and a Roman theater close to the site.

It was the Jericho that succumbed in the most dramatic circumstances, its great wall tumbling down, that beckoned archaeologists from the very first. A mound, visible from afar, covered the ancient city and its wall; an Arab village grew up nearby because of the clean springs that stream past the mound toward the Jordan and the

Dead Sea, both in walking distance of a few hours: a fortified city that fell in a very definite moment of history is a desideratum and a prize that are matchless—and archaeological fervor sensed that here great discoveries awaited the diggers. But it was not until 1907 that E. Sellin and C. Watzinger, German archaeologists, after having obtained the necessary firman from the Turkish Government, lifted earth from a portion of the mound. The great wall was found and no archaeologist could possibly have missed it.

The excavation of this city brought to light three consecutive levels of occupation called by the excavators the “blue”, the “red”, and the “green”.⁽¹⁾ The “blue” was ascribed to the Canaanite period, the “red” to the Israelite period, and the “green” to the Judean period. But in the “red” level many scarabs of the Middle Kingdom were found, as well as pot handles impressed with seals of the same time. It was decided that all of them had been used as unintelligible amulets many hundreds of years after they were made.

However, thirteen years after the publication of the report of the excavations, one of the two excavators published a repudiation of their conclusions.⁽²⁾ He put the city of the “blue” level in the third millennium, and the city of the “red” level, on the basis of its scarabs, he ascribed to the Middle Kingdom, a change of eight or nine hundred years. This “red” city had a tremendous wall and a palace that came to an end in a violent destruction. The “green” city was assigned to the ninth century, as the work of Hiel the Israelite.

As a result of this new assignment, “in the time of Joshua Jericho was but a heap of ruins on which, perchance, a few single hovels stood”.⁽³⁾

This means that the Israelites under Joshua did not find a city on the site of Jericho; the city walls could not have crumbled during the siege by the Israelites if they were already in ruins at the end of the Middle Kingdom.

The Turkish rule in Palestine ceased before the end of World War I and was followed by British occupation and mandate. John Garstang undertook new excavations at Jericho. He saw traces of intense fire. “Houses alongside the wall are found burned to the ground, their roofs have fallen upon the domestic pottery within.”⁽⁴⁾ “Palace storerooms were burnt in a general conflagration.” “White ash was overlaid by a thick layer of charcoal and burnt debris.”⁽⁵⁾

The consecutive settlements from the lowest level up were called by the letters of the alphabet. One city was destroyed at the end of the Middle Kingdom or at the beginning of the time of the Hyksos. The invasion of the Israelites was synchronized with the end of City “D”, sometime in the days of Amenhotep III: a few scarabs of this king were found in the cemetery, and the excavator reasoned that the city must have fallen during the king’s reign. This theory was inspired by another theory which

identified the Habiru of the el-Amarna letters with the Israelites.

Finally, after World War II, Jericho being now a part of the Jordan kingdom, Miss Kathleen Kenyon undertook the decisive work of clarifying Jericho's history from the Neolithic age on. In several painstaking campaigns she lifted one veil after another from the city of legend and history. She was not led by any theory about the time of the Exodus, neither by that of Garstang who claimed Exodus in the days of Amenhotep II and Conquest in the days of Amenhotep III of the eighteenth dynasty (Habiru theory), nor by that of Albright that the Exodus took place in the days of Ramses II and the Conquest in the days of Merneptah (Israel Stele), both of the nineteenth dynasty, except that in agreement with all schemes of accepted chronology she expected to find the Old Testament confirmed and the great walls of Jericho dating from some time of the Late Bronze: The New Kingdom in Egypt, to which both the eighteenth and the nineteenth dynasties belonged. Whether the Exodus took place in the days of Amenhotep III and of the el-Amarna letters, or in the days of Ramses II or Merneptah and the Israel stele, the Conquest must have fallen into the Late Bronze or the New Kingdom in Egypt. Miss Kenyon revised Garstang's estimates.

There was found a Jericho of the days of the Early Bronze—the Old Kingdom in Egypt. Its defenses were destroyed, and immediately and in great haste the people of Jericho built again, but their hastily-erected wall was destroyed by fire before having been completed. As to the causes of these destructions, Miss Kenyon expresses herself this way: “Earthquakes undoubtedly played their part. Owing to the cataclysmic terrestrial upheavals which resulted in the formation of this great cleft, the Jordan Valley is peculiarly liable to earthquakes.” ⁽⁶⁾

In the time of the Middle Kingdom, Jericho was at its apogee as a city and fortress. “... the Middle Bronze Age is perhaps the most prosperous in the whole history of Palestine.” ⁽⁷⁾ “The defenses ... belong to a fairly advanced date in that period.” ⁽⁸⁾ There was “a massive stone revetment... part of a complex system” of defenses. ⁽⁹⁾ “The final buildings [of the Middle Bronze Age city] were violently destroyed and left in ruins with all their contents.” ⁽¹⁰⁾ Fire was one of the agents of destruction. “Over most of the area ... excavated on the west side of the mound, the thick layer of burning above the Middle Bronze Age buildings is the highest surviving layer.” ⁽¹¹⁾

After the great fortress, its palace and its walls ruined and burned, there was no Jericho again. The near-absence of Late Bronze remains is explained by an extraordinary amount of weathering on the site. “The houses of Late Bronze Age Jericho have therefore almost entirely disappeared.” ⁽¹²⁾ Only in one small area were foundations of Late Bronze Age houses discovered. When Garstang excavated the site, he found also “traces of the several houses which sprang up independently of the fortifications upon the ruins of the city at its northern end.” ⁽¹³⁾ The time of this settlement was near the end of the eighteenth dynasty in Egypt, the days of

Amenhotep III or Amenhotep IV (Akhnaton).

But of any fortifications that the Late Bronze Age settlement might have had, no trace survives. Garstang thought to have found them in the excavations that he conducted on the site between 1930 and 1936; but the double line of wall, thought by Garstang to be of the Late Bronze age, or New Kingdom in Egypt, was proved to date from the Early Bronze, contemporary with the Old Kingdom in Egypt. Garstang's conclusion of a sizable fortress in the days of Amenhotep III was shown to be wrong. Very few traces were found above the destruction level of the Middle Bronze Age city, which, in accordance with the statement cited above, "is the highest surviving layer."

"It is a sad fact", wrote Miss Kenyon, "that of the town walls of the Late Bronze Age, within which period the attack by the Israelites must fall by any dating, not a trace remains. . . . As concerns the date of the destruction of Jericho by the Israelites, all that can be said is that the latest Bronze Age occupation should, in my view, be dated to the third quarter of the fourteenth century B.C. This is a date which suits neither the school of scholars which would date the entry of the Israelites into Palestine to c. 1400 B.C. nor the school which prefers a date of c. 1260 B.C." [\(14\)](#)

We carefully followed this trend of thought and we see that, under the great walls of Jericho, the theories of Conquest in the days of Habiru (El-Amarna) and the Conquest in the days of Merneptah (Israel Stele) are equally well-buried.

In Conclusions to her *Digging up Jericho*, Kathleen Kenyon wrote with a sigh:

"At just that stage when archaeology should have linked with the written record, archaeology fails us. This is regrettable. There is no question of the archaeology being needed to prove that the Bible is true but it is needed as a help in interpretation to those older parts of the Old Testament which from the nature of their sources . . . cannot be read as a straight-forward record."

And what a pity it is. "When Joshua wished to lead the Children of Israel into the Promised Land, he said to his spies 'go view the land and Jericho', because Jericho was the entrance into central Palestine." [\(15\)](#)

A tragic note is heard in Kenyon's report. She intended to discover the truthfulness of the written record. Some other scholars did not share Kenyon's regret. Professor Martin Noth pointed to the Jericho discrepancy as the best and most decisive proof of the unreliable character of the historical parts of the Old Testament. It became a major issue for Old Testament studies. When Professor Wright of Harvard expressed himself as trusting the historical truth of Old Testament records, he was accosted by Professor Finkelstein of Los Angeles University with reference to the walls of Jericho that were in ruins long before the Israelites reached them. [\(16\)](#)

The conclusion reached by the excavator of the great-walled Jericho—a Middle

Bronze city, destroyed only a short time after the end of the Middle Kingdom—is in perfect agreement with the time table of *Ages in Chaos*: the Israelites arrived at the walls of Jericho only a single generation after the end of the Middle Kingdom in Egypt, still in the Middle Bronze (the beginning of the Hyksos occupation). There is complete agreement between the archaeological finds and the scriptural record.⁽¹⁷⁾

In the days of Ahab, Hiel, his subject, built on the ruins of Jericho. No wonder that the few buildings that were erected at that time and the few tombs that were used, date from the time of Amenhotep III and IV (Akhnaton). Hiel's building activity in Jericho falls in their time because they were contemporaries of Ahab. Over sixty-five of Ahab's letters addressed to these pharaohs are in the el-Amama collection, found in the short-lived capital of Akhnaton.

The stumbling block is really a foundation stone; the great walls of Jericho fell suddenly when the Israelites under Joshua, after crossing the Jordan, were closing in on the city; and the temporary reoccupation almost six hundred years later is, once more, a case of a complete agreement between archaeology and the written record; it verifies the present reconstruction and is verified by it.

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[The archeology agrees with the Biblical account even in minor details. Miss Kenyon reports of the last Middle Bronze Age city (MB II) that “very little metal was found” (*Digging Up Jericho*, p.232.). This is consistent with Joshua 6:24: “And they burnt the city with fire, and all that was therein: only the silver, and the gold, and the vessels of brass and iron, they put into the treasury of the house of the Lord”. On the archeological anomalies of Jericho see also John J. Bimson, “The Conquest of Canaan and the Revised Chronology,” *S.I. S. Review* I, 3 (Summer 1976), pp. 2ff, and G. Gammon, “The Walls of Jericho,” *Ibid.*, pp. 4-5.]





Beth-Shan

Palestinian archaeology is a confused terrain dug upside down. The Mycenaean ware is thought to be a product of the pre-Israelite period, whereas actually it denotes the period between Solomon and Hezekiah and even Josiah. The time of Judges is thought to follow the time of the Mycenaean ware, whereas it was antecedent to it and, together with the time of the wandering in the desert, comprises the Hyksos period in Palestine. Thus there seems to be no level for the time of the Kings in the earth of Palestine.

This can be well illustrated by the excavations at Beth-Shan.⁽¹⁾ This city in the valley of the Jordan played a notable part in all the periods of Palestinian history. During the time of the Judges it was an unsubdued Canaanite city defended by chariots of iron. When Saul fell in the war with the Philistines his body was carried to Beth-Shan and hung on the city wall. The city was an administrative center in the days of Solomon.

⁽²⁾ Scythians occupied it in the days of Manasseh (Menashe) or Josiah. Whereas other sites excavated in Palestine presented chronological difficulties, it was expected that a site like Beth-Shan, occupied through all the periods of biblical history, would disclose a well-defined archaeological succession if the excavations were scrupulously executed as to stratification. This condition was also fulfilled.

The tell has been explored to a depth of about thirteen meters, and another thirteen meters conceal the older strata, still unexplored. The deepest stratum explored (IX) is that of Thutmose III and is assigned to between -1501 and -1447. Stratum VIII is ascribed to the period of -1447 to -1412, , and Stratum VII to Amenhotep III, Akhnaton, and the epigoni of the Eighteenth Dynasty. Stratum VI is divided into two thick layers, the "early Seti" and the "late Seti," together composing the period from -1313 to -1292. Stratum V, the largest, is that of Ramses II (-1292 to -1225). Stratum IV covers the time of the "Late-Ramessides, Philistines, Israelites, Assyrians, Scythians, Neo-Babylonians, Old Persians, etc." or from -1224 to -302, over nine hundred years of stormy history. This means that none of these periods has a separate stratum: one very thin layer represents all of them. But this stratum is less than one third of the stratum of Seti; in other words, the stratum of 922 years, including many consecutive important periods in the history of Beth-Shan, is equal in thickness to layers deposited every seven years during the reign of Seti; and again, this 922-year deposit is but one fifth the thickness of the stratum of Ramses II alone.

The real meaning of the strata archaeology of Beth-Shan is as follows: Strata IX to V (Thutmose III to Ramses II) cover the period of the kings from Solomon to Zedekiah and the exile. Stratum IV covers only the end of the Neo-Babylonian period (Nabonidus) and the old Persian, which is contemporaneous with the Later

Ramessides. Strata III, II, and I are correctly presented as Hellenistic-Roman, Byzantine, and Arabian.

As, actually, the time of Seti is the same as the period of the Scythians in the Near East, the time of Ramses II the same as the period of the Neo-Babylonian Empire under Nebuchadnezzar, and the Late Ramessides period the same as the Persian, it is no wonder that the levels are found to be “disturbed.”

Dealing with the finds of the Ramses II level, the archaeologist writes: “The disturbance of the levels immediately above leaves us in uncertainty concerning the length of time during which these buildings were occupied, and we are therefore not entitled to assert that every object found upon or near the floor-level must be even approximately of the date of Rameses II. The presence of the Cypriote bottle No. 27 is sufficient by itself to rebut any such assumption, as this type is, apparently, not earlier than the eighth century.”⁽³⁾

The superimposed Level IV is thin but very confused. “The long period indicated by the title of this division [Late Ramessides, Philistines, Israelites, Assyrians, Scythians, Neo-Babylonians, Old Persians, etc.] is represented by a relatively shallow stratum, in which floor-levels are rarely distinguishable. Here, therefore, we are obliged to estimate the age of particular pieces by their characteristics rather than, as in the lower divisions, by their situation.”⁽⁴⁾

The absence of the long Israelite period of the judges as well as the Kings is explained in this way: “The disturbance of the upper levels has made it scarcely possible to distinguish any stratification. We shall therefore, in respect of the pottery from above the Rameses II floor-level, confine ourselves to indicating such pieces as are obviously of Hellenistic or later date.”⁽⁵⁾

In Lachish we had a similar case.⁽⁶⁾ One area of a certain stratum was described as containing ashes from the time of Ramses, and another area of the same stratum was said to contain ashes of the time of Nebuchadnezzar, because in one place scarabs of Ramses II were found and in the other, a short distance away, ostraca belonging to the war with Nebuchadnezzar were discovered. However, in ashes the ostraca of a vase of the Nineteenth Dynasty was found.”⁽⁷⁾

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New Evidence for Ages in Chaos

Since the publication of *Ages in Chaos: From the Exodus to King Akhnaton* over twenty-five years have passed. Did the elapsed time supply additional proofs or disclose any weakness in the scheme? The fact that no section of that first edition was withdrawn in subsequent printings should be regarded as a sign that no disproving evidence has come from excavated ground or from deciphered texts and no disenchantment with the general scheme has taken place. On the contrary, many new proofs have presented themselves to verify the Reconstruction and more than one of them was clearly anticipated in *Ages in Chaos* and also indicated in advance.

I shall survey here some of the evidence that was adduced, and in doing so I shall follow approximately the order of chapters in *Ages in Chaos* I.

NATURAL UPHEAVALS

The catastrophic events that interrupted the flow of history served as the starting point of *Ages in Chaos* for the synchronization of the histories of the ancient East; in *Worlds in Collision* these cataclysms were reconstructed from historical documents and traditions of ancient races; in *Earth in Upheaval* the geological and paleontological evidence was presented to substantiate the same claims, and only some scattered archaeological evidence was adduced. The task of collecting and interpreting the archaeological evidence of a great natural upheaval in the area of the Near East was diligently performed by Claude F. A. Schaeffer of the College de France, the excavator of Ras Shamra-Ugarit. During the years of World War II and the years following he labored on his *Stratigraphie comparee et chronologie de l'Asie occidentale*. Working independently of me he came to the conclusion that great catastrophes of continental dimensions closed several historical ages; the greatest of them took place at the end of the Middle Kingdom in Egypt and actually caused its downfall; the earth was covered with a thick layer of ash, violent earthquakes shook the entire ancient East, from Troy at the Dardanelles to the Caucasus, Persia, Egypt; civilizations of the Middle Bronze Age were suddenly terminated; traffic, commerce, and pursuit of the arts ceased; populations of all countries were decimated; the survivors became vagrants; plagues took their toll; the climate suddenly changed, too. Thus Schaeffer and I, following different approaches, on very different material, came to identical conclusions concerning the great catastrophes in the historical past, their role in the termination of historical ages; in the case of the catastrophe that terminated the Middle Kingdom (Middle Bronze II) our views coincide to the day.

It is fair to point out that we are in agreement on the relative, not the absolute, chronology; yet Schaeffer concedes to me that some limited reduction of historical

dates may be due—a view to which today more than one scholar tends.⁽¹⁾

Examining the stratigraphical evidence, Schaeffer did not investigate literary sources that refer to the very same catastrophes; but a natural upheaval that took place in a historical period in a country of advanced culture could not but leave a memory in historical documents. Thus Schaeffer stopped short of drawing the proper conclusions for the synchronization of the histories of Egypt and Israel with all the ramifications and consequences for the history of the Near and Middle East.

THE DATE OF THE EXODUS

The Ipuwer papyrus (known also as “Admonitions of an Egyptian Sage”) was recognized by me as a script of lament at the sight of an overwhelming natural catastrophe followed by the invasion of the Hyksos (i.e., the Amalekites) and by a social upheaval; I also contended that the text was composed in the beginning of the second Interregnum or Intermediate Period. At the time *Ages in Chaos*, Vol. I was printed, the accepted view was that the papyrus describes merely a social revolution during the First Interregnum (between the Old and Middle Kingdoms); my critics did not omit to stress my divergence from accepted notions.

In the 1964 volume of the *Journal of Egyptian Archaeology* John van Seters published a paper entitled “A Date for the Admonitions in the Second Intermediate Period”⁽²⁾—a view that since then has received acceptance from other scholars: notably W. F. Albright agreed with this verdict.⁽³⁾

Since several years the view that Papyrus Ipuwer describes a natural catastrophe was repeatedly presented—by A. Galanopoulos, geologist at the University of Athens, and by B. Heezen and D. Ninkovitch, geologists at Columbia University.⁽⁴⁾ Moreover, these scientists followed my interpretation of the papyrus as describing the plagues of Egypt known from the *Book of Exodus* and thus also my timetable.

An interesting bit of supporting evidence for the identification of the Hyksos with the Amalekites was offered by one of the students of my course “The Changing View of the Universe and of Man’s Past” at the New School for Social Research in New York in the fall term of 1964.

In the pronouncement of Balaam in which he referred to the Amalekites as “first among the nations” and to Agag their king, (Numbers 24: 7, 20) there is also a reference to the Israelites, or their king, destroying, sometime in the future, the Moabites and the “children of Seth” (24:17). There is no clear opinion among the commentators as to the identity of the “children of Seth,” but it is agreed that Seth is the same as Seth, son of Adam, and therefore the Biblical concordances have: ‘an unknown king or, race’ or ‘a tribe of unknown origin.’

The Hyksos worshipped the god Seth and also introduced him into the Egyptian pantheon. The term “Children of Seth” signifies worshippers of Seth, or Hyksos. Thus the references to the Amalekites and to the children of Seth by Balaam reveal the identity of these two designations.

The Biblical reference to the horsemen (“the horse and its rider”) of the Egyptian host that perished in the Sea of Passage could be, and actually was, offered as an argument against the timetable of this reconstruction; it was generally assumed that the Hyksos arriving from Asia introduced the horse to the Valley of the Nile; therefore a Middle Kingdom’s “horse and its rider” would be an anachronism.

Walter B. Emery, digging at Buhen in the Sudan, announced that under a layer of ash, in a stratum dating from the Middle Kingdom, a skeleton of a horse was found, which fact disproves the old contention that the Hyksos were the first to introduce this animal into the Valley of the Nile.⁽⁵⁾ The layer of ash is apparently the residue of the catastrophe that terminated the age of the Middle Kingdom (Middle Bronze II) in Egypt; such a layer, according to Schaeffer, is found regularly in all excavated places from Troy to the Caucasus, Persia, and Egypt.

THE WALLS OF JERICHO

In Jericho Kathleen Kenyon found a great city wall that fell in an earthquake and an important city that was leveled in an assault following the earthquake; thereafter the city and its wall were not rebuilt, and only after several centuries was a very insignificant attempt to establish a new habitation made. Since the great wall of Jericho fell shortly after the end of the Middle Kingdom in Egypt, there was no city to vanquish, neither was there a wall to fall down when Joshua and his troops approached Jericho. “It is a sad fact that the town walls of the Late Bronze Age, within which the attack by the Israelites must fall by any dating, not a trace remains.”⁽⁶⁾ This fact is regarded by M. Noth and others as the most flagrant discrepancy between Scriptural statements and archaeological discoveries, throwing a shadow on the historical veracity of the Hebrew Testament.⁽⁷⁾

But it is very different when the timescale of the present work is considered: the Exodus took place at the very end of the Middle Kingdom, actually within its last days; the crossing of the Jordan and the arrival at Jericho took place four or five decades later, in full agreement with the results of Kenyon’s digging. Thus the excavation of Jericho actually presents a verdict of vindication of the present reconstruction and a condemnation of the conventional schemes.⁽⁸⁾ Equally, J. Pritchard, excavating at Gibeon, another city memorable in connection with Joshua’s conquest, found to his surprise no Late Bronze strata at the excavated site.⁽⁹⁾

HAZOR—“THE HEAD OF ALL THESE KINGDOMS”

In the conquest of northern Canaan the battle of Joshua against a confederation of many city-kings at the “waters of Merom” was decisive. Upon victory Joshua took Hazor—“for Hazor beforetime [in the time of Joshua] was the head of all these kingdoms . . . and he burnt Hazor with fire. . .” (Joshua XI: 10, 11).

But Hazor soon rebounded and in the days of the Judges it dominated the entire country. “And the Lord sold them [the children of Israel] into the hand of Jabin, King of Canaan, that reigned in Hazor . . . for he had nine hundred chariots of iron; and twenty years he mightily oppressed the children of Israel.” (Judges IV: 2, 3).

The deliverance of the children of Israel led by Deborah the prophetess and Barak the captain who defeated Sisera, the captain of King Jabin, is told in chapters four and five of the *Book of Judges*.

Since 1955 a team of Israeli archaeologists led by Yigael Yadin excavated at Hazor. Their chronological scale was the conventional timetable. In the Middle Bronze II (Middle Kingdom of Egypt) there was a huge settlement and fortress in Hazor; again it was a dominant city in Middle Bronze III, or the time of the Hyksos; it was not as prominent in the days of the Late Bronze (New Kingdom in Egypt); levels of a series of subsequent periods were discovered, also of the time of the el-Amarna correspondence (Hazor is mentioned twice there); next there were signs of destruction and fire; but in the level ascribed by Yadin to the period of the Judges there was no Hazor worth mentioning, and this despite the fact that according to the books of *Joshua* and *Judges* it was the most prominent city—actually the capital—of the greater Canaan, up to the slopes of Mount Hermon. This result, in conflict with the books of *Joshua* and *Judges* was most perplexing, and later caused the leader of the excavations to admit ruefully: “there existed no *city* (emphasis Yadin’s) at Hazor; thus Deborah’s battle had nothing to do with Jabin, king of Hazor.” ⁽¹⁰⁾ But according to the revised chronological table the Middle Bronze III—and thus also the huge fortress-city of Hazor—falls in the time of Conquest and Judges. In the days of the Kings it was only a regional town; it was burnt and leveled by Tiglath-Pileser III in -732; the signs of this destruction were also discovered by the expedition under Yadin. Thus the revised chronological timetable finds in Hazor an expected sequence of levels and no disagreement with Biblical data.

THE SIEGE OF AVARIS

Of the archaeological discoveries related to the period of the downfall of the Hyksos-Amalekite empire made after the publication of *Ages in Chaos I*, the most important is a stele with King Kamose’s description of the siege of Avaris, the capital-fortress of the Hyksos. ⁽¹¹⁾ Previously only one hieroglyphic text was known to deal with the subject—an inscription from the tomb of an officer who served under the king Amose (son or brother of Kamose). The newly discovered text makes even clearer the fact that the Egyptian native rulers had an all-important ally in the siege and capture of

Avaris. Actually, Saul, King of Israel and his army were the main participants in that siege and conquest.

SCARABS OF THUTMOSE III

A large number of scarabs was found in Palestine and in Syria dating to the period of the Eighteenth Dynasty in Egypt, recognized by us as contemporary with the House of David. Scarabs—seals of the pharaohs—and impressions of these seals in clay are as a rule found in these countries in much more recent levels than expected by the established chronology. Especially startling is the fact that the scarabs of Thutmose III are regularly found in levels supposedly five to six centuries younger; an accumulation of newly-found seals of Thutmose III since the establishment of the State of Israel has caused archaeologists to wonder increasingly at the regularity of the phenomenon;⁽¹²⁾ but this is exactly what must be expected.

To realize the state of affairs in Egyptian and Palestinian archaeology, the following observation of C. C. McCown, who dug at Tell en-Nasbeh,⁽¹³⁾ is worth considering; it is also symptomatic of all other places in Egypt and Palestine, and sounds very familiar to a reader of archaeological reports:

The scarabs and scaraboids [found in the place] are unanimously dated from the 18th Dynasty or later. Since, as all ceramic evidence clearly indicates, Tell en-Nasbeh was not occupied until the 19th Dynasty and since scarabs, especially those bearing the cartouch of Thutmose III, with his throne name, Men-kheper-re, were used and imitated for centuries after their original date, those which may have been made before 1200 have no chronological value whatever. The exact dating of such scarabs, which depends solely upon stylistic considerations, is a matter of uncertainty, upon which Egyptologists differ greatly.

The only scarabs which affect chronology seriously are those which the Egyptologists consulted have agreed in dating to the 25th [Ethiopian] Dynasty (712-663 B.C.).⁽¹⁴⁾

At Tell en-Nasbeh, various scarabs and the style of certain buildings speak for the fifteenth-thirteenth centuries, or the Eighteenth to Nineteenth Dynasties; but other evidence and the scarabs of the Ethiopian Dynasty speak for the end of the eighth and the beginning of the seventh centuries. An archaeological solution was achieved by disregarding half the evidence; in an historical construction in which only the Ethiopian period is properly anchored in time, it is inevitable, as in this instance, that the scarabs of all other periods would appear to be in conflict with the established timetable of Egyptian chronology and the sequence of dynastic succession.

In my own historical reconstruction, however, the Ethiopian Dynasty ruled between the Eighteenth and Nineteenth Dynasties; and therefore objects of closely following

epochs found in the same place do not require the disqualification of half the evidence—the other scarabs and seal impressions found at Tell en-Nasbeh have an equally well-founded chronological value.

THE QUEEN OF SHEBA AND THE LAND OF PUNT

The question of whether frankincense was grown in Palestine is of historical importance for the problem of identifying God's Land, the place to which Queen Hatshepsut traveled. Because of the frankincense, the produce of the land, the place was thought to be in southern Arabia or Ethiopia. [\(15\)](#)

I maintained that in Biblical times frankincense grew in Palestine. (*Ages in Chaos*, pp. 141, 172-173). The recent excavations at Ein Gedi disclosed that frankincense actually was grown in the tropical climate on the shores of the Dead Sea. [\(16\)](#)

Some of the supporting evidence came from the literature of earlier years, not exploited in *Ages in Chaos*. W. F. Albright came to the same conclusion:

Contemporary Egyptian inscriptions almost vanish after about 1750 B. C. and do not resume their normal flow until about 1580; Babylonian inscriptions fail us entirely after the fall of Babylon cir. 1600 and are almost completely lacking until after 1400 B.C.; Assyrian records cease about 1780 and (except for a few short inscriptions from cir. 1570-1520) do not appear again until after 1450 B.C. There are hardly any contemporary Hittite inscriptions of the Old Empire, but even later copies of early documents in the archives of Khattusas break off about 1550 and contemporary inscriptions do not begin until after 1400 B.C. In short, it is certain that there was a catastrophic interruption of the normal flow of ancient history. [\(17\)](#)

The Greek Septuagint (“translation of the Seventy”) that dates from the third century before the present era and similarly the Vulgate (the earliest Latin translation) see in Shwa (Seba) the personal name of the Queen, not the name of a region (Regina Seba).

As to some Egyptian reference or references to Punt as located in the south, a point brought up by a few of my readers, the following needs to be said: the opening passage in the *History* of Herodotus [\(18\)](#) tells that the Phoenicians came to their country on the eastern shore of the Mediterranean from their original home on the shore of the Erythrean Sea, by which the Red Sea and also the Indian Ocean are known to have been meant by the Greeks. This would explain such early reference.

But in another Egyptian text Punt is referred to as being to the north of Egypt. [\(19\)](#) Besides, we should be mindful of the fact elucidated in *Worlds in Collision* that in historical times the cardinal points have been—and more than once—reversed, or, as it is out in a hieroglyphic text, “the south becomes north, and the Earth turns over.”

The statement of an Egyptian official from the time of the Old Kingdom that he visited eleven times Byblos and Punt ⁽²¹⁾ should not be interpreted, as some scholars wished that he went this number of times to South Arabia or Somaliland, and as many times to the Phoenician coast. Actually, the ships which in the New Kingdom traded with Punt were called “Byblos-ships” ⁽²²⁾ Cf. also E. Danelius, “The Identification of the Biblical ‘Queen of Sheba’ with Hatshepsut, ‘Queen of Egypt and Ethiopia,’” *KRONOS I.4 and II.1 (1976)*.

Finally, the written account of Thutmose III’s campaign to Phoenicia-Palestine uses the same geographical name: Divine Land, that we found in the travelogue of Queen Hatshepsut, from whom Thutmose took over the throne.

THE TEMPLE OF SOLOMON

In a paper printed in the *Journal of Biblical Literature* in 1940, Professor Julius Lewy (“The Sulman Temple in Jerusalem”) proved that in Jerusalem in the days of the el-Amarna correspondence there was such a temple; the king of Jerusalem refers to it in his letters, and it must have had a dominant position in the capital city. Knudtzon, the translator of the tablets, read the ideogram, “House of Ninib,” and I followed Knudtzon and tried to interpret such references in the letters of the king of Jerusalem in the light of events that were taking place. Lewy, however, had already shown why the ideogram must be read “Temple of Sulman”; he interpreted the name as another version of the deity Salem. In a private discussion with me Professor Albright expressed his disagreement with Lewy’s interpretation of Sulman as the name of a deity, it not being supplied with a sign indicating divinity; but this only gives validity to my interpretation of “Temple of Sulman” as the Temple of Solomon. In the Hebrew Bible the name of the king (Shlomo), derived from the word “peace” *shalom*, has no final letter “n,” but the Septuagint of the third pre-Christian century—the earliest known translation of the Scriptures into any language—has a final “n” in Solomon’s name. ⁽²³⁾

Letters written by the king of Jerusalem in the ninth century should conceivably contain a reference to the Temple of Solomon that dominated the capital. The letter #290 of the el-Amarna collection, written by the king of Jerusalem to report the approach of Trans-Jordan tribes, refers to the Temple of Sulman. In Second Chronicles (20:4-5), in the story of such an invasion, the king of Jerusalem gathered his people in the Temple and prayed to forestall the capture of the city.

It was brought out that the names of the cities in Israel and Judah as known from the books of the Old Testament correspond in pronunciation to the Egyptian usage under the Eighteenth dynasty, but differ from the pronunciation under the Nineteenth. ⁽²⁴⁾ Yet, according to the accepted chronology, the events described in the Old Testament

under the Dynasty of David took place not during the reign of the Eighteenth Dynasty of Egypt, not even during the Nineteenth, but much later, under the Twenty-first to Twenty-fifth Dynasties. Also the offices under the kings of the House of David are very similar to the officies in the palace of the pharaohs of the Eighteenth dynasty, supposedly five or six centuries earlier. ⁽²⁵⁾

The names on the ostraca (inscribed potsherds) found in Samaria closely resemble the names found in the el-Amarna collection of letters, on tablets written from Syria-Palestine, a fact that had been observed by J. G. Duncan ⁽²⁶⁾ and that is better understandable in the light of what is said in Chapters VI to VIII of *Ages in Chaos I*.

THE AGE OF IVORY

In Chapter VIII the theme is developed that the Assyrian King Shalmaneser III of the ninth century was a contemporary of Pharaoh Akhnaton, and the name Burreburiash, signed on his letters, is the Babylonian throne name of the Assyrian king, it being known that at Nineveh and at Babylon the kings of Assyro-Babylonia used different throne names; I also claimed that Shalmaneser received large quantities of art objects in ivory from Akhnaton who, in disagreement with the conventional timetable, reigned in the ninth century. The Assyrian king actually demanded the despatch of objects of ivory, and gave these orders: "Let experts, who are with thee, make animals, either of land or of river, as if they were alive. . ." Akhnaton enumerated the huge quantities of carved ivory sent to the king of the Double Stream Kingdom, and among other objects we read of "six beast-paws of ivory, nine plants of ivory . . . twenty-nine gherkin oil vessels of ivory . . . forty-four oil vessels of ivory, three hundred and seventy-five oil vessels of ivory . . . nineteen breast ornaments of ivory" —the list is excessively long.

On November 26, 1961, the *New York Times* carried this message from London:

When archaeologists dug into the ancient Assyrian city of Nimrud in Iraq earlier this year, they were suprised to find not Assyrian but 'Egyptian' carvings. The explanation given this week by David Oates, Director of the British School of Archaeology's Nimrud Expedition, is that the archaeologists have dug into an ancient Assyrian antique shop. The 'Egyptian' carvings had been cut to satisfy their rich clients' demands for foreign 'antiquities.'"

Nimrud, or Calah of ancient times, was the military headquarters of Shalmaneser, and the excavations actually "have been concentrated on Fort Shalmaneser, headquarters of the Assyrian army from the ninth to the end of the eighth century B.C." A statue of King Shalmaneser III was found, and according to an inscription on it the king considered it a good likeness of himself.

The site that has been excavated consists of three large courtyards surrounded by

store-houses, workshops, administrative offices and barrack rooms.” A military camp is certainly not a natural place for forgeries in foreign antiquities in ivory.

“One chamber, 90 feet in length, is packed by them [ivories],” and “three seasons’ work has not emptied it. Two more rooms known to contain ivories have not yet been opened.”

“The carvings are of a style that antedates by hundreds of years the period in which they were made. If found elsewhere, they would have been identified as Egyptian.” The findings of this cache, in the military headquarters of Shalmaneser III, of a multitude of objects in ivory, many of which depict animals, of Egyptian make ⁽²⁷⁾ and of a time presumably by centuries preceding the time of this king, was anticipated in *Ages in Chaos*.

DARK AGES

Archaeology in general came into more and more embarrassing situations. Again and again, five to six “dark centuries” were found inserted into the histories of the peoples of antiquity: no literary document, practically no sign of habitation or relic of culture could be discovered. This is the case of Greece and the Aegean region, Crete, Asia Minor, and Cyprus, too. Ekrem Akurgall, professor at Ankara University, in his *Die Kunst Anatoliens von Homer bis Alexander* (Berlin, 1961), writes of the *dunkles Zeitalter* (Dark Ages): “The catastrophic events that took place about -1200 appear to be of such great impact that today, despite the energetic digging of the last decades, the period from 1200 to 750 for the most part of the Anatolian area lies still in complete darkness.”

DECIPHERMENT OF LINEAR B

One of the most important and far-reaching theses of this Reconstruction is in the conclusion that these so-called Dark Ages of the Greek and Anatolian histories are but an artefact of the historians, and never took place. The Mycenaean Age was followed by the Ionic times with no centuries intervening; ⁽²⁸⁾ the break in culture is but the consequence of natural upheavals of the eighth century and of the subsequent migrations of peoples. The Ionic culture must show great affinity with the Mycenaean heritage; therefore, I have also claimed that the Linear B script would prove Greek; but this was not a view that had many supporters.

In 1950 the eminent authority on Homeric Greece, H.L. Lorimer, in her *Homer and the Monuments* wrote of this script and of the efforts to read it: “The result is wholly unfavorable to any hope entertained that the language of the inscriptions might be Greek.” ⁽²⁹⁾

On the occasion of addressing the Forum of the Graduate College of Princeton University on October 14, 1953, I once more formulated my expectations:

“I expect new evidence from the Minoan scripts . . . I believe that when the Minoan writings unearthed in Mycenae are deciphered they will be found to be Greek. I also claim that these texts are of a later date than generally believed.” And I quoted myself from my *Theses*.

Only half a year later, on April 9, 1954, the *New York Times* carried on its front page a United Press news report that the ancient script “that for the last half-century and longer has baffled archaeologists and linguists has been decoded finally—by an amateur. The riddle was solved by Michael Ventris, an English architect.” The language proved to be Greek, to the surprise of many scholars; the entire field of early Greek civilization experienced the greatest shock since the discovery of Troy. In the deciphered tablets the names of the deities of the Greek pantheon, supposedly “created” by Homer and Hesiod in the seventh pre-Christian century were found written in the Linear B script—to the even greater surprise of the scholarly world.

When embarking on the task of deciphering Minoan Linear B, Ventris expressed his belief that it was not Greek—he worked on the premise that it was Etruscan; the inquiry ⁽³⁰⁾ that he sent out to a large number of classicists in 1949 as to the probable language of the script did not bring even a single answer favoring Greek. ⁽³¹⁾

THE GREATEST FORTRESS OF ANTIQUITY

With this imposing score of confirmations from the field of archaeology, ever growing since 1952, for my work of reconstruction of ancient history, the question could be asked: which test, besides a complete radiocarbon survey of the New Kingdom in Egypt would I desire and which discovery reflecting on chronological problems would I anticipate in the years to come? Compelling evidence will continue to arrive from almost every excavated place and there will be an ever-growing number of surprises. I shall select here one site of great promise for excavation. The identification of Avaris and el-Arish was offered by me as a crucial test—for my equation of the Hyksos (called *Amu* by the Egyptians) and the Amalekites, one of the basic contentions of *Ages in Chaos*: “generally, Avaris is looked for in the eastern part of the Delta, from Pelusium to Heliopolis, passing through Tell el Her, el-Qantara, San el-Hagar (Tanis), Tell el-Yahudieh,” wrote P. Montet in *Le Drame d’Avaris*. The site as identified in *Ages in Chaos* is quite a distance northeast from the Delta: el-Arish is at the wadi of the same name, known in the Old Testament as *Nakhal Mizraim* (“Stream of Egypt”), the historical frontier between Egypt and Palestine.

Despite many efforts made to have el-Arish surveyed and then also excavated, neither when the site was under the Egyptian authorities nor since it was occupied by the Israelis following the six-day war, has any survey or excavation taken place. In June

1968 John Holbrook jr., architect, backed by a group organized for the purpose of performing tests to determine the validity of my thesis (Foundation for Studies of Modern Science) proceeded to el-Arish in the military occupation zone to gain an impression as to the site of future excavation when, in days to come, such facilities might be extended, or permit granted. Chances are good that at such a time, however close or far, the excavators will lift sand from the greatest fortress of antiquity: before it fell it sheltered a huge garrison of warriors. It is also quite possible that much treasure had been dug into the ground by the besieged before the fortress that dominated the ancient East for several centuries surrendered. The virgin ground of the site never excavated cannot but entice the curiosity of field archaeologists; the prize of discovering Avaris is one of the great rewards that still lie in store for the enterprising.

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C. H. Gordon is among those who profess such a belief, though not to the extent of this work of revision.

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The Egyptologists remain divided on the question.

4.

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6.

Kathleen Kenyon, *Digging Up Jericho* (London, 1957) pp. 260-261.

7.

See also my article, "Jericho" in *KRONOS* II.4 (1977), pp. 64-69.

8.

G. Ernest Wright, "Is Glueck's Aim to Prove that the Bible is True?" *The Biblical Archaeologist*

9.

W. L. Reed, "Gibeon" in *Archaeology and Old Testament Study* (Oxford at the Clarendon Press, 1967), p. 235.

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"Excavations at Hazor (1955-1958)" in *The Biblical Archaeologist Reader* (New York, 1961) p. 224.

11.

H. Smith and A. Smith, "Kamose Texts" in *Zeitschrift fuer Aegyptische Sprache und Altertumskunde* 103 (1976) pp. 59ff.

12.

Cf. F. I. R. Giveon, "An Egyptian Seal from Kfar-Ruppin," *Bulletin of the Israel Exploration Society* XXV.4 (1961), p. 249.

13.

[Tell en-Nasbeh is identified as ancient Mizpah, a town which for a short time, under Gedaliah, was a capital of Judah (Jeremiah 41:1f). Beginning in 1926 it was excavated by W. F. Bade during five seasons, the last in 1935. The site is eight miles north of Jerusalem, near the ancient boundary between Israel and Judah.—JNS]

14.

C. C. McCown, *et al.*, *Tell en-Nasbeh*, Vol. I (1947), p. 148.

15.

As to the antiquities of southern Arabia the opinions of W. F. Albright and J. Pirenne differ by 600 years. J. Pirenne in *Annales d’Ethiopie* II (1957) dated the Sabaeen culture to the eighth century before the present era, differing from Albright, who maintained a thirteenth-century date.

16.

B. Mazar, “En-Gedi,” in *Archaeology and the Old Testament*, pp. 223-230.

17.

William F. Albright, *From the Stone Age to Christianity* (Baltimore, 1940).

18.

Herodotus I. 1; VII. 89.

19.

P. Schott, *Les chants d’amour dans l’Egypte ancien*, p. 97.

20.

J. Breasted, *Ancient Records of Egypt* III. 892.

21.

Newberry, “Three Old Kingdom Travelers to Byblos and Pwevet,” *Journal of Egyptian Archaeology* 24 (1938), pp. 182-184.

22.

Breasted, *The Ancient Records of Egypt* I, sect. 360. Breasted conjectured that the ships may have been built in the extreme north of the Red Sea, but prefers to think that the Asiatics made a raid far to the south.

23.

See my article “The Shulman Temple in Jerusalem” in *Society for Interdisciplinary Studies Review*, *Ages in Chaos* issue, 1978.

24.

W. Vycichl, "Aegyptische Ortsnamen in der Bibel," *Zeitschrift fuer Aegyptische Sprache und Altertumskunde* 76 (1940), pp. 79-93. Resume by J. Janssen in *JEOL* 8 (1942), p. 593.

25.

R. de Vaux, "Titres et fonctionnaires egyptiens a la cour de David et de Salomon," in *Revue Biblique* 48, no. 3, July, 1939.

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Digging Up Biblical History (London, 1931), vol. II, p. 136.

27.

It is quite conceivable that Samaria in Israel was the center of ivory work on Egyptian models. The tomb of Tutankhamen contained many art objects in ivory, not unsimilar to those found in Nimrud and Samaria.

28.

"No 'Dark Ages' of six centuries' duration intervened in Greece between the Mycenaean Age and the Ionian Age of the seventh century." (from my *Theses for the Reconstruction of Ancient History*, published as an advance summary of *Ages in Chaos* in *Scripta Academica Hierosolymitana*, 1945).

29.

Homer and the Monuments (London, 1950) p. 123.

30.

"The Languages of the Minoan and Mycenaean Civilizations" or "Mid-Century Report" (1950). Cf. L. Palmer, *Mycenaeans and Minoans* (new York, 1962), p. 162.

31.

Ibid., p. 56.





The Pyramids

During the Old Kingdom in Egypt, under the Fourth, Fifth, and Sixth Dynasties, huge pyramids were erected at Giza, at Sakkara, and in other places of the land. That of King Khufu (Cheops of the Greek authors) is the largest, of the best workmanship, and the most famous. Alongside it is the second largest pyramid, built by the son of Khufu, Khafra (Chephren), and a smaller one built by Menkaure (Mycerinus), also a descendant of Khufu. The later pyramids are of poorer workmanship and smaller than those of Khufu and Khafra.

The Great Pyramid originally rose to a height of over 481 feet and measured ca. 756 feet at the base; it totalled 3,277,000 cubic yards of stone, or an estimated 2,300,000 blocks, which is “the largest constructed mass of stone ever erected by man.”⁽¹⁾ The precision of construction “equals to an optician’s work.”⁽²⁾ The stones were carried from the desert quarries and ferried over the Nile.

For what purpose were the pyramids erected? No hint was found in the hieroglyphic literature. Already in antiquity Greek authors debated this question. In the fifth century before the present era Herodotos gave a detailed account of their construction, but no indication of their purpose.⁽³⁾

Not even a tale concerning the purpose of the pyramids came down from the time they were constructed. “for some reason or other, the builders of the pyramids concealed the object of these structures, and this so successfully that not even a tradition has reached us which purports to have been handed down from the epoch of the pyramids’ construction.”⁽⁴⁾

Greek and Roman historians proposed some explanations, but they were confessedly only hypothetical, like those advanced by historians of later times. Diodorus of Sicily⁽⁵⁾ and Strabo⁽⁶⁾ thought that the pyramids were tombs, but this was not the generally accepted theory. Pliny wrote: “It is asserted by most persons that the only motive for constructing them was either a determination [by the kings] not to leave their treasures to their successors . . . or to prevent the lower classes from being unoccupied.”⁽⁷⁾

Strabo wrote that the entrance to the Great Pyramid was covered “by a moveable stone, and when this is raised there is a sloping passage to the vault.”⁽⁸⁾ Pliny thought that there was a well under the Pyramid communicating with the Nile.⁽⁹⁾

When the Great Pyramid was entered by Caliph Al Mamoun in the ninth century, making the first break through the masonry of the pyramid since its original closing, he found there no mummy or bones. The entrance, high over the plain of Giza, was concealed. From the entrance a corridor leads downwards and then divides itself in two: one route leads into the rock under the pyramid where a little unfinished grotto chamber is found. The ascending passage leads to the “great gallery” or the larger section of the ascending passage with steeply mounting floor, and to two chambers. One carries the name of King’s Chamber (the upper one of the two), the other of the Queen’s Chamber; these names are given by the archaeologists. The pyramid itself bears no inscription,⁽¹⁰⁾ except of the name of Khufu (Cheops), painted by the quarry workers on a slab of the ceiling of the King’s Chamber, not visible to a visitor of the Chamber.

Caliph Al-Mamoun found in the King’s Chamber a stone box, not a regular sarcophagus, but rude, unfinished, without a lid and without an inscription. “He also found no trace whatever of burial, offerings, pottery, etc., and one can presume the chamber to have been empty but for the sarcophagus itself.”⁽¹¹⁾

King Khufu was not buried in the Pyramid. He built a cemetery next to it, and there he entombed his mother and his four queens; his sons and daughters were also buried there. The tomb of his mother was found undisturbed, well-concealed:⁽¹²⁾ “Such care in concealment by Khufu of his mother’s tomb would suggest that his own tomb will scarcely jump to the eye.”⁽¹³⁾

Khufu concealed very carefully his own place of burial: “That there was a problem connected with Khufu’s burial was known in later Egyptian times . . . and the question was then put into writing as to who knew the places of burial of Im-hetep, Seneferu and Khufu, as though it were an oft-repeated query.”⁽¹⁴⁾ It shows that the Egyptians did not think of the pyramids as tombs. It is possible that Khufu’s sarcophagus will be found in the royal cemetery which he built and where he concealed the tombs of his beloved ones.⁽¹⁵⁾ But wherever it may be, the Great Pyramid was built for some other purpose than interment.

As the purpose for which the pyramids were built is by no means established, various other uses have been suggested. In the sixth century, before the Great Pyramid was entered, Gregory of Tours (540-594) thought that Pyramids were granaries built by the biblical Joseph in which he kept the harvest of the fat years.⁽¹⁶⁾ Others in modern times thought that they were built as defences against the sands of the Great Desert;⁽¹⁷⁾ and many thought that they were built to serve as astronomical observatories.⁽¹⁸⁾

If they were built for astronomical purposes only, why were they built in groups, when an unobtruded horizon requires a single elevation? And why were smaller pyramids built next to the large ones in space and after them in time? And if they

were granaries, why is the space so small inside such large constructions?

But if the pyramids were intended as tombs, why were the kings who built them not entombed in them? And why was it that the kings of the great dynasties in later times, who built the imposing temples and palaces of Thebes and Memphis, did not care to build pyramid-tombs for themselves?

Some even supposed that the kings who built them did not know their purpose, which is a rather strange solution. “Cheops . . . did not intend the Great Pyramid to serve as a tomb; nor indeed, if we are to believe the reasonable deductions which are based upon historical accounts, did he [Cheops] or his Egyptian subjects know what purpose this immense edifice was intended to serve,” wrote an author.⁽¹⁹⁾ To which another author remarked: “We can picture Khufu and his officials meeting with furrowed brows, and the king saying to them, ‘What on earth am I building this thing for?’”⁽²⁰⁾

As a rational purpose was not discovered, a mystical one was suggested. A great effort was made by several inquirers to find geometrical laws symbolized or perpetuated by the pyramids. The ancient Egyptians were suspected of knowing some secrets of nature and of incorporating them into the geometrical structure of the pyramids. Even the distance from the Earth to the Sun was shown to be a clear multiple of the so-called pyramid-inch.⁽²¹⁾ Also future events and, strangely enough, concerning mainly the British Commonwealth of the Victorian and post-Victorian days were found predicted by the geometrical figures of the pyramids. Each new generation had its own pyramid maniacs. The desperation of the rational school of scholars to discover the end for which the pyramids, the greatest structures of antiquity, were built, is expressed by Petrie: “It is almost useless to speculate about their purpose.”⁽²²⁾

I shall here join the list of those who tried to solve the mystery of the pyramids and point to a purpose which, as far as I know, was never discussed, but which seems to me to be the true one.⁽²³⁾

After the great catastrophes of the earlier ages the kings of Egypt, conscious of the possibility of their repetition, erected the pyramids as huge shelters for themselves and the most important persons of their household.

The pyramids as shelters have large bases and enormously thick walls to protect the chambers inside from hurricanes, avalanches of meteorites or brimstone, poisonous gases,⁽²⁴⁾ and inundation. The pyramidal form is statically the strongest possible structure for opposing a vertically directed impact from above (meteorites), as well as lateral pressure (of floods and hurricanes). The entrance is situated not on the level of the ground but high above it; the water of a flood forty feet high would not penetrate the pyramid of Cheops. But if the water were to rise as high as the entrance and force

the door, it would not reach the chambers, which were situated at a higher level. The outer surface of the pyramid was covered with smooth stones, and was not in steps as it has been since the stone facade was removed and used for other purposes during the later ages. This smooth surface was the best protection against a shower of bolides and served also to protect against the penetration of water. The entrance door was a swivel construction. ⁽²⁵⁾

Two narrow channels inclined at 31 degrees (northern) and 45 degrees (southern) to the horizon served for passage of air to the King's Chamber. They could be closed off at their lower end. No large bolide could enter these channels. They were also placed in such a manner that from the inside of the pyramid two standard points of the sky could be observed; ⁽²⁶⁾ but if the pyramids were tombs, no observation of the sky would take place there, and if they were observatories, two small fixed openings would enable the observer to see only very limited squares on two sides of the sky. But by observing two points on the sky one could judge meteorological conditions on the outside and also, in the case of a clear sky, whether the four directions remained unchanged.

Two other narrow channels, similar to the first ones, connect the lower chamber (Queen's Chamber) of the Great Pyramid with the outside, but the last five inches of these channels were not opened, and a stone plate separated the chamber from the channels. From this and other evidences it was concluded that the work of construction had been interrupted and that there had been "an alteration in the original plan" ; ⁽²⁷⁾ but it would appear that the second pair of the ventilating shafts was purposely not tunneled into the lower chamber: this precaution is understandable if we realize the purpose of the whole construction.

The constructors of the pyramids had very much in mind the possible effects of earthquakes, and they solved their problem very satisfactorily. The sides of the Great Pyramid, which are built at an angle of 51 degrees 51 minutes to the horizon, can hardly have their stones moved from the outside; a movement to the inside is barred insofar as the pyramid is filled from the apex to the base with stones, the only exception being the chambers and the corridor to them, including the Grand Gallery. The King's Chamber in the Cheops pyramid has five superimposed ceilings of great blocks of granite; the rest of the pyramid is built of limestone. Should one granite roof give way, the next one would absorb the shock. ⁽²⁸⁾

The tremendous shocks experienced by the entire globe, when the orbit changed and the poles were displaced in the cataclysms subsequent to the building of the pyramids, did not ruin the pyramids; though the granite roof-blocks over the chamber show the results of enormous twisting, ⁽²⁹⁾ they did not collapse; also the channels leading to the chambers and the narrower ones directed toward the sky, are not obtruded. Earthquakes like the one in the first century during which 30,000 people perished in Egypt could do no harm to the pyramids.

The real secret of the pyramids was this stability against earthquakes. No other edifice of the Old or Middle Kingdom escaped destruction.

The huge Sphinx close to the pyramids of Gizeh is a likeness of Harmachis,⁽³⁰⁾ a form of Horus: that is, the planet-god Jupiter. His figure in front of the pyramids must have served as a charm against any harm he might feel inclined to do to the refugees inside.

Did the pyramids serve well the purpose they were built for? The pyramid age belongs to the Old Kingdom. During the Middle Kingdom only a few and very insignificant pyramids were erected. Already the cataclysm which terminated the Old Kingdom proved that the pyramids, though responding to many of the tasks of a shelter, were inadequate in some respect. The catastrophe during which the Israelites left Egypt was the same which ended the Middle Kingdom. In the inscription on the shrine from el-Arish we do not find that the royal family went to seek refuge outside the palace: “nobody left the palace during the nine days of the tempest.”⁽³¹⁾ Also the biblical story tells of casualties in the family of the king and his palace when the earth was convulsed and “the houses were smitten.” Apparently at that time the futility of the shelters had become known. This implies that during the cataclysm which put an end to the Old Kingdom the pyramids were recognized as potentially fatal traps.

The pyramids were not sufficiently protected against electrical discharges. Lightning is attracted by the vertex of the pyramid. The builders of the pyramids knew of course the fact that tall buildings attract lightning; they must have also known that lightning is abundant in the storms that accompany and follow cataclysms. It seems to me that the ancient way to protect a building from lightning must have been by building thick walls and erecting pillars around the buildings. Electrical currents travel the periphery of a cable: the enormously thick walls protect the inner chambers from electrical discharges. But this protection could be proven as sufficient only during ordinary thunderstorms. When at the close of the Old Kingdom interplanetary contacts caused tremendous discharges, some of the pyramids became electrocuting chambers.⁽³²⁾ The fields of saltpeter (potassium nitrate) close to the pyramids show where the bolts fell; some of the pyramids drew to themselves ramifications of the great bolt.

References

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E. B. Smith, *Egyptian Architecture as Cultural Expression* (New York, 1938), p. 96. [The figures are those of I. E. S. Edwards, (*The Pyramids of Egypt*, revised ed. [London, 1961], pp. 116, 118, 282) who uses the survey of J. H. Cole (Cairo, 1925).]

2.

F. Petrie

3.

Herodotus I. 124.

4.

R. A. Proctor, *The Great Pyramid* (London, 1883), p. 1.

5.

The Library I. 63. Cf. F. W. von Bissing, *Der Bericht des Diodor ueber die Pyramiden* (Berlin, 1901).

6.

Geography 17. 1. 33.

7.

Natural History 36. 16. [Cf. the not entirely dissimilar theory propounded by Kurt Mendelssohn, who suggests the principal motive for building the pyramids lay in “the desire to transform an agricultural village community into a centralized form of society.” (“Pyramid Technology,” *Bibliotheca Orientalis* 30 [1973], pp. 349-355). Mendelssohn’s technical discussion of of great value, independent of his other conclusions. Cf. his *Riddle of the Pyramids* (London, 1974).]

8.

Strabo, *Geography* 17. 1. 33. F. Petrie in his *The Pyramids of Egypt* (London, 1883), p. 168 interpreted Strabo’s statement as referring to a swivel door and, though any remains of it would have disappeared with the removal of the Pyramid’s outer casing, sockets, which may have served to accomodate such a moveable entrance block, were found at both the Bent Puyramid and at the Pyramid of Meidum. Cf. the discussion by Edwards in *The Pyramids of Egypt*, pp. 130f. For an attempt at a reconstruction of the swivel door, see P. Tompkins, *Secrets of the Great Pyramid* (New York, 1971), p. 3.

9.

Natural History

10.

[The outer casing of the Great Pyramid, long since removed, apparently did bear an inscription, still visible in Herodotos' time. Herodotos' report of its meaning, however, indicates that he was deliberately misled by his guides.]

11.

G. A. Reisner and W. S. Smith, *A History of the Giza Necropolis*, Vol. II., *The Tomb of Hetep-heres, the Mother of Cheops* (Cambridge, Mass., 1955).

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N. Wheeler, "Pyramids and Their Purpose," *Antiquity* IX (1935), p. 179.

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Ibid., p. 188.

14.

Ibid., p. 182.

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16.

Historia Francorum I. 10. This legend was already known to Julius Honorius more than a century earlier.

17.

J. G. V. Fialin de Persigny, *De la destination et utilite permanente des pyramides d'Egypte et de la Nubie contre les irruptions sabloneuses du desert* (Paris, 1845).

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See for example R. A. Proctor, *The Great Pyramid, Observatory, Tomb, Temple* (London, 1883); cf. Tompkins, *Secrets of the Great Pyramid*.

19.

Morton Edgar, *The Great Pyramid: Its Spiritual Symbolism* (Glasgow, 1924).

20.

Wheeler, "Pyramids and Their Purpose," p. 300.

21.

Piazzi Smyth, the Royal Astronomer of Scotland, calculated the perimeter of the Great Pyramid as equal to 36,562 pyramid inches.

22.

Fl. Petrie, *A History of Egypt*, Vol. I (London, 1907), p. 41.

23.

As Velikovsky later found out, Comys Beaumont had made a similar suggestion in a book published in 1936.

24.

[Prof. Lynn Rose pointed out to Velikovsky that the ventilating shafts draw in air from the outside, and therefore atmospheric pollution would eventually penetrate inside. It is not unthinkable that filters made of perishable materials were used in the air vents.]

25.

Cf. above, note 8.

26.

Virginia Trimble, "Astronomical Investigation concerning the so-called Air Shafts of Cheops' Pyramid," *Mitteilungen der deutschen Akademie, Berlin*, Vol. 10 (1964), pp. 183-187.

27.

Edwards, *The Pyramids of Egypt*, p. 123.

28.

[Edwards wandered at the purpose of the ceilings: “Whether such extreme precautions were required by the character of the building may be debatable; they hav, however, been justified by subsequent events.” *The Pyramids of Egypt*, p. 126.]

29.

Earthquakes have been “extremely severe in wrenching, as all the deep beams of granite over the King’s chamber in the Great Pyramid are snapped through at the south end, or else dragged out in the upper chambers. The whole roof hangs now by merely catching contact. . . .” F. Petrie, *Egyptian Architecture* (London, 1938), p. 67.

30.

[So, at least, it was regarded by Thutmose IV of the Eighteenth Dynasty a thousand years later.]

31.

G. Goyon, “Les travaux de Chou et les tribulations de Geb d’apres le Naos 2248 d’Ismailia,” *Kemi* (1936).

32.

[Prof. Lynn Rose suggested to Dr. Velikovsky that it was not necessary for the entire charge to have been conducted through the stone. If the ventilating shafts contained any water, or were wet, the charge could have moved directly to the chambers.]





The Pitfalls of Radiocarbon Dating

Offering in 1952 his new radiocarbon method for calculating the age of organic material (the time interval since the plant or the animal died), W. F. Libby clearly saw the limitations of the method and the conditions under which his theoretical figures would be valid:

A. Of the three reservoirs of radiocarbon on earth—the atmosphere, the biosphere, and the hydrosphere, the richest is the last—the oceans with the seas. The correctness of the method depends greatly on the condition that in the last 40 or 50 thousand years the quantity of water in the hydrosphere (and carbon diluted in it) has not substantially changed. :

B. The method depends also on the condition that during the same period of time the influx of cosmic rays or energy particles coming from the stars and the sun has not suffered substantial variations.

To check on the method before applying it on various historical and paleontological material, Libby chose material of Egyptian archaeology, under the assumption that no other historical material from over 2,000 years ago is so secure as to its absolute dating. When objects of the Old Kingdom and Middle Kingdom of Egypt yielded carbon dates that appeared roughly comparable with the historical dates, Libby made his method known.

With initial large margin of error and anything that did not square with expectation, judged as “contaminated,” the method appeared to work and was hailed as completely reliable—just as the atomic clock is reliable—and this nobody doubted.

But as the method was refined, it started to show rather regular anomalies. First, it was noticed that, when radiocarbon dated, wood grown in the 20th century appears more ancient than wood grown in the 19th century. Suess explained the phenomenon by the fact that the increased industrial use of fossil carbon in coal and in oil changed the ratio between the dead carbon C12 and the C14 (radiocarbon) in the atmosphere and therefore also in the biosphere. In centuries to come a body of a man or animal who lived and died in the 20th century would appear paradoxically of greater age since death than the body of a man or animal of the 19th century, and if the process of industrial use of fossil, therefore dead, carbon continues to increase, as it is expected will be the case, the paradox will continue into the forthcoming centuries.

As years passed and more tests were made (soon by laboratories counted in scores), a rather consistent deviation between radiocarbon age and historical age started to

receive the attention of researchers. The radiocarbon dates diverge from the historical dates by several hundred years (often 500 to 700), and, interestingly, in the Egyptian samples more so than in samples from most other ancient civilizations. This led Libby to write in 1963: “The data [in the Table] are separated into two groups— Egyptian and non-Egyptian. This separation was made because the whole Egyptian chronology is interlocking and subject to possible systematic errors . . .” Also, “Egyptian historical dates beyond 4000 years ago may be somewhat too old, perhaps 5 centuries too old at 5000 years ago. . .” (*Science*, 140, 278).

The combined efforts of several researchers led them to believe that *one* of the conditions stipulated by Libby for a flawless functioning of his method was not historically sustained; it is claimed that the influx of cosmic rays varied with time. Yet, since this influx comes from many sources, the sun being only one of them, sunspot activity could be related to the variation only in a very limited degree. Therefore the claim was made that the magnetosphere around the earth, discovered in 1958, suffered occasional weakening, thus allowing more cosmic rays to pass it and to hit the nitrogen atoms in the upper atmosphere, changing them to radiocarbon. It was further claimed that the magnetic field of the earth might have reversed its polarity in the last 40 thousand years, a phenomenon known to have happened in geological epochs. If such reversals were not instantaneous but required thousands of years, the atmosphere during that time would not be shielded from cosmic rays and substantially more of them would reach it. However, the scientific literature of the last few decades did not contain any reference to a reversal observed on human artifacts like pottery— though a paper by Manley in 1949 (*Science News*, Penguin Publication) told of the work of G. Folghereiter done at the turn of the century on Attic and Etruscan pottery: he found that the polarity was reversed in the eighth century before the present, era.

To determine the extent of correction necessary to render the radiocarbon method reliable, dendrochronologists devised a plan to control the radiocarbon dates by building a chronology of tree rings of the white bristlecone pine, the longest living tree. The method caught the fancy of the radiocarbon researchers. However, three or four rings formed in one year is not uncommon, especially if the tree grows on a slope, with the ground several times in a year turning wet and dry because of rapid outflow of water (Glueck *et al.*, *Botanical Review*, 7, 649-713; and 21, 245-365). And certainly the building of tree “ladders,” or carrying on the count from one tree to another may cause erroneous conclusions. One and the same year may be dry in South California and wet in the northern part of the state.

Now let us review in the light of research in cosmic catastrophism the correctives that, in our view, need to be introduced into the method. We must also evaluate the basic reliance on Egyptian chronology that, as we shall see, needs to be discontinued.

Speaking of my research as far as it affects the radiocarbon dating method, I would like to separate the finds concerning natural events (*Worlds in Collision*, *Earth in Upheaval*) from finds concerning the true chronology of Egypt and of the ancient

World in general (*Ages in Chaos*).

Libby's discoveries, published in 1952, gave immediate support and even vindication to three independent conclusions of my research into natural events of the past. In *Worlds in Collision* I claimed that the time since the last glaciation needs to be drastically shortened: the figure considered valid in 1950, the year *Worlds in Collision* was published, was still Lyell's of 100 years earlier, namely 35 thousand years. Libby found (and I quote Frederick Johnson, who participated in his volume, *Radiocarbon Dating*) that "the advance of the ice occurred about 11,000 years ago . . . previously this maximum advance had been assumed to date from about 25,000 years ago," actually 35,000 if one looks up the literature of the time. A few years later Rubin and Suess of the Geological Survey of the U. S. A. found that, as I also claimed, another advance of ice took place only 3,500 years ago.

The second confirmation came concerning the age of the petroleum. In 1950 in the *American Journal of Science* (the present publisher of *Radiocarbon*) a review was published by its editor, Yale geologist Longwell, with a rejection of my entire theory on the basis that oil is never found in Recent formations, being itself many millions of years old. A similar criticism appeared in the article by astronomer Edmondson, who cited the Indiana University geologist, J. B. Patton. One of the early radiocarbon datings of petroleum and petroleum-bearing formation on and off-shore in the Gulf area was by P. V. Smith of Esso Research Laboratory. The "surprising" fact was that oil was found there in Recent sediment and must have been deposited *during* the last 9,200 years." (Emphasis added.)

Actually I asked Libby whether he would see to it that petroleum should be subjected to tests and it was he who drew my attention to the work done by Smith.

A third confirmation also concerned one of the important conclusions of *Worlds in Collision*. To the above-mentioned article by Longwell a Mexicologist also contributed. The Mexicologist, Professor George Kubler of Yale, stressed that certain traditions contained in Mesoamerican heritage were referred by me to events of the pre-Christian era. Kubler insisted that this heritage could not date from the 8th to 4th pre-Christian centuries, but rather was generated in the 4th to 8th century of the Christian era. But in December, 1956, the National Geographical Society in conjunction with the Smithsonian Institution made it known that excavations at LaVenta proved by radiocarbon that the classical period of the Meso-American civilizations (Olmec, Toltec, Maya, etc.) needs to be pushed back by a full thousand years and ascribed not to the 4th to 8th centuries of the Christian era but to the 8th to 4th centuries before that era.

With these three confirmations (time the Ice Age ended, time petroleum was deposited, time of the classical period of the Meso-American civilizations), my *Worlds in Collision* received very substantial confirmations.

But I could not and should not satisfy myself with this support without repaying by

demonstrating where the difficulties and pitfalls of the method are hidden.

In the cataclysmic events reconstructed in *Worlds in Collision* and also those that preceded the fall of the Middle Kingdom in Egypt, various effects could not but vitiate the radiocarbon performance, some of these effects tending to make organic life appear older than its actual age, and others making it appear more recent.

Bursts of cosmic rays and of electrical discharges on an interplanetary scale would make organic-life surviving the catastrophes much richer in radiocarbon and therefore, when carbon dated, that organic matter would appear much closer to our time than actually true. But if the invasion of the terrestrial atmosphere by “dead” (non-radioactive) carbon from volcanic eruptions, from meteoric dust, from burning oil and coal and centuries-old forests, predominated the picture, then the changed balance of radioactive and of radio-inert carbon would make everything in the decades following the event appear much older. Thus, it is the competition of these factors that would decide the issue in each separate case. My own impression is that in the catastrophes of the eighth century and beginning of the seventh, the second phenomenon was by far more dominant. For the events of the middle of the fifteenth century before the present era, both phenomena were very expressed, but the burning petroleum added to the exhaust of all volcanoes burning simultaneously, added also to the ash of the proto-planet in near-collision must have outweighed the greatly increased advent of cosmic rays (which resulted also from interplanetary discharges). But in the catastrophe of the Deluge, which I ascribe to Saturn exploding as a nova, the cosmic rays must have been very abundant to cause massive mutations among all species of life, and correspondingly, these cosmic rays must have also changed the radiocarbon clock and certainly made ensuing life, subjected today to radiocarbon tests, appear much more recent than historically true. I am not in a position to point to the century or even millennium when the Universal Deluge took place, but it must have happened between five and ten thousand years ago, probably closer to the second figure.

The Deluge also increased the water basin or hydrosphere on earth, and if we can believe some indications, the Atlantic Ocean (called the Sea of Cronus by the ancients) originated in part during the Deluge. It is quite possible that the volume of water was more than doubled on earth in this one cataclysm.

Thus both conditions stipulated by Libby (that is, constant rate of influx of cosmic rays, and constant quantity of water in the hydrosphere) have been violated, but following the uniformitarian doctrine these violations have been discarded from consideration. We are left with a method in which the researchers have failed to take heed of the warnings expressed by its inventor.

The sustained effort of radiocarbon researchers to find support in Egyptian chronology, and their reliance on that chronology, is fundamentally a mistake. As I tried to show in *Ages in Chaos*, the Egyptian chronology is basically wrong. I drew the attention of Libby to this fact in my letter of October 7, 1953, and I sent him a

copy of *Ages in Chaos*; his answer was that he is not at all learned in ancient history; thus he continued to rely on what is unreliable. He cannot be blamed for it because in historical circles the conventional chronology is still the accepted dating in absolute and in comparative sense—the latter meaning that Mycenaean or Minoan civilizations that have no absolute chronology of their own, by relations with the Egyptian past can be dated accordingly; but this means that if the Egyptian datings are wrong, the Minoan and Mycenaean are wrong, too.

Here I shall give a few figures to visualize the extent of the errors in the Egyptian chronology: The end of the Middle Kingdom of Egypt, -1780 in accepted chronology, actually took place ca. -1450—a difference of over 200 years. The following Hyksos period endured, not 100 years, but over 400 years in close agreement with the old Egyptian (Manetho) and Hebrew (*Ages in Chaos*, I, Ch. 2) sources. The beginning of the 18th Dynasty (New Kingdom) falls not in -1580 but in ca. -1050—over 500 years difference. Thutmose III belongs to the second part of the tenth century, not to the first part of the fifteenth. Akhnaton belongs not in the first half of the fourteenth but in the middle of the ninth century. Thus, as I showed in detail in vol. I of *Ages in Chaos*, there exists an error of ca. 540 years through the entire period covered by the 18th Dynasty.

Even more important is that the dynasty of Seti the Great and Ramses II, termed the Nineteenth Dynasty, did not follow the Eighteenth; the Libyan (Dynasties 22nd to 23rd) and the Ethiopian (Dynasties 24th to 25th) periods intervened. The Libyan Dynasty of Sosenks and Osorkons reigned for 100 years only, instead of over 200; the Ethiopian Dynasty, however, is the only one that in the conventionally written history of Egypt, maintains its proper place. During the Nineteenth Dynasty the error of the accepted Egyptian chronology reached the high figure of over 700 years; and together with it the time of the contemporaneous rulers of the so-called Hittite Empire is equally misplaced by over 700 years.⁽¹⁾ Finally the Twentieth Dynasty—that of Ramses III and his adversaries—*Peoples of the Sea*—needs to be brought closer to our time by a full 800 years and placed just a few decades before Alexander of Macedon. The Twenty-first Dynasty began under the Persian kings, continued contemporaneous with the Twentieth—its rulers reigned in the Libyan Desert oases—and lasted until the second Ptolemy. (I take this opportunity to give these figures because, instead of a second volume of *Ages in Chaos* that should have followed closely the first that appeared in 1952, the entire work will consist of five presently planned volumes.)

Now if the historical basis of radiocarbon studies fails so completely, many conclusions drawn and much data left unpublished require reconsideration. From some correspondence that originated at the Metropolitan Museum of Art, I have concluded that when Libby first asked for specimens, he received not only those dating from the Old and Middle Kingdoms, but also from the New Kingdom—but nothing ever was published of those early tries on New Kingdom specimens. A similar situation concerns more recently tested short-living organic material from the tomb of Tutankhamen.

After many efforts (from 1952 to 1963) to have the New Kingdom of Egypt tested in a systematic way I succeeded in having three little pieces of wood from the tomb of Tutankhamen handed over by the Laboratory Director of the Cairo Museum to Mrs. Ilse Fuhr of Munich, who was directed by me to send them to Dr. Elizabeth Ralph of the University of Pennsylvania Laboratory. Two of the pieces were from the comparatively short-lived thorn plant, *Spina Christi*, and one from the long-living Cedar of Lebanon. The three small pieces were processed together, since a test requires ca. 30 grams (1 ounce) of material. The result was -1120 ± 52 (or following Libby's half life of C14, -1030 ± 50). Now the accepted chronology has Tutankhamen dying in -1350; my reconstruction has him entombed in ca. -830. According to Dr. Iskander Hanna of the Cairo Museum, the wood was from 30 to 50 years dried before being used for funerary equipment. The Lebanon Cedar would not have been cut as sapling—the tree reaches thousands of years of age. The sample could have been from inner rings of a trunk. Dr. E. Ralph confirmed to me on March 5, 1964, that tree rings, when carbon dated, show the date of their formation, not of the year the tree was felled. I wrote to her on March 2, 1964, suggesting that if short-living material (like seeds, papyrus, linen or cotton) should be subjected to tests from the tomb of Tutankhamen, most probably the result will show “ca. -840.”⁽²⁾

In spring, 1971, or seven years later, the British Museum processed palm kernels and mat reed from the tomb of Tutankhamen. The result, according to Dr. Edwards, Curator of the Egyptian Department of the British Museum, was -899 and -846 respectively.⁽³⁾ These results were *never* published.

These cases make me appeal that *all* tests, irrespective of how much the results disagree with the accepted chronological data, should be made public. I believe also that the curiosity of the British Museum Laboratory officials should have induced them to ask for additional material from the Tutankhamen tomb instead of discontinuing the quest on the assumption that tested material was contaminated. The tomb of Tutankhamen had not been opened since soon after the entombment. It is dry—water did not percolate through its roof or walls.

Another way of dulling the sharp disagreements between the accepted chronology and the results of the tests is described by my librarian assistant, Israel Isaacson.⁽⁴⁾ In the case described nothing was purposely hidden but two different approaches were applied.

In one and the same year the University of Pennsylvania Laboratory tested wood from a royal tomb in Gordion, capital of the short-lived Phrygian Kingdom in Asia Minor, and from the palace of Nestor in Pylos, in S.W. Greece. In Gordion the result was -1100; in Pylos -1200. However, according to the accepted chronology, the difference should have been nearly 500 years—1200 for Pylos of the end of Mycenaean age was well acceptable, but -1100 for Gordion was not—the date should have been closer to -700. Dr. Ralph came up with the solution for Gordion. The

beams from the tomb were squared and the inner rings could easily be four to five hundred years old when the tree was felled. But in Pylos, the description of the tested wood indicates that these were also squared beams—yet the corrective was not applied—this “because -1200 was the anticipated figure. However, as I try to show in detail in the planned [The Dark Age of Greece](#), a separate volume of *Ages in Chaos* series, there were never five centuries of Dark Age between the Mycenaean Age and the historical (Ionic) Age of Greece. The Pylos beams are -800, the Gordion beams date from -700,

Now the question arises, how can the radiocarbon method be used for deciding between the conventional and the revised chronologies. Many a reader of Volume I of *Ages in Chaos*, and a few readers to whom I made available the sequel volumes in typescript would agree that the reconstruction is built with such profusion of contemporaneities and linked episodes that the credence given to the conventional history to serve as a control over carbon datings should be now transferred to the reconstruction and let it control, not be controlled by, carbon tests. Yet, for less convinced audiences, the method can serve in two manners. For the period before -500, only comparative tests can serve profitably for the solution of the chronological problems: King Saul was a contemporary of kings Kamose and Amose—and lived not 540 years after them; similarly. King Solomon was a contemporary of Queen Hatshepsut, and Thutmose III of Rehoboam of Judea and Jeroboam of the Ten Tribes; and Amenhotep II of King Asa; Amenhotep III of Omri and Ahab; Akhnaton also of Ahab of Samaria and Jehoshaphat of Jerusalem, and of Shalmaneser III of Assyria. Therefore if we can compare material from two areas contemporaneous in my reconstruction but separated by 540 years in the conventionally written history, we may receive the carbon answer as to which of the two time tables is correct and which is wrong. The ivory of the Shalmaneser III fort near Nimrud and the ivory of Tutankhamen’s tomb must yield very close dates.

For the period separated by 200 years from the last cosmic upheaval involving our planet (-687), say for after -500, we may apply the tests without any need to compare contemporaneous samples. Thus the 20th and 21st Dynasties, which in conventional histories occupy the 12th to the middle of the 10th century but in my reconstruction from -400 to -340 (20th) and ca. -450 to -280 (21st), are perfect choices for carbon tests.

Now we see that not only were the warning signals that Libby offered with his method disregarded, but also an unearned reliance on the accepted version of ancient history has caused much stumbling in the dark, more and more tests of diminished value, and a maze of findings, with many undisclosed results of tests, wrong deductions and much exasperation that mark the first 20 years of application of Libby’s most imaginative method.

References

In this connection, the figure for the “Hittite” fortress, Alishar III, 800 years later than the conventional chronology has it (*Radiocarbon Dating*, 1952), is very nearly true.

2.

See the correspondence file named [ASH](#).

3.

Ibid.

4.

[“Carbon 14 Dates and Velikovsky’s Revision of Ancient History: Samples from Pylos and Gordion” in *Pensée, Immanuel Velikovsky Reconsidered IV* (Spring-Summer 1973), pp. 26-32.]





The Testimony of Radiocarbon Dating

In 1952 Willard F. Libby, then of the University of Chicago, published his *Radiocarbon Dating*. It was about half a century after the discovery of cosmic rays that he had come upon the idea, and also developed a method, of using the radioactivity resulting from cosmic rays for the purpose of dating organic remains. Libby's discoveries gave immediate support and even vindication to three independent conclusions of my research into natural events of the past, as described in *Worlds in Collision* and *Earth in Upheaval*—the time the Ice Age ended, the time petroleum was deposited, and the time of the classical period of Meso-american civilization.⁽¹⁾

However, the main interest for me in radiocarbon tests was in checking on historical dates of the ancient East, of the period covered in *Ages in Chaos*. This method was as if created to sit in judgment in the litigation between the accepted and revised time tables.

In *Ages in Chaos* we have seen that, with the fall of the Middle Kingdom and the Exodus synchronized, events in the histories of the peoples of the ancient world coincide all along the centuries.

For a space of over one thousand years records of Egyptian history have been compared with the records of the Hebrews, Assyrians, Chaldeans, and finally with those of the Greeks, with a resulting correspondence which denotes synchronism.

In Volume I of *Ages in Chaos* it was shown in great detail why Akhnaton of the Eighteenth Dynasty must be placed in the latter part of the ninth century. If Akhnaton flourished in -840 and not in -1380, the ceramics from Mycenae found in the palace of Akhnaton are younger by five or six hundred years than they are presumed to be, and the Late Mycenaean period would accordingly move forward by about half a thousand years on the scale of time.

I wished to have radiocarbon tests that would clarify the issue. I did not need the test in order to strengthen my view on the age of the Eighteenth and the following dynasties, for I considered the evidence that I had presented in *Ages in Chaos* to be strong enough to carry the weight of the revised scheme. But in view of the novelty of my contentions I realized that a confirmation from a physical method would be of great import for the acceptance of my work.

The efforts that I spent in order to achieve radiocarbon examination of any suitable object from the New Kingdom in Egypt were many and persistent. Correspondence between the British Museum and myself did not produce the desired results, though I was politely answered by the departments of Egyptian, of Assyro-Babylonian and of Greek antiquities. The Museum has a radiocarbon laboratory of its own, and therefore the task could be simplified; but the Museum claimed other preferential tasks. At one time I secured the help of the late Professor Robert H. Pfeiffer, Director of the Semitic Museum of Harvard University in an effort to obtain some organic relics from the Metropolitan Museum of Art, but to no avail. Even Albert Einstein's plea, relayed to the Museum by his secretary upon his death, to have my work of reconstruction of ancient history tested by radiocarbon, went unheeded.

The usual argument explaining the refusal of cooperation was the assertion that the Egyptian chronology of the New Kingdom is known to such exactness that no carbon tests are needed; moreover the tests were claimed to have a margin of error far greater than the incertitude of the historians as to New Kingdom dates.

Since the chronology of ancient Egypt is quite closely fixed by the astronomical evidence from the Eleventh Dynasty onward, in part, to the nearest year, radiocarbon, with its substantial margin of error, could hardly add anything to our knowledge of the chronology of the New Kingdom. . . .

Thus wrote a member of the faculty of the University of California in Los Angeles in response to an inquiry and a plea of a reader of mine.⁽²⁾ Similarly wrote an assistant curator of the British Museum:

There has been so far as I am aware no radiocarbon dating of objects from the New Kingdom. I do not think that such a test, given the necessary measure of tolerance which must be allowed, is likely at the moment to give a chronology for the New Kingdom which is any more certain than a chronology deduced by historical methods.

Another reader of mine wrote to the Director of the Metropolitan Museum and read in the reply he received:

In the light of the very complete knowledge we have on this tightly dated and closely recorded period, it would serve no useful purpose to have this done. . . .

It almost looked as if there were a concerted opposition to the submission of any object dating from the New Kingdom to a radiocarbon test. I have even employed the argument, for instance at my coming to see Dr. William Hayes, the late Director of the Egyptological Department of the Metropolitan Museum of Art: Let the test be made in order to disprove me. My book *Ages in Chaos* was read by hundreds of

thousands of readers and found many followers—why not show me wrong if this is so easy? But such arguments were not effective either.

During the ten years after the publication of Libby's *Radiocarbon Dating* in 1952, which was also the year *Ages in Chaos* was published, the great period of history in accepted Egyptian chronology from -1580, the beginning of the New Kingdom (or rather from -1680, the fall of the Middle Kingdom) to the time of the Ptolemies, a period of ca. 1250 years in the accepted chronology, a tremendous stretch of time, was left out of radiocarbon testing programs. My efforts, spread over ten years and more, were directed to many museums and places of learning, but they were all in vain. I have recorded and filed the exchanges that took place between my supporters, myself, and those in whose power it was to have the tests made. The museums showed no willingness to cooperate.

For a while it looked a little more hopeful when my friend, Claude F. A. Schaeffer, the excavator of Ras Shamra (Ugarit), acceded to my urging and sent to Dr. Elizabeth Ralph of Pennsylvania University a piece of wood found in the neighborhood of another object which he dated to the reign of Merneptah of the Nineteenth Dynasty. However, the sample became contaminated in the laboratory. From a French laboratory, where a control piece of the same find was sent, no answer was forthcoming, and the circumstances of the find gave no assurance—had either laboratory succeeded in obtaining a result—that the piece of wood from Ras Shamra really dated from the reign of Merneptah in Egypt.

It looked as if the only result of all my efforts would be a stately volume of letters and memoranda entitled [ASH](#). It is to ash that organic specimens must be converted to make the test. It was ash also in the sense that many efforts ended in nothing.

In the meantime, certain systematic disagreement in datings by the radio carbon method with the conventional historical time tables was observed all over the world. But above and beyond this generally observed phenomenon, the Egyptian datings stood unreconciled with the results of the carbon tests. This made quite a few Egyptologists express their disbelief in the carbon method and the physicists even bolder in assuming that the Egyptologists were victims of some undefined systematic error. The perplexing Egyptian dates were discussed at the conference of the workers in radiocarbon that took place in Cambridge July 1962, and two laboratories, of Groningen in Holland and of the University of Pennsylvania, were entrusted with the task of clarifying the issue. At that time the New Kingdom was apparently not yet investigated on radiocarbon dates, but if it was investigated, the results were never made known.

A few years later the radiocarbon laboratory of the University of Rome published a survey of tests made by various laboratories. Dates of 54 archaeological and historical samples from Egypt were published up to the summer of 1964. Some of these have been repeatedly dated both by the same lab, and as cross-check samples. ⁽³⁾

These measurements have shown that most Egyptian samples give a C-14 age which is less than expected historical age often based on astronomical evidences. No satisfactory physical or archaeological explanation of this fact yet found, except a physical attempt by Damon and Long.⁽⁴⁾

Again it seems that only Old and Middle Kingdom material was the subject of the review. The “physical attempt” of Damon and Long referred to in this report considers the possibility that about two millennia before the present era the influx of cosmic rays suddenly changed in rate and that as a consequence the radiocarbon ratio in the carbon pool changed, too. Actually such or similar surmises were expressed by Dr. Ralph, as also by Dr. H. E. Suess and by others.

The change in the influx of cosmic rays could have occurred either in the case of the Earth, together with the rest of the solar system, passing close to a source of such rays, a nova or a supernova; or, preferably, as Suess assumed, in the case of a change in the strength of the magnetic field that shields the Earth from cosmic rays.

These surmises were repeatedly made because anomalous readings from the early periods of Egyptian history accumulated, mostly pointing to more recent dates. Dr. Libby, however, expressed his view that the Egyptian chronology may be wrong.⁽⁵⁾

In *Science* for April, 1963, he wrote:

The data [in the Table] are separated into two groups—Egyptian and non-Egyptian. This separation was made because the whole Egyptian chronology is interlocking and subject to possible systemic errors . . . Egyptian historical dates beyond 4000 years ago may be somewhat too old, perhaps 5 centuries too old at 5000 years ago. . .⁽⁶⁾

Thus the two solutions offered concerning the too recent dates for the Middle Kingdom actually amounted to either a support for *Ages in Chaos* or for *Worlds in Collision*, or for both.

In the conventional scheme of history, the Middle Kingdom ended about -1680. In *Ages in Chaos* the end of the Middle Kingdom is placed at about -1450. Whereas for most of the Eighteenth Dynasty I claimed that the dates need to be reduced by about 540 years, for the end of the Middle Kingdom the restructured timetable required but about 200 years change toward greater recentness.

A later issue of *Radiocarbon* brought radiocarbon dates of the Middle Kingdom in Egypt, with the verdict that this period of history did not terminate in -1780 or even in -1680 but endured into the fifteenth century before the present era,⁽⁷⁾ as postulated in *Ages in Chaos*. All this was surmised before tests on New Kingdom material were considered.

In 1963 it seemed hopeless to expect that there would ever be a radiocarbon test of Egyptian chronology of the New and Late Kingdoms, the mainstay of the chronological structure of the entire complex known as the ancient East.

But then from a series of chance meetings a story developed that had all the characteristics of a cloak-and-dagger mystery. I will not tell it here, but the result was that three small pieces of wood from the tomb of Tutankhamen were delivered from Cairo Museum to Dr. Elizabeth Ralph of the Museum of the University of Pennsylvania.

It took a long time, but finally the three pieces of wood were processed. On February 25, 1964 Dr. Ralph wrote me:

“Your great patience in waiting for the C-14 date of the wood from the tomb of Tutankhamen is greatly appreciated. The dates . . . are as follows:

| U. of Pa. Lab No. | Name | Age calc. with 5568 half-life | Age calc. with 5730 half-life |
|----------------------|--|----------------------------------|----------------------------------|
| P-726 | Wood from coffin of Tutankhamen, 18th Dynasty | 1030 ± 50 B.C. | 1120 ± 52 B.C. |

The carbon age of the wood from the tomb of Tutankhamen was found to be about 300 years younger than the accepted date of the death of this king—more exactly, 320 years according to Libby’s figure for the half-life of radiocarbon, or 230 years following the Washington scale (5730 half-life).

Statements had repeatedly been made—and some of them were quoted on previous pages—that the method cannot be profitably applied to the problems of Egyptian chronology of the New Kingdom because the uncertainty of the method far exceeds the uncertainty of the dates. These statements were shown to be baseless: the method with a fifty-year uncertainty exposed an error of several hundred years in Egyptian chronology. Obviously the lumber used in the tomb could not have been growing as a tree three hundred years later.

But I was not completely satisfied with the result, and I suspected where the additional two hundred years or so may have lain hidden. In my reconstruction, Tutankhamen’s death falls in the second half of the ninth century. In a letter to Dr. Ralph I inquired whether the carbon age of a trunk discloses the time when the tree was felled or the time of the formation of the tree rings. To this, on March 5, 1964, a week after her first report, Dr. Ralph answered that the latter was true.

Various tests have indicated that only the outer growth ring of a tree has a contemporaneous amount of C-14, that is, it is in equilibrium

with the atmospheric C-14. Except for a slight diffusion of sap inward, which seems to be insignificant, the inner rings seem to have C-14 ages representative of the years that have elapsed since they were outer rings. Therefore, a C-14 date for a sample cut from the inner part of a log would not be representative of the time of the cutting of the tree. The magnitude of the error varies greatly in different regions and with different trees.

Among many archaeologists this fact is not known, and an Orientalist of the stature of W. F. Albright, to whom I showed the reports of Dr. Ralph, expressed great amazement over it. ⁽⁸⁾

The three pieces of wood from the tomb of Tutankhamen consisted of Spina Christi (two pieces, aggregate weight 14.5 grams) and Cedar of Lebanon (weight 11.5 grams); since they together weighed but 26 grams, and 25 grams is considered the necessary minimum quantity for a test, all were tested as one batch. Spina Christi is a comparatively short-lived thorn plant; but Cedar of Lebanon is one of the longest living trees. There is no question that the Cedar of Lebanon was not cut for export as a sapling; the tree reaches the venerable age of a thousand and more years. Whoever visits the cedar forests still surviving in a few areas of Lebanon at elevations of five to nine thousand feet, and sees their majestic trunks and branches, will realize that since 43 percent of the wood from the tomb of Tutankhamen tested (11 grams out of 26) was Cedar of Lebanon, the probability is that an additional correction of several hundred years is necessary, thus making the discord between the accepted and the carbon dates much greater than three hundred years.

The report on wood from Tutankhamen's tomb was printed in 1965 in the annual volume of *Radiocarbon*. The circumstances of the find of this tomb are well known. In 1922 Howard Carter, digging in the Valley of the Kings, came upon a hidden stairway, and a door sealed with the seal of the priests of the Necropolis and also with the seal of the dead pharaoh, the youthful Tutankhamen. In my *Oedipus and Akhnaton* I presented a reconstruction of the events that led to Tutankhamen's death. If the tomb was ever opened, it could only have happened in the reign of Ay, who succeeded Tutankhamen and whom I identified as the prototype of Creon of the Greek legend of the Oedipus cycle. The tomb was also free from percolating water and therefore there was no reason to suspect contamination by water which might have first seeped through some decomposed organic material. There could not be a better source for radiocarbon test but that material itself.

Several other tests on wood from the New Kingdom in Egypt, also performed in the laboratory headed by Dr. Ralph, were published in the same volume. The specimens from the New Kingdom were assessed by their finders or by specialists as dating from the Eighteenth (or in one case possibly from the Nineteenth) Dynasty:

| Sample no. & material | provenance | conventional date | C-14 date |
|-----------------------------|--|--|-----------|
| P-717 Charcoal | estimated to be of Thutmoses III to Amenophis III periods | 1500 to 1370 B.C. | 1161 B.C. |
| P-718 Charcoal | reign of Amenophis III | 1408 to 1372 B.C. | 1137 B.C. |
| P-720 Wood from sarcophagus | may date from end of 18th Dynasty or, more likely, from the 19th Dynasty | 1370 to 1314 B.C. or 1314 to 1200 B.C. | 1031 B.C. |

In all cases the age arrived at by radiocarbon testing was several centuries younger than the conventional chronology would allow.

In view of what was said above concerning the radiocarbon age of a piece of wood, any wood unless it is an annual plant would deceive by offering a greater antiquity than the date of its use for building purposes. Clearly, the preferred material for radiocarbon dating would be something like grain, papyrus, cotton or linen, animal hide, or mummy remains. Any result obtained from wood contains an x number of years that depend on the number of rings and their count from the bark inward—and this x must not be neglected in the estimates. Evidently further testing is necessary and the tomb of Tutankhamen could provide grain, dried flowers (probably not enough for a test), or a piece of mummy, if only the importance of such a test for the entire field of Egyptian archaeology would be realized.

In 1971, or seven years later, the British Museum processed palm kernels and mat reed from the tomb of Tutankhamen. The resulting dates, as Dr. Edwards, Curator of the Egyptian Department of the British Museum, wrote to the University of Pennsylvania radiocarbon laboratory, were -899 for the palm kernels and -846 for the mat reed.⁽⁹⁾

These results, however, were never published.

Such cases make me appeal that all tests, irrespective of how much the results disagree with the accepted chronological data, should be made public. I believe also that if nothing else, the curiosity of the British Museum Laboratory officials should have induced them to ask for additional material from the Tutankhamen tomb instead of discontinuing the quest because “On the basis of the dating it was decided that the samples did not come from the tomb” and therefore it “was decided that the results should not be published.”⁽¹⁰⁾

In the Proceedings of the Symposium on Radiocarbon Variations and Absolute

Chronology held at Uppsala in 1969, T. Säve-Söderbergh and I. U. Olsson introduce their report with these words:

C 14 dating was being discussed at a symposium on the prehistory of the Nile Valley. A famous American colleague, Professor Brew, briefly summarized a common attitude among archaeologists towards it, as follows: “If a C 14 date supports our theories, we put it in the main text. If it does not entirely contradict them, we put it in a footnote. And if it is completely out of date we just drop it.” Few archaeologists who have concerned themselves with absolute chronology are innocent of having sometimes applied this method. . . [\(11\)](#)

Another way of dulling the sharp disagreements between the accepted chronology and the results of the tests is described by Israel Isaacson. [\(12\)](#)

In this case nothing was purposely hidden, but two different approaches were applied. In one and the same year the University of Pennsylvania tested wood from a royal tomb in Gordion, capital of the short-lived Phrygian Kingdom in Asia Minor, and from the palace of Nestor in Pylos, in S.W. Greece. In Gordion the result was -1100; in Pylos -1200. However, according to the accepted chronology, the difference should have been nearly 500 years—1200 for Pylos at the end of the Mycenaean age was well acceptable, but -1100 for Gordion was not—the date should have been closer to -700. Dr. Ralph came up with the solution for Gordion. The beams from the tomb were squared and the inner rings could easily have been four to five hundred years old when the tree was felled. But in Pylos the description of the tested wood indicates that these were also squared beams—yet the corrective was not applied—this because -1200 was the anticipated figure. However, as I try to show in detail, there were never five centuries of Dark Age between the Mycenaean Age and the historical (Ionic) Age of Greece. If the same correction had been applied to both cases, then since the Gordion beams were dated to -700, the Pylos beams should be dated to ca. -800.

As mentioned earlier, the fact that the Middle Kingdom dates were regularly found to be too young by several centuries caused the surmise by Damon and Long that the influx of cosmic rays changed four thousand years ago or thereabouts.

Now the question arises—how can the radiocarbon method be used for deciding between the conventional and the revised chronologies? [\(13\)](#)

Libby, in his *Radiocarbon Dating*, stressed that the method is good only on the condition that the influx of cosmic rays has not changed during the last 25 or 30 thousand years, and also that the quantity of water in the oceans has not changed in the same period of time. In a sequel volume to *Worlds in Collision* I intend to show that the Earth passed through a period of intense bombardment by cosmic rays at the time of the Deluge. Libby’s insight, by the very fact of stressing these preconditions for the validity of the method, is amazing.

The great catastrophe in the middle of the second millennium that terminated the Middle Kingdom must also have disrupted all processes that underlie the carbon dating method. On the one hand much radioactivity and radiation must have been engendered as the consequence of interplanetary discharges, and thus any organic material of a date after the catastrophe would appear disproportionately younger than the material from earlier periods. On the other hand, the general conflagration that accompanied the cosmic catastrophe must have caused contamination of the air by carbon from burning forests, and even more so by burning fossil carbon in oil and coal, besides the contamination of the air by the products of volcanic eruptions, which were simultaneous on all continents. Such intrusion of non-radioactive carbon into the atmosphere would have disturbed the C-12/C-14 balance in the sense of making any organic material that grew and lived after the catastrophe appear in the carbon test as older and belonging to an earlier age.

Thus two phenomena of opposite effect have acted in the catastrophes, and depending on the preponderance of one of the two factors, the objects subjected to test would appear younger or older than their real age. Furthermore, carbon of extraterrestrial origin (ash and polymerized hydrocarbons) added a third factor, and its evaluation in the carbon pool as to its tendency to heighten or lower the radioactivity is hardly possible.

In the eighth century and the beginning of the seventh century before the present era, the last series of cosmic catastrophes took place. Although not of the same ferocity as far as the Earth was concerned, these catastrophes and conflagrations must also have left their imprints on everything organic.

Thus radiocarbon dating needs to take into consideration the catastrophic changes in historical and also prehistorical times. To determine the extent of correction necessary to render the radiocarbon method reliable, dendrochronologists, notably Suess, devised a plan to control the radiocarbon dates by building a chronology of tree rings of the white bristlecone pine. However, three or four rings formed in one year is not uncommon, especially if the tree grows on a slope with the ground several times a year turning wet and dry because of rapid outflow of water.⁽¹⁴⁾

And certainly the building of tree “ladders,” or carrying on the count from one tree to another may arouse erroneous conclusions. One and the same year may be dry in Southern California and wet in the northern half of the state.⁽¹⁵⁾

Moreover, as R. D. Long writes in a comprehensive review of dendrochronology, the Suess tree ring calibration curve data “proposed as the solution for correcting conventional radiocarbon ages cannot be applied to Egypt. As will be demonstrated, physical geographical location has crucial meaning to C 14 dating and calibration.” This, he claims, “demolishes the theory on which the Suess curve rested.”⁽¹⁶⁾

Then how can the radiocarbon method contribute to the clarification of Egyptian chronology, especially in the age of the New Kingdom?

The answer to this is that the method *can* be objectively and profitably used for the purpose of finding out whether the conventional or the revised scheme is the true one, and there are two ways of making the test work for this purpose. The first way is in comparative dating: according to my reconstruction, the Eighteenth Dynasty (the first of the New Kingdom) was contemporaneous with the dynasty of Saul and David; Akhnaton and Tutankhamen were contemporaneous with Jehosphaphat of Jerusalem and Ahab of Samaria, and with Shalmaneser II of Assyria, all of the ninth century before the present era. Organic material of Egypt presumably of the fourteenth century (the time the conventional chronology assigns to Akhnaton and Tutankhamen) should be compared with organic material from ninth century Israel or Assyria. I expect that the carbon analysis will certify the contemporaneity of these periods in Egyptian history on the one hand, and Judean and Assyrian history on the other.

The other way of using radiocarbon dating to test the correctness of the reconstruction of ancient history is in testing organic material from a period removed by several centuries from the last cosmic catastrophe. A choice case would be Ramses III and the Twentieth Dynasty in general. As I show in *Peoples of the Sea*, Ramses III of the historians is but Nectanebo I, who occupied the Egyptian throne in the first half of the fourth century and who warred with Artaxerxes II, the Persian.

According to the accepted chronology, Ramses III started to reign in -1200 or a few years thereafter. The UCLA Egyptologist who claimed that no carbon test is needed for dating the New Kingdom used Ramses III as an example:

. . . Since the chronology of ancient Egypt is quite closely fixed by astronomical evidence . . . radiocarbon, with its substantial margin of error, could hardly add anything to our knowledge of the chronology of the New Kingdom. Hayes, *The Scepter of Egypt*, Vol. II, dates Ramses III to 1192-1160 B.C., and this date is not likely to contain a margin of error greater than about five years each way.

The difference between the conventional dates and the timetable of the revised chronology reaches here an almost grotesque figure of 800 years. The fourth century is by three centuries removed from the last cataclysm that, according to the evidence cited in *Worlds in Collision*, took place on March 23, -687. Therefore there need be no apprehension as to the possible effect of natural events on the carbon content of the living material of the fourth century, with the exception of the inner rings of trees that in the fourth century before the present era may already have been three or more centuries old. Generally, not trees but short lived plants, such as linen, papyrus, grain, and also hide and mummies, should be used for radiocarbon tests for archaeological purposes.

Since the problem to solve is whether Ramses III lived almost 32 or less than 24 centuries ago, the difference being so great as to exceed 25 percent (33 percent if counted on 24 centuries), the radiocarbon method, with its margin of uncertainty of less than 50 years, must provide an unambiguous answer in the contest for the title of the true history.

In a number of letters directed to various persons and institutions, I have asked for such tests. Again—as before the testing of the wood from the tomb of Tutankhamen—I found resistance; some famous collections of Egyptological antiquities disclaimed possessing any organic material (wood, swathings, hide, seeds, papyrus) that could be sacrificed or even the very possession of such material dating from the Nineteenth, Twentieth, or Twenty-first dynasties. In one case I was offered one gram of linen whereas one ounce (ca. 30 grams) are needed for one single test.

Since the Oriental Institute of the University of Chicago spent decades on excavating and describing the palace temple of Ramses III at Medinet Habu, my request went also that way; but the answer I received from Professor John Wilson was not promising. Thus I decided to publish *Peoples of the Sea*, after much postponement, and let the readers of that volume clamor for the performance of radiocarbon tests for the solution of the problem—which of the two conflicting histories of the ancient world is spurious and which is genuine?

[Dr. John Iles of Ontario, actually did succeed in one such an endeavor. In 1977 N. B. Millet, curator of the Egyptian Department of the Royal Ontario Museum, described the historical background of the mummy of Nakht, which the Canadian Medical Association was analyzing. According to Millet Nakht was “invariably described as the weaver of the *kny* temple” of King Setnakht, the first ruler of the Twentieth Dynasty and father of Ramses III. Millet wrote about Nakht’s mummy that there was “unusually clear evidence of its date.”⁽¹⁷⁾

Upon reading the report, Dr. Iles wrote a letter to the Canadian Medical Association’s *Journal*, asking that a Carbon 14 test be performed.⁽¹⁸⁾

The death of King Setnakht, the first ruler of the Twentieth Dynasty, is conventionally dated at -1198.

On Dr. Iles’ initiative, the Royal Ontario Museum submitted linen wrappings from the mummy of Nakht to Dalhousie University for radiocarbon testing. On November 9, 1979, W. C. Hart of Dalhousie University wrote to Dr. Iles: “The date on linen wrappings from the mummy of Nakht is: DAL-350 2295 ± 75 years before the present (1950),” meaning -345 ± 75. Dr. Iles reported these results in a letter to the association’s journal. (March 8, 1980).

The radiocarbon date for this well-documented sample, ⁽¹⁹⁾ -345 ± 75 corresponds almost precisely with the revised date for Ramses III but differs from the conventional date by ca. 800 years.—JNS]

References

1. See I. Velikovsky, "[The Pitfalls of Radiocarbon Dating.](#)"
2. For this and other letters, see the exchange of letters entitled "[ASH.](#)"
3. The following laboratories participated in the tests: British Museum, Groningen, Uppsala, Arizona, Pennsylvania, Rome, Louvain, Saclay, Sharp Labs., Tata Inst. Published in *Radiocarbon* 1965.
4. See Damon, P. E., A. Long, and D. C. Grey, "Fluctuations of Atmospheric C 14 during the last six millennia, *Journal of Geophysical Research*, 71 (1966), 1059.
5. Other geophysicists agreed with Libby that the problem resided with historical chronology.
6. Volume 140, 278.
7. *Radiocarbon* (1967), 491. The date for Senusret II of the Twelfth Dynasty was found by UCLA to be -1550 (or -1665 according to the Washington scale). This would bring the end of the Middle Kingdom (Thirteenth Dynasty) to the 15th century.
8. [Actually, the dendrochronological recalibration of C 14 dates rests on the fact that every ring has its own C 14 date.—JNS]
9. Dr. Edwards to Dr. Michael, Museum of the University of Pennsylvania (April 6, 1971). See the exchange of letters entitled "[ASH](#)".
10. From a letter of G. B. Morris, Secretary, the British Museum to Dr. Iles. See the exchange of letters entitled "[ASH.](#)"
11. "C 14 dating and Egyptian Chronology" in Ingrid U. Olsson ed., *Radiocarbon Variations and Absolute Chronology, Proceedings of the Twelfth Nobel Symposium Held at the Institute of Physics at Uppsala University.*
12. "Carbon 14 Dates and Velikovsky's Revision of Ancient History," *Pensée* IVR IV (1973), 26-32.

13. See also I. Velikovsky, "[The Pitfalls of Radiocarbon Dating](#)," *Pensée* IVR IV (1973), 12ff.
14. Glück, *et al.*, *Botanical Review*, 7, 649-713; and 21, 245-365.
15. See also H. C. Sorensen, "The Ages of Bristlecone Pine," *Pensée* IVR VI (1973), 15-18.
16. R. D. Long, "Ancient Egyptian Chronology," *Zeitschrift für Aegyptische Sprache* 103 (1976), 31, 33.
17. [N. B. Millet, *Canadian Medical Association Journal* September 3, 1977].
18. [CMA Journal, January 7, 1978.]
19. [Millet wrote that there is a good account of its discovery and excavation.]





ASH

Correspondence relating to C14 dating

For the story behind this correspondence, see:

[The Pitfalls of Radiocarbon Dating](#)
[The Testimony of Radiocarbon Dating](#)

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|--|--|
| <u>Immanuel Velikovsky to W. F. Libby</u> | <u>October 7,1953</u> |
| <u>W. F. Libby to Immanuel Velikovsky</u> | <u>October 27,1953</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>November 4, 1953</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>November 7, 1953</u> |
| <u>Immanuel Velikovsky to Frederick Johnson</u> | <u>February 23, 1954</u> |
| <u>Frederick Johnson to Immanuel Velikovsky</u> | <u>March 12, 1954</u> |
| <u>Francis J. Asip to Immanuel Velikovsky</u> | <u>January 21, 1955</u> |
| <u>Immanuel Velikovsky to Francis J. Asip</u> | <u>February 7, 1955</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>March 15, 1955</u> |
| <u>Robert H. Pfeiffer to William C. Hayes</u> | <u>April 16, 1955</u> |
| <u>Helen Dukas to William C. Hayes</u> | <u>May 25, 1955</u> |
| <u>Immanuel Velikovsky to William C. Hayes</u> | <u>June 3, 1955</u> |
| <u>William C. Hayes to Robert H. Pfeiffer</u> | <u>June 22, 1955</u> |
| <u>Robert H. Pfeiffer to William C. Hayes</u> | <u>June 30, 1955</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>July 11, 1955</u> |

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| <u>Robert H. Pfeiffer to Dows Dunham</u> | <u>August 13, 1955</u> |
| <u>Dows Dunham to Robert H. Pfeiffer</u> | <u>August 16, 1955</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>August 24, 1955</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>September 1, 1955</u> |
| <u>Froelich Rainey to Lynne O. Ramer</u> | <u>October 7, 1959</u> |
| <u>Immanuel Velikovsky to Theodore Lasar</u> | <u>July 16, 1960</u> |
| <u>Immanuel Velikovsky to D. J. Wiseman</u> | <u>July 22, 1960</u> |
| <u>A. F. Shore to Immanuel Velikovsky</u> | <u>August 11, 1960</u> |
| <u>Immanuel Velikovsky to A. F. Shore</u> | <u>August 18, 1960</u> |
| <u>Immanuel Velikovsky to D. J. Wiseman</u> | <u>August 18, 1960</u> |
| <u>I. E. S. Edwards to Immanuel Velikovsky</u> | <u>September 16, 1960</u> |
| <u>Benjamin N. Adams to Immanuel Velikovsky</u> | <u>September 29, 1960</u> |
| <u>Immanuel Velikovsky to I. E. S. Edwards</u> | <u>November 3, 1960</u> |
| <u>I. E. S. Edwards to Immanuel Velikovsky</u> | <u>November 15, 1960</u> |
| <u>R. A. Higgins to Immanuel Velikovsky</u> | <u>November 18, 1960</u> |
| <u>Virginia Burton to Warner Sizemore</u> | <u>January 30, 1961</u> |
| <u>Warner Sizemore to Virginia Burton</u> | <u>April 4, 1961</u> |
| <u>Virginia Burton to Warner Sizemore</u> | <u>April 20, 1961</u> |
| <u>Immanuel Velikovsky to David W. Baker</u> | <u>January 23, 1961</u> |
| <u>Immanuel Velikovsky to Claude Schaeffer</u> | <u>April 17, 1961</u> |
| <u>Claude Schaeffer to Immanuel Velikovsky</u> | <u>April 26, 1961</u> |
| <u>Immanuel Velikovsky to D. J. Wiseman</u> | <u>December 8, 1961</u> |

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| <u>Immanuel Velikovsky to David W. Baker</u> | <u>February 13, 1962</u> |
| <u>David W. Baker to Immanuel Velikovsky</u> | <u>April 2, 1962</u> |
| <u>Immanuel Velikovsky to Ilse Fuhr</u> | <u>January 21, 1963</u> |
| <u>Ilse Fuhr to Immanuel Velikovsky</u> | <u>January 26, 1963</u> |
| <u>Immanuel Velikovsky to Ilse Fuhr</u> | <u>February 8, 1963</u> |
| <u>Ilse Fuhr to Immanuel Velikovsky</u> | <u>March 20, 1963</u> |
| <u>Immanuel Velikovsky to Ilse Fuhr</u> | <u>March 27, 1963</u> |
| <u>Immanuel Velikovsky to Robert Stuckenrath</u> | <u>August 4, 1963</u> |
| <u>Robert Stuckenrath to Immanuel Velikovsky</u> | <u>August 7, 1963</u> |
| <u>Immanuel Velikovsky to Henry Fischer</u> | <u>November 6, 1963</u> |
| <u>Henry Fischer to Immanuel Velikovsky</u> | <u>December 10, 1963</u> |
| <u>Elizabeth Ralph to Immanuel Velikovsky (summary)</u> | <u>February 25, 1964</u> |
| <u>Immanuel Velikovsky to Ilse Fuhr</u> | <u>March 2, 1964</u> |
| <u>Immanuel Velikovsky to Elizabeth K. Ralph</u> | <u>March 2, 1964</u> |
| <u>Immanuel Velikovsky to Claude Schaeffer</u> | <u>March 2, 1964</u> |
| <u>Immanuel Velikovsky to Henry Fischer</u> | <u>March 3, 1964</u> |
| <u>Immanuel Velikovsky to Warner B. Sizemore</u> | <u>March 3, 1964</u> |
| <u>Henry Fischer to Immanuel Velikovsky</u> | <u>March 5, 1964</u> |
| <u>Immanuel Velikovsky to Elizabeth K. Ralph</u> | <u>April 6, 1964</u> |
| <u>G. W. Van Oosterhout to the Editor of Pensee</u> | <u>January 3, 1973</u> |
| <u>A. Bruce Mainwaring to G. W. Van Oosterhout</u> | <u>January 29, 1973</u> |
| <u>G. W. Van Oosterhout to A. Bruce Mainwaring</u> | <u>April 19, 1973</u> |

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| <u>Euan W. MacKie to Immanuel Velikovsky</u> | <u>August 31, 1973</u> |
| <u>Euan W. MacKie to Immanuel Velikovsky</u> | <u>February 26, 1975</u> |
| <u>John D. H. Iles to Director of The British Museum</u> | <u>April 24, 1975</u> |
| <u>G. B. Morris to John D. H. Iles</u> | <u>May 9, 1975</u> |
| <u>John D. H. Iles to G. B. Morris</u> | <u>May 14, 1975</u> |
| <u>G. B. Morris to John D. H. Iles</u> | <u>June 17, 1975</u> |
| <u>John D. H. Iles to G. B. Morris</u> | <u>August 5, 1975</u> |





INTRODUCTION

Rabbi Akiba, the great Tannai, according to the legend, was a herdsman until the age of forty; only from that age on did he devote himself to study.

I was forty-four when I left my medical (psychoanalytic and psychotherapeutic) practice in the land of Israel and came to America to devote myself to research and writing. Thus I was in some respects four years behind Rabbi Akiba when I started in an entirely new field.

It took me ten years and more to finish and publish two researches—one on historical cosmology, *Worlds in Collision*, the other a reconstruction of ancient history, *Ages in Chaos*, though it had taken me only weeks or months to conceive these works, make books of them. It is true that in the same period I conceived seven or eight books more, but time did not permit me to transform all of them into books. And now that I know from experience how much time an idea needs to become printed word, with all the necessary documentation, I do not hope to be so fortunate as to publish all my conceived works or ideas. They multiply quicker than it is possible to carry them out; and therefore chances are that many of them, especially those in the area of psychoanalysis, will remain uncompleted and unpublished. And if there are any sound ideas in all these reveries of a medical man who turned his back on psychoanalysis for history and the natural sciences, they are doomed to die with me unless I make them the common property of the interested public.

* * *

I knew the originators of the modern learning of the unconscious mind, and some of them from near quarters.

Eugen Bleuler, the recognized Dean of Psychiatry of the early part of this century, wrote in July 1930 a remarkable Preface to my “Energetik der Psyche”—in that essay I delineated the ways for research to make the blind see and the deaf hear. In the same paper, at the time (1929) when there was in print only one study on electroencephalography by Carl Berger of Jena, I postulated that if the electroencephalogram should be applied to epileptics, disturbed brainwaves, resulting from electrical discharges, would be observed—Berger, however, upon learning of my idea, answered that I was wrong: in an epileptic all waves discontinued, as he had found out in the meantime.

I knew Sigmund Freud; he corresponded with me, subscribed to the preface of Bleuler, claiming “similar, almost identical ideas”; he printed several of my analytical

papers in *Imago* and *Psychoanalytische Bewegung*, and spent time with me on his seventy-seventh birthday, tête-à-tête in a suburb of Vienna. I re-analyzed (*Psychoanalytic Review*, 1941) his own dreams spread among the dreams of his patients, as found in *The Interpretation of Dreams*.

I re-interpreted also the very detailed analysis (of an Opera donna) by Wilhelm Stekel, with which he opened his multivolume opus on neuroses, and he let me read it to the circle of his followers—so magnanimous was he. Stekel could grasp a personality with a frightfully uncanny intuition. Freud, by contrast, was a slow thinker and often erred in recognizing human character, as his biographer, Ernst Jones admits—hence his difficulties with most of the first generation of his student-followers.

Wilhelm Stekel and Paul Federn were his very first student-adherents, both since 1904. I met Federn in 1933; at that time he was the President of the International Psychoanalytic Association—and initiated a friendship that endured to his last day.

I also knew Carl Jung, though only from one visit at his home in the summer of 1930; today among his adherents there is a school near Zürich where my work is much studied, the origin of archetypes never having been explained by him; and the collective human mind never carried the idea to its meaningful significance.

Alfred Adler who, unlike the mystical Jung, was dominated by social ideas in psychology, held in the spring of 1933 a month-long seminar in his apartment, and I participated, frequenting also several of his therepeutic stations for juveniles.

Thus I knew, in various degrees of intimacy, all the founders. Not two of them were of the same mold. They had sparks of genius in them, but in most cases they disagreed among themselves both in theory and in practice.

Practicing psychoanalysis in Palestine under the British Mandate, I believe to have helped many, but was left with little time for writing. A handful of my papers were published in the 1930s and early 1940s in journals such as *Imago* and *Psychoanalytic Review*. But many more did not find their way into print then and are presented here for the first time.





“Very Similar, Almost Identical”

In 1928, working as a general practitioner on Mt. Carmel in Palestine, I became interested in the problems of the unconscious. My own experience did not go beyond observations of behavior in several hysterical patients; but I spent time in reading and contemplating the problems of collective unconscious mind and the physical aspect of the mental processes. I wrote down my thoughts in a concise form in a paper, “Über die Energetik der Psyche und die Physikalische Existenz der Gedankenwelt (“On the Energetics of the Psyche and the Physical Existence of the World of Thought.”) In it I did not refer to any special case or occurrence; yet I thought to have found a new insight into the old problem.

The summer of 1930 I spent in Zurich, Switzerland. I gave the manuscript to Professor Eugen Bleuler; after reading it, he discussed it with me in detail and at my request wrote a foreword for it. In this foreword, dated July 18, 1930, he remarked:

I feel that I ought to comply with the desire of my colleague Velikovsky to write a preface to his work on the theory of the parapsychological phenomena. Out of a mass of superstition, illusion, and deceit, facts were retrieved for which the so-called natural explanations failed completely; these facts are numerous enough to compel science to make them the object of a very careful study. Therefore, an attempt to bring them into correlation with the known natural laws is very useful; it can not only stimulate the scientific thought, but also help to overcome the fear-incompatible with science-of entering a new and very unusual domain.

The ideas of the author appear to me very much worth attention. I by myself came upon very similar, in important parts-identical concepts, though I can't subscribe to every detail. If the work (of Dr. V.) contributes only so much that one would be able to speak about these matters without being thought crazy or, at the least, inferior-it already serves science, independently of how much of its content will stand future research.

The paper was published in January 1931 in *Zeitschrift für die gesamte Neurologie und Psychiatrie*.

The role of Bleuler in the early acceptance of Freud's theory is well known: born in the same year as Freud, he was the first among the psychiatrists in an academic position to give a sympathetic hearing and testing to Freud's ideas.

I mailed a reprint of my paper to Freud. He wrote me on June 24, 1931. The original text and English translation of his letter follow:⁽¹⁾

Prof. Dr. Freud

Professor Dr. Freud

Wien, IX, Berggasse 19 24.6. 1931

24, June, 1931 Vienna, IX., Berggasse 19

Geehrten Herr Kollege

Dear Colleague:

Ich kann mich zum Inhalt ihres Aufsatzes (Energetik der Psyche) ganz übereinstimmend mit Bleuler äussern. Auch ich habe mir über den Gegenstand selbständig Meinungen gebildet die den ihren sehr nahe kommen, sich in manchen Stücken gradezu mit ihnen decken. Gegen eine energetische Auffassung der Denkprozesse hat grade der Analytiker am wenigstens einzuwenden. Eigene Erfahrungen haben mir die Vermutung nahe gelegt, dass die Telepathie der reale Kern der angeblichen parapsycholog. Phänomene ist und vielleicht der einzige. Aber etwas Zwingendes habe ich in diesen Dingen doch weder erlebt, noch irgendwo—auch in ihrer Schrift nicht—gefunden⁽²⁾ und somit bleibt uns nichts übrig als die Klärung dieses im Grund physikalischen Problems von einer hoffentlich nicht fernen Zukunft zu erwarten!"

I find myself in complete agreement with Bleuler on the contents of your paper (Energetics of the Psyche). Also, I have independently formed my own opinions on the subject which are very similar to yours and, indeed, quite coincide with them in some parts. The analyst, least of all, will object to an energetic interpretation of the processes of thought. My own experiences have led me to suppose that the real and perhaps the only core of the alleged parapsychological phenomena is telepathy. But in this matter I have neither experienced anything compelling nor have I found it anywhere else—not even in your paper.” Thus, nothing is left to us but to await clarification of this basically physical problem from the - I hope-not too distant future.

Sincerely,

Your colleague Freud

Mit kolleg. Gruss

Ihr Freud

The following year Freud wrote The New Introductory Lectures on Psychoanalysis. The Preface is dated “Summer 1932” and the book was published in 1933. In one of the chapters Freud dealt with the problem of telepathy. The “similarity or even identity” of our thoughts can be demonstrated by the following passages from our writings. In my paper I explained telepathy as an archaic process of thought exchange—a process preserved in some species of the animal kingdom. I wrote:

It transpires ever clearer that the autonomy of the mental domains of separate individuals must have developed as a more complicated and higher state in the origin of the species. In our concept, telepathy is an archaic form of thought-transmission. The more a species is developed, the more is the single creature separated as a thinking ego from the world around it.

The migration of the young birds that fly toward the homeland of their parents; the collective work of ants and bees that understand to execute a great work following a common plan and similar examples speak for a not sharp division of mental life of one animal from the others. . . . This archaic form of reciprocal influence shows itself in the animal herd and also in the human herd, the mass.

I continued, saying that “the better developed way of thought-transfer is through the sense organs by employing signs of (mimic and script) and sounds (language, intonation, music).

In his chapter on “Dreams and the Occult” in *The New Introductory Lectures*, Freud wrote:

It is not known how the collective will works in the great insect states. Possibly it acts by the way of a direct mental transfer. One is led to the surmise that this is the original and archaic mode of communication among the simple creatures; in the course of the phylogenetic development it is repressed in favor of better methods of thought-transfer with the help of signs which are perceived by the sense organs. Yet the older method could survive in the background and reappear under certain conditions, for instance, in the highly excited masses.⁽³⁾

The spring of 1933 I spent in Vienna; I visited Freud—it happened to be his seventy-seventh birthday. In the April or May meeting of the Psychoanalytical Society of Vienna, Freud’s chapter on dreams and telepathy was discussed. Freud was not present; Anna Freud was. Freud’s approach to the problem caused visible and audible consternation among his followers; among those who participated in the discussion only two—Dr. Paul Federn, who occupied the chair, and myself—sided with Freud on this controversial issue. (That evening saw the beginning of my friendship with Paul Federn which was renewed in 1940 in America and which lasted till his death in 1950.)

One confirmation of the concept of the physical nature of the world of thoughts and the energetic component present in mental processes came up rather dramatically and without delay. On the last page of my paper printed in the *Zeitschrift fuer die gesamte Neurologie* I had declared:

At an excitation of a peripheral sense organ, for instance, an eye by a strong light, there appears a current oscillation in the opposite optical region. See Hans Berger, *Elektronencephalogramm des Menschen* (Arch. Psychiatr. 1929) I think that it would be worthwhile to apply the experiments of Berger on the epileptics. The lightning start of an epileptic seizure reminds me strongly of the action of a short circuit. . . . Then it would be proper also to experiment with the possibility of relieving the too strong oscillations ("Stromschwankungen") of the current in the brain of the epileptics. This should be regarded as a preliminary communication.

I wrote to Professor Berger of my idea to apply his new method of electroencephalography to the epileptics and sent him my paper. The results are well known. This part of the story requires separate treatment.

References

1. *Ed. note:* The transcript and translation were prepared by Hugo Knoepfmacher and reviewed by the author and editors.
2. It was not the purpose of my paper to present extensive case materials.
3. The above rendering, which is my own, varies slightly from that given in the published English translation; cf. *New Introductory Lectures*, (New York: W. W. Norton, 1933), pp. 79-80. Comparison of the German texts of my essay and this statement of Freud's have introduced italics to simplify this task- may help the critical reader to follow the point broached above:

VELIKOVSKY

Es erhellt immer mehr, dass die Abgeschlossenheit der geistigen Bereiche der verschiedenen Individuen als ein komplizierterer und höherer Zustand in der Entwicklung der Arten entstehen müsste. *Die Telepathie ist dann nach unserer Auffassung eine Urform der Gedankenvermittlung. Je mehr sich eine Art entwickelt, desto mehr sondert sich das einzelne Lebenwesen als geistiges Ich von der Urnwelt ab.*

Die Migration der jungen Vögel,

FREUD

Mann weiss bekanntlich nicht, wie der Gesamtwille in den grossen Insektenstaaten zustande kommt. Möglicherweise geschieht es auf dem Wege solch direkter psychischer Übertragung. *Man wird auf die Vermutung geführt, dass dies der Ursprüngliche, archaische Weg der Verständigung unter den Einzelwesen ist, der im Lauf der phylogenetischen Entwicklung durch die bessere Methode der Mitteilung mit Hilfe von Zeichen zurückgedrängt wird, die man mit den Sinnesorganen*

die in die Heimat der Eltern fliegen; die Gesamtarbeit der Ameisen oder Bienen, die ein mächtiges Werk nach gemeinsamen Plan auszuführen verstehen und ähnliche Beispiele sprechen für nicht scharfe Absonderung des geistigen Lebens eines Tierexemplares vom anderen . . . Diese Urform der Gegenseitigen Wirkung zeigt sich, wie in der Tierherde, *so auch in der Menschenherde, d.h. in der Masse.*

"Über die Energetik der Psyche und die physikalische Existenz der Gedankenwelt", *Zeitschrift für die gesamte Neurologie und Psychiatrie*, Vol. CXXXIII (Jan. 14, 1931), p. 428.

aufnimmt. Aber die ältere Methode konnte im Hintergrund erhalten bleiben und sich unter gewissen Bedingungen noch durchsetzen, Z.. *B. auch in leiden-schaftlich erregten Massen.*

Neue Folge der Vorlesungen zur Einführung in die Psychoanalyse.
Vienna : Internationaler Psychoanalytischer Verlag, 1933.





Über die Energetik der Psyche und die physikalische Existenz der Gedankenwelt

Ein Beitrag zur Psychologie des gesunden und somnambulen
Zustandes.

Von

Dr. med. Immanuel Velikovsky
(Mount Carmel, Palestine).

(Eingegangen am 14. Januar 1931.)

Ich empfinde es als eine Art Verpflichtung, dem Wunsche des Herrn Kollegen *Velikovsky* um ein Geleitwort zu seiner Arbeit über die Theorie der parapsychischen Phänomene zu entsprechen. Aus einem Wust von Aberglauben, Selbsttäuschung und Betrug sind ja nun Tatsachen herausgehoben worden, bei denen bis jetzt die sog. natürlichen Erklärungen glatt versagten, und diese Tatsachen sind zahlreich genug, um die Wissenschaft zu verpflichten, sie endlich einmal gründlich unter die Lupe zu nehmen. Dazu ist ein Versuch, sie in einen denkbaren Zusammenhang mit den bekannten Naturgesetzen zu bringen, gewiß sehr nützlich; er kann nicht nur anregend wirken, sondern auch die der Wissenschaft unwürdige Scheu vor der Bearbeitung eines neuartigen und merkwürdigen Gebietes überwinden helfen.

Des Autors Ideen scheinen mir sehr der Beachtung wert. Ich selber bin von mir aus auf ganz ähnliche, in wesentlichen Teilen geradezu identische Vorstellungen gekommen, wenn ich auch nicht alle Einzelheiten unterschreiben kann.

Wenn die Arbeit nur dazu beiträgt, daß man über diese Dinge sprechen darf, ohne als verrückt oder wenigstens minderwertig zu gelten, so leistet sie der Wissenschaft einen Dienst, ganz unabhängig davon, wieviel späterer Forschung stand halten wird.¹

Zollikon, Zürich, 18. 7. 1930.

Prof. *E. Bleuler.*

“... the science which will occupy the
summit of the hierarchy of human knowledge,
the science of thinking matter and energy ...”

I.

1. Um irgendeine Erscheinung wahrnehmen zu können, ist es nötig, daß diese Erscheinung auf unseren Nervenapparat wirkt, indem sie irgendwelche Energien aussendet (z. B. die Lichtenergie der Sonnenstrahlen), oder eine solche verändert, die von einem anderen Phänomen ausgeht (z. B. das Empfinden von Farbe bei einem farbigen Stein, dessen Farbe jedoch nur eine Auswahl aus der Strahlungsenergie der Sonne ist).

2. Da es unmöglich ist, sich vorzustellen, daß die Nervenleiter wie mechanische Werkzeuge funktionieren, z.B. wie Hebel, so besteht nur eine logische Möglichkeit, nämlich: Daß die Energie, die auf die Sinnesorgane wirkt, ebenfalls eine Energie in den Nervenleitern auslösen muß, damit diese die Reizungen der Sinnesorgane zum Sensorium bringen.

3. Die Energie in den Nervenleitern kann nur eine transformierte sein. Es ist nicht denkbar, daß ein Lichtstrahl, ohne transformiert zu sein, seinen Weg durch die Nervenleiter nehmen könnte. Die Energie in den Nervenleitern werden wir *Nervenenergie* nennen.

4. Nicht jede Energie der Außenwelt kann in Nervenenergie transformiert werden. So können z. B. die Schwingungen der elektrischen Energie oder die Wirkung des Magnetfeldes nicht durch unsere Sinnesorgane aufgenommen werden. Die Aufnahmemöglichkeit unserer Sinnesorgane erstreckt sich nur auf einen Teil des Kosmos. Man kann die Sinnesorgane vergleichen mit einigen Fernrohren, die nur auf einzelne, immer gleiche Ausschnitte des Sternenhimmels gerichtet sind.

5. Es ist klar, daß auch außerhalb der Grenzen des mit Hilfe der Sinnesorgane Erkennbaren noch eine ganze Welt von Erscheinungen existiert. Künstlich geschaffene Transformatoren (z. B. eine Glühlampe, welche die Schwingungen der elektrischen Energie in Schwingungen der Lichtenergie umwandelt), vergrößern die Sphäre des Erkennbaren (darin besteht auch das größte Eroberungsfeld des technischen Fortschritts). Aber die Grenzen der Aufnahmefähigkeit unserer Sinne werden dadurch nicht erweitert. Wir werden im folgenden diejenigen Sphären der Außenwelt, auf die unsere Sinnesorgane unmittelbar eingestellt sind, *Zonen der Sinnesorgane* oder *Empfindungszonen* nennen.

6. *Die ganze Umwelt, auch unser eigener Körper, alles, was mit Hilfe der Sinnesorgane wahrgenommen wird, sind nur Phänomene, die durch steigende oder sinkende Schwingungszahl ihrer Energien², oder durch Transformierung einer Energieart in eine andere, die Grenzen der Empfindungszonen erreicht haben und in diese eingetreten sind.* Man müßte sich eigentlich wundern über die relative Stabilität der Dinge um uns herum, infolge welcher diese nicht ohne weiteres aus der Welt der

Wahrnehmung herausfallen, d. h. sich nicht dematerialisieren. Allerdings ist die Mehrheit der Dinge für unsere Sinne teilweise dematerialisiert (nicht materialisiert): Ein Körper, der nicht tönt, weil die Zahl seiner Vibrationen unter der Zahl liegt, die von unserem Gehör noch empfunden werden kann, ist für unser Gehör dematerialisiert (nicht materialisiert). Etwas nicht Tastbares, z. B. Strahlenenergie ist dematerialisiert für unseren Tastsinn usw.

7. Die Nervenleiter³ in ihrer Eigenschaft als "innere Transformatoren" haben spezifische Transformationsvermögen: Ein- und dieselbe Energie wird mit Hilfe von verschiedenen Sinnesorganen als verschiedene Wahrnehmungen empfunden. So sind die Lichtstrahlen (z. B. der gelbe Teil des Spektrums) gleichzeitig auch Wärmestrahlen. Dieselbe Energie wird durch die einen Nerven als Licht, durch die anderen als Wärme empfunden.

Theoretisch könnte man sich vorstellen, daß andere Sinnesnerven dieselbe Energie noch auf eine dritte, uns unbekannt Art aufnehmen könnten. Ist nicht vielleicht die Chlorophyllbildung in den Pflanzen die Folge einer spezifischen Sinnesempfindung der Sonnenstrahlen ?

Folglich können die Zonen der Empfindungen der verschiedenen Sinnesorgane teilweise zusammenfallen (die Sehnerven und die Wärme-nerven empfangen dieselben Sonnenstrahlen), aber die Transformation der Energien ist spezifisch für die verschiedenen Sinnesorgane.

Es ist selbstverständlich möglich anzunehmen, daß die Verschiedenheit der Empfindungen auf dem spezifischen Bau der Gehirnzentren der Sinnesorgane beruht. Aber indem wir die Zentren als die letzten Abschnitte, d. h. Endigungen der Nervenleiter betrachten, so ist die Spezifität der Zentren zugleich doch diejenige der Nervenleiter als ganzes.

8. Umgekehrt ist es auch denkbar, daß verschiedene Arten von Energien durch verschiedene Sinnesorgane in ein- und dieselbe Empfindung transformiert werden könnten. Damit könnte man die Illusionen (Sinnestäuschungen) erklären (die Energie A, die transformiert wird mit Hilfe des Transformators B und bis zum Sensorium kommt als $A*B$, wird in ihrer Wirkung gleich sein der Wirkung der Energie A/n , die durch den

Transformator $B*n$, d. h. durch ein anderes Sinnesorgan durchgeleitet wurde:
 $(A*B*n)/n = A*B$)

Daß dieselbe Wärmeempfindung durch Reibung und Strahlung entstehen kann (was noch problematisch erscheint), mag auch in dießen Zusammenhang gehören.

9. Nicht bewiesen, aber auch nicht bindend für die weitere Entwicklung unserer Theorie ist folgende Hypothese: Es ist nicht ausgeschlossen, daß alle Empfindungen,

von verschiedenen Sinnesorganen Resultate *ein- und dergelben* Nervenenergie in verschiedenen Abstufungen sind. Farben-, Wärme-, Klang- und Tastempfindungen sind möglicherweise Stufen ein- und derselben Nervenenergie. Zwischen diesen können viele andere liegen, die wir jedoch normalerweise nicht empfinden.⁴

10. Es ist wohl bekannt und kaum nötig hinzuzufügen, daß die Grenzen der Empfindungszonen der Sinnesorgane bei den einzelnen Individuen verschieden liegen (z. B. kann ein Individuum hohe oder tiefe Töne wahrnehmen, die ein anderes nicht mehr hört). Sogar jedes der Doppelorgane hat meistens verschiedene Grenzen der Empfindungszonen. Es besteht kein Grund zu bestreiten, daß bei irgendwelchen Lebewesen Fähigkeiten vorhanden sind, Energiearten oder Energiestärken zu empfinden, die von Menschen nicht empfunden werden können. So könnten manche Fälle von scheinbarer Intuition bei Tieren durch das Empfangen von Wellen besonderer Stärke oder Länge bedingt sein.

Das Beispiel der Tiere, die vor Erdbeben fliehen, legt die Vermutung besonders nahe, daß diese Intuition an irgendwelche physikalische Vorboten der kommenden Erscheinungen gebunden ist, welche Vorboten von den Menschen oben nicht empfunden werden.

II.

11. *Wie die Sinnesempfindungen, so ist auch die psychische Tätigkeit—Assoziationen, Vorstellungen—ein Energie-Prozeß (psychische Energie).* Eine Energie der Außenwelt, die auf die Sinnesorgane wirkt, wird nicht aufgehoben, sondern transformiert. Auch die transformierte Energie der Nervenleiter (die die Trägerin der Empfindungen ist), wird nicht aufgehoben. Der Prozeß des Denkens ist ein Prozeß der Umwandlung der Nervenenergie (die von äußeren Reizen kommt) und der Energie der Gehirnzellen. Kurz: Energien werden nicht in Nichts aufgelöst. Der Prozeß des Denkens ist ein Prozeß der Umwandlung oder der Transformation, der Bildung einer neuen Energieart. Psychische Energie ist nach Herkunft und Richtung unterschieden von der Nervenenergie, die zentripetal ist. Es ist aber eine Bedingung der normalen psychischen Tätigkeit eines Individuums, daß Nervenenergie und psychische Energie adäquat sind, d.h., daß einem bestimmten Reiz eine bestimmte Wahrnehmung entspricht.

12. *Ein Gedanke hat also die physikalische Existenz der Energie. Er existiert objektiv.* Funktion und Inhalt eines psychischen Prozesses sind untrennbar.

13. Mit anderen Worten: Der Akt des Denkens ist sozusagen ein schöpferischer. *Nicht nur das Sonnenlicht, auch gedachtes oder vorgestelltes Licht hat objektive Existenz.* Gemeinsam ist dem gedachten Licht und dem Sonnenlicht als energetischen Prozessen die Objektivität des physikalischen Daseins, und da wir von den wirklichen Eigenschaften der äußeren Welt nicht mehr wissen als unsere Empfindungen uns mitteilen⁵, so ist im energetischen Sinne die empfundene und zum Bewußtsein

gekommene Außenwelt gleich der Vorstellung von ihr. Mit anderen Worten: *Wahrnehmung und Vorstellung sind im energetischen Sinne gleich*. Das gedachte Licht hat dieselben energetischen Eigenschaften wie das Sonnenlicht, nachdem es in den Nervenleitern die Transformationsänderungen durchgemacht hat. In dieser transformierten Form kann es nicht mehr auf die Sinnesorgane eines anderen Individuums wirken. Würde es aber direkt in den Empfangsnervenapparat (Sensorium) eines anderen Individuums gelangen, so könnte wohl auch in diesem eine Lichtempfindung entstehen. Für ein Individuum, das sich ein Licht vorstellt, sind die physikalischen Eigenschaften dieses Lichtes als Vorstellung in seinem Gehirn ganz identisch mit den physikalischen Eigenschaften des Lichtes, das durch die Nervenleiter aus der Außenwelt ins Sensorium gekommen ist.

14. Die Frage des Determinismus wurde sich in diesem Zusammenhang so stellen: Kann die Einwirkung der Nervenenergie N und die Energie der Gehirnzellen C die Existenz nur einer einzigen psychischen Energie P ergeben oder auch anstatt P : P_1 , P_2 , P_3 oder P_n ? Im letzteren Falle bliebe Raum für die Freiheit der Vorstellung und des Willens. (Die psychische Energie können wir uns aus den reinen Assoziationsprozessen, der Vorstellung und der Energie der Motornerven, dem Willen zusammengesetzt denken.)

15. Da wir zu dein Schluß gekommen sind, daß das Denken ein energetischer Prozeß ist, so bleibt für dessen nähere Bestimmung die logische Forderung, daß die Eigenschaften der psychischen Energie Raum lassen auch für das Phänomen der Telepathie, die experimentell bewiesen ist⁶. Das heißt, die psychische Energie muß eine Energie sein, die imstande ist, auf Distanzen zu wirken. Eine solche Eigenschaft ist in größerem oder kleinerem Maße den Energien allgemein.

16. Theoretisch könnte Telepathie auch dann erklärt werden, wenn die psychische Tätigkeit nicht durch sich ausbreitende Energie zustande käme, sondern wenn man eine kosmische Strahlung⁷ voraussetzen würde, in welcher die psychische Energie als Unterbrechung wirkte (ähnlich dem Unterbrechen im Apparat von *Morse*). Für die bisherigen und folgenden Betrachtungen besteht darin kein prinzipieller Unterschied. Im einen wie im anderen Falle ist die psychische Energie eine physikalische Größe im Kosmos.

17. Man muß sich darüber klar sein, daß ein Individuum eigentlich der Telepath seiner eigenen Empfindungen ist, d. h. fähig ist, einen Kontakt zwischen seinem Sensorium (Zentralsendungsapparat) und seinem Assoziationszentrum (Empfangsapparat) Zuschaffen. Die beiden Zentren im energetischen Sinne müssen genau korrespondieren (Satz II). Das ist die Voraussetzung des ungestörten Bewußtseins.

18. Eine Nichtübereinstimmung beider Zentren würde eine psychische Abnormität des Bewußtseins zur Folge haben. Damit wird auch die auf den ersten Blick unerklärliche Erscheinung des Vorherrschens von Illusionen (Sinnestäuschungen) im

Bilde psychischer Krankheiten verständlicher.

Dieser Zusammenhang wird noch evidentere durch die Ausführungen in Abschnitt 8.

19. Nach allem Gesagten ist es richtiger, die Frage nicht so zu stellen: Existiert eine natürliche Möglichkeit der Telepathie? Sondern: Warum ist Telepathie nicht eine allgemeine Erscheinung und was verhindert, daß die psychische Energie eines Subjektes vom Nervenzentrum eines zweiten Subjektes immer empfangen wird? Logisch könnte man sich vorstellen:

1) Daß eine bestimmte Differenzierung in den Eigenschaften der psychischen Energie der verschiedenen Persönlichkeiten besteht, und daß infolge dieser Differenzierung ein Individuum nicht imstande ist, die Energie, die von einem zweiten gesandt wird, zu empfangen.

2) Oder daß die psychische Energie gewöhnlich nicht genügende Durchdringungskraft hat, um von einem anderen Individuum empfangen zu werden, sondern dieses nur erreicht unter dem Eindruck von Affekten.

Der Einfluß von Affekten bei Gedankenübertragung ist jedenfalls außer Zweifel. Die telepathischen Spontanfälle sind meistens verbunden mit Affekterlebnissen (z. B. die Fälle, in, denen das Sterben nahestehender Menschen gefühlt wird, auch in weiter Entfernung), und deswegen sind die Spontanfälle der Gedankenübertragung im allgemeinen ausgeprägter als die Experimente, bei denen der Affekt fehlt. Es ließe sich vermuten, daß die Intensität der Wellen einer radiierenden Energie (falls wir sie als dritte Qualität neben der Länge und der Frequenz der Wellen annehmen), sich mit dem Affekt zusammen verändert. Auf diese Weise würden sich 1. und 2. nicht ausschließen. Spezifität und Stärke der Energie würden durch die Wellenintensität bedingt sein.⁸

3. Wenn auch für das Entstehen telepathischer Erscheinungen eine Übereinstimmung der psychischen Energie von Sender und Empfänger mit großer Wahrscheinlichkeit anzunehmen ist, und wenn auch der psychische Zustand des Senders (Affekt) bei der Entstellung dieser Phänomene zweifellos eine Rolle spielt, so kann doch mit Sicherheit behauptet werden, daß der psychische Zustand des *Empfängers* von entscheidender Bedeutung ist. Näheres darüber werden wir bei Besprechung des Trancezustandes ausführen.

Es bleibt aber logisch Raum für die Vermutung (nicht Behauptung), daß die psychische Energie jedes Individuums durch das Unterbewußtsein aller anderen Individuen empfangen wird, d. h. daß die Telepathie in Wirklichkeit als eine allgemeine Erscheinung existiert. Es gäbe dann eine sehr tiefe Schicht im Unterbewußtsein des Menschen, die allen Menschen gemein ist und der Kontakt zwischen dem Bewußtsein und dieser Schicht des Unterbewußtseins wäre nur bei

besonderen Bedingungen möglich.⁹

In diesem Falle wäre aber nur die Frage nach der Ursache des Nichtineinanderfließens der psychischen Tätigkeiten verschiedener Individuen sozusagen von der Peripherie mehr ins Zentrum der einzelnen Persönlichkeit verlegt und die Probleme der Differenzierung und des Einflusses der Affekte wären auch an der neuen Stelle dieselben. Entweder sind es die äußeren Tore oder die innere Tür, die die Seelengemäcker einer Persönlichkeit, von den anderen abschließen.

20. Es erhellt immer mehr, daß die Abgeschlossenheit der geistigen Bereiche der verschiedenen Individuen als ein komplizierterer und höherer Zustand in der Entwicklung der Arten entstellen mußte. Die Telepathie ist dann nach unserer Auffassung eine Urform der Gedankenvermittlung. Je mehr sich eine Art entwickelt, desto mehr sondert sich das einzelne Lebewesen als geistiges Ich von der Umwelt ab.

Die Migration der jungen Vögel, die in die Heimat der Eltern fliegen; die Gesamtarbeit der Ameisen oder Bienen, die ein mächtiges Werk nach gemeinsamem Plan auszuführen verstehen und ähnliche Beispiele sprechen für nicht scharfe Absonderung des geistigen Lebens eines Tier-exemplars vom anderen. Sie haben sozusagen eine gemeinsame Seele. Kann Geruch- oder Gehörsinn so entwickelt sein, um den Flug eines Käfermännchens zum Weibchen über viele Kilometer verständlich zu machen? Sind das nicht möglicherweise Beispiele von Telepathie in der Tierwelt? Der Flug der Brieftaube zu ihrem Herrn bedeutet vielleicht auch eine Gedankenübertragung und zwar zwischen verschiedenen Arten von Lebewesen.¹⁰ Diese Urform der gegenseitigen Wirkung zeigt sich, wie in der Tier-herde, so auch in der Menschenherde, d.h. in der Masse.¹¹ Deswegen ist für die Ziele des Kultes und auch der spiritistischen Séancen die atavistische Form der Herde (spiritistische Zirkel) die günstigste Voraussetzung.

21. Die Sinnesorgane sind Einrichtungen, die dem Individuum die Möglichkeit geben, ohne Telepathie, d. h. ohne Einstellung seines Empfang-nervenzentrums auf einen direkten Kontakt, mit einem anderen Individuum in Verbindung zu treten. Die Hauptmittel der Gedankenübertragung durch die Sinne sind Zeichen (Mimik und Schrift) und Klänge (Sprache, Intonation, Musik). So haben die Sinnesorgane eine Vermittlerrolle, wenn sie auch wie der Zentralnervenapparat individuell abgestimmt sind (für den einen unsichtbare Grenzteil des Spektrums sind noch sichtbar für den anderen). Die Differenzierung scheint hier jedoch eine viel geringere zu sein, indem die Sinnesorgane immer auf mittlere Größen angelegt sind (gelbes Licht sehen beide Individuen des obigen Beispiels).

22. Für Gedankenübertragung auf Entfernung haben die künstlichen Transformatoren (Telegraphie, Radio), unvergleichliche Vorteile gegenüber der telepathischen Gedankenübertragung, die daher keine praktische Bedeutung haben kann¹². Aber in der Theorie sind andere Ausnutzungen der Tatsache, daß Empfinden und Vorstellen energetische Prozesse sind, denkbar, die, einmal in die Praxis umgesetzt, von größter

Bedeutung werden könnten.

Ein Blinder (bei intaktem Sehzentrum im Gehirn), sollte sehen können, wenn eine Möglichkeit gefunden würde, mit Hilfe künstlich geleiteter Energie, die der psychischen adäquat sein müßte seinem Empfangsnervenzentrum die nötigen Impulse zu geben. daßelbe Prinzip weist auch auf die theoretische Möglichkeit, einem zu vermitteln. Das bedeutet: Im Falle einer Zerstörung des formators (der Sinnesorgane), sollte man die Energie künstlich transformieren, so daß sie von den Nervenzentren empfangen werden könnte.

In der Theorie ist auch eine automatische Gedankennotierung durch einen künstlichen Apparat, der die psychische Energie empfangen kann, denkbar, sozusagen eine Photographie der Gedanken, ebenso ein automnatisches Gedächtnis, d. h. ein Verfahren, das die Gedanken aufnimmt und sie dem Gehirn jederzeit direkt wieder vermitteln kann.

23. Und so kann ein Individuum, das die Fähigkeit hat, sein Empfangsnervenzentrum auf die psychische Energie eines zweiten Individuums einzustellen oder seine Empfangsfähigkeit zu erweitern, die Gedanken eines anderen Individuums erfahren. Es wäre sogar schwer vorstellbar, daß die psychische Abgeschlossenheit der Individuen so absolut sein sollte, daß nirgends und niemals jemand außer dem Sender selbst, ausgesandte Energie empfangen könnte. Falls zufällig ein Individuum eine psychische Energie aussendet, die von einem anderen empfangen werden kann, so würde der letztere nicht unterscheiden können zwischen seinen eigenen Gedanken und Gedanken eines anderen. Das kann auch manche merkwürdige Fälle erklären, in denen ein- und derselbe Gedanke gleichzeitig bei verschiedenen Menschen auftritt, oder zwei oder mehrere Erfinder zur selben Zeit die gleiche Erfindung machen.

24. Je weniger das Empfangsnervenzentrum von den Reizen der Sinnesorgane beansprucht wird, desto offener ist es für den unmittelbaren Empfang der psychischen Energie, die von außen, kommt, oder aus dem unterbewußten ihm zuströmt. Das Sensorium verhält sich ähnlich wie unsere Pupille, die sich bei Reizung durch grelles Licht zusammenzieht und in der Dämmerung, wenn die Lichtreize ihre Stärke verlieren, sich wieder öffnet. Im Zustand von Schlaf und Hypnose¹³, in dem die Wirkung der Sinniesreize abgeschwächt ist und das Unterbewußtsein dominiert, tritt eine Tendenz zur Aufhebung der individuellen psychischen Abgeschlossenheit auf (telepathische Träume). Bei vollem Ausbleiben der Sinnesreize wäre ein Wiederauftreten der atavistischen Wahrnehmungsformen zu erwarten. Gibt es nun Klinische Beispiele von voller psychischer Ausschaltung eines Sinnes? Es sind die Fälle von hysterischer Blindheit oder Taubheit. Es sind die Fälle von suggerierter Blindheit, Taubheit, Analgesie und dergleichen. *So verstehen wir den Trancezustand als einen Zustand, in welchem der Somnambule sich von allen Sinnesreizen absperrt und so zu dem atavistischen Zustand kommt, in welchem die Sinnesorgane, noch nicht entwickelt waren, damit wieder die atavistische Fähigkeit erlangend, die Reize unmittelbar zu empfangen.*¹⁴ Die Wahrnehmungen werden nicht mehr von Reizen (Sinnesorganen) diktiert, sondern von den Assoziationszentre.

25. *Psychischer* Mediumismus (Telepathie) und *physikalischer* Mediumismus würden auf verschiedenen Dispositionen des Mediums beruhen:

1. Auf derjenigen zur Erweiterung der Empfangsmöglichkeit seines Nervenzentrums (physikalischer Mediumismus.)

2. Auf derjenigen zur Änderung der Qualitäten seiner psychischen Energie (physikalischer Mediumismus.)

Bei Verbindung der Fähigkeiten von psychischem und physikalischem Mediumismus in einer Person werden die sog. physikalischen Erscheinungen entsprechend der telepathischen Suggestion durch die Anwesenden, die nicht unbedingt beabsichtigt sein muss, vom Medium produziert¹⁵. Sogenannte Geister sind Projektionen der Gedanken des Mediums¹⁶, oder Gedanken eines der Anwesenden, unter dessen telepathischer Suggestion sich das Medium in diesem Moment befindet (angebliches Erscheinen von Geistern dem Medium unbekannter Verstorbener.)

26. Auf diese Weise können die Geistererscheinungen, Berührungen und andere Phänomene als Halluzinationen betrachtet werden und zwar als Halluzinationen, die mehreren Sinnen entsprechen¹⁷, und gleichzeitig bei mehreren Personen entstehen. Aber so aufgefaßt bekommt die Halluzination eine neue Bedeutung: Sie ist keine Fiktion, ist nicht auf nichts gebaut, wie von ihr, zum Unterschied von der Illusion behauptet wird, sondern sie beruht in unserem Falle auf der Einwirkung einer *fremden* psychischen Energie (des Mediums) auf das Sensorium des Teilnehmers der Seance und hat ein *objektives Dasein* in ihrer Eigenschaft als psychische Energie. Die angebliche Tatsache, daß die Erscheinungen des physikalischen Mediumismus gleichzeitig von *mehreren* Personen wahrgenommen werden, ließe vermuten, daß eine Veränderung (Erweiterung) der Empfangsfähigkeit der Nervenzentren der Teilnehmer vor sich geht (ähnlich wie im telepathischen Trancezustand). Anders wäre eine gleichzeitige Anpassung des Mediums an verschiedene Personen nur unter einer Annahme, von der in dem nächsten Abschnitt die Rede sein wird, verständlich.

27. Je mehr man vertraut wird mit der Literatur, die die physikalischen Phänomene des Mediumismus behandelt, mit all ihrem pro und contra¹⁸, destoweniger wird man sich ein sicheres Urteil über die Existenz oder Nichtexistenz solcher Phänomene bilden können.¹⁹ Wir wollen nur die logischen Möglichkeiten weiter verfolgen und daran denken, daß die Welt der Möglichkeit reicher ist als die Welt der Wirklichkeit, aber auch die Welt der Wirklichkeit reicher als die Welt des Erkannten. In den letzten Abschnitten führten wir aus, daß die Erscheinungen des physikalischen Mediumismus Halluzinationen sein könnten, die als telepathisches Phänomen zwischen Sitzungsteilnehmern und erklärt werden könnten. Von dieser Möglichkeit nicht prinzipiell unterschieden ist vom physikalischen Standpunkt aus auch eine andere:

Wenn wir zugeben, daß bei einem abnormen psychischen Zustand wie der Trance, eine Veränderung der Eigenschaften der psychischen Energie eintritt (Wellenlänge, Geschwindigkeit, oder Transformation in eine andere Energieart), so können wir annehmen, daß diese veränderte Energie die Empfindungszonen der Sinnesorgane möglicherweise erreichen und in sie eintreten kann. Das Denken ist ein energetischer Prozess. Die psychische Energie liegt ausserhalb der Empfindungszonen der Sinnesorgane und hat physikalisches Dasein. Ist es nun theoretisch nicht denkbar, daß etwas, was physikalisches Dasein hat, bei bestimmten Beingungen in den Bereich der Zonen der Sinnesempfindungen eintreten kann (Betrachte Abschnitt 6)? Wenn Lichtenergie in psychische Energie umgewandelt werden kann, warum sollte die Möglichkeit unbedingt ausgeschlossen sein, daß die psychische Energie auch eine umgekehrte Transformation durchmachen kann? Falls in Wirklichkeit dieser theoretisch mögliche Fall existiere, so müßte man annehmen, daß ein Materialisationsmedium in einen Zustand versinkt, bei welchem eine Änderung der psychischen Energie möglich ist.²⁰

So besteht eine dreifache Möglichkeit: Entweder befinden sich die Mitglieder eines Zirkels in einer tiefen Hypnose und ihre Vorstellungen sind Folgen von gegebenen Suggestionen;

oder die gegenseitige Anpassung der psychischen Energie des Mediums und der cerebralen Empfangsfähigkeit der Anwesenden führen dazu, daß die psychische Energie des Medium direkt vom cerebralen Empfangszentrum der Anwesenden empfangen wird; in diesem Falle würden sich die Anwesenden im Zustande der telepathischen *Trancehypnose* befinden,

oder die Veränderung der psychischen Energie des Mediums hat zur Folg, daß die Energie (die Phänomen) in die Grenzen der Empfindungszonen eintritt und durch die Sinnesorgane der Anwesenden empfangen wird. In letzterem Falle müßten die bekannten physikalischen Apparate (Photograph, Phonograph) diese Erscheinungen festhalten können. Aber daß Festhalten der Phänomene, z.B. durch eine photographische Platte kann auch geschehen im Falle, wenn eine (für unsere Sinnesorgane empfindbare) Materialisation nicht stattgefunden hat, da die Platte nicht nur für die sichtbaren Strahlen empfindlich ist. Die Festlegung der Möglichekeit des Photographierens der Phänomene ist sicher sehr wichtig: Ein positives Resultat würde die Stelle der psychischen Energie (wenn auch anormaler) in der physikalischen Welt andeuten können. Das angebliche Erscheinen der "Extra" auf den Platte, die vom Medium photographiert werden, gehört zum selben Problem. Gerade einige Fälle des Erscheinens von "Extra" bildern lebendiger Personen auf der Platte, welche Fälle des besonders dem Medium Misstrauen eintrugen, sprechen gegen das spiritistische Dogma und könnten evetuell ähnlich wie der erwähnte Fall der Eva C. gedeutet werden (Photographieren des Gedankenbildes des Mediums).

Vom naturwissenschaftlichen Standpunkt aus brauchen solche und auch andere mediumistische Phänomene nicht a priori abgelehnt zu werden, da der psychischen Tätigkeit ein energetischer Prozess zugrunde liegt, der, wie gesagt, bei einem abnormen psychischen Zustand wie der Trance, wohl leicht Veränderungen erleben kann.

28. Erinnern wir uns an die Folgerungen in Abschnitt 6: “Man müßte sich eigentlich wundern über die relative Stabilität der Dinge um uns herum, infolge welcher sie nicht ohne weiteres aus der Welt der Wahrnehmung herausfallen; d. h. sich nicht dematerialisieren. Teilweise allerdings ist die Mehrheit der Dinge für unsere Sinne dematerialisiert...”

Immer wenn sich die Zahl der Schwingungen oder sonst eine Eigenschaft einer Energie ändert, geschieht es unter Einbeziehung auch einer anderen Energie. Es ist aus diesem Grunde möglich, daß eine Materialisation durch einen gleichzeitigen Dematerialisationsprozess begleitet wird. Der Trancezustand ermöglicht vielleicht den Kontakt zwischen der psychischen Energie des Mediums und Körpern, vor allem seinem eigenen²¹, welche eben nichts anderes als Energien sind, die sich innerhalb der Empfindungszonen befinden. Wenn diese Formel auch nicht den Prozess selbst erklärt, so unterstreicht sie doch ausdrücklich die gemeinsame physikalische Natur der Gedanken als Energie und der Köppler als materialisierter Energie.

29. Hier lässt sich nun ausführen, was wir schon früher hätten verfolgen können.

Materie unterscheidet sich vom Energie dadurch, daß sie der Empfindungszone des Tastsinnes entspricht. Die anderen Sinne brauchen zu ihrer Erkenntnis die primäre Erfahrung des Tastsinnes. Man könnte sich ein Sinnesorgan vorstellen, daß die Energien als Körper, oder ein anderes, das die Körper als Energien empfindet (siehe Abschnitt 7).

IV.

30. Wir wollen nun noch eines der Grundprobleme der Psychologie berühren: *Das Gedächtnis*. Wir könnten in unserer Betrachtung etwa so vorgehen: Die psychische Energie, die ein Resultat des Zusammenwirkens der Nervenenergie (die von der Peripherie einströmt) und der Energie der Gehirnzellen ist, verdankt ihr Entstehen den intermolekulären Veränderungen in dem Zellen der Gehirnsubstanz. Diese Veränderungen sind gleichsam *Negative* der ausgegebenen psychischen Energie, und in dem Molekülen fehlt das, was zur Schaffung des Gedankenbildes (psychische Energie), verbraucht wurde. So könnten die Gedächtnisengramme sehr einfach erklärt werden, welcher Begriff von der Psychologie angenommen worden ist, ohne daß die Art der Entstehung der Engramme erklärt würde. Die Engramme sind dann etwa eine neue Anordnung der Elektronen innerhalb der Atome der Gehirnmoleküle, lind die Elektronen würden im Moment der Entstehung der psychischen Energie ihre Lage wechseln. Im Gehirn werden die Zellen nicht durch neue Zellen ersetzt wie in

anderen Geweben; ohne diese Eigenschaft wäre das Gedächtnis vom Standpunkt der Engrammlehre nicht erklärbar. Die psychische Energie fährt auch nach dem Moment ihrer Entstehung fort, vom Engramm aus zu radieren. Darin liegt die Erklärung für die Fälle von Telepathie vergessener Gedanken, welche Erscheinung oft zugunsten des Spiritismus angeführt wird. Man könnte sich immerhin denken, daß die psychische Energie im statu nascendi eine besondere Intensität besitzt. Damit würde erklärt, daß besonders der Moment des Entstehens der psychischen Energie (unter Affektwirkung) zusammentrifft mit den Fällen von Spontantelepathie auf große Distanzen.

Der Prozeß der Erinnerung geht auf assoziativein Wege vor sich. Ein neuentstandenes Engramm läßt durch die von ihm ausstrahlende psychische Energie, die alle Zellen im Gehirn durchdringt, ähnliche schon vorhandene Engramm stärker radieren, gleichwie eine klingende Saite andere gleichgestimmte Saiten zum Mitschwingen bringt (auch die Kontrastassoziationen beruhen, im Grunde auf gemeinsamen Elementen²²). Genügend starke Ausstrahlung würde die Schwelle des Bewußtseins erreichen. Was hindert dann aber noch, anzunehmen, daß nicht nur ein vorhandenes Engramm im selben Gehirn, sondern auch ein entsprechendes Engramm im Gehirn eines anderen Individuums unter bestimmten Voraussetzungen, von denen früher die Rede war, zu verstärkter Ausstrahlung gebracht wird, d. h. der Anfang der Assoziationskette im Gehirn einer anderen Person liegt?

31. Wenden wir uns nun noch kurz dem Versuch zu, das Gedächtnis als etwas nicht durch Engramme Bedingtes zu betrachten²³. Das Gehirn würde dann nur als Schaltapparat wirken, und man müßte zu der spekulativen Betrachtung Zuflucht nehmen, daß die psychische Energie, nicht anders absorbierbar als durch das cerebrale Gewebe, in unverändertem Zustand für unabsehbare Zeit ein eigenes Dasein führe und dabei doch immer wieder vom Nervenempfangszentrum desselben Individuum absorbiert werden könnte. Müßte nicht eine so verstandene Energie einer im bezug auf die Zeitkoordinate anderen Dimensionsanordnung angehören?

Die angeblichen Fälle, in denen ein Medium Tatsachen mitteilt, die nur längst Verstorbenen bekannt waren²⁴, waren nach der Engrammtheorie so zu verstehen, daß noch zu Lebzeiten des Verstorbenen seine Gedanken ins Unterbewußtsein anderer Menschen gelangt wären, und daß sich diese Gedanken von einem Unterbewußtsein ins andere verpflanzen, bis sie das Medium erreichten. Nach der anderen Gedächtnistheorie, die von Engrammen absieht, müßte man sich vorstellen, daß die Gedanken des Verstorbenen im Kosmos ihre unveränderte Existenz haben.

Im einen wie im anderen Falle—im einen mehr, im anderen weniger—sind die Gedanken eines Menschen Gemeingut. Man könnte von einer allgemeinen Seele alles Lebendigen im Kosmos sprechen und von der Unsterblichkeit der Gedankenwelt eines Einzelnen.

32. Wie übertragen sich nun eigentlich die verschiedenen, oft komplizierten

Gedanken durch die Energie? Geschieht es in Worten, Bildern, Symbolen, Codezeichen²⁵? Die Frage soll uns nicht verwirren. Die Reize der äußeren Welt transformieren sich in Nervenenergie und diese Energie vermag die verschiedenen Reize in differenzierter Weise dem Gehirn weiterzugeben. So ist der gleiche Vorgang (Differenzierung der Gedankenbilder) in der psychischen Energie kein neuer und beispielloser. Das ungestörte Bewußtsein ist, wie wir schon oben ausführten (Abschnitte II, 13), gerade durch die volle Korrelation der Nervenenergie und der psychischen Energie in all ihrer Differenziertheit bedingt.²⁶

Die Antwort muß daher lauten: Alle Formen, durch welche die Außenwelt sich dem Bewußtsein eines Individuums kundgeben kann (Bilder, Symbole, Klänge usw.), sind gleichzeitig die Formen, durch welche die Psyche eines Individuums mit der Psyche eines anderen bei entsprechenden Bedingungen in Kontakt treten kann. Daß die Telepathie nicht beschränkt ist auf irgendwelche Urformen der Übertragung (wie z. B. die symbolischen Urformen der Traumhalte), wenn sie auch selbst eine Uerscheinung im Seelenleben ist, sieht man daraus, daß auch neu geschaffene Begriffe ebensogut auf telepathischem Wege übertragen werden können.

33. Das Bewußtsein selbst ist aber eine seelische Eigenschaft, die sicher das tiefste, rätselhafteste problem der Psychologie ist. Unsere Betrachtung vermag nicht dieses Problem zu lösen, und wir scheuen uns nicht zu sagen, daß die Erklärung der cerebralen Prozesse als energetische nicht bedeutet, daß auch das Problem des Bewußtseins der physikalischen Erklärung unterliegen müße, gleichwie wir auch in der Physiologie alle Erscheinungen des Lebens auf physikalisch-chemische Prozesse zurückführen können, aber nicht das Prinzip des Lebens selbst.

Nehmen wir ein alldurchdringendes Bewußtsein an, auch ein Bewußtsein der anorganischen Materie, so würden wir uns einem Panpsychismus nähern.

34. Läßt sich aber auch nur etwas Näheres über die physikalischen Eigenschaften der psychischen Energie aussagen?

Ist es eine Strahlenenergie²⁷, entstanden aus intermolekulären Veränderungen im Gehirngewebe? Diese Energie muß ein grosses Durchdringungsvermögen für unsere Atmosphäre haben.

Man könnte die Vermutung aussprechen, daß die psychische Energie nicht in der Reihe der bekannten strahlenden Energien steht (was aber zum vornherein zu bejahen kein unabweisbarer Grund vorliegt), bei welcher Reihe sich an den bisher bekannten Grenzen die kurzwelligen Millikanstrahlen und die langsam oszillierenden Wellen befinden, und daß die psychische Energie einer anderen Skala angehört. Eine solche Vorstellung könnte auch die Vitalisten mit der Auffassung des psychischen Prozesses als eines energetischen aussöhnen. Es ließe sich auch annehmen, daß die Schwingungen der Energien, die in jener anderen Skala stellen, einer komplizierten Dimensionsanordnung angehören²⁸. Dafür spricht jedoch nur die besondere

merkwürdige Eigenschaft aller psychischen Erlebnisse als ob gerade mit dem Attribut der Zeit verbunden zu sein, aber auch die andere vermutete Eigenschaft der psychischen Gebilde von dem Lauf der Zeit nicht betroffen zu sein und ihr gegenüber ein scheinbar unabhängiges Dasein zu führen (Abschnitt 31). Diese Vermutung würde bedeuten, daß Vergangenheit und Zukunft der Gegenwart innewohnen.

Damit haben wir uns einem Gebiet genähert, in welches beim heutigen Stand der Wissenschaft nur mit Hilfe der logischen Konstruktion weiter einzudringen gefährlich ist

Referenzen

1. Dies ist auch der Gesichtspunkt, unter dem die Schriftleitung den Ausführungen des Herrn Dr. *Velikovsky* in dieser Zeitschrift Raum gewährt, ohne dazu irgendwie Stellung zu nehmen. Gaupp.
2. Bei einer Intensität, welche die Reizschwelle erreichen lässt.
3. Die Sinnesorgane sind hier als ein Teil der Nervenleiter gedacht.
4. *Bleuler*, Lehrbuch der Psychiatrie, S. 46: "Oft erkennen die Patienten die Halluzinationen . . . als etwas Besonderes, an mancherlei Merkmalen: Anderer Inhalt, neue nie erfahrene Empfindungen, zu deren Bezeichnung sie neue Wörter schaffen müßen."
5. "Nihil in intellectu quod non fuerit prius in sensu."
6. Siehe Ergebnisse der experimentellen Untersuchungen der British Society for Psychical Research (Prof. *G. Murmy*, *Mrs. Sidwick* u. a.), auch die Arbeiten von *Riebet*, *Wasiliewsky*, *U. Tischner*, *Pagenstecher*, *C. Brück*, *Prince*, *Mac Dougall* u. a. Schon früher betrachteten die Philosophen *Hegel*, *Schelling*, *Schopenhauer*, *Fichte* (auch von den modernen *W. James*, *Driesch*, *Oesterreich* u. a.), sich auf spontane Fälle der Gedankenübertragung stützend, die Telepathie als Tatsache.
7. Oder sonst eine kosmische Fernwirkung, wie sie auch der Magnetismus darstellt.
8. Es ist nicht überflüssig zu bemerken, daß der Einwand von der Unmöglichkeit der physikalischen Erklärung der Gedankenübertragung auf Distanzen, der sich auf das Gesetz stützt, daß die Kraft einer Energie umgekehrt proportional ist dem Quadrat der Entfernung, nicht stichhaltig ist. Für die Übertragung der Strahlenenergie ist bei genügend empfindlichem Empfänger (und als solchen denken wir uns das Gehirn), nicht so sehr die Entfernung als die

Durchdringungsfähigkeit entscheidend.

9. *Konstamm* z. B. glaubte, daß es ihm in Tiefenhypnosen manchmal gelang, beim Hypnotisierten eine tiefe Schicht des Unterbewußtseins zu erreichen, die inindividuell ist („ich-freie Schicht“). Dieses Unterbewußte ist nicht identisch mit dem „kollektiven. Unbewußten“ von *C. G. Jung*, der, wie auch andere unabhängig von ihm, sich eine Erbübertragung von einigen psychischen Inhalten vorstellt.
10. Die Beobachtung, daß die Tauben beim Überfliegen von Antennen ihren Orientierungssinn verlieren, würde der Auffassung der physikalischen Grundlage der Telepathie entsprechen.
Für unsere Auffassung sprechen auch die positiven Versuche von *Bechterew*: Über Telepathie zwischen Mensch und Tier (Hunde), *Z. Psychother. u. med. Psychol.* 8.
11. Es ist noch eine Frage, ob mit Suggestion und Nachahmung allein die Erscheinungen der Massenpsychologie erklärt werden können.
12. Mit Ausnahme von bestimmten forensischen Fällen.
13. Der Hypnotisierte folgt im allgemeinen den mündlich oder schriftlich ausgesprochenen Wünschen des Hypnotiseurs. Er führt sie nach seiner Auffassung aus, auch fehlerhaft, falls er den Wunsch des Hypnotiseurs nicht richtig verstanden hat. Beim Hypnotisierten werden Vorstellungen hervorgerufen, die der Suggestion entsprechen, d. h. er folgt anstatt eigenen Gedankenbildern den Assoziationen, welche die Worte des Suggestors in ihm hervorgerufen haben.
Nur in einigen Fällen tiefer Hypnose geschieht eine Gedankenübertragung *direkt* in das Empfangsnervenzentrum (telepathische Gedankenübertragung), indem nämlich die Grenzen der Empfangsfähigkeit des Mediums erweitert sind (s. z. B. *Heyer* in: *Birnbaum*, Psychische Heilmethoden: Trancehypnose).
14. Vermutlich beruhen auch die Phänomene, die aus öffentlichen Vorführungen des Gedankenlesens oder Hellsehens bekannt sind, auf telepathischer Hypnose. Daß solche Fälle keine Hellseherei sind, als was sie ausgegeben werden, läßt sich dadurch beweisen, daß man dem Hypnotiseur falsche Angaben macht, die sofort vom Medium auf der Bühne wiederholt werden. (Die Erklärung dieser Phänomene durch Ventroloquismus ist sehr unwahrscheinlich). Theoretisch kann man aber die Möglichkeit des Hellsehens nicht ablehnen, da auch die Gegenstände eine Energie ausstrahlen können (Röntgänger). Aber die Mehrzahl der Fälle, die man durch Hellseherei zu erklären versucht, und die psychometrischen Versuche, die kein neues Prinzip darstellen, können am einleuchtendsten durch Telepathie erklärt werden. Auch für die Telepathie ist in keinem Fall, worauf übrigens schon der Begriff selbst hinweist, die Anwesenheit des Senders im Seanceraum notwendig. Schon

öfters wurden aber Fälle, bei denen der Sender abwesend war, als Hellseherei gedeutet.

15. Die unbeabsichtigte Suggestion kann auch von Abwesenden kommen; jedoch von Anwesenden, die sich im leicht begreiflichen Affekt befinden, ist die telepathische Suggestion viel eher zu erwarten.
Über die Rolle der Suggestion seitens der Anwesenden auf das Medium in spiritistischen Sitzungen, siehe die Werke von *Flournoy*.
16. “A remarkable form of of mediumship is crystal gazing, where the pictures are actually visible to the eye of the sitter. They did not appear to be relevant to any past or future event, but consisted of small wies” (*Conan Doyle*). In seiner “History of Spiritualism” erzählt *Conan Doyle*, ohne sich über die Bedeutung seiner Mittheilung klar zu sein, daß ein englisches Medium, welches nicht mystisch veranlagt war, etwas ähnliches wie Kinobilder harmlosen Inhalts in den Seancen vorführte.
Von diesem Standpunkt aus kann man auch den Fall von *Eva C.* verstehen, die in einer Sitzung in Paris ein Bild, das kurz vorher in der Zeitung “Le Miroir” abgedruckt war, vorzeigte, wobei auch die Überschrift der Zeitung zu sehen war. Diese könnte natürlich ein Betrug sein, kann aber gerade als Wiedergabe von Gedächtnisbildern gedeutet werden.
17. So auch bei Geisteskranken. “Die Halluzinationen der verbinden sich häufig. Man sieht und hört einen Menschen und .Wirkung” (*Bleuler: Psychiatrie, S. 98*).
18. Siehe z. B. die Polemik im “Dreimännerbuch” , herausgegeben von Prof. *M. Defwir* und im sog. “Siebenmännerbuch”.
19. Crooks, Zöllner, Weber, Butlerow, Flammarion, Flournoy, Lombroso, Lodge, Richet, Bleuler, Driesch sind einige wenige aus der Reihe der Naturwissenschaftler, die sich im positiven Sinne über die Existenz der Phänomene des physikalischen Mediumismus ausgesprochen haben. *Flournoy* sagte über das ganze Problem des Mediumismus: “Den Phänomenen der anormalen Psychologie gegenüber ermutigt und rechtfertigt nichts die spiritistisch-okkultistischen *Deutungen* der einen mehr, als die Hartnäckigkeit der anderen, mit der sie die Wirklichkeit der *Tatsachen* verkennen”.
20. In der Apparat von *Teremin* haben wir die Materialisation eines Klanges. Sie entsteht infolge der Differenz zwischen der Zahl zweier einander entgegengesetzter Schwingungen. Auch in dem Röntgenstrahlen haben wir ein Materialisationsphänomen, allerdings im Prinzip ein anderes. Ein Teil der Energie ändert sich unter dem Einfluss eines Widerstandes und materialisiert sich in Form von kleinsten Partikeln. Die Röntgenstrahlen können, wie schliesslich alle Strahlen, bestimmte Körper durchdringen. (Die Behauptung des mediumistischen Apports ist allerdings auf zu wenig Beweismaterial

gestützt.)

21. *Ostwald* folgte einem ähnlichen Gedanken, indem er schrieb: "Nimmt man nämlich an, daß die Menschen, oder gewisse Menschen (Medien) fähig sind, einen Teil der Energie, die sie in Gestalt von chemischer Energie in ihrem Körper besitzen und in bekannter Weise durch die Muskeln in mechanische Energie transformieren können, auch derart zu transformieren vermögen, daß sie den Körper verlässt und sich an anderen, willkürlich gewählten Stellen betätigt, so hat man eine theoretische Protothese für die Erklärung der meisten derartigen Phänomene".
22. *Forel* vermutet bei der Diskussion der telepathischen Erscheinungen einen ähnlichen Prozeß.
23. *Bergson*, *Matiere et Mémoire*.
24. Die *Encyclopedia Britannica* 13th edition, „Psychical Research“ (*W. H. Salter*); „the subject matter of the message which is often appropriate to the supposed communicator, suggests at least some survival of memory.
25. *R. Tischner*, *Telepathie und Hellsehen*.
26. Der Unterschied der Medien (Nervenfasern oder Atmosphäre) ist für das Differenzierungsvermögen der Energien kein prinzipieller.
27. *Gurwitsch* hat verschiedene pflanzliche und animalische Zellen (Blut von Frösehen, Ratten, Muskeln in Kontraktion, Neoplasmen, Corneaepithel,) als Strahlungsquellen, die eine sog. "mitogenetische Induktion" hervorrufen, erkannt. Diese Strahlen gehören in dem Bereich der ultravioletten Strahlen und haben nach *Gurwitsch* eine Wellenlänge von 1990-2370 Angström. *Reiter* und *Garbor* kamen für das mitogenetische Gebiet auf eine Wellenlänge von 3340-3650 Angström.
S. auch *Hans Berger*, *Elektroncephalogramm des Menschen* (Arch. Psychiatr. 1929). Bei Reizung der peripheren Sinnesorgane, z. B. des Auges durch grelle Belichtung, tritt eine starke Stromschwankung in dem gegenüberliegenden Occipitallappen auf. (Nervenenergie?)
(Ich denke, daß es sich lohnen würde, die Experimente *Bergers* bei Epileptikern anzuwenden. Der blitzartige Beginn eines epileptischen Anfalles erinnert sehr an die Wirkung eines Kurzschlusses. Die Narben in der Gehirnssubstanz und auch Fremdkörper könnten wohl einen Kurzschluß verursachen. Es wäre sodann weiter zu experimentieren über die Möglichkeit des Ableitens der eventuellen starken Stromschwankungen bei Epileptikern. Dies soll als präliminäre Mitteilung gelten.)
Hier gehe ich nicht auf die verschiedenen Versuche "cerebrale Emanation" zu entdecken ein. Ich unternahm die vorliegende Arbeit nicht als eine physikalisch-experimentelle Studie, sondern als eine weltanschauliche

Betrachtung.

28. Diesem Gedankengange folgend wäre es richtiger, die Welt der psychischen Gebilde als 3-, 2-, 1-dimensional gegenüber der Dinge, die 4-dimensional ist, zu betrachten. In der Parapsychologie aber war schon gelegentlich über 4-dimensional Raum der okkulten Phänomene im Gegensatz zu der 3-dimensionalen Welt der Dinge manche Vermutung ausgesprochen.





The Relationship Between the Emitter and the Receiver as an Exploratory Factor in Experimental Telepathy

It would be quite convincing if someone from the academic world could demonstrate the phenomena of experimental telepathy with the same ease and precision as the so-called professional telepathists claim to be able to do.

We know about different experiments published by members of the British Psychological Society and also by Dr. Wasilevsky, Dr. Kotik, Dr. Papenstecker, Dr. Fischner, and many others. We have also read with special interest about tests performed by Upton Sinclair and his wife. He rightly pointed out that someone else might want to write about such a sensational subject in order to make a name for himself, but that in his case it could only ruin his reputation as a writer.

The experiments mentioned so far as well as other tests give results which we can by no means explain as mere coincidence. This is the case even if we take special care not to overlook the fact that coincidence can outweigh all calculations of probability (see our work on coincidence).

The endeavors of various experimenters as well as the observation of spontaneous telepathic phenomena by others prove that telepathy is a natural occurrence. Still, up to now we have been denied the same precision characteristic of experiments and scientific research where demonstrations can be carried out in front of the public.

Not only is today's scholar who studies this subject and its problems convinced of the existence of telepathy, but also an exact and rapid transfer of ideas can no longer be dismissed, as a hoax without further qualification. On the face of it, the magicians have an advantage over scientists. This has not yet been clarified. We make an attempt here to solve a part of this problem.

In Mesmer's time — around the time of the French Revolution — demonstrations of "mental magnetism" were retarded as frauds by scientists. Thus Lavoisier and Franklin gave up their views on "mental magnetism" in front of the French Academy. It stayed like this until 1840 when Brand could perform hypnotic phenomena on stage no worse than a stage artist who stood next to him and accused him of being a cheat.

Up until today no scientist could simulate those telepathic phenomena as perfectly as was needed for the stage.

I personally have had three different opportunities to witness open demonstrations carried out by different individuals. These presentations hardly differed from one another. A subject was on stage and the hypnotist was in the audience. No attempt was ever made to replace the subject (medium) on stage by someone from the public. The subject was always the same one that appeared with the hypnotist and was usually exulted as a clairvoyant.

Some one very quietly asks the hypnotists a question. The medium on stage immediately repeats the question and also answers it. The question is such that it is beyond the mental capacity of the medium, either because of its context or on account of the intelligence of the medium (in two cases the media were children 10-12 years old). Thus a child can say on stage without hesitation: "You are asking for the serial numbers of your preferred shares of the Asbestos Co. Ltd." and immediately specify the numbers.

Of course, just before that you have given the serial numbers to the hypnotist who is at your side. However, in case you have given him false information, the medium will repeat this. This only proves that it is not a matter of clairvoyance, as it is claimed to be, but rather telepathy between the hypnotist and the hypnotized. Therefore all answers to questions put forward by the public about their future destinies or things that the inquirer himself is uncertain about are only deceptive. They can also be especially damaging when, as it happened in the first case, questions were asked about relatives who were involved in the war that raged at that time and the answers that were given were not always encouraging.

It is therefore understandable that such cheating throws a shadow on the whole subject of "clairvoyance". On the other hand, we do not have the right to pass judgement on the whole and dismiss it as a hoax merely because of these "presumptions".

It can be easily seen that there is no secret speech between the medium and the hypnotist—either in the manner in which the questions themselves are asked, or by means of gestures. The replies are very fast and accurate and at the same time often quite complex. Since the medium's eyes were covered up, any secret communication with such precision would in the circumstances be more puzzling yet.

It can be shown that the medium does not come to know the subject of the question by hearing, it (assuming hypersensitivity) since it is possible to present the hypnotist with a written or printed piece of paper (as in the case of the above-mentioned shares) and obtain the same result.

It is also possible to prove that ventriloquy is not involved and that the hypnotist does not simulate the speech of the medium who is about ten meters away from him (his eyes are open, but his back is turned to the audience). Instead of speaking, he can write the answer on a piece of paper.

The three cases which I have witnessed were as follows: A Greek with an eleven-year old girl (in Moscow, during the war). An Oriental (China or Indochina) but according to himself an Egyptian, with a boy (in Haifa), and a young Levantine (in Tel-Aviv).

Since all the demonstrations resembled each other, I had the impression that they all stemmed from the same school, or that the last couple (the Levantines) had been taught by the others).

I visited the Oriental in his hotel room after his performance. That man, whom the audience regarded as one gifted with such great powers was clearly in despair. When he found out that I was a doctor he begged me for help—the medium lay in bed with a high fever. It was his *son*. This had not been disclosed in any way in the advertisements.

I also visited the Levantines in their hotel, and urged them in vain to come and perform experiments in our Institute for Psychological Research (they accepted the invitation, but never took it up). In any case, I was able to find out an important, but again for some reason well-guarded secret—the hypnotist and his medium were *brothers*.

It is also interesting to note that Dr. Kotik related especially good results about a medium who could only function in the presence of her father.

We must remember the fact that by far most of the cases in spontaneous telepathy involve members of the same family (people who have an emotional relationship with one another). Most frequently cases are related by the thousand where the death—often unexpected—of a relative who is far away is revealed by a telepathic feeling either in a dream or while the person is awake. We also know about a considerable number of such spontaneous telepathic feelings from the material we have gathered (we still exclude here the cases of similar dreams, since similar interests and impressions can provoke the same-dreams).

It is interesting to note in these telepathic feelings that from the millions of people around, only the relative hears the secret voice and he alone believes it.

Therefore we are inclined to believe that these energy processes are evident in more or less homogenic brains of blood relations much more generally than in people who are not related (the same happens with other characteristics such as physical structure or psychological similarities). This harmony is perhaps the Psycho-physical basis of telepathic events.

We cannot claim with certainty whether spontaneous telepathy occurs with the same frequency between man and wife, i.e. people not related by blood, although such spontaneous telepathic cases do occur without a doubt, and are also documented in

our material. It is possible that relationship by choice itself is caused by similarity in physical structure (homogeneity). By the same token, the same emotional life can in time result in homogeneity.

We have heard a certain claim at one of the meetings of the Psychoanalytic Society in Vienna from a member, while Freud's work on parapsychological phenomena was discussed. It was that when the hypnotist thought very hard while under hypnosis, there was no result, and every effort failed to produce a telepathic thought transfer during hypnosis. We must decipher the conditions under which these professional magicians work.

The practical result of our observations is the suggestion that we must take notice of the relationship (homogeneity) between the sender and the recipient when observing experiments in telepathy in the future.

Translated from the German by Helena Flack





Kritik der Freud'schen Stellungnahme zur Parapsychologie.

“ Wenn man sich für einen Skeptiker hält, tut man gut daran, gelegentlich auch an seiner Skepsis zu zweifeln”.

(Freud)

Was nicht sehen wollen bedeutet hat uns die Psychoanalyse gelehrt. Freud drang in die Tiefen der menschlichen Seele ein, wie kein anderer vor ihm, jahrzehntelang beschäftigte er sich mit den Problemen des Verborgenen in der Psyche, und dabei bemerkte er scheinbar nicht die Erscheinungen der Parapsychologie, von denen die Telepatie experimentell wiederholt bewiesen ist. Es gibt wohl noch viele ehrbare Gelehrte, für die diese Erscheinung unter Zweifel steht, und eine grosse Zahl sogar von solchen, die die Realität der Telepatie mit aller Entschiedenheit abstreiten. Aber auch noch nicht so lange her haben Lavoisier und Franklin—die allerdings keine Psychologen von Fach waren—die Mesmerischen Phänomene als Betrug bezeichnet; heute aber ist die Hypnose (wenn auch möglicherweise oft mit Charlatanerie verbunden) selbst jedoch als eine Tatsache anerkannt.

An den Erscheinungen der Telepatie in unseren Tagen einen Zweifel zu hegen, ist vielleicht einem belibigen Menachen noch verzeihlich, nur nicht einem Psychologen wie Freud.

Wie konnte dies geschehen, dass Freud erst in seinem 77sten Lebensjahr dazu kam, in dem dritten Band seiner Vorlesungen ein Kapitel dem Trauma und Okkultismus einzuräumen? Und er tat er so, dass seine Stellungnahme auch in weiterem, trotz des angeführten Materials, unentschieden geblieben ist. Seine Stellungnahme in der zitierten Arbeit ist unsicher: “Gestatten Sie mir nun das, ich für den Zweck meiner beabsichtigten Mitteilung das vorsichtige Wörtchen “angeblich” weglasse und so fortsetze, als glaubte ich an die objektive Realität der telepathischen Phänomene. Aber halten Sie daran fest, dass dies nicht der Fall ist, dass ich mich auf keine Ueberzeugung festgelegt habe.”

Und an einer anderen Stelle derselben Arbeit einige Sätze, die (die) schwankende Stimme in einen mutigen Ton übergehen lasst.

“Ihnen wäre es gewiss lieber, ich hielte an einem gemässigten Theismus fest und zeigte mich unerbittlich in der Ablehnung alles Okkulten. Aber ich bin unfähig, um Gunst zu werben, ich muss Ihnen nahe legen, über die objektive Möglichkeit der Gedankenübertragung und damit auch der Telepathie freundlich zu denken.”

“Diese Probleme . . . als sie vor länger als zehn Jahren zuerst in meinen Gesichtskreis traten, verspürte auch ich die Angst vor einer Bedrohung unserer wissenschaftlichen Weltanschauung, die im Falle, als sich Stücke des Okkultismus bewahren, dem Spiritismus oder der Mystik den Platz räumen müsste.”

Von zehn Jahren - die bedeutet nach Erscheinen seiner meisten Werke - trat dies es Problem zuerst in den Gesichtskreis von Freud, nachdem er ein Menschenalter lang die Double conscience—Spaltung der Persönlichkeit—die mit ihren gelegentlichen Kryptomnesien und Kryptostesien, in das Krankheitsbild der Hysterie, der Paranoia, der Schizophrenie, der Zwangsneurose unaufhörlich hineinspukt, erforschte.

Wie konnte es auch schliesslich sein, dass ein geistiger Schüler von Flournoy dessen Lebenswerk unbeachtet liess? Schon nicht gesprochen davon, dass dem scharfen Auge und der Beobachtungsgabe des Psychoanalytikers nicht nur die Forschungen von James, Janet, Richet, Mac Dougall, Prince u. a. sondern die Tatsachen selbst beim Zusammenkommen mit so vielen Hysterikern und Neurotiken unmöglich entgehen konnten.

Wir haben den Eindruck, dass die besten Beispiele, die Freud begeben konnten, von ihm nicht festgehalten sind, da es schwer denkbar ist, dass ein Psychologe im Laufe eines Lebens nicht bessere Beispiele bemerken würde.

Im ganzen sind fünf Beispiele der ev. parapsychologischen Phänomene in dem Kapitel über “Traum und Okkultismus” gebracht.

Erstes Beispiel: (gekürzt) Ein Mann träumt, dass seine Frau Zwillinge geboren hat. Dieselbe Nacht gebärt seine Tochter (die Stieftochter seiner Frau) ein Zwillingsspaar.

Der Mann konnte den besonders hohen Leib seiner Tochter bemerken und ein Zwillingsspaar vermuten; das Datum war, wie meistens, für einige benachbarte Tage im Voraus ausgerechnet. Dies sieht auch Freud ein.

Zweites Beispiel: Eine Frau von 27 Jahren, verheiratet, fragte einen Wahrsager über ihr Schicksal; er sagte, sie wird noch heiraten und mit 32 Jahren zwei Kinder haben.

Sie ist nun schon 43 Jahre alt und hat keine Kinder.

Der Wahrsager war in diesem Falle ein Fehlsager. Er erkannte nicht dass sie verheiratet war, so erkannte er nicht die Gegenwart; er versprach auch, was nicht geschah - sie bekam keine Kinder. Nur die Mutter der Frau hat sich mit 30 Jahren verhairatet und hatte im Alter von 32 Jahren zwei Kinder. Der Gedanke an die Mutter konnte, nach Meinung von Freud, die Frau in jener Stunde, wo sie um die Wahrsagung bat, beschäftigen—und Freud sagt dazu: “Ich sehe nur zwei Möglichkeiten der Erklärung. Entweder ist die Geschichte nicht wahr—oder es ist anzunehmen, dass eine Gedankenübertragung als reales Phänomen besteht.”

Ist hier nicht eine dritte Möglichkeit vorhanden, die wir immer im Auge behalten müssen? der Zufall? Besonders, da ein Zufall in diesem Falle gar kein merkwürdiger wäre. Sogar, wenn die Kranke selbst, nicht die Mutter, bin 32 Jahre zwei Kinder geboren hätte, auch dann könnte es noch immer ein sehr gewöhnlicher Zufall sein (und nicht unbedingt Telepathie ihrer Wunschregungen, von Prophezeihung ganz zu schweigen). Konnte es nicht ein sehr einfacher sein, (eine gewöhnliche Berechnung) dass der Wahrsager bis zu 32 Jahren zwei Kinder versprach (keine seltene Erscheinung).

Darum können wir nicht aur Grund von solchen Fällen Freud folgen wenn er sagt: “es bleibt doch vom ganzen (von diesen und gleichen Fällen) ein starker Ueberschuss von Wahrscheinlichkeit zu Gunsten einer tatsächlichen Gedankenübertragung.”

Das dritte Beispiel ist gut. Ein Patient, der seine Schwester liebt und der gegen seinen Schwester Beseitigungsgedanken hat, hört von ei-Hellseher, dass der Schwanger im Jule oder August an ciner Krebs - Austernvergiftung sterben wird. Dies passiert nicht aber, vor diesem Besuch hat der Schwager einmal eine gleiche Vergiftung glücklich überstanden. “Ich weiss für diesen Fall keine andere Erklärung, ausser vielleicht, dass mein Patient sich einen Scherz mit mir erlaubt hat.”

Das vierte Beispiel ist wieder unüberzeugend. Ein Graphologe sagt dem Patienten, “diese Person wird sich gewiss in den allernächsten Tagen umbringen” (dies trat nicht ein). Dies soll der geheime Wunsch des Patienten sein, der von seiner Geliebten sich zu trennen entschlossen war und der Rachegefühle gegen sie hat, da er selbst einmal wegen der (dieser?) Frau einen Selbatmordversuch unternommen hat.

Grade die Versuche, durch analytische Erklärungen die Tatsache der Telepathie zu bekräftigen, werden manchen überzeugend anmuten, und er war darin einen stärkeren Beweis ersehen als in dem keine Erläuterungen fordernden klaren einfachen Geschehen. Wir würden aber in unserer Skepsis in Bezug auf das Genug der Beweise für Anerkennung der Tatsachen als parapsychologischer Art und bei allem Zutraum zu den Ergebnissen der psychologischen Analyse doch ein Geschehan, welches ohne Deutungen (als parapsychologisches Faktum) besteht als das beweiskräftigere bevorzugen im Vergleich mit einer Konstruktion, die erst nach psychoanalytischer Deutung als parapsychologisches Geschehen angesehen werden kann.

Etwas wird doch immer an der Beweisstärke eingebüsst, wenn das zu beweisende

(die parapsychische Natur der Erscheinungen) durch ein zweites, das auch erst bewiesen sein muss (die Deutung der Psychoanalyse) erläutert wird.

Beispiel 5 ist ein kleines Konglomerat von Zusammentreffen, wo es schwer zu beurteilen ist, ob Telepatie, Zufall oder unbewusstes Notieren der Tatsachen, (wie auch Freud eine Erklärungsmöglichkeit angibt) vorliegt, und wo die Namen Forsythe und Forsyth zusammentrafen. Auch die Wortverwechslung, Vorsicht von seinem Dame Herr von Vorsicht genannt, liess ihn eine Arbeit des eingetretenen Herrn Forsyth nennen.

“Nach meiner Empfindung neigt sich die Wagschale such hier zu Gunsten der Gedankenübertragung”.

Wir können nicht abstreiten, dass in den angeführten Beispielen die Telepatie als eine der möglichen Erklärungen herangezogen sein kann. Wir finden aber, dass Freud die Bedeutung des Zufalls zu gering abschätzt. Und würden dies wirklich die markantesten Beispiele aus langjähriger psychoanalytischer Lebenserfahrung sein, so müssten wir uns eigentlich noch wundern, dass Freud in einer Spanne von einigen Dezenien nicht schönere Beispiele von Zufällen vorgekommen sind.

Verauchen wir aber, die Stellungnahme von Freud zur Parapsychologie zu analysieren, so werden wir sein zaghaftes Verhalten verstehen.

Als Freud noch der verspottete Mann war und nur ein kleiner Kreis von Schülern ihn umgab, als die Universitätswissenschaft ihn und seine Werke nicht bemerken wollte und das Publikum sich über das “unmoralische” in seiner Lehre entrüstete, die Spassmacher ihn aber zu Scherz und Spott gewählt hatten, dann war natürlich sein Verlangen, mit keiner Zersplitterung der Kräfte seinen Kampf zu führen. Er konnte unter seinen Degen nicht gleichzeitig nach ein Verhassten und Verlachten in Schutz nehmen. So wird auch sein Wunsch, seine Lehre nicht als jüdische Lehre auszugeben verständlich. (Die Mehrzahl seiner Schüler waren Juden). Er Wählte C. G. Jung zum Vorsitzenden der Vereinigung der Analytiker, wenn er auch dessen antisemitische Gefühle kannte. Freud hat sich immer stolz und offen als Jude bekannt, hatte aber die grössten Bedenken, seine Lehre als “Jewish Science” gelten zu lassen. Der schwere Kampf um die Analyse sollte nicht um den Kampf gegen den Antisemitismus erschwert sei (s. bei Wittels über die Versammlung in der Zeit des Kongresses und die Worte Freuds).

Auch das Mystische sollte nicht die Analyse anhauchen. Denn was mit Mystizismus zu tun hat ist entweder der Religion oder der Charlatanerie zu nah gekommen. Die erste wird als schlechter Patron für die Wissenschaft angesehen, die zweite ist mit Recht ein ungewünschter Nachbar über all. Darum verspürte Freud, als die parapsychologischen Probleme (Telepatie) zum ersten Mal in seinen Gesichtskreis trat, “die Angst vor einer Bedrohung unserer wissenschaftlichen Weltanschauung, die im Falle, als sie sich Stücke des Okkultismus bewahrheiten, dem Spiritismus oder der Mystik den Platz räumen müsste”.

Diese Angst war nicht so sehr für die ganze Wissenschaft wie für die Zwillingsschwester der Parapsychologie—die Psychoanalyse—die das selbe Objekt (die Seele) und auch oft die selben Phänomene (Spaltung der Persönlichkeit) erforscht. Diese Angst hat auch das “nicht sehen wollen” verschuldet; und später, als die Psychoanalyse aus der Gefahr des Ersticktwerdens im Anfange herausgekommen war, blieb bei Freud immer noch diese Angst, die ihn beinah wie (desto schlechter für die Fakten) sagen lässt: Sogar im Falle die Tatsachen endgültig bewiesen werden, auch dann noch “wir gedenken mit diesen Dingen zu verfahren wie mit allem anderen Material der Wissenschaft zunächst festzustellen, ob solche Vorgänge wirklich nachweisbar sind und dann, aber erst dann, wenn sich ihre Tatsache nicht bezweifeln lässt, uns um ihre Erklärung zu bemühen. Aber es ist nicht zu leugnen, dass schon dieser Entschluss uns schwer gemacht wird durch intellektuelle, psychologische und historische Momente”. (diese sind die allgemeine Leichtgläubigkeit, und dass in der Welt des Okkultismus eigentlich nichts neues vorgeht, - was in unseren Augen allerdings nicht als negatives sondern als positives Merkmal zu werten wäre).

Und zum Schluss der Ueberlegungen kommt Freud zu der erleichternden Aussage: “Und was besonders die Gedankenübertragung betrifft, so scheint sie die Ausdehnung der wissenschaftlichen - Gegner sagen: mechanischen - Denkweise auf das so schwer fassbare geistige gradezu zu begünstigen”.

Auch die Unzulänglichkeit der meisten Beispiele ist aus demselben ambivalenten Moment herausgekommen: ein Versuch nicht zu sehen und das Bedürfnis, das einmal zum Nicht gesehen werden verurteilte doch zu erblicken und zu verstehen.





Sigmund Freud and Moses the Lawgiver

Twice Freud strayed away into a by-path off the high road of psychoanalytic investigation—once, many years ago, when he wrote a study of aesthetics, and the second time in his eighties, when he undertook an inquiry into biblical history. Both times the prophet Moses was the object of his investigation. In the first instance it was Michelangelo's statue of Moses, selected out of all the work produced by Michelangelo and from all the other creations of the plastic arts. Later it was Moses the law-giver, whose historic figure exercised a compelling effect on the spiritual vision of the creator of depth psychology.

Is this accidental? A man may accidentally meet another twice at the same spot, but it is not accidental when an old man returns to the place where once, in the full vigor of his manhood, a figure held him enthralled. What compelled the man who maintained that he was ignorant of the "oceanic feeling" of religious experience to approach the great religious founder and attempt to illuminate his spiritual aspect as well as the traits of his appearance? He said that religion was a neurosis; was he seeking the traits of neurosis in Moses? In not a single line has he given any indication of this. "I decided to put it away [the work], but it haunted me like an unlaidd ghost." ⁽¹⁾ Something profoundly personal is hinted at in such a confession.

Freud's work on Moses, the Egyptian, is not a psychoanalytical or psychological study. But we shall proceed in the manner of Freud when delivering over the author of a literary work to the tribunal of psychoanalysis.

Unless one follows the traditions which have been handed down, a reconstruction of the personality of Moses is not possible on the basis of the remainder of the available historical material. When such an attempt is made to mold anew a statue of this giant from the scraps of relevant history—to give not an analysis of the tradition, but a synthesis of the personality—then we have before us an artistic creation, just as Michelangelo's prophet with the tablets is an artistic creation. But by referring to such a statue we should not attempt to make an analysis of what is hidden in the mythical past, but rather an analysis of the artist.

Whatever is alien to Freud in the traditional figure of Moses will be regarded in his inquiry as alien to Moses; whatever there is in the figure of Moses that fails to reflect Freud's concept will be found in historical and exegetical excursions and bound up with the inquiry.

In analysis this is called projection. In order to project one's inner world onto some

personality of the outer world, some similarity must first be found. The associations which lead to this may be positive and also negative. Correspondingly, the associations will be colored by love or negatively charged with hate, everything depending on which unconscious impulses are being outwardly projected. The projections may be on occasion divided up into two personalities: one is taken over by the “good” ego, the other by the “evil” ego; one is idealized and the other hated. Everything which does not correspond to the good or evil ego will either remain unseen or be denied.

“Moses is an Egyptian.” How is this proved? Two explanations are given in the first of the three essays, which bears the title of “Moses an Egyptian.” One is historical and philological, the other is psychological and folkloristic. The first one is: “Moses” is an element of many Egyptian names, such as, for example, Ramses (Ra-mose), Thut-mose; *Mose* in Egyptian means child. Hence, Moses was an Egyptian.

A man who is not an Egyptologist enters on a difficult excursion in order to demonstrate that an Egyptian name is a proof of non-Hebrew descent, but the very man making this endeavor bears the name of Sigmund and is a Jew. Is he aware of the striking inadequacy of his proof? On the basis of such a demonstration, anyone by the name of Sigmund is a Teuton; therefore this demonstration may be rejected, for the same reason that a child of Jewish parents born in Moravia may be called Sigmund.

In a footnote on page 23, Freud cites Eduard Meyer: “The name Moses is probably . . . Egyptian. This does not prove, however, that these generations were of Egyptian origin, but it proves that they had relations with Egypt.” To this Freud appends a remarkable question: “One may well ask what kind of relation one is to imagine.”

The other, psychological, demonstration that Moses belonged to the Egyptian people is as follows: In many legends about the origin and adulthood of famous men of the past, a stereotype is retained: the hero is of exalted descent; even as a child he is recognized by his father as a future danger to him, is compelled to flee, and is rescued and brought up by poor people; when he is fully grown his noble descent comes to light. Such is the echo resounding through the folk-tales. Since, according to the legend, Moses was born among humble people of an oppressed race, and rescued and brought up by the king’s daughter, Freud associates himself with Eduard Meyer’s idea that the legend was falsified and must be set right; and he arrives at the contention that the historic Moses was of higher descent, of the royal house of Pharaoh, and possibly even the son of the Egyptian princess.

Freud undertakes a detailed psychological demonstration with reference to folkloristic research into the legends of various peoples and heroes—without noticing that the emendation cannot be equated with the legendary stereotype, if he himself does not regard Moses as a legendary prince but as a real one. The fictional element is the princely origin of the hero. It is true that on the basis of history it can be proved

that a legendary hero was no prince by blood, but on the basis of a legend about a non-prince can a scientific proof be adduced that the hero was, nevertheless, an historical prince?

In the countless folktales the lowly origin of the hero is denied and a nobler one poetically ascribed to him. Accordingly, in revision and correction doubt must be cast upon the princely blood of the hero. If Moses had been named as the son of royal blood in the biblical tradition, then skepticism would be in place and a suspicion justified that the legend had undergone a conventional distortion. But Freud recognizes Moses as an historical prince by blood, and so it is *he* who composes the legend according to its usual stereotype. He would like to maintain that Moses was the son of a princess.⁽²⁾ This anecdote is taken from Freud's *The Interpretation of Dreams*, published in 1900.

Freud quotes Rank: "As a result of 'national motives' the legend was reconstructed into the version we know."

Freud is aware that the theory of Moses' Egyptian descent lacks a strong foundation.

. . . Further thought tells us that an original Moses myth of this kind, one not diverging from other birth myths, could not have existed. For the legend is either of Egyptian or of Jewish origin. The first supposition may be excluded. The Egyptians had no motive to glorify Moses; to them he was not a hero. So the legend should have originated among the Jewish people; that is to say, it was attached in the usual version to the person of their leader. But for that purpose it was entirely unfitted; what good is a legend to a people that makes their hero into an alien? (p. 20)

The only thing left was to assume that "in a later, and rather clumsy treatment of the legendary material, the adapter saw fit to equip his hero Moses with certain features appertaining to the classical exposure myths characteristic of a hero." (p. 21)

With this unsatisfactory and even uncertain result our investigation would have to end, without having contributed anything to answering the question whether Moses was an Egyptian, were there not another and perhaps more successful way of approaching the exposure myth itself.

As a rule the real family corresponds to the humble one, the noble family to the fictitious one. In the case of Moses something seemed to be different. And here the new point of view may perhaps bring some illumination. It is that the first family, the one from which the babe is exposed to danger, is in all comparable cases the fictitious one; the second family, however, by which the hero is adopted and in which he

grows up, is his real one. If we have the courage to accept this statement as a general truth to which the Moses legend is also subject, then we suddenly see our way clear: Moses is an Egyptian—probably of noble origin—whom the myth undertakes to transform into a Jew. And that would be our conclusion!” (pp. 21f.)

At this point, where Freud hopes to find the necessary proof, we must expose a logical error. Let us repeat Freud’s train of thought.

A. The legend has been falsified because of national motives; originally the legend had it that Moses was the son of an Egyptian king.

B. Since Freud considers this proof inadequate, he establishes another and more convincing one by setting up a rule: the first family is the fictitious one.

Then for what reason is the first family in the saga fictitious and the later one real? Surely because fantasies concerning noble descent are natural and belong to many people; fantasies concerning lowlier descent are unnatural, for what purpose would they serve? If it is desired to test the Moses legend coolly, critically, and with skepticism, then it would be more plausible to leave him his poor Hebrew parents, and to explain away princesses who discover poor children as figments of the imagination.

It is a wish-fulfilment that Moses was an Egyptian (and that Freud is free-born), and a second, infantile wish-fulfilment that Moses was of royal blood. Freud transforms the elite character of the people into the the “chosen” character of his own spiritual model.

According to Freud, Moses was not a Hebrew but an Egyptian child; his mother was not Johebed, the wife of Amram, but a princess (his father is unnamed). He was saved from the water and adopted not by the princess but by poor Hebrews. The correction, however, is soon extended: no reason exists for assuming that he was adopted by a Hebrew woman, and so he would not need to have been exposed by the princess.

It was not Moses who spoke about God to Pharaoh, but Pharaoh who taught Moses about the unique God. Moses did not flee from Pharaoh into the wilderness. Instead of competing with Moses in the magical arts, the Egyptian priests taught Moses violently to oppose all magic and to reject all mysteries. Moses was slow of speech—this is to be understood to mean that he had to speak through interpreters, not with Pharaoh, but with the Hebrews.

And further, “our reconstruction leaves not room for . . . the ten plagues, [and] the passage through the Red Sea, and the solemn law-giving on Mount Sinai will not lead us astray.” (p. 54)

Since Freud does not perceive the inadequacy of his demonstration he is, according to psychoanalytic terminology, in a state of scotomization. But a psychic scotoma happens to be a proof that something touching the person very closely bears a disagreeable affect, which gives rise to a block in perception.

Such a lack of perception is in no case a defect of logical capacity, but rather a psychological phenomenon. In reality every scotoma retains its own logic. And there is logic in this case as well: Freud does not wish to recognize Moses as a Hebrew because he did not wish to recognize Sigmund as a Jew either. He does not consciously deny his adherence to the Jewish people at all; on the contrary, he emphasizes it at the very outset of the book. Nor would the idea of disowning his people ever consciously occur to him. But psychoanalysis has always taught us that it is not the conscious, but the unconscious material that is to be considered as decisive for the personality. That which is emphasized in the first few hours of the analysis often serves the precise purpose of masking the unconscious impulses; indeed, who taught us to hear “yes” in place of “no” and “no” in place of “yes” in such utterances?

In spite of the words in Freud’s introduction, “to deny a people the man whom it praises as the greatest of its sons is not a deed to be undertaken lightheartedly,” there soon follows a slip of the pen: “We had *hoped* [our emphasis] the suggestion that Moses was an Egyptian would prove fruitful. . .” Accordingly, “Moses an Egyptian” would have to be translated as “Freud an Aryan, or free-born.” There is no illogic here: he would like to feel himself as not a pariah.

Freud wrote this study—we should like to mention briefly—during the flowering of the race-theories of the elite character of the Aryans. Subsequently we shall attempt to investigate the more profound reasons for this renunciation of his race.

As I have said, I do not wish to adopt any position with respect to the historical reconstruction. Yet the personality of Moses appears to be completely altered by Freud’s hand; much falls away, and something else is added, and a shape appears before us which is a reflected image. Even if Freud is right, the remarkable fact of his interest in a historical personality, and also of his wonderful, divining insight, would be a proof of a psychic affinity which approaches spiritual identity. If Freud is wrong he is wrong as a historian. He remains, however, in the right as a poet, ruling over his poetry by virtue of his imagination.

References

1. *Moses and Monotheism*, transl. by Katherine Jones (London, 1939), p. 164.
2. This conclusion of the essay called “Moses and Egyptian” was anticipated by a Jewish youngster in an anecdote: During the religious hour the instructor asked the class, “Who knows who Moses’ mother was?” The class was silent. A Jewish pupil present raised his hand and said: “Pharaoh’s daughter.” “How is that? She was the one who found him.” “That’s what *she* said,” answered

the daring pupil.





The Dreams Freud Dreamed

It is a daring undertaking to search anew the dreams of the founder of the dream interpretation, taken out of the classical work from which a whole generation has learned the language of the unconscious, which once was also a revelation for me, and which will remain a masterpiece in the history of the understanding of the human mind.

In my original manuscript there followed at this place these words: "That Freud may, and I hope will be, among the readers of this work I consider a great privilege. For it would not be doing Freud a service to keep silent about convictions in matters of science. So I hope that my observations regarding his dreams will find his approval, because it was he who has taught us insight into our own weakness and to face the truth."

After all, nothing is contradicted. All the explanations and interpretations of Freud remain unchanged. Merely a new determination is added. And yet I venture to say in advance that the interpretation which I arrived at is the dominant one, first, because it deals with an important problem in the life of the dreamer, and second, because it appears repeatedly in most of the dreams and in a dominating way." Those ideas in the dream-thoughts which are most important are probably also those which recur most frequently, since the individual dream-thoughts radiate from them as centres." (Freud)

The comparison with other interpretations in regard to their importance for the affective life of the dreamer will show beyond any doubt that other determinations presented in the book are of secondary importance.

I shall reproduce the detailed series of associations given in the book only in very condensed form. It is highly recommended that they be read in the original, which is open to every one.

It appears to me that the proofs which I present are neither far fetched nor arbitrary. The objective reader will probably agree with me. However, it may well be that since Freud's death one or the other of his followers feels that any tampering with his words should be prohibited, and the premature reproach might be made that I have given *my* interpretation, while the dreamer himself must do the interpreting. However, nothing is done to violate the analytic procedure: when dealing with patients we too give our explanations of their associations. And, strangely enough, it

happens very frequently that the dreamer alone does not arrive at the most decisive and important conclusions.

I want to clear up an important point right here. There are three types of associations to the dreams. One is the series of free and arbitrary associations of the dreamer. I have added nothing and used Freud's own associations exclusively.

The second form of associating is the search for symbols in the dream: a symbol in some way is also an association to the content of a dream. There exists a "vocabulary" of symbols, but as one and the same object or idea may be represented by different symbols, the choice of interpretation remains to a certain degree with the dreamer. There still remains the question whether for different individuals of different culture and language one and the same symbol is efficient.

The third series of associations makes use of the play on words. For this a stranger-be it only because he can solve such riddles-is as capable as the dreamer himself of uncovering the hidden elements of the dreams. As an example: Freud tells us about a dream of his⁽¹⁾ in which a nurse with a red nose occurs. No explanation is given to this subject. I guess it means neurosis. (Red nose, nez rose, Neurose, Neurosis.)

I may not use my associations instead of those of the dreamer and, for instance, relate to his dream my own day or life memories. I must listen to his. I may make the somewhat daring attempt to undertake a symbolic interpretation. But I can be sure in my interpretation when I recognize the plays on words.⁽²⁾

It is this third way which I use almost entirely in my reinterpretation.

* * *

Freud had recognized and despised the weakness of the almighty father through a certain event. We know the story. In *The Interpretation of Dreams* the incident of the fur cap which was knocked off his father's head into the mud by a Christian is related. The father stepped down from the sidewalk and silently picked up the cap. Sigmund heard the story from his father on a walk.

"That did not seem heroic on the part of the big, strong man who was leading me, a little fellow, by the hand. I contrasted this situation, which did not please me, with another, more in harmony with my sentiments-the scene in which Hannibal's father, Hamilcar Barcas, made his son swear before the household altar to take vengeance on the Romans. Ever since then Hannibal has had a place in my phantasies."

Young Freud himself had to suffer from antisemitism. During the later school years "when I finally came to realize the consequences of belonging to an alien race, and was forced by the antisemitic feeling among my class-mates to take a definite stand, the figure of the Semitic commander assumed still greater proportions in my

imagination. Hannibal and Rome symbolized, in my youthful eyes, the struggle between the tenacity of the Jews and the organization of the Catholic Church."

This is one of the very few pages among approximately 500 of the book where Freud speaks of his feelings regarding Judaism. I emphasize it with regard to my interpretation.

The road to success was a difficult one for Freud. When he was working in the laboratory, his superior who had learned of his financial situation, soon suggested to him to give up the scientific career and devote himself to the practice of medicine. In order to make his studies possible, he had to accept the help of a friend. To enable his studies in Paris at the clinic of Charcot he obtained a grant-in-aid. He kept his fiancé waiting for four years because he felt insecure financially. He had six children in quick succession. "Fees" was a frequent subject for conversation among the young physicians in Vienna. The title of professor had a magic effect on public and patients. In the meantime he had published a number of papers and was eager for recognition by academic circles; a professorship would be such a recognition of the scientific investigator.

A fortune teller had predicted for the boy the post of minister. Only His Excellency the Minister blocked his way to the professorship.

Confessional reasons were decisive in Vienna for a scientific career. He was proposed for a professorship by two scientists but the outlook was hopeless.

His professional life and his academic career were replete with slights and disappointments. He certainly must have had to look on when a man of average ability was preferred to him because this average person confessed the faith of the majority.

I shall anticipate my interpretation and state: an important, possibly the most important determination of almost all dreams mentioned by Freud is his inner struggle for unhampered advancement : In order to get ahead he would have to conclude a Faust-pact; he would have to sell his soul to the Church. Perhaps it was unconscious, perhaps he knew of his struggle. But in that case it would seem strange that he did not recognize it in his dreams.⁽³⁾ We shall place the determinations opposite to one another. We shall present the dreams of interest to us, first consecutively, as they are given in The Interpretation of Dreams.

DREAM OF THE BOTANICAL MONOGRAPH

Dream. I have written a monograph on a certain plant. The book lies before me: I am just turning over a folded colored plate. A dried specimen of the plant, as though

from a herbarium, is bound up with every copy.

Freud's Analysis. Associations and Day-residues. In the morning he had seen in a bookseller's window a volume entitled *The Genus Cyclamen*, obviously a monograph on this plant. The cyclamen is his wife's favorite flower. He forgets to bring her flowers. He is reminded of a story of a young husband who forgot to bring his wife flowers on her birthday (sign of indifference). His monograph on the coca plant. K. Koller reaped the success for the discovery of cocaine which he almost made himself. A day dream about an operation on his eye, the physician who praises cocaine knows nothing of his part in this discovery of the anesthetic effect of cocaine. The association leads to the operation on his father's eye. Again Dr. Koller. A jubilee volume which speaks of Koller. The conversation with Dr. Konigstein, the ophthalmologist, and the meeting with Professor Gartner and his wife and reference to her blooming appearance.

A memory from the time when he went to high school (Gymnasium) is connected with the herbarium. The principal instructed the pupils to clean a herbarium in which there were small bookworms. On the pages were *crucifers*. Preliminary examination in botany (again *crucifers*) and weakness in this subject. "Crucifers suggest composites. The artichoke too is really a composite, and in actual fact one which I might call my favorite flower" .

Association to monograph: a letter from a friend who asks about the publication of the dream book.

The colored plate: As a student he was interested in illustrated monographs. One of the plates in his own treatise turned out badly. As a child he was given a book to tear up (like an artichoke, leaf by leaf). He is a "book-worm" ; he remembers his book collection in his youth. Thus far the associations with day residues and memories.

And the *interpretation*: "I am much too absorbed in my hobbies." "The meaning of the dream becomes clear." "The dream assumes the character of a justification." "I am indeed the man who has written on cocaine. Thus I can allow myself this." The detailed description of a dream interpretation and of that which he "can allow" himself is omitted by Freud. "In the dream interpretation everything converges upon the important and justifiably disturbing event." "If I judge the sense of the dream . . . according to the latent content I find that I have unwittingly come to a new and important recognition. The riddle that the dream apparently dealt only with worthless odds and ends of the day's experience is solved." "The idea of the monograph on the cyclamen would be associated only with the idea that this is the favorite flower of my wife, possible also the recollection of the flowers missed by Mrs. L. I do not believe these secondary thoughts would have sufficed to evoke a dream.

"There needs no ghost, my lord, come from the grave
To tell us this"

as we read in Hamlet. But behold: in the analysis I am reminded that the name of the man who interrupted our conversation was Gärtner (gardener) and that I thought his wife looked blooming. . . . Other connections were then established, that of cocaine The indifferent event is substituted for that which is important psychically.”

My interpretation. The associations regarding crucifers should not have led only to composites and artichokes but also to crucifix and crux. Crucifer means one who carries a cross (crux), a baptized person.

Herbarium suggests the sound association to “Hebrew.” A herbarium which contains a crux would be a baptized Hebrew. A herbarium which is a book containing a “crucifer” is the Bible, a Gospel. A monograph would be the writings on monotheism. To page through also means to turn the pages (*umschlagen*), to convert. Cyclamen contains the word “Amen.” [\(4\)](#)

The tables (*Tafeln*) recall the tablets with the Ten Commandments (*Gesetzstafel*). Hebrew is contrasted with Christian. From the entire text of the dream only the word “colored” has not been used for this scheme, since there are no associations to it by the dreamer. Later we shall be able to understand this word also.

To quote Freud: “The source of a dream may be: An inner, significant experience (recollection, train of thought) which is regularly represented in the dream by allusion to a recent but indifferent impression” .

THE DREAM ABOUT ROME

Before giving the next dream Freud states: “I note the fact that although the wish which excites the dream is a contemporary wish, it is nevertheless greatly reinforced by memories of childhood. I refer to a series of dreams which are based on the longing to go to Rome. For a long time to come I shall probably have to satisfy this longing by means of dreams” . Two dreams about Rome are briefly mentioned but not told. In regard to the second one it is stated: “The motive to see the promised land afar is here easily recognizable” .

The third dream about Rome: “I am at last in Rome as the dream tells me. To my disappointment the scenery is anything but urban: it consists of a little stream of dark water on one side of which are black rocks, while on the other are meadows with large white flowers. I notice a certain Herr Zucker (with whom I am superficially acquainted), and resolve to ask him to show me the way into the city” .

Freud's Interpretation. His associations as dreamer: “It is obvious that I am trying in vain to see in my dream a city which I have never seen in my waking life” . The scenery reminds him of Ravenna where he saw beautiful water-lilies in black water.

Further the narcissi of Aussee. The dark rock recalls the valley of the Tepe at Karlsbad. The name Karlsbad reminds him of several Jewish anecdotes. One concerns a Jew who because he has no railroad ticket is put off the train repeatedly and who, upon being asked at one of the stations of his martyrdom where he is going, replies: "If my constitution holds out-to Karlsbad". The memory of Karlsbad explains the peculiar circumstance that "I ask Mr. Zucker to show me the way". We usually send our patients with the constitutional disease, diabetes, to Karlsbad" (*Zucker-sugar*). "Asking the way" is a direct allusion to Rome, for we know "all roads lead to Rome". "The occasion for this dream was the proposal of my Berlin friend that we should meet in Prague at Easter. A further association with sugar and diabetes might be found in the matters which I had to discuss with him."

"During my last Italian journey I considered the plan of traveling in the following year to Naples via Rome". "I myself had walked in Hannibal's footsteps; as little as he was I destined to see Rome, and he too had gone to Campania when all were expecting him in Rome. Hannibal, with whom I had achieved this point of similarity, had been my favorite hero during my years at the 'gymnasium'; like so many boys of that age, I bestowed my sympathies in the Punic war not on the Romans, but on the Carthaginians".

Here follows the story which I have mentioned of how he suffered from anti-Semitism at school and that "Hannibal and Rome symbolized, in my youthful eyes, the contrast between the tenacity of Judaism and the organization of the Catholic Church. The significance for our emotional life which the anti-semitic movement has since assumed helped to fix the thoughts and impressions of those earlier days. Thus the desire to go to Rome has in my dream-life become the mask and symbol for a number of warmly cherished wishes, for whose realization one had to work with the tenacity and single-mindedness of the Punic soldier, though their fulfillment at times seemed as remote as Hannibal's life-long wish to enter Rome. And now, for the first time, I happened upon the youthful experience which even to-day still expresses its power in all these emotions and dreams".

He then recites the incident of his father and the Christian mentioned above. He thinks of Hamilcar who makes his son Hannibal swear before the household altar that he will take vengeance on the Romans.

This "enthusiasm for the Carthaginian general "brings up another memory from his still earlier childhood. He was playing with wooden soldiers and his favorite marshal among the marshals of Napoleon was Massena ("as a Jew Menasse"). That much we have learned from Freud about his Roman dreams.

My interpretation. It is Rome, not however the scenery of a town but "a small stream with black water". Thus Rome is not the city but the Roman-Catholic Church which Freud has also mentioned in associations, to use a non-sequitur. Rome is for him the symbol "of the cherished wishes, for whose realization one would like to work with the tenacity of the Punic soldier".

"Dark water" is the water for baptism. "On one side of the dark water, black rock" - Judaism, the sad life of the children of the Jewish people, "on the other, meadows with large white flowers" -Christianity, the happy life of those who are not persecuted.

(5) It is characteristic that Freud in his associations twice arrived at the word 'constitution' .

We shall interpret it in the civic-legal sense. According to the constitution the Jew does not have equal rights. In the anecdote too the Jew is put off the train again and again "because he has no ticket" . Under this constitution he cannot get on. The anecdote deals really with himself. To be a Jew is a "constitutional disease" . This road to Rome would not be Hannibal's road. For Hannibal Rome was no "promised land" . But it might be for a Mr. Zucker who knows the roads.-Not. to submit, but to gain a victory the Semitic general led his army towards Rome.

But for a Jew the promised land was Jerusalem. The small stream of black water, a border like the Rubicon, signifies temptation and the anguish of the lonely wanderer from that dispersed people of whom he knew that it had stubbornly resisted powerful Rome for a thousand years. Freud's fate was to be a strange one. He will see Rome. And there he will be fascinated by nothing but one figure, "How often did I climb the steep stairway of the ugly Corso Cavour to the lonely place where stands the deserted church and tried repeatedly to withstand the contemptuous-angry look of Moses; sometimes I slunk away from the twilight of the inner room as if I myself belonged to the mob who can not be faithful to any conviction, who can not wait and will not have confidence, and who cheers when given back the illusions of its idol" (Freud, Michelangelo).

DREAM ABOUT THE WOMAN IN THE KITCHEN AND THE STRANGER

The next dream. "I go into a kitchen in order to ask for some pudding. There three women are standing, one of whom is the hostess; she is rolling something in her hands, as though she were making dumplings. She replies that I must wait until she has finished (not distinctly as a speech). I become impatient, and go away offended. I put on an overcoat; but the first one I try on is too long. I take it off, and am somewhat astonished to find that it is trimmed with fur. A second coat which I put on has a long strip of cloth with a Turkish design sewn into it. A stranger with a long face and short, pointed beard comes up and prevents me from putting it on, declaring that it belongs to him. I now show him that it is covered all over with Turkish embroideries. He asks: 'How do the Turkish (drawings, strips of cloth . . .) concern you?' But we soon become quite friendly" .

Freud's analysis. Recollection of a novel in which the hero becomes psychotic and continually calls the names of the three women who have brought the greatest happiness and the greatest misfortune into his life. One of the names is Pelagie. "I still do not know what to make of this recollection during the analysis. There now

emerge with the three women the three Parcae, who spin the fates of men, and I know that one of the three women, the hostess in the dream, is the mother who gives life and the first nourishment” . . . “One of the Parcae, then, is rubbing the palms of her hands together, as though she were making dumplings. A strange occupation for one of the Fates, and urgently in need of explanation! This explanation is furnished by another and earlier memory of my childhood. When I was six years old, and receiving my first lessons from my mother, I was expected to believe that we are made of dust, and must, therefore return to dust. But this did not please me, and I questioned the doctrine. Thereupon my mother rubbed the palms of her hands together-just as in making dumplings, except that there was no dough between them-and showed me the blackish scales of epidermis which were thus rubbed off, as a proof that it is of dust that we are made. My astonishment was boundless at this demonstration ad oculos, and I acquiesced in the idea which I was later to hear expressed in the words: ‘Thou owest nature a death’ .”

Further associations of Freud: Knödl (dumplings) reminds him of the professor with whom he studied histology (*epidermis*) and whose writings a man named Knodl plagiarized. Further a whole chain of similar sounds: *Pelagie, Plagiarism, Plagiostomi*, fish, fish-bladder; the latter as also the overcoat in the dream obviously refer “to an appliance appertaining to the technique of sex” . “A very forced and irrational connection” , Freud says about this, “but nevertheless one which I could not have established in waking life if it had not been established by the dream-work” . “The name of a professor Fleischl again sounds like something edible and this in turn recalls the Latin pharmacopeia (kitchen) and cocaine which numbs the sensation of hunger” .

The train of thought leads to memories which to divulge would entail too great a personal sacrifice. He only “ takes up one .of the threads “. “ The stranger with the long face and pointed beard . . . has the features of a tradesman of Spalato” . “His name was Popovic, a suspicious name” which was utilized by humorists. The purchase in Spalato reminds him of another purchase at Cattaro where he was all too cautious and missed the opportunity of making an excellent bargain. One of the dream thoughts which hunger suggests to the dreamer is the following: “ One should not miss any thing, take that which one can have, even if a small wrong is involved, one should not pass up any opportunity, for life is so short, death inevitable” .

My interpretation. It is a dream about the death of his mother and his father. Freud correctly recognized his mother in the hostess. She is the mother of a Jewish home. Dumplings are a specifically Jewish dish.

"She replies I should wait until she is finished” . He should wait with his intentions until she is dead. Likewise the same idea of death is in the association brought up by Freud of the mother who rubs the palms of her hands together and who tells him that “everything must return to dust” .

We know that a stranger in a dream is usually the father. Also the name Popovic

suggests the association with papa. Likewise the overcoat which is too large (Jews wear long overcoats) is that of the father. He is surprised in the dream “that the coat is trimmed with fur” . Eight pages earlier the story of the father’ s fur cap which was thrown into the mud by a Christian is told in connection with a previous dream. The overcoat is too long, it binders him in walking. The father too (or the memory of the father who died in 1896) “hinders me” . (His father’s coat is put on-a thought of death.) There is no greater shame for Jewish parents than the baptism of their children. They are obliged to mourn for such a son as for a child that died. He tries on the Jewish coat (trimmed with fur, father’s religion) and afterwards a foreign (Turkish) one. Why “Turkish” was chosen for foreign I can not say definitely without the assistance of the necessary associations. But Viennese history considers the Turk especially as the foreigner.

Thus we have again the same problem which he would like to solve in the way stated by him: “One should not miss anything, take that which one can have even if a small wrong is involved; one should not pass up any opportunity for life is so short” .

But the tragedy unfolds. In his mind he sees the work-worn hands of his mother who speaks to the little boy of the mysteries of life and death, the tall, strong, wise father who is being insulted in the street by a Christian scamp. Can one still deal them a blow? No. “We have now become quite friendly” .

THE DREAM ABOUT COUNT TAAFE AND THE TIRED HORSE

Before reciting the next dream Freud presents some preliminary remarks. I shall summarize them briefly.

On the preceding day he was on the platform at the station awaiting his train, as he was leaving on his vacation. Count Thun arrived on the platform and waved back the gate keeper who did not know him with a curt gesture and without explanation. After the train which the minister took had left, Freud was told to leave the platform and had some difficulty to be allowed to remain. He passed the time noting whether anybody got a whole compartment because of his connections. He decided to make a row, that is, to demand the same privilege. He was in high spirits. He sang the aria from *The Marriage of Figaro*:

*"If my lord Count would tread a measure,
Let him but say his pleasure" .*

Count Thun (tun-do) is jokingly called Count Do-Nothing.

The dream. "A crowd, a students' meeting. . . . A certain Count Thun (or Taaffe) is making a speech. Being asked to say something about the Germans, he declares with a contemptuous gesture, that their favorite flower is colts-foot, and he then puts into his button-hole something like a fern leaf, really the crumpled skeleton of a leaf. I

jump up, that is, I jump up (sic), but I am surprised at my implied attitude” .

Then follows an indistinct part of the dream which because of its length I do not repeat in folio (it can be read in the original): a hall, it is necessary to escape, all exits are barred, he makes his way through handsomely appointed governmental apartments with furniture in brown and violet, past an elderly housekeeper with a lamp, he “avoids speaking to her” , and “it seems to me that I am very clever to evade her control “. He ascends a steeply rising path . . . escapes again to the station in a cab drawn by one tired horse. “I can’t ride on the railway tracks” . The seats are all taken. Finally in the train and “I find a peculiar, long braided thing in my buttonhole” . Again in front of the station, with an elderly gentleman who is blind. He gives him a glass urinal, sees his genital “plastically” . He wants “to think out a scheme to remain unrecognized” . hopes to get away without being seen.

Freud gives a long chain of associations of memories and ideas for the interpretation, of which I wish to take up but a few.

"This phantasy which attaches itself to the thoughts evoked by the sight of Count Thun is, like the façade of an Italian church, without organic connection with the structure behind it, but unlike such a façade it is full of gaps, and confused, and in many places portions of the interior break through” .

"Here in Vienna white carnations have become the badge of the antisemites, red ones of the Social Democrats. Behind this is the recollection of an antisemitic challenge during a railway journey in beautiful Saxony “... “” Being a green youth, full of materialistic doctrines, I thrust myself forward in a German students’ society in order to defend an extremely one-sided position, I jump up” .

"The elderly man. obviously my father, for the blindness in one eye signifies his one-sided glaucoma, is now urinating before me... since he is blind, I must hold the glass in front of him.... I make fun of him.... Glaucoma ... cocaine” . “The analysis shows these three dreams fragments to be impertinent boasts as the result of a ridiculous megalomania which in my waking life I have long since overcome” . “In this dream I am not concerned with the reasons which force me to hide the solution, but with the motives of the inner censor who hides the true content of the dream from me” .

My interpretation. Freud again experiences an offense, he has difficulty to remain on the platform. He has occasion to make a comparison with the haughty attitude of the count. As a Jew he feels insulted, therefore he remembers Saxony and an anti-semitic incident in a train while there. His feeling of equal right which is inherent in everybody and the affront on the platform again prompt the wish to “demand the same privilege” , not only at the departure of the train but always and everywhere-this is the latent content of the dream.

Count Taaffe stands for baptism (*Taufe*). “Favorite flower” is known from Freud’s associations to a previous dream and means “Crucifer” (leaf skeleton). Later in the

dream, in the train, he has a “thing in his buttonhole” . Before “all seats had been taken “. Progress in his career is symbolized by walking through ministerial rooms. The only control, the housekeeper, and we recognize her from a previous dream, is his mother.” It seems to me that I am very clever to evade the control in the end” . He finds a steeply rising path. Many a Jew who escaped from the Ghetto, far from his home town, has taken the secret blessings of baptism in order to ascend the steep path of life without hindrance.

He is alone in his struggle for existence, tired and exhausted, he himself is the tired horse of the one-horse cab. Like a tired nag is the poor Jewish physician to whom a scientific career has been closed, who has been refused recognition of his attainments and for whom the struggle for existence is made difficult. “He can not ride on the railroad track” , there, where everybody finds the road laid out. For him alone everything is “taken” .

The doctor who has studied philosophy and medicine, and who could say with Faust:

*"Then, too, live neither lands nor gold,
Nor the world's least pomp or honor hold . . ."*

hears the spirit of doubt whispering the words of Figaro:

*"If my lord Count would tread a measure
Let him but say his pleasure . . . "*

In the dream “He jumps up” . He has the “thing” in his buttonhole, he is no more in the one-horse cab, but in “the train” . Is not the violet color which is mentioned twice in the dream the color of the tempter, the Roman church, consecrated to the ritual of Baptism?⁽⁶⁾

The dream cannot end. The fugitive has evaded “the control” of the mother. But his father’s eye directed toward the son will paralyze him, he wants to “invent a scheme, to remain unrecognized” . As Jacob once obtained his blind father’s blessing, without being recognized, so another son of a blind father makes an effort to “remain unrecognized” in order to escape the curse. Since the time of this arch father, through hundreds of generations, loyalty to the tribe has been guarded, and what the son sees “plastically” ere he becomes his father’s lost son is that part of the body into which this loyalty is carved with a knife.

And yet, his conscience participated in this trick, he becomes his father’s “nurse” , who does not want to bury those who brought him into the world. The plan of the previous dream was refused the tempter by the unconscious. Instead of burying the parents (as in the previous dream) one could keep the step a secret, deceive the mother (*hinters Licht führen*—lamp), present to the blind father a glass that is not meant for seeing, then climb the ascending path, get into the train, drive onward.

"Yet I am surprised at this attitude of mine".

* * *

Before continuing I should like to explain an important factor to the reader who may not be very familiar with the psychoanalytic theory. The night dreams even of highly ethical people, just as the dreams of innocent children, may contain veiled death wishes (desires to kill) which are especially directed towards parents, brothers and sisters, husband or wife, one's own children. In their waking life these people will be self-sacrificing and affectionate. Only the true criminal does not need the disguise which occurs in the dream work, he carries out his wishes in his life.

We are, therefore, not justified to say: behold, here are the evil intentions of killing the parents or of doing something sinful in secrecy, thus the dreamer is a sinner. We find, on the contrary, that those thoughts have been repressed and banished from consciousness and the light of day into the darkness of the night and of the dream; and even there they remain veiled and concealed, so that the dreamer, be he even Freud himself, should not have to hear the suppressed voice of the banished sinner.

THE DREAM ABOUT RIDING TO A CHAPEL

The next dream. "I am riding a gray horse, at first timidly and awkwardly, as though I were merely leaning on it. Then I meet a colleague. P., also on horseback and dressed in rough frieze; he is sitting high on his horse. He calls my attention to something (probably to the fact that I have a very bad seat). Now I begin to feel more and more at ease on the back of my highly intelligent horse; I sit more comfortably, and I find that I am quite at home up here. My saddle is a sort of pad, which completely fills the space between the neck and the rump of the horse. I ride between two vans, and just manage to clear them. After riding up the street for some distance, I turn round and wish to dismount, at first in front of a little open chapel which is built facing on to the street. Then I do really dismount in front of a chapel which stands near the first one; the hotel is in the same street; I might let the horse go there by itself, but I prefer to lead it thither. It seems as though I should be ashamed to arrive there on horseback. In front of the hotel there stands a page-boy, who shows me a note of mine which has been found, and ridicules me on account of it. On the note is written, doubly underlined: 'Nothing to eat', and then a second sentence (indistinct) something like: 'No work'. At the same time a hazy idea that I am in a strange city in which I do no work".

Freud's analysis. Associations: He had suffered in the night from boils and the last thing he could possibly have done was to ride. But the dream plunges him into this very activity. (He cannot ride at all.) It is a negation of suffering. The gray color of his horse corresponds to the pepper-and-salt suit in which he saw his colleague P. the last time. Highly seasoned food is considered a cause of boils. Dr. P. liked to "ride the

high horse” after he had replaced Freud in the treatment of a female patient who, like the Sunday equestrian, led him where she wished. “Thus the horse comes to be the symbolic representation of a woman patient (in the dream it is highly intelligent)” . “I feel ‘quite at home’ refers to the position which I occupied in the patient’s household before I was replaced by my colleague P.” It is a feat to practice psychotherapy for several hours daily while suffering from furunculosis, and the dream is a dismal allusion to the situation: “Do not work and do not eat” . The street in the dream is built up out of impressions of Verona and Sienna, the association is Italy (“*gen Italien*” in German means to Italy) and an association to this.

My interpretation. Riding horseback is also called to career. It is a career dream. Therefore “riding the high horse” . Colleague P., as Freud mentions, is a person who is after a successful career (we suppose a Christian or a baptized Jew, not a Jew). The gray, very intelligent horse consequently is Freud’s career. In the same book we read that his hair is already getting gray. One who is worried about his career will frequently compare the color of his hair with the distance he has traveled and the success that did not come. He has a ‘bad seat’ .

Vans (Lastwagen) among which one rides may be symbolic of a load taken off one’s conscience, but usually mean a load on one’s conscience (*Entlastung-Belastung*). “I turn around” means conversion (*ich kehre um-Bekehrung*). “Open chapel” -we know a psychoanalytic sexual interpretation for this, but the reader will know himself already what the open chapel means, it needs no interpretation.

Hotel may be *Hotel de Dieu*, but it is also the symbol for homelessness, The hotel page who ridicules the new arrival is a sad piece of reality from the Christian present: in a hotel the Jew must show his passport and his native religion thus is known. Even if he be a genius like Freud it may happen and does happen that the hotel staff lets the guest who scents insult feel something indefinite, (if only in the unspoken words: “never mind, you are welcome just the same”).

The hotel page knows how to raise eyebrow and the corner of his mouth behind the back of a guest.

"Eat nothing and do not work” is the position in which the young Jewish physician often finds himself.

Is it not because of Freud’s Jewish origin that colleague P. has replaced him?

"A hazy idea that I am in a strange city in which I do not work” . Freud is a Jew and the strange city has closed its doors to him.

At the end of the last and the beginning of the present century “Eat nothing and do not work” laws and customs intended for the Jews in Vienna have led many of them to small open chapels. “I should be ashamed” -it is this voice which is responsible that Freud remained a Jew.

THE DREAM ABOUT "THREE STAIRS AT A TIME"

"You might as well have wiped your shoes to-day, doctor, before you came into the room. The red carpet is all dirty again from your feet" . With these words the maid stopped Freud in the entrance hall of one of his patients. I believe such behavior would be impossible if the servants did not also feel superior to the Jews. Servants especially need a feeling of superiority because of their position of servitude.

Freud tells this incident (without connecting it with the fact of his being Jewish) as a day memory in connection with his next dream.

"I am very incompletely dressed, and I go from a flat on the ground-floor up a flight of stairs to an upper story. In doing this I jump up three stairs at a time, and I am glad to find that I can mount the stairs so quickly. Suddenly I notice that a servant-maid is coming down the stairs-that is, towards me. I am ashamed, and try to hurry away, and now comes the feeling of being inhibited; I am glued to the stairs, and cannot move from the spot."

Associations: on the evening before the dream he had actually gone up the main staircase connecting his consultation-rooms and his living rooms with his clothes in disarray. "It is a habit of mine to run up two or three steps at a time" . The ease with which he ran upstairs in the dream reassures him as to the condition of his heart. But the stairs are not those of his own house. "The shame of not being fully dressed is undoubtedly of a sexual character; the servant of whom I dream is older than I, surely, and by no means attractive" . On the day before the dream the servant had confronted him with the above remark.

My interpretation. This dream too is a dream about forging ahead and about his struggle with the obstacles in his path. Freud wrote neurological investigations which are finding recognition. He goes "from the apartment on the ground floor up the stairs to a higher floor" . "I am glad to find that I can mount the stairs so quickly" . But he is balked. "I am glued to the stairs and cannot move from the spot" . He is incompletely equipped because he is not a Christian. "Three" is a Christian symbol. "Three steps at one time" . With the Trinity (Dreieinigkeit) one can climb well. Should he take a "jump" ? And again as in the previous dream "I am ashamed" , "and now comes this feeling of being inhibited" , "I cannot move from the spot" .

The careerist dismounts from the horse. The speedy climber stops and stands still.

THE DREAM ABOUT THE INQUEST

In the next dream also Freud "cannot walk" . In all his dreams he is hindered.

The dream, related by Freud in abbreviated form:

"The scene is a mixture made up of a private sanatorium and several other places. A man-servant appears, to summon me to an inquiry. I know in the dream that something has been missed, and that the inquiry is taking place because I am suspected of having appropriated the lost thing." "Being conscious of my innocence, and my position as consultant in this building, I calmly follow the man-servant. We are received at the door by another man-servant, who says, pointing at me, 'Have you brought him? Why, he is a respectable man'. Thereupon, and unattended', I enter a great hall where there are many machines, which reminds me of an inferno with its hellish instruments of punishment, I see a colleague strapped to an appliance; he has every reason to pay attention to me, but he takes no notice of me. I understand that I may now go. Then I cannot find my hat, and cannot go after all."

Freud's Analysis: "The dream obviously fulfills the wish that I shall be acknowledged as an honest man and may be permitted to leave; there must therefore be all sorts of material in the dream-thoughts which comprise a contradiction of this wish. The fact that I may go is the sign of my absolution". "The fact that I cannot find my hat therefore means: 'You are not after all an honest man' ." "A rejection of melancholy thoughts of death is also concealed behind this dream: 'I have not done my duty, I cannot go yet' ."

My Interpretation. Tormented by the nocturnal visits of the tempter who beckons to him in every dream to flee from the misery of the persecuted and the humiliated by making a pact which, like Faust's pact with the devil, could be concluded in an instant, Freud measures his love of freedom and unhampered advancement against his loyalty to the tribe from which he derives and his feeling of honor, and judgment is about to be pronounced.

As if it were at the Judgment Day a messenger leads him to the door of the inquest because he has been suspected of having appropriated something which has been missed. "I calmly follow the man-servant". A second messenger of the inquest (the voice of the defendant) receives him and says: "He is a respectable man." He did not take anything which did not belong to him.

He escapes the inferno with its dire punishments of remorse. Was not the colleague who was bound to one of the infernal racks a baptized Jew?

This is not the first time that hell appears in his dreams. Here it is called inferno. Did it not occur already in previous dreams?

Hell on earth is the destiny of Jews. Hell in heaven and torment in his soul for him who seeks to escape the earthly inferno by way of the pact which opens all doors, be it only because he is capable of remorse and possesses a feeling of honor.

Religious feelings in the meaning of the Hebraic law Freud has lost. "I cannot find my hat and cannot go after all" . He has given up the law (a Jew wears a hat when praying, he has no hat-and still the roads are blocked, because he has remained loyal to his sense of honor.

When somebody sees the inferno in his dreams, the thought arises: is not the dreamer-even if he has given up the law-a religious person?

DREAM ABOUT THE BRIDGE ACROSS THE CHASM

Seventeen dreams are discussed in detail by Freud in *The Interpretation of Dreams*. So far we have re-interpreted six consecutive dreams. One and the same motive was found in all these dreams- this speaks for our interpretation. We shall only touch briefly on the dreams that follow. "This is the threshold" , we read in one dream," on two chairs stand "(sits) in another," communication from the town council of my native town " (probably birth certificate) in the third and regarding this last one Freud writes: "The dream thoughts defend themselves vigorously against the reproach that I do not advance more rapidly" . In the fourth dream" naturally "is used twice (and also " Nature" by Goethe) and soon there follows a dream in which the thought which tried to rise from the depth so often finally breaks to the surface, now no more ambiguous.

But first a few other dreams.

The following dreams have in common that in all three there is a discussion of Freud's children. I reproduce the first of these " children-dreams " only briefly.

"Old Bruecke must have set me some task or other; strangely enough" ⁽⁷⁾ means also, ' may be separated ' it relates to the preparation of the lower part of my own body, the pelvis and legs. . . . The pelvis is eviscerated. . . . Also something had to be carefully removed. . . . Then I was once more in possession of my legs . . . but I took a cab (as I was tired). To my astonishment, the cab drove into the front door of a house . . . and through the house and then into the open. Finally I wandered with an Alpine guide. . . . He carried me for some distance, out of consideration for my tired legs. The ground was swampy . . . gypsies. . . . At last we came to a small wooden house with an open window at one. end. Here the guide set me down and laid two boards which stood in readiness, on the window sill so as to bridge the chasm which had to be crossed from the window. Now I became really frightened about my legs . . . as though not the planks but the children were to make the crossing possible. I awoke with terrified thoughts" .

From Freud's analysis: "The preparation of my own body which I am ordered to make in my dream is thus the self-analysis involved in the communication of my dreams" . "My immortal works have not yet been written" Freud had said shortly before in a conversation (before he had finished The Interpretation of Dreams). "The

fatigue in my legs was a real sensation from those days. Probably a weary mood corresponded with this fatigue, and the doubting question: 'How much farther will my legs carry me?' . "The comment '*strangely enough*' (*sonderbar genug*) applies to a book, *She*, by Rider Haggard and to another by the same author, *Heart of the World*; and numerous elements of the dream are taken from these two fantastic romances." "In *She* the end of the adventure is that the heroine meets her death in the mysterious central fire, instead of winning immortality for herself and for others. Some related anxiety has unmistakably arisen in the dream-thoughts. The 'wooden house' is assuredly also a coffin." "... I awake with 'thoughts of terror 'even after the idea that perhaps my children will achieve what has been denied to their father: a fresh allusion to the strange romance in which the identity of a character is preserved through a series of generations through two thousand years."

My interpretation. Again a dream which deals with not being able to advance on the obstructed path. The inability to move is plastically represented in the tired legs, he must be carried. Legs (in English)⁽⁸⁾ might also refer to the law (legs-lex, legis) which has made his advancing difficult. He submits his civic position to an analysis (preparation, dissecting room, without legs, "lawless"), as well as his feeling of fatigue and inadequacy which his position causes. The pelvis (*Becken*) recalls a receptacle which is used in the ritual of conversion-the baptismal fount (Pelvis-Becken, "Tauf-becken"). Bridge " Bruecke" in Latin is pons, pontis (reminiscent of Pontificus). Through a "front door" which opens and finally "leads on into the open" ("an open chapel" in another dream), "one could drive in" .

Is the unfriendly road upon which this tired man travels swampy, or the ground which leads into the open? Possibly both, each according to its kind.

At the end of the road are his children who must continue on the way. Should he not cross the bridge for their sake?" to make the crossing possible for the children?

Twice we find the bridge in the dream: once in the beginning, "Professor Bruecke" (*Bruecke*-bridge) ; the second time at the end-wooden boards which have been placed to bridge the chasm. "To be crossed" (*Uebertritt*-conversion). This is the main motive of the dream.

It is a nightmare (Alpdruck-"alpiner") to have put children into the world who will wander around like "gypsies" , homeless and deprived of rights. But it is a still greater horror to pass over the chasm across which two boards (a cross) have been laid to step over (to cross over). For himself he cannot do it. "Now I became really frightened ". But one could perhaps separate the children (separate-"absondern" -"*sonderbar genug*") "Sondern" (separate) must have been the intent of the dream as Freud himself emphasized the word "sonderbar genug" by putting it in large print.

He awakens with terrified thoughts. The thought came too near to consciousness.

This interpretation makes clear why he “awakes with ‘ thoughts of terror’ even after the idea that perhaps (his) children will achieve what has been denied to their father.”

Is not the Jew also the one whose “identity is preserved through a series of generations through two thousand years” ? The thought really came very close. We should expect clear language after the dreams have repeated a subject so untiringly.

* * *

As for himself, he has solved the question. When this thinker tries to visualize in his dream the act of conversion it must appear humiliating and ridiculous to him. Should he really voluntarily attend a ritual and in the nave of a church participate in the mysteries of communion in which as a psychologist he will soon recognize the symbolic swallowing of God by the devout person? He has a rather vague dream: He is a “volunteer” in a large salon with three windows” (Trinity), a battleship, a cruiser (Kreutzer is a battleship, but also a cross, *Kreuttschiff-Kirchen-schiffnave* of a church) on “dark water” (again dark water) on which “one can proceed quickly” , a narrow canal which leads into the ocean. “Breakfast-ship” may be a reversal of the last supper. “Comically truncated” is mentioned in the dream. Thoughts of his own death, “saddest thoughts of an unbeknown and mysterious future” Freud feels in this dream.

THE DREAM ABOUT “AUF GESERES”

A Dream: “On account of something that is happening in Rome it is necessary to let the children flee, and this they do. The scene is then laid before a gate, a double gate, in ancient style (the Porta Romana in Siena, as I realize while I am dreaming). I am sitting on the edge of a well and am greatly depressed; I am almost weeping. A woman-a nurse, a nun-brings out the two boys and hands them over to their father, who is not myself. The elder is distinctly my eldest son, but I do not see the face of the other boy. The woman asks the elder boy for a parting kiss. She is remarkable for her red nose. The boy refuses her the kiss, but says to her, extending his hand in parting, ‘Auf Geseres’ , and to both of us (or to one of us) ‘Auf Ungeseres’ . I have the idea that this latter indicates a preference”

From Freud’s interpretation:

“This dream is built upon a tangle of thoughts induced by a play I saw at the theatre, called ‘*Das neue Ghetto*’ (the new Ghetto). The Jewish question, anxiety as to the future of my children, who cannot be given a fatherland, anxiety as to educating them so that they may enjoy the privilege of citizens-all these features may be easily recognized in the accompanying dream-thoughts.”

"By the waters of Babylon we sat down and wept. Siena, like Rome, is famous for its beautiful fountains “.

An association to a co-religionist who had to give up the position in a state asylum which he secured with great effort.

"*Geseres* is a Hebrew word and means ordained sufferings, doom... *Ungeseres* is a word I coined myself and at first I am at a loss regarding it. The brief observation at the end of the dream-that *Ungeseres* indicates an advantage over *Geseres*-opens the way to the associations and therewith to understanding. This relation holds good in the case of caviar; the unsalted kind is more highly prized than the salted. Caviar for the people-' noble passions ' ... But a connecting-link is wanting between the pair, salted-unsalted and *Geseres-Ungeseres*. This is to be found in *gesaeuert* and *ungesaeuert* (leavened and unleavened). In their flight-like exodus from Egypt the children of Israel had not time to allow their dough to become leavened, and in commemoration of this event they eat unleavened bread at Passover to this day."

My interpretation. Do I perform an act of grace for my children if I let them" flee" , if I make bigoted people of them (double gate- bi-gate). Catholics ("Rome"), "Refugees" , chose a godfather for them ("hand them over to their father who is not myself"), let them enact the kissing ceremonials of the church ? I should "not be a father anymore for my children" . Do not children who grow up in the Christian faith become estranged from their Jewish father? Would my children, thus torn, not become neurotics? (red nose-nez rose-Neurose-Neurosis).

But this will not happen. The older boy already seems to show a national or Jewish-religious attitude. In the eyes of Freud this latter would be a neurosis. The boy "refuses the kiss" and says he chooses for himself the ordained suffering and doom. He offers to his father what the father offered him in the dream: *Auf Ungeseres* "which indicates a preference over *Geseres*" .

In the earlier dreams already my interpretation disclosed what is here confirmed by Freud in his interpretation, namely, his worry about the future of his children as Jews. Thus my determination surely was correct.

But even on the occasion of this dream, Freud worried about the future of his children, did not make clear that he harbored a temptation in his heart and that there existed a plan to leave the Ghetto. Nowhere in his writings has he expressed this secret thought regarding himself and his family.

In this dream there occurs the curious sequence of sentences: "By the waters of Babylon we sat down and wept. Siena, like Rome, is famous for its beautiful fountains" . The waters of Babylon brought up associations to waters in Siena and Rome? Here and there were the lands of exile. But Babylon's waters were not for baptism. They were the waters of suffering; and here the waters of escape and salvation. The brave man chooses the stony road of the homeless for his lot. But it was hard to decide on the same fate for his children, when a tempter is calling day and night."

"I am almost weeping" . Suffering is chosen.

* * *

The question of religion is more important for boys than for girls as regards a successful career. The question has been decided for the boys; the girls also will remain in the house of their parents and their people.

In the next dream Freud fetches from a "Frau Doni" (my interpretation: "Ma Donna") his two little girls who had been left there and "I take them with me" with a feeling of relief.

He too will "stand before his children great and pure" , as he has said of his father.

THE DREAM ABOUT COUNTER-REFORMATION

The next dream: "I hear someone call out: 'Hollthurn, 10 minutes' . I immediately think of Holothuria-a museum of natural history-that here is a place where brave men have vainly resisted the dominating force of their overlord... Yes, the counterreformation in Austria!... I should like to leave the train but I hesitate to do so.... I hesitated, in doubt as to whether we have sufficient time but here we are still stationary... Suddenly I am in another compartment in which the leather and the seat s are so narrow that one's back directly touches the chair-rest. I am surprised at this, but I may have changed carriages while asleep. Several people, among them an English brother and sister; a row of books plainly on a shelf on the wall.-I see 'Wealth of Nations' , 'Matter and Motion' (by Maxwell)... The man asks his sister about a book by Schiller, whether she has forgotten it... I tell the brother and sister in English, referring to a certain book: 'It is from...' but I correct myself: 'It is by...' The man remarks to his sister: ' He said it correctly' ."

From Freud's analysis: The dream was dreamed in the train. He has been slighted. "... in my compartment I had come upon a lady and a gentleman who seemed to be very distinguished people, and did not have the good breeding, or did not think it worth while , to conceal their displeasure at my intrusion. My polite greeting was not returned, and although they were sitting side by side (with their backs to the engine), the woman before my eyes hastened to pre-empt the seat opposite her, and next to the window, with her umbrella. The door was immediately closed, and pointed remarks about the opening of windows were exchanged. Probably I was quickly recognized as a person hungry for fresh air. It was a hot night, and the atmosphere of the compartment, closed on both sides, was almost suffocating... In my dream I take a terrible revenge on my disagreeable travelling companions."

Freud identifies himself with one of his patients in whose neurosis the idea that "all men are brothers" plays an important role and in whom "hostile impulses towards his

father had been at the foot of his illness” .

My thoughts *in regard to this dream*:

Again an insult. The distinguished people in the compartment do not respond to the greeting of the Jewish physician. But his reaction is now a different one, he has already turned back in his unconscious. “I may have changed while asleep” . No surrender—a “ counter-reformation” has been proclaimed. “All men are brothers” . He, the son of “a series of generations two thousand years old “, wants to fight proudly, even if he fails, just as the “brave men against the dominating force” .

"I hesitated in doubt” , “I should like to leave the train” —enough of dreams about getting ahead: His position will be small (“narrow seat”) but the interests of his nation (“Wealth of Nations”) have become his own. His mother and his people (mother and nation possibly instead of “Matter and Motion”) cannot be separated from him, his origin from the nation as little as his origin from his mother. Did you forget a book by Schiller? Which one might it be ? Was it the “Mission of Moses” which he really forgot? The number 10 also will remind us of Moses. Are not the English brother and sister a pair of angels (Engel) ? Does Holl-thurn not mean “turned back from hell” ? Is not: “It is from” - he is devout (fromm)?⁽⁹⁾ Is not the glorious past of a people the philogenetic wealth of every son of this people? Can he allow this past to be blotted out by amnesia?"

"My parents were Jews, I too remained a Jew." Thus wrote Freud in his autobiography in 1925.

References

1. Freud: Traumdeutung.
2. See my article: “Can a newly acquired language become the speech of the unconscious ? Word-plays in the dreams of Hebrew-thinking persons.” *Imago*, Band XX, Heft 2, *The Psychoanalytic Review*, Vol. XXI, No. 3, July.
3. In the preface to his book of “Traumdeutung” (German edition), *Gesammelte Schriften*, 2. Band, Freud wrote: “With the presentation of my own dreams it became necessary to reveal more intimate details for the insight of the reader than I would like to do. This was painful but inevitable and I had to adjust myself. Naturally I could not resist the temptation through some omissions and replacements to diminish the indiscretion.” To the dream about “Old Bruecke” Freud did say: “I think of the effort it cost me to make public even my work on dreams, in which I had to surrender so much of my own intimate nature. ‘The best that you know you can’t tell the boys.’” These remarks make us think the omissions concern only some important experiences of intimate nature, not the leading ideas of interpretation.
4. *Trimethyamin remained a riddle for Freud in another dream. Tri-three; amin-

Amen-belief in the trinity (baptism).

5. "White flowers" are the symbol of anti-semitism, as we shall see from another dream. The rock, by way of associations, had led the dreamer to the anecdotes about Jews.
6. Cf. The stole used in the first phase of baptismal ceremonies " must be violet." Catholic Encycl., Vol. 4, "color."
7. Freud's italics.
8. In some of Freud's dreams we find plays on words in English. See later.
9. "This interpretation ("it is from" as er ist fromm) by Freud himself I found later in a footnote some hundred pages away from the text of the dream.





A WORKING THEORY FOR THE UNDERSTANDING OF MELANCHOLY AND ITS TREATMENT

*(Eine Arbeitstheorie zum Verständnis der Melancholie und ihre
Behandlung)*

by Dr Immanuel Velikovsky

(Palestine Institute for Psychological Research)

If a person is full of sorrow he is discharging from his body through the cracks in his eyelids various chemicals. The peculiarity of this phenomenon is normally not regarded as being strange since the process of crying is known to everybody since earliest childhood. - This secretion brings relief.

In the case of melancholy, the sick person does not shed any tears. In fact, with the appearance of tears you can expect a change in the course of the illness.

Melancholia does not offer any hopes for a successful psychotherapeutical treatment. Even though psychic stimuli may trigger the illness or may even constitute the origin of the illness, there is no doubt nowadays that in the case of melancholia there is also invariably a disorder in the biochemistry.

The secretion of tears in grief must be regarded as a depoisoning process; that is why it brings relief.

Melancholia is therefore an illness during the course of which paralyzed secretion apparatus causes those chemicals that should be discharged to continue circulating within the organism.

Tears are important in keeping the cornea and the conjunctiva humid, in protecting them from irritations, and in mechanically removing, as far as it is possible, foreign and irritating substances. Tears may accompany laughing, yawning, coughing, vomiting, and sneezing. Furthermore, tears may appear as a form of expression for the affections of grief, rage, and joy.

Tears are also found in animals; but crying in animals has not been proven so far, and

it is generally accepted that only the human being may secrete tears out of psychological motives.

R. Dubois⁽¹⁾ has extracted from the lacrymal gland of a cow an enzyme, a catalyst, which he calls lacrymase. When injected into guinea pigs these extracts cause spasmodic twitching of the eye, convulsive motions of the muscles of the face, and the secretion of tears. Dubois inferred, therefore, that the lachrymal glands form a substance that causes motion of the facial muscles. According to him, the formation of tears is the result of autointoxication. He calls the hypothetical toxin lachrymaline.

Proteins which are found in tears are albumin and glubalin. Their quantities vary.⁽²⁾ (Arlt, Lerch 0.504, Fredrichs 0.08 - 0.1, Roeth 0.25 - 0.6). In his experiments Roeth has caused a formation of tears through chemical and mechanical, and also through psychological, stimuli. Charlton⁽³⁾ distinguishes two groups of tears, those rich in protein (the secretion of which he determines to originate in the simpaticus) and those poor in protein (the secretion of which he determines to originate in the glossofaringius). (The "tear fibres" are believed to be in the nervous lachrymalies; how they get there has not been determined as yet.)

Weckers is of the opinion that the orbital part of the lachrymal gland in the human being is solely responsible for the secretion of tears in the act of crying. Weiss is of the opinion that there is no way of determining specific organs for the reflectory and psychological secretion of tears.

According to Fleming and Allison there are chemical components in the tear fluid which cause the formation of the specific precipitations.

With this short overview we want to clarify the state of the art in this field.

In the case of the melancholic you not only find a lower secretion of tears but also of the saliva and the gastric juices. We should, however evaluate these phenomena differently since grief causes tears but quite obviously not an increased secretion of gastric juices. This connection, however, should not be left without consideration in experiments.

The appropriate way to treat melancholia is, therefore: to cause a constant secretion of tears.

This is possible through the causation of conjunctivitis. Apart from different methods, we would also propose to try and inject into the veins a sour macerate taken from the mucous membrane of the duodenum since these injections, according to Allesandro⁽⁴⁾, cause the secretion of tears. This is very important insofar as - as mentioned earlier - also the gastric juices are connected with the function of the lachrymal gland in the melancholic.

There is also justification for experiments to cause the secretion of tears through the injection of tears since, as we have seen oftentimes, a similar procedure may cause a change in the biofunctions. This is done according to the motto: *similia similibus*.

There is still another possibility that should be considered: there is a lack of secretion of tears in the melancholic either because the necessary and appropriate components are kept within the organism, or because these components are not formed in sufficient quantity. In the latter case injection of tears would be recommended.

Even though we have reason to believe that tears which are caused through external stimuli are not identical with those cause by psychological stimuli, we may still assume that the stimulation of the lachrymal glands may result in a recapturing of their psychological function. A report on the course of the experiments will follow after a sufficient time.

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2. Referiert nach Weiss.
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4. *Arch. ital. oftalm.*, 15.

First published in Wiener Medizinischen Wochenschrift, (Nr. 21, 1933); translated from the German by Helfried Zrzavy, edited by Duane Vorhees.





DER OEDIPUS-KOMPLEX IM ASSOZIATIONS- VERSUCH

von
Dr.Med. Im. Velikovsky, Tel-Aviv, Palästina.

Einer von den ersten Versuchen, die wir mit unseren Kranken anstellen, ist der bekannte Assoziationsversuch, den schon die experimental-psychologische- Schule von Wundt für psychotechnische Zwecke benutzte und dar durch die Psychiater von Burghölzli in die Psychiatrie und Psychotherapie eingeführt wurde.

In gleichen Intervallen spreche ich einzelne für diesen Zweck gewählte Worte - auch einige Paar-Worte- aus, auf die ohne Ueber-legung und ohne Selbstkritik ein Assoziationswort gegeben werden soll. Die Antworten und die Zeitdauer, die zwischen dem Wort und dem Gegenwort vergeht, werden notierte. Eine verzögerte Antwort lässt die Berührung eines Komplexes vermuten; auch eine unerwartete, ausgefallene oder wiederholende Antwort wird analysiert. Aufmerksamkeit wird der allgemeinen Art von Antworten geschenkt.

Eine Antwortserie, die voll mit Kontrasten ist (Tag - Nacht, Hund - Katze, Liebe - Hass) entspricht dem Wiederatand, der Kampfstellung des Patienten.

Oft wird auch das mit Absicht Verheimlichte ans Licht gebracht. Ein Kranker antwortet auf "geschlossene Augen" mit "zur Hälfte", und viel weiter in demselben Experiment auf "nackt" - unerwartet mit demselben "zur Hälfte". Jetzt gesteht er, dass er bis zu seinem neunzehnten Jahr das Schlafzimmer mit seiner Schwester teilte und oft mit halbgeschlossenen Augen sich schlafend stellte.

Ich beschränke mich in dieser Arbeit auf einige Fälle von sehr verzögerten Antworten, die einen aktiven Oedipus-Komplex verrieten, der auch anderweitig vielfach bestätigt werden konnte.

Der erste Fall betrifft einen jungen Menschen von 19 Jahren, der, wie sein Vater mir vor seinem ersten Besuch berichtet, an Hassausbrüchen und Wutanfällen, die gegen seine Mutter gerichtet sind, leidet und seine Umgebung leiden lässt. Er scheut die Arbeit, hat zu nichts Interesse und ist verzweifelt. Er droht mit Selbstmord. Der Kranke macht äusserlich einen besonders netten Eindruck; im Arzt-Zimmer ist er in seinem Benehmen ruhig und bescheiden. Er klagt über Zwangsgedanken und Handlungen. Früher hat er Onanie "im Uebermass" (etwa 1 mal in der Woche) getrieben. Jetzt will er auf das sexuelle Leben ganz verzichten; er würde seinem

“grossen Egoismus zu liebe” in ein Kloster gehen, wenn bei seiner Religion so etwas möglich wäre; - “Mein Vater ist sehr gutherzig, die Mutter dagegen hat ein böses Herz, ist geschwätzig, aber klug. Sie brachte mich in die Krankheit. Sie bereitet mir ein Ende”.

In dem Assoziationsversuch ist eine verspätete Antwort auf das Wort “Mutter” zu erwarten. Mit Ausnahme von der vierfachen Wiederholung des Adjektives “schön” ist bis zur neunzehnten Wortnennung nichts hervorzuheben. Die Antworten kommen in rascher Folge. Das Siebzehntewort ist “Wurst”, darauf eine doppelte Antwort: rund, rot. Achtzehntes - ein gleichgültiges Wort: “Stuhl” - Antwort: “viereckig”. Neunzehntes Wort: “Mutter”. Folgt ein langes Schweigen, das *m i n u t e n l a n g* dauert. Schliesslich: “es kommt kein Gedanke” (und es scheint, so einfach wäre zu sagen: Vater, oder Kind, alt, oder böse ...). Doch ich besteh auf einer Antwort.

Nach der Farbe der Wände, der Fliesen des Fussbodens, der Form der Fensterrahmen befragt, (Gegenstände, die er oft, sogar hunderte Male, gesehen hat,) gibt der Ausgefragte manchmal, und bei entsprechend ausge “arbeiteten Fragen, sogar meistens, eine Reihe verblüffend falscher Antworten”.

Wenn wir im Auge behalten, dass solch ein Test Wahrnehmungen betrifft, die unter folgenden Bedingungen stattfanden;

- 1) Im affektlosen Zustande,
- 2) In grösseren Zeitabständen und wiederholt,
- 3) Bei genügender Beleuchtung,

so müssen wir den Schluss ziehen, dass der Test sich wesentlich von dem oben beschriebenen Experiment der Mitteilungen von Eindrücken unterscheidet die unter folgenden Bedingungen aufgenommen wurden:

- 1) Plötzlich, manchmal im affektiven Vorgang, der den Beobachter überraschte,
- 2) der nur einmalig vorkam und möglicherweise
- 3) in einer Zeitspanne von nur wenigen Sekunden.

Andererseits unterscheidet sich dieser Test von denjenigen Untersuchungen über das Wahrnehmungsvermögen, in welchen dem Aussagenden in kleinen Zeitabständen verschiedene Visualsignale von Zeichen, Form und Farbe gegeben werden.

Der psychologische Zustand des in Erwartung kommender Zeichen dem Test unterworfenen unterscheidet sich vom Zustande dessen, der, ohne auf eine spätere

Aussage vorbereitet zu sein, die ihn umgebenden Gegenstände wahrnimmt.

Dann kommt: "Kleid". Jetzt wiederhole ich: "Kleid". Er antwortet aber mit dem früheren: "Mutter". Ich: "Mutter". Er: "Kleid", Ich - "Kleid", er - "Mutter", Ich nochmals "Kleid" mit dem Verbot, "Mutter" zu sagen. Er antwortet aber sogleich: "rund, rot" in merkwürdiger Weise die Wurst (ein sexuelles Symbol) zum Kleid und zur Mutter in Assoziation bringend. Es ist noch zu bemerken, dass in der hebräischen Sprache diese Adjektive in der männlichen Form gebraucht wurden, während das Wort Kleid im Hebräischen die weibliche Form verlangt.

Der schluss des Experiments verläuft ohne jede Störung. Auf das Wort "Vater" - antwortet er - "gut".

Sind wir berechtigt einen Hinweis auf den Oedipus-Komplex in diesem Experiment zu sehen? Prüfen wir jetzt die folgenden Tatsachen.

Eines seiner ersten Erinnerungs-Bilder:

"Ich bin 3 oder 4 Jahre alt, meine Mutter stillt mich an ihrer Brust", - Ich wundere mich innerlich über dieses für Trinken an der Mutterbrust ungewöhnliche Alter, das man hier allerdings bei Arabern nicht selten treffen kann - der Kranke aber stammt aus Russland.

Nächstes Mal teilt er mit: zu Hause hat man ihm gesagt, es ist nicht richtig, dass er bis zum vierten Jahr gestillt wurde (er erinnert aber die mitgeteilte Situation in allen Einzelheiten). Seine Mutter nährte ihn nur bis zum Ende des ersten Jahres. Darum bittet er mich, das Notierte in meinem Buch zu streichen, ich aber unterstreiche es; weil so eine Erinnerungsfälschung oder Verschiebung ganz besonders bemerkenswert ist.

Denselben Tag erzählte er mir einen Traum (erster in der Behandlung). Ich frage, was fällt ihm zu der Katze, die er im Traum sah, ein. Es fällt ihm nichts ein. Dann sagte er: "ja, in der Fabrik von meinem Vater hat vor Kurzem eine Katze ihre Kätzlein im Ofen untergebracht. Das störte uns bei der Arbeit. Darum brachten wir ein brennendes Holzstück in die Öffnung des Ofens; die Katze kam und brachte einige Kätzlein heraus, nach den anderen kam sie nicht. Jetzt heizten wir (später sagte er: ich heizte) den Ofen richtig an und die Jungen verbrannten".

Es war irgend ein Widerspruch zwischen seinem weichen, verlegenen Gesichtsbild und der kranken Tat, von der er erzählte. - "Freust Du dich über das Weh der alten Katze?" Er bejahte. Das Mutter-Tier - trat an die Stelle seiner Mutter!

Ein merkwürdiger Gegensatz dazu waren seine, in dem dritten Besuch erzählten Tagesträume: über große philanthropische Wohltaten; über seine Utopie, die Menschen mit "Gewalt zur Moral zu bringen".

In dem nächsten Traum sah er einen Mann, der im Meer badete und sich an einem Tau festhielt. Der Pat. reicht ihm noch ein Tau. Im Wasser bekommt der Mann drei aufeinander folgende Schläge an den Kopf von einer Säule. Die ersten zwei Stösse bemerkt der Mann kaum, der letzte Schlag ist sehr stark und schmerzhaft. Der Pat. freut sich dieses sehend. - An wen erinnert der Mann? - An den Vater nicht, eher nach der Figur - an die Mutter. Wassertraum - Geburtsphantasie. Tau - "Chewel"; dasselbe Wort "Ghewel" in "Chewle Leda" - Geburtswehen. Eine sadistische Fantasie: er freut sich über den Schmerz der Mutter; er hat ihr Geburtsschmerzen verursacht. Seine Geburt sollte besonders schwer sein. Er ist das dritte und letzte Kind (dritter Stoss) bei seiner Mutter. Er hätte sie gerne mit der Säule vorletzt, wie der Vater.

Bis zu seinem zehnten Lebensjahr hat er im Schlafzimmer der Eltern geschlafen. Er erinnert nicht ein Bett für sich bis zu dieser Zeit besessen zu haben. Manchmal erwachte er nachts und der Vater war in dem Bett der Mutter. Damals (9 / Jahre) war er schon von seinen Freunden über den geschlechtlichen Verkehr aufgeklärt.

Nur kurz erwähne ich einen Traum über die zwei "dualistische Hähne" (oder Hühner). Heber einen von diesen ist dem Träumenden bekannt, dass "der Verkehr mit ihm nicht möglich ist".

Der gleiche Gedanke kommt in einem anderen Traum wieder. Er versucht auf ein Fahrrad zu steigen. Das Fahrrad gehört dem Retter (Hebr.-Ma-zil) 6der Strand-Rettungs-Station). Er kann es aber nicht besteigen. Er ist dabei in einem kurzen Hemdchen (Symbol der Kindheit). Fahrrad (Zweirad im Hebr) - die Brüste. Es bleibt wenig Zweifel, dass der Retter die Mutter bedeutet. Ist er ihr ähnlich? - nein. - Wie ist der Name der Mutter? - Zila (Ima - Mutter. Zil - retten, (I) mazil- Retter).

Ich begnüge mich mit diesen Fragmenten aus der Anfang der Behandlung, in der Übertragung stellte der Patient mich an der Stelle seiner Mutter (mich und seine Mutter in einer Person im Traum sehend).

Der Affekt, der in Bezug auf seine Mutter eine Umkehrung erlebte (Hass anstatt Zuneigung als Abwehr gegen den Inzestwunsch), kehrte in der Übertragung zu seiner ursprünglicher Richtung zurück. Der Pat. verlangte von mir auch am Sonnabend - Ruhetag - als Ausnahme empfangen zu werden, um sich einen Vorzug vor anderen Patienten zu schaffen und meine Opferwilligkeit zu prüfen. Er ist jetzt gegen die Mutter ruhig geworden, arbeitet fleissig und ist von seiner Zwangshandlungen frei.

Der zweite Fall, den ich hier erwähnen will, betrifft einen jungen Arbeiter (27 Jahre alt) aus einer landwirtschaftlichen Kvuza (Kommune). Er leidet an Ejaculatio Praecox ante portas. 4 Jahre ist er verheiratet, die Frau ist eine Virgo geblieben.

Neurologisch: Finger-Nase-Intentions-Versuch - grober Tremor. Nystagmus. Ein nervöses Muskelspiel auf dem, wie von einer Renaissance Freske, mageren Gesicht.

Assoziations-Versuch gibt eine stark versäumte Antwort auf das Wort "Uhr" und ein zweites besonders lästiges, minutenlang dauerndes Schweigen auf das Wort - "Vater". Er kann kein Wort zu dem Wort Vater assoziieren.

Sein Vater, ein bekannter Kunstsamler Russlands, ist vor 12 Jahren bei der Flucht von den Massakren Krim über Ukraina nach Central-Russland, einer Flucht die mehrere Monate dauerte, vom Flecktyphus in einem Viewwagen der Eisenbahn, in dem er mit seiner Familie fuhr, gestorben.

Der Kranke kann sich bis heute nicht verzeihen, dass er damals keinen Campher für Einspritzungen erlangen konnte. Wenn wir bedenken, dass es, in den Ukrainischen Steppen war, um die Zeit des grössten Chaos, und er selbst nur fünfzehnjährig - so erscheint uns sein Schuldgefühl nicht begründet, oder nicht richtig begründet.

Im Alter von 10-12 Jahren war er von Schrecken geplagt; er schlief damals in seinem Zimmer alleine. Im Alter von 12 Jahren hatte er Trioden, in denen er sich tagelang in seinem Zimmer versperrte und nur seine Lütter zu, sich hereinliess. Schon im Alter von 8-9 Jahren hatte er iredlich gefärbte Tagträume mit scheinbar masochistischen Vorstellungen (er träumte auch um diese Zeit, dass ein Tramwagen ihn zerdrückt und er fühlte eine esexuelle Erregung dabei). Bis zu seinem 15. oder 16. Jahr wusste er nichts über den Geschlechtsverkehr, obschon ihn in seinem vierten Jahr, wie er gut erinnert, ein starkes Interesse für den Bau des weiblichen Körpers beschäftigte. - Er erzählt über zeitweise vorgekommene Onanie) aber erst vor 1 / Jahren erfuhr er, dass das was er tat - Onanie war.

Seine Mutter ist vor 4 / Jahren in lande gestorben. Er war der jüngste in der Familie und sehr verwoöhnt von ihr. Ein halbes Jahr nach ihrem Ableben hat er geheiratet. Im Laufe des ersten Jahres nach der Heirat waren nur 1 oder 2 Versuche zum Verkehr, der erste davon erst 2 Monate nach der Hochzeit. Er erklärt es dadurch, dass es der Frau nach der Hochzeit zum Bewusstsein gekommen ist, dass sie von ihrer (in der äusseren Form platonischen) liebe zu einem anderen noch nicht befreit war. Der Kranke befand sich in dieser Zeit in starker sexueller Erregung. Die Lage entsprach aber der scheinbar masochistischen wual-Situation im Elternhause. Er quälte sich mit Eifersucht und machte die nächsten achtzehn Monate keine Versuche.

Seitdem seine Frau sich von ihrer früheren Neigung befreit fühlte (die ganze Zeit herrschte ein absolutes Vertrauen zwischen ihr und ihrem Mann, den sie auch seit ehe liebte 7 sind weitere achtzehn Monate vergangen, in denen eine Reihe von Versuchen gemacht waren, aber alle ohne Erfolg. (An der libido, die, nachdem er seine Mutter verloren hatte, sich befreite und ihn zur Heirate brachte, haftete noch das Schattenbild seines ersten Objektes. Deswegen geschahen auch seine sämtliche Versuche in voller Dunkelheit (wo er den Partner anders phantasieren konnte).

Es ist nicht das erste mal, dass er liebt. Aber immer liebte er Frauen, die älter waren als er (das Altersverhältnis des schns zur Mutterandeutend). Auch seine Frau ist 7 Jahre älter als er. Früher fühlte er leidenschaft zu einer Frau, die an einen anderen

gebunden und quälte sich in dieser Situation (wiederholte Dreiecksituationen, entsprechend der Lage im Vater-Hause).

Ich brauche wohl nicht auf die Analyse weiter einzugehen um weitere Beweise seiner aktiven Oedipus-Komplexes zu bringen. Der Stoff aus der ersten Woche spricht eine deutliche Sprache.

Zu Ende der Behandlung sah er einen Traum, in dem er an einem Sonnabend-Morgen (Genesung) sich in einer fliegenden Bewegung (Potenz) zu seiner Frau im Weingarten (Garten der Liebe) nähert und ihr einen Kuss (Verlegung nach oben) gibt, und sieht wie ihr Gesicht sich in das Gesicht seiner Mutter, als sie noch jung war, verwandelt; es geschieht im Beisein von anderen (der Oedipus Komplex kam zum Vorschein, und er verspürt keine Verlegenheit - nur Freude. Der Kuss war ein besonders langer (keine Ejaculatio praecox).

So war es auch bald, als er nach Beendigung der Behandlung in seine Kuvuza zu seiner Frau zurückkehrte.

Nicht Campher sondern Oedipus-Komplex verursachte die Gewissensbisse wegen des Vaters Tod. Die einzige Erinnerung an den Vater war des Vaters Uhr im Besitz des Kranken daher die erste Störung in dem Assoziations-Versuch.

So eröffnet uns manchmal, wie in diesen zwei Fällen, dieses Experiment einen sicheren Hinblick auf das Verborgene.





Psychogene Gehstörungen als Konversions-Merkmal bei Analerotikern

1. Auf Grund der Beobachtung an dem Krankenmaterial in meiner psychoanalytischen Praxis kam ich zur Feststellung, dass die psychogenen Gehstörungen mit den analerotischen Regungen der Kranken kausal eng verbunden sind. Die Gehstörungen nehmen verschiedene Formen an: Lähmungserscheinungen, Platzangst, "Ischias" und "Rheumatismus."

Diese Organneurosen verdanken ihre Entstehung nicht grade dem Wunsche, durch ärztliche örtliche Behandlung an den Beinen (Beschauung, Betastung, Massage) den geheimen libidinösen Regungen eine Ersatzbefriedigung zu finden; (- allerdings so ein Wunsch kann manchesmal die Konversion noch besser fixieren). Manche Kranken haben vor der Analyse eine oder mehrere physikalische Behandlungen durchgemacht, die anderen aber haben sich wegen ihrer Gehstörungen oder auch wegen anderer psychogenener Leiden in die psychoanalytische Behandlung begeben, ohne sich vorher irgendwelchen örtlichen Manipulationen unterzogen zu haben.

In der engen Verbindung dieser beiden Erscheinungen (psychogene Gehstörungen und Analkomplex) ist ein konstanter Konversions-Mechanismus zu erblicken. In den weiter angeführten Beispielen werde ich mich bemühen, diese Behauptung zu bekräftigen.

2. Der Schmerz tritt oft an die Stelle der Lust, er ersetzt die Lust, er fehlt auch nie in der Steigerung der Lust. Dies ist doch der Ursprung des Sado-Masochismus. So ist auch der Schmerz oder das Krankheitsgefühl in den Beinen ein Ersatz für ein Lustgefühl in diesen.

3. Wenn ein Teil des eigenen Körpers (schmerz- oder) lustbetont ist, dann ist mit Wahrscheinlichkeit anzunehmen, dass auch der gleiche Körperteil des Partners libidinöse Anziehungskraft auf den Betreffensind, gleichzeitig ein Fuss- oder Beinfetischist.

4. Der Homosexuelle ist nicht immer Päderast; jedoch beide haben eine libidinöse Fixation an die Beine, die bis zu einem Fetischismus steigen kann. Dass die bewusst Homosexuellen oft nur in Berührung der Beine des Objektes ihre höchste Befriedigung finden, ist eine bemerkenswerte Tatsache.

5. Es ist verständlich, dass grade die den beiden Geschlechtern gleichen Körperteile bei der Entstehung auch des unbewussten homosexuellen Triebes eine besondere

Rolle spiele. Es bleibt aber die Frage zu beantworten, warum grade die Beine (wohlgeformte Waden, schmale Knöchel) - und nicht z. B. die Arme - die homosexuelle Neigung in höchstem Grade fixieren.

. . . und Freud meinen, dass ursprünglich der Schweissgeruch der Füße diesem Körperteil die libidinöse Bedeutung verliehen hat. Der Autor dieser Arbeit ist der Meinung, dass die sexuelle Bewertung der Beine wahrscheinlich in einer früheren Periode der Entwicklung der Arten zu suchen und zu finden ist. Es war eine Zeit, wo die hinteren Extremitäten, nicht in Leder gehüllt, vermutlich nicht mehr als die vorderen Extremitäten Schweiss absonderten, und demnach nicht wegen des Schweissgeruchs sondern wegen ihrer anatomischen Lage den sexuellen Ueberwert besaßen.

Bei den Tieren, bei denen eines das andere besteigt, sollen die hinteren Extremitäten besonders anreizend wirken; in ihnen soll auch gleichzeitig die libidinöse Vorlust ihre vorbereitende Aktion vollziehen. Aus dieser Besteigungsperiode behielt der Homo sapiens die besondere Wertung der Beine.

Gleichdem ist aus der Besteigungsperiode beim verfolgten Weibe das sekundäre Geschlechtsmerkmal der Haare am Nacken, beim verfolgenden Manne am Gesicht (Bart) auch bis zu unserer Zeit übergeblieben. Der Verfolger konnte seine Beute von hinten erkennen, die Verfolgte konnte beim sich umdrehen das Geschlecht des Mannes besser wahrnehmen. Es war eine grosse geistige Revolution, als der Mann, im Unterschied von dem Tier, das von hinten auf das Weibchen steigt, sich Gesicht zu Gesicht zum Weibe wandte.

Sprechen von Gehstörungen, so wollen wir noch eine Betrachtung zufügen, die über das Aufstellen des Menschen etwas Licht werfen könnte. Bessere Möglichkeiten im Kampf ums Dasein waren der Stimulus. Die Inanspruchnahmen der vorderen Extremitäten zum Zeichengeben in der vorsprachlichen Periode (wie die Taubstummen sich verständigen) hat an dem Prozess des Aufrechtgehens des Menschen, wie ich denke, beigetragen. Ebenfalls diente dazu, meine ich, die exhibitionistische Regung. Auch das Weib konnte beim Aufstehen ihren Ersatz - den Busen genügend hervorstellen. Die Scham, sagt Freud, wurde beim Aufrechtstehen des Menschen zum ersten Mal empfunden; ich will behaupten, dass primär das Gegenteil der Scham wirkte - der Exhibitionismus, der dem Menschen sich aufzustellen mithalf. Und erst zu der Freude sich zu zeigen gesellte sich die Scham als die Komponente dieses ambivalenten Gefühles.

* * *

Hier haben wir in gedrängter Form einige Gedanken ausgesprochen, die die philogenetischen Wurzeln dieses auf den ersten Blick unverständlichen Zusammenhangs zwischen den Gehstörungen und der analen Begierde, wir würden sagen "analer Angat" aufdecken.

Wir gehen zu dem praktischen Teil dieser Arbeit über und wollen an einer Zahl von Beispielen, die auch vermehrt werden könnte, den obenerwähnten Zusammenhang illustrieren.

Bei den hier mitgeteilten Fällen waren keine organischen Beschwerden an den Beinen wie Coxitis, Pes plana, Krampfadern, Luxationen, Podagra zu finden, auch keine nachweisbare Neuritis festzustellen.

Wir werden versuchen die hier vorgebrachten Fälle in Kürze - wie weit es der Zweck unserer Darlegung erlaubt - zu berichten.

Fall 1. Ein 28 jähriger Akademiker erscheint hinkend in der Ordination, gestützt auf Stöcke: ein "Rheumatismus" der beiden Beine zwingt ihn dazu.

Die Meinungen der Aerzte waren allerdings verschieden. Es war drei Jahre zurück, dass er eine Dysenteris bekam, und eine Woche später die Beinschmerzen. (Jeden Sommer bekommt er Dysenterie). Ein Arzt meinte, es konnten Toxine der Krankheit im Körper geblieben sein. Die Schmerzen sind besonders stark in den Muskeln und um rechten Knie. Bäder, Massage blieben ohne Einfluss. Ebenso Elektrotherapie. Schliesslich kann der Kranke nicht einmal mehr den Weg vom Haus bis zur Droschke vor der Tür machen. In Tiberias nahm er Bäder in der warmen Quelle. Seine Schmerzen wurden nur grösser. Neuralgie, Ischias, Podagra, Rheumatismus wechselten die Diagnosen. Er hörte auf sich zu bewegen und wurde bettlägerig. In Verzweiflung wollte er Suicid begehen.

Schliesslich erkennt ein Arzt in der Krankheit die Neurose. Der Kranke ist das jüngste Kind in seiner Familie; er lebt als Junggeselle in seinem Vaterhause. Als Kind wurde er fast täglich von seinem Vater auf den Podex geschlagen. Bis zum zwölften Jahr schlief er bei seinen Eltern oder mit seiner Schwester in einem Bett. Als 10 jähriger Junge reinigte er sich nach der Defäkation nicht mit Papier sondern mit einem Finger. Mit sechzehn Jahren hatte er homosexuellen Verkehr verbunden mit Fellatio.

[One page missing.]

Fall 2. Ein 29 jähriger Künstler, ein charmanter Levantiner, erscheint in Begleitung seiner Mutter, einer alten vertrockneten Frau. Er ist unfähig sich allein ohne Begleitung auf der Strasse zu bewegen oder auch nur zu bleiben. Wenn er zu seiner Braut zum Rendezvous fährt, begleitet ihn die Braut erscheint.

Auch eine Strecke von fünf Metern kann er unmöglich allein durchgehen. In Begleitung ist er auch nur ganz kleine Wege zu gehen fähig. Zu der Behandlung fährt er mit der (? - Eine ausgesprochene Platzangst verbunden mit Angst vor) Mutter auf einer Droschke.

Er hat einen kompensierten Vitium Cordis mit einem lauten Klappengeräusch; dies organische Leiden aber steht gänzlich im Hintergrund seiner psychogenen Beschwerden, die allein er beklagt.

Auch er ist der jühgste. Sein Vater ist tot. Bis zu seinem 17sten Jahr schlief er in einem Bett mit seiner um zehn Jahre älteren Schwester und weiter drei Jahre schläft er zusammen mit seiner Mutter. Er gibt auch unter Widerständen an, dass er einige Mal einen Anusverkehr mit seiner Schwester und einen Anusverkehrsversuch mit seiner Mutter, die beide, wie es ihm schien im Schlafe waren, unternahm. Die Mutter wies ihn, als ob im Schlafe gestört, ab, liess ihn aber such wieter das Lager mit ihr teilen. Es passiert auch noch jetzt, dass em mit der Mutter in einem Bett schläft er lässt sich auch von ihr beim baden helfen.

Sein sexuelles leben ist das eines levantiners: einiges fehlt dort. Im 5-6 Lebensjahr Homosexueller Verkehr mit seinem älteren Bruder, seinerseits passiv. Kleine Mädchen versuchten ihn zu verführen, dasgleiche versuchten die Stubenmädchen. Im Alter zwischen 7 und 9 Jahren wurde er von einem Araber als Lustknabe im päderastischen Verkehr ausgenutzt. Mit zehn Jahren trieb er Sodomie mit Hühnern, mit 15 Jahren richtete er einen Hund ab, ihm den Penis zu lecken. An Prostituierten, die er zuerst mit vierzehn Jahren besuchte, führte er in späteren Jahren Fellatio und päderastische Akte aus, sie ihm Anilingus.

Er fuhr zur Ausbildung als Künstler ins Ausland, erkrankte aber bald an einer Darmaffektion und rief telegraphisch seine Schwester zu sich. So wurde eine Künstlerlehrzeit abgebrichen. In seiner Lehrtätigkeit verführt er seine Schülerinnen, kleine halbwüchsige Mädchen.

Ueber seine onanistischen Akte schreibt er unverhüllt an seine Schwester. Wenn er onaniert führt er gleichzeitig einen Finger in den Anus.

Vor dem Auftreten als Künstler gat er ein starkes und wiederholtes Bedürfnis zur Darmentleerung. So we auch die vermeintliche Dysenterie im vorigen Fall müssen wir die verschiedenen Darmbeschwerden in seiner Geschichte als analerotisches Symptom verstehen. Eine gleiche Störung trat auch während der Behandlung in der Phase des Widerstahdes auf.

Im Anfang der Behandlung heiratet er, oder richtiger seine Braut, ein Mädchen mit entschlossenem Charakter heiratet ihn, und die Mutter fährt weg. Er bleibt bei seinem Bruder, schläft neben ihm, lasst die Frau im anderen Zimmer schlafen. Der Bruder lässt sich von ihm bedienen; er muss dem Bruder den Kaffee bereiten, weil er ihm nur aus seinen Händen schmeckt. Der Bruder malträtiert ihn und es kommt öftera zu Prügeleien zwischen ihnen. Einmal bekam die Mutter, als sie noch zusammen wohnten, eine blutende Wunde an der Schläfe von meinem Patienten, der mit seine Schun nach dem Bruder zielte. Dann kommt es zu Lieblosungen zwischen den Brüdern. Des Morgens pflegt er seinem Bruder seine Genilatien zu zeigen. Dieser unverheiratete um eine Jahre ältere Bruder, der ihn aus unbewussten homosexuellen

Motiven der Frau nicht abtreten wil, malträtiert auch die Frau der Frau nicht abtreten will, malträtiert auch die Frau; schliesslich weist er sie, sie ist schwanger, aus dem Hause und will dem Hause und will den Bruder bei sich behalten.

Der Patient färbt sich die Lippen, (vermullich, da sie öfters bläulich aussehen: vitium cordis), er parfümiert sich und trägt auffallend bunte Henden.

Mit seiner Frau führt er trotz ihres Widerstrebens Analakte aus.

Die Uebertragungsphantasien in der Analyse, wie sie in den Träumen wiedergegeben sind, habne einen ausgesprochenen und unverhüllten päderastischen Charakter.

Den infantilen Charakter dieses Kranken erblickt man nicht nur in der Betonung der Oral- und Analzonen, besonders der letzteren, sondern auch in der Wahl der Neurosenform - der Platzangst - nach den kindlichen Remineszenzen von getragen und gefahren werden.

Gefragt welches Buch auf ihn besonderen Eindruck machte, nennt er: "Cercle de la famille". Er befindet sich zu Anfang der Behandlung im verhängnisvollen Kreise seiner Familie, er ist in die psychoinfantile Situation verstrickt.

Das Infantile ist das Gemeinsame der analerotischen Regungen und der Gehstörungen dieser Kranken. So ist die infantile Regression der Verbindungsring in den Zusammentreten der Gehstöringem und der Analerotik. Dies ist der ontogenetische Zusammenhang.; über den philogenetischen sprachen wir in dem theoretischen Teil dieser Arbeit.





Die Revision einer Analyse

von
Wilhelm Stekel

In dieser Studie wollen wir an Hand der Revision einer Analyse zur Erwägung die Frage stellen: wirkliches Erlebnis (verheimlicht oder in Amnesie versunken) oder Erdichtung eines in double conscience Lebenden? Spaltung der Persönlichkeit - double conscience - verstehen wir hier nicht im Sinne einer Dissoziation zwischen dem Bewussten und Unbewussten, wie wir es schliesslich bei jedem Analysanten finden; sondern in jener manifesten Form, wo der Mensch zu einem 'Besessenen' wird und das Leben von zwei oder mehreren Personen lebt, von denen jede genau unterschieden ist, manchmal einen Namen hat, und sich zu verschiedenen Zeiten des Leidenden bemächtigt. Es ist der Dibbuk der Kabbalisten, der Kontrollgeist, die Inkarnation.

Der Somnambule glaubt an seine zweite Persönlichkeit, und dieser Glauben unterscheidet ihn von einem Zwangsneurotiker, der immerhin die ihm zuflüsternde Stimme als illusorische zu verstehen weiss. Dies könnte die Analyse erschweren. Andererseits aber wird ein in double conscience Leben—der nicht das innere Bedürfnis nach einem tieferen Verbergen haben, und es ist zu erwarten, dass seine Träume einen viel weniger verstecken Charakter haben, da eben eine Person nicht verantwortlich für die andere Person der double conscience ist.

Widerstand—wird in der Psychoanalyse dasjenige psychische Hindernis genannt, welches dem Uebergang der unbewussten Inhalte ins Bewusstsein im Wege steht. Wir wollen den Begriff insofern etwas breiter nehmen, als wir den Widerstand nicht nur für die unbewusste sondern auch für die bewusste Verheimlichung verantwortlich machen.

Der vorgebrachte Stoff wird kaum eine Entscheidung zwischen den oben genannten Möglichkeiten—Erlebnis oder Erdichtung—für diesen Fall zulassen; allein die Erwägung ist nicht nutzlos.

Bei der Revision kommen wir zu einer Umdeutung. Die Umdeutungen wurden grade als Beweis der Willkürlichkeit und Unzulänglichkeit der Psychoanalyse vorgebracht. Wir wollen im Gegensatz dazu behaupten: Ist des der Stoff der Analyse, so wie hier, aufmerksam gesammelt und erhalten, so wird die Richtigstellung immer noch möglich bleiben, mögen inzwischen auch Jahrzehnte vergangen sein. So ist Seelenforschung Gegenteil von Willkür.

Für den eigentlichen Inhalt dieser Arbeit wählte ich eine Revision einer der ausführlichen, samt allen gedeuteten Träumen mitgeteilten und längst vorgelegten Analysen von Dr. W. Stekel: Die Berufsneurose einer Sängerin (Störungen des Trieb- und Affektlebens. Nervöse Angstzustände, 3. Auflage). Nicht um mich über einen geistvollen Psychoanalytiker zu erheben. Hat wohl auch Stekel Korrekturen in Analysen von Freud (Uhrmensch) gebracht. Wittels sagt in seinem Buche 'Sigmund Freud': "Stekel hat es mit seinen Umdeutungen so weit gebracht, dass die orthodoxe Schule ihre oft gezwungenen Traumdeutungen kaum mehr zu veröffentlichen wagt."

So wird es wohl berechtigt sein, auch einmal eine Analyse des Umdeuters zu revidieren. Mit dieser Revision will ich nicht sagen, dass n u r die von mir vorgeschlagene Deutung richtig sei: jedes Assoziations-Experiment und jeder Traum ist mehrfach determiniert. Der von mir begangene Deutungspfad ist im Laufe der ganzen Analyse immer wiederzufinden. Habe ich vielleicht das eine oder andere Mal einen nicht glaubwürdigen Zeugen sprechen lassen, so bleiben immer noch genug Beweismomente, die eine strenge Prüfung aushalten können.

Die Konzertsängerin N. (Analysantin dieser Analyse) war zwei Jahre nicht imstande, das kleinste Leid zu singen.

Ich will hier in medias res kommen und sagen: nach allem in ihrer Analyse mitgeteilten wird mir klar, dass die Patientin immer wieder die Szene eines Kindesmords neu erlebte. Dies war entweder die Erinnerung an die Abtreibung ihres Kindes, - in ihrer Auffassung einem Kindesmord gleichkommend, - oder in Spaltung der Persönlichkeit die Phantasie von dem Kindsmord, den sie im Geiste immer von neuem durchmachte. Dieses Erlebnis oder dieser Wahngedanke war nach meiner Meinung der Brennpunkt ihrer Neurose, ihrer Margareten-Neurose. Die Patientin hat dem Analysator über ein solches Erlebnis nie etwas in direkter Weise mitgeteilt, und der Analysator hat darüber keinen Verdacht ausgesprochen.

Der Beweis der Spaltung ihrer Persönlichkeit wird durch ihre in früheren Jahren oft wiederkehrende Vorstellung erbracht, dass sie schon zweimal gelebt hätte: als junger Mann und als Priesterin. Ausserdem leidet sie an Ohnmachten und Anfällen von kataleptischer Starre. (Diese bekennt die nach Meinung des Analysators durchaus wahrheitsliebende Patientin erst in der zweiten Hälfte der Behandlung. - Gleichzeitig ein Beispiel der Verheinelichung bewusster Tatsachen während einer Reihe von Sitzungen.)

In der ersten Sitzung wird die Biographie erzählt. Aus der Biographie. In der Jugend war sie sehr religiös, wollte sogar Predigerin werden und das Wort des Herrn verkünden. Zu ihrem ersten Musiklehrer, der sie liebte, hatte sie eine Empfindung, die sie als 'Muttergefühl' bezeichnet. Mit etwa 22 Jahren hat sie ihre Studien in Berlin beendet und bald begann ihre grosse Karriere als Konzertsängerin. Seit zehn Jahren lebt sie mit einem Violinvirtuosen, vom Analysator 'P.' genannt.

Die Stimme versagte ihr nach einem Konzert, nachdem sie ein 'ungeheuer trauriges

Lied sang, das eine Wanderung einer verlassenen Mutter mit ihrem Kinde durch Sibirien schilderte. Das hat sie so fürchterlich erregt’.

Analysator: “Irgend eine Beziehung zwischen dem Vorgetragenen und ihren persönlichen Erlebnissen leiss sich kaum finden. Sie hört zu sprechen auf. Es fällt ihr garnichts mehr ein.”

Revision: Ist ein Widerstand an dieser Stelle nicht ein Fingerzeig? Es ist auch bemerkenswert, dass die Mitteilung diese Inhalts des Lieds erst in der zweiten Sitzung als ein ‘Bekentnis’ kommt. In der ersten Sitzung hat sie andere Angaben über das gesungene Leid gemacht.

Assoziationsversuch: Willkürlich von ihr genannte Worte; das Nebenwort von ihr später zugefügt.

Assoziationen: Hund - treu, Baum - Busch, Wald - kühl, Weg - breit, Blume - rot, Quelle - frisch, Förster - gesund, Berge - Aussicht, Sonne - Warm, tiefe Schatten - Ruhe, Wind - Streit, (10 Sekunden Pause), Fluss - - , Reh - Schönheit, Wegweiser - erreichen, Heidekraut - Wehmut, Stein - überwinden.

Analysator: “Sie führt ein Hundeleben. Baum, Wald, Weg führen direkt in den sexuellen Komplex. Blume - rot ein uraltes Symbol. Blumen pflücken - déflorer. Quelle - symbol für Blasse.” (Selbstverständlich gehört zum Blumenpflücken im Walde ein gesunder Förster). Berge - Schamberg, Sonne - Lebensfreude, tiefe Schatten hat man unter den Augen, wenn man zu viel lebt. Fluss. Ihr fällt ein, dass sie als Mädchen an Fluss gelitten hat. Heidekraut - Wehmut, mahnt an ein Leid von einem verlassenen Mädchen, das einsam durch die Welt wandern muss, mit nachten Füßen über spitze Steine.”

Revision: M a r g a r e t e (Faust) im Kerker:

Geschwind! Geschwind! (Wind)
Rette dein armes Kind. . .
Fort! immer den W e g
Am Bach hinauf (Q u e l l e)
Ueber den Steg,
In den W a l d henein,
Links, wo die Planke steht,
Im Teich. . . (F l u s s)
Wären wir nur den B e r g vorbei!
Da sitzt meine Mutter auf einem S t e i n. . .

(hier wird die befremdende Assoziation: “Stein - überwinden” verständlich). Tiefe Schatten - sie sagt dazu Ruhe - es ist die ewige Ruhe. Streit - der letzte Widerstreit in ihr; die Pause ist vor dem schrecklichen Moment. Zum Fluss findet sie keine Nebenassoziation.

Blume, wie auch Hund werden uns noch beschäftigen. Ueber Heidekraut - Wehmut s. die Bemerkung des Analysators.

In dieser Sitzung erfahren wir ("das wichtigste hat sie mir nämlich noch nicht erzählt"), dass der Geiger verheiratet ist. Er lebt nicht mit der Frau, es kränkt sie aber, dass sie mit P. nicht verheiratet sein kann. Es sind ihr alle besseren Häuser verschlossen. (Rev.: sie darf von ihm kein Kind haben).

Der Analysator wählt Worte; verlangsamte Reaktion gaben: Mann - Egoist, Sofa - bequem, Leidenschaft - grausam. (Rev: grausam war die Folge ihrer Leidenschaft). Analysator schliesst, dass sie damit wichtige Komplexe verraten hat, jedenfalls den sadistischen.

Am nächsten Tag beginnt ihre Assoziationsreihe mit: Stuhl, Teppich, Vorhang, (Pause) Strasse, Wagen, Mensch, Hund, Baum, Hotel, Garten, Eisenbahn, Aussicht, Berg, Tal, Fluss, Wald, Waldweg, Baum, Vogel, Quelle, Schatten.

Analysator: Stuhl - Stuhlgang, Geld, Analcharakter. (Keine andere Angabe).

Revision: Wieder der Gretchen-Gesang. Nur diesmal ist der Bach durch die Quelle (entsprechend dem Text des Faust) verbessert. Es ist auch die Beschreibung ihres Selbstmordversuchs, (s. später), als Wunsch, dem Kinde zu folgen (Talion Strafe).

Zum Stuhl - Untersuchungsstuhl, auch Abort. Nach dem Vorhang - Ausfall - Geheimnis.

Ihr grosses Wohlgefühl beim Absetzen des Stuhles (sie macht es zweimal am Tage) immer mit erotischen Behagen, mit einem grossen Apparate von Vorbereitungen, ist wohl nach unserer Auffassung die Phantasie der Geburtsszene. Bedenke aber auch: Abort - Abtreibung. Sie hat die Zwangsempfindung, in keinem fremden Hause etwas absetzen zu können (Analysator führt dieses Zeremonial auf eine Reminescenz aus Kinderjahren zurück, als sie eine Münze verschluckte. Ihre besonders häufigen Waschungen verstehen wir als Versuche, die Schuld abzuwaschen.

Erster *Traum* während der Analyse: "Ich tanze im weissen Kleide mit einem Regenschirm, kleidete mich dann um und trug das schwarze Kleid, das ich täglich trage."

Analysator: "Regenschirm - sexuelles Symbol für Penis. Es handelt sich um eine Koitur-Szene, nach der sie sich schwarz kleidet. Aber der Nachsatz: 'das ich täglich trage', gibt zu denken. . . Es handelt sich um ein Kleid, das sie nicht täglich getragen hat, nämlich um ein Trauerkleid. Da sie mit einem leichten Angstgefühl erwacht ist, hat es den Anschein, dass sie sich mit geheimen Gedanken beschäftigt, die sich auf den Tod von P. beziehen. . ."

Revision: Der Traum wiederholt den Gedanken 'Leidenschaft' (die Szene mit dem Schirm) 'ist grausam'. T r a u e r nach dem Kende, die sie symbolisch täglich trägt.

Traum: Am nächsten Tag stereotyper Traum, der bei ihr sehr häufig auftritt: "Sie hätte ein Kind und das Kind friere und sei schutzbedürftig verlassens."

Analysator: "Das ist ein deutlicher Exhibitionstraum (Kind als Vagina zu deuten). Solcher Träume weiss sie sich unzähliger zu erinnern. Sie treten such als Wachträume auf. Das schutz bedürftige Kind drück auch ihre Unzufriedenheit mit P. aus. Uebrigens war es ihr heissester Wunsch, ein Kind von ihm zu haben. Wir denken an den Anlass, bei dem die Neurose manifest wurde. Sie sang ein Lied von einer Mutter, die mit einem Kinde frierend durch Sibirien wanderte. Das war ihre Geschichte. Sie fror in der Gesellschaft ihres kalten Geliebten. Sie und ihr 'Kind', das wir symbolisch auffassen müssen."

Revision: Wir wollen hier die Worte des Analysators zu einer anderen Analyse einführen: 'Jeder Traum muss auch in der direkten, nicht symbolischen Bedeutung einen Sinn haben'. (Störungen des Trieb-und Affektlebens, Bd. 3. 11 Aufl. Seite 348). Dies ist grade zur Analyse des Symbols K i n d geschrieben. Wäre sogar das Kind in ihrem Träumen nur als Symbol zu deuten, so ist das Kind der Wachträume (Halluzinationen) sicher nicht als Vagina - Symbol zu verstehen. Würde grase das Lied von der Mutter mit dem frierenden Kinde der Anlass zum Ausbruch ihrer Neurose sein, wenn das Kind mur Symbol ihrer Vagina wäre?

Bruchstücke eines weiteren *Traumes*:

'von rückwärts sind ein paar gekommen . . . sie sagten, es sei nicht zum aushalten da, es wäre zu heiss'. *Anls:* ihr Analcharakter. *Rvs:* Rektaluntersuchung? Fieber?

Weiterer Traumteil: "Ein Herr, ein grosser Lump, sagte: ich habe etwas neues entdeckt. Versuchen wir es zusammen. Es wird grossartig werden."

Wir erzählen es niemand:

Anls: 'Zwischen vielen anderem steigt die Erinnerung an einen 'Lumpen' auf, von dem sie auf dem Gebiete der Erotik besondere Sensationen erwarten konnte.'

Rvs: Lump ist der Schwähgerer. Dieser Teil des Traumes bezieht sich wohl auf ihr geheimes Liebesverhältniss. 'Ich chabe etwas neues entdeckt' - das waren ihre Worte zur Entdeckung der Schwangerschaft. Sie hatte den Wunsch das Kind auszutragen (g r o s sartig) und dem Mann an sich zu binden ('versuchen wir es zusammen'). Es wird aber verheimlicht: 'wir erzählen es niemand'.

Traumfolge: 'Da kam jemand und sagte, Sie, Fräulein N., Sie können nicht singen, ihre Numer muss ausfallen'.

Anls: 'Verspottung des Geigers, dessen Potenz nicht auf der Höhe ihrer Forderungen zu sein scheint: ihre Nummer fällt aus.'

Rvs: Du, als Fräulein und als Künstlerin darfst nicht gebären. Die Nummer muss ausfallen! Nummer - Kind (siehe späterer Traum, der Geiger als siebtes Kind wurde Nummer 7 genannt.)

Traumfolge: 'Ich hatte das Gefühl, dass die Lokalitäten so waren, dass ich nicht auftreten konnte'.

Anls: 'Die Lokalitäten (Genitalien) sind daran schuld, dass ihre Nummer (Vergnügen) ausfällt.'

Revision: Mit grossen Leib kann sie nicht auf der Bühne auftreten.

Traumfolge: 'Auch der kleine Mecha Elman ist dagewesen, aber als grosser Künstler.'

Anls: 'Das ist die Phantasie eines 'Kleinen' (Penis), der viel leisten kann.'

Rvs: Ein Sohn von dem Violinvirtuosen und ihr, der Sägerin, würde ein Wunderking sein.

Traumfologie: "Ich bin auf einem langen Wagen gesessen und habe viele Torten gehabt, die waren schlecht verpackt; ich sagte, das ist die schlechte 'Wiener Packung'."

Anls: 'Ein Hohn auf den P. Die Süßigkeiten sind nicht gut verpackt, sie fallen zu früh heraus.'

Rvs: Transport auf einem Krankenwagen (langer Wagen) ins Spital? Torten - Mutterkuchen, (scheinbar wegen der Entfernung der Reste der Plazenta war der Transport nötig). Wahrscheinlich hat die Schwangerschaft (Packing - Schwangerschaft) in Wien angefangen. Die schlechte Wiener Packung kann sich auch auf die schlechte Achwangerschafts-Unterbrechung beziehen.

Worte, die ihr einfielen; Sofa, Schreibtisch, weich, warm, Feuer, nackter Fuss, Spiritusflamme, Zylinder, Hung Stuhl, Bücherschrank, (Pause) Instrument, Blume; Fenster, Tür Schemel, singende Wasser.

Anls: "Die Übertragung beginnt ihre Wirkung; sie hat mir ein Lineal überreicht. Sie fängt mit Sofa an, kommt zum Schreibtisch, geht über weich, warm und Feuer zum nackten Fuss. . Spiritusflamme, Zylinder, Hund, Stuhl beziehen ihre Wertung aus dem erotischen Komplex. Der Zweifel, ob ich als ein Gelehrter, der sich mit Büchern beschäftigt (Bücherschrank), mich mit ihr abgeben werde, wird nach einer längeren Pause durch die Assoziation Instrument beseitigt. Dass es sich um ein Instrument

zum Öffnen handelt, ist klar und dass dieses Instrument dann Fenster und Türe offen findet, leicht verständlich. Schemel bezieht sich auf ihre Freude am Sitzen (sie möchte mir zu Füßen sitzen), während 'singende Wasser' die Szene des Koitus symbolisieren."

Rvs: warm, weich - ein Kind ist warm und weich. Nackter Fuss, Spiritusflamme, Zylinder, Instrument gehören zur Abortszene: man kommt in Versuchung, aus diesen Worten die Abortszene zu rekonstruieren. Zu nackter Fuss - auch der Gesang von den nackten Füßen des einsam wandernden Mädchen. Zylinder - Vaginalspiegel, Stuhl - Widerstand in dem entscheidenden Moment; mit dem Instrument (in siedendem singenden Wasser gekocht) ist der Abort eingeleitet. Blume - rot, sagte sie jüngst, - Blut. Schemel - für eine stellende Mutter, für ein Kind. Später erfahren wir, dass sie einen Selbstmord durch Eririnken versuchte, (Talion Strafe?); möglich nach Vorstellung wurde ihre Leibesfrucht von der weisen Frau ins Wasser geworfen. Margarete - ihr Vorbild - hat ihr Kind ertränkt. *S i n g e n d e* Wasser muss wohl tiefere Beziehung haben; warum sie, die Sängerin zu *s i n g e n* aufgehört hat.

Material der Analyse: nach der Wiedergabe der Wörterreihe; sie müsse ein Geständnis machen: sie wüsche sich ein Kind. Es beschäftigt sie oft der Gedanke, warum das so hässlich eingerichtet sei.

Rev: Es ist kaum noch eine Verheimlichung. Sie würde sich denn nicht als das gejagte Mädchen in dem Liede fühlen. Und auch der zweite mögliche Grund zur Abtreibung - die Rivalität mit einer Tän-Schwangerschaft nicht den Leib so unförmig machte.

Analysator: In dem nächsten Assoziationsversuch, in dem ich einige Worte wähle, gibt es einige interessante Momente. Auf 'rückwärts' kommt nach einer ziemlich langen Pause: 'dunkel' (Analkomplex). Auf 'Nummer' kommt 7, was sie anfangs nicht erklären kann. Am nächsten Tage bringt sie die Erklärung. P. ist das 7. Kind seiner Eltern und wurde daheim immer Nr 7 genannt. Jetzt wissen wir auch, welche Nummer auslaffen muss. Bei 'Torte' kommt nach einer langen Pause 'nicht geniessbar', was wieder ihrer Abneigung gegen P. Ausdruck gibt. Seine Zärtlichkeiten sind offenbar nicht genügend. Die schlechte Wiener Packung, wo die Torten zu früh herausfallen!" (Ejakulatio praecox).

Revision: 'rückwärts' - 'dunkel'; dunkel ist die Vergangenheit dunkel ist die Verheimlichung. Kind ist tot. Tiefe Schatten. Hier sehen wir auch klar, dass 'Nummer' - Kind bedeute. (Meine Nummer muss ausfallen! - im Traume). 'Torte' - Mutterkuchen, ist 'nicht geniessbarer' Kuchen.

Folgender *Traum:*

"Ich war in einem grossen Bankhaus, wo es sehr hoch hinaufgeht und auf einmal konnte ich nicht widerstehen: ich habe gesungen, aber kein Leid. Das hat kolossal geklungen."

Analysator: “Sie liebt eine Wohnung mit vielen Sitzgelegenheiten, vielen Bänken. ‘Hoch hinaufgeht’ bezieht sich auf eine sexuelle Phantasie von dem Bau ihrer Vagina. . . Phantasie von einem grossen Penis. ‘Konnte nicht widerstehen’ - sie erinnert sich an einen Selbstmordversuch, den sie in Potsdam gemacht hat. Sie wollte ins Wasser gehen”.

Revision: Bankhaus - Haus der guten Hoffnung - der Lotterie) - geburtsspital. ‘Hoch hinaufgeht’: Küretage. Dass sie erst in dieser Sitzung ihren Selbstmordversuch durch ertrinken erinnert ist bedeutsam (Verheimlichung?). So bedeutet wohl das wiederholt von ihr genannte ‘Wasser’ n i c h t d i e B l a s e.

Traumfortsetzung: “Dann kam ein Beamter und sagte: er reiche um seine Entlassung ein, weil er das nicht aushalte (weil ich einen solchen Spektakel gemacht habe). Den habe ich beruhigt und gesagt: ich werde es nicht mehr tun. Dann sah ich eine Dirne ausgezogen.”

Analysator: “er reiche um seine Enlassung ein”. Ursprünglich wollte P. sie sogar verlassen. Er hat eine träge, langsame Verdauung. Er apricht von Zeit zu Zeit immer wieder von der Tänzerin. Deshalb nennt sie ihn hier im Traume den Beamten”. Sie macht die Tänzerin zur Dirnen”.

Revision: Sie schrie im Spital bei der Operation. Ob der Doktor sagte: sie soll aufhören oder sie sagte, sie kann es nicht aushalten? (Auch ein Beamter auf dem letzten Konzerte sagte auf ihren Gesang, welcher wie Geschrei war, “er kann es nicht aushalten”). ‘Wie eine Dirne’ - es bezieht sich auf sie selbst. Sie ist in dem Geburtsspital nicht die Mutter (ihr Mutterschaftsideal), sondern eine Dirne. Sie war ganz ausgezogen.

Traumfolge: “Dann wurde mir etwas zum Zählen aufgegeben. Ich konnte aber über 22 nicht hinauskommen”.

Analysator: “Um 22 Jahre ist P. älter als sie. 22 Jahre war sie alt; als sie P. kennen lernte, 22 Jahre ist die Tänzerin alt”.

Revision: Einleitung einer Narkose. Man befiehlt ihr zu zählen. Bei ihrer unverhüllten Erzählung konnte 22 auch die Ziffer sein, bei welcher sie zu zählen aufhörte; (oder war die Unterbrechung inder 22. Woche? ‘ich konnte über 22 nicht hinauskommen’). Später erfahren wir auch, dass 3 ihre Lieblingszahl ist. Analysator wird meinen, weil sie sich immer, auch mit der Tänzerin eine Dreiecksituation wünsche. Wir denken, das dritte ist das Kind. Von 22 konnte sie nicht zu 23 kommen. (Siehe auch über die Altersangaben bei dem Analysator).

Traumfolge: “Da war immer etwas in Unordnung. Es war kalt und sie bat mich, ihr eines von dem wollenen Tüchern, mit denen ich gezählt habe, zu geben. Auf einmal war ich in einem altmodischen Konzertkostüm. Es war wie eine halbe Krinoline. Die

Bänder habe ich aufgemacht, um schneller gehen zu können und das Kleid besser aufzuheben. . .”

Analysator: “Von der Tänzerin wusste sie, dass sie feine sedene Unterkl kleider trug.” Im Traume ist Sonja (die Tänzerin) nackt und sie deckt sie mit zwei wollenen Tüchern zu (Rache). (Zur ‘halbe Krinoline’ u. a. wird kein Erklärungsversuch gegeben Rev.)

Revision: Sie näherte sich dem Zustande der Narkose, alles wurde verworren ‘war in Unordnung’ (es bezieht sich auch auf die Unordnung, wegen welcher der Eingriff nötig war). ‘Wollene Tücher’: bei Operation, und auch danach frieren die Kranken und werden erwärmt. Sie erwachte in einem ..., im Hospitalhemd (‘auf einmal war ich in einem altmodischen Konzertkostüm). Befreit von der Schwangerschaft konnte sie wieder konzertieren. ‘H a l b e K r i n o l i n e’ - s c h w a n g e r e r L e i b. ‘Die Bänder habe ich aufgemacht’ . . . Verband heruntergenommen. Die Leibbinde der Schwangerschaft nicht mehr nötig. Sie war nicht mehr gebunden: e n t b u n d e n ().

Traumschluss: “Da fing es zu regnen an. Sonja hat mir gesagt, ich möchte hinaufragen um einen Regenschirm und P. hat gesagt, er bringt einen. Er war sehr feierlich angezogen. Sie sagte: aber für mich auch. Ich dachte: du kennst jaden P. garnicht. Da muss ich selbst gehen.”

Analysator: “Die Phantasie, dass sie den P. heiratet. Sie geht sich ihr Regenschirm holen. Natürlich verlangt die Tänzerin auch einen (‘für mich auch’). Sie antwortet aber witzig: ‘Da muss ich selber gehen’. Das ist nämlich ihr jetziger Entschluss; sie möchte für eine Zeit lang nach Petersburg gehen, um zur Ruhe zu kommen. - Wieder eine Lösung des Rätsels, weshalb sie nicht singen kann. Erstens: sie will nicht verdienen, damit P. für sie sorgen muss, wie für seine Geliebte ihre Stimme hässlich gefunden hat, deshalb soll P. die Stimme nie mehr hören. Sie wiederholt, im Zusammenhang mit diedem Traum, dass sie im letzten Konzert so verzweifelt gesungen hatte, dass die Leute ganz erschüttert waren. Sie sang eine Ballade, in der eine unglückliche Frau wie ein wildes Tier gejagt wird.”

Zur *Revision:* Die Symbolik des Regenschirm wie beim Analysator sonst aber kann Schirm auch eine zweite Bedeutung haben: Sont (im Russischen Schirm) wie Sond (im Deutschen Sonde). (Sie ist eine Russin). Möglich wünscht sie auch der Rivalin einen Abort (Uretralsonde). Auch die Tücher ‘mitdenen sie zählte’ (Narkosetuch auf dem Gesicht) will sie ihr geben. - Zur Vervollständigung erinnern wir, dass die zu diesem Traume erwähnte Ballade die Geschichte einer Mutter mit ihrem Kinde war.

Am nächsten Tage: *Traum.* “Eine fremde Frau hat ihr Kind versteckt Ich durfte es nicht sehen. Ich habe darüber riesing geschimpft und geweint.”

Analysator: “Der Traum den sie bringt. ist ziemlich bedeutsam”. “Die fremde Frau, über die sie sich so aufhält, ist meine Frau (die Uebertragung geht weiter). Es ist aber auch Frau P. Er wollte niemals gegen seine Frau brutal auftreten und die Scheidung

erzwingen. Sie hat die Sehnsucht der Deklassierten nach der Bürgerlichkeit. Er hätte schon Gelegenheit gehabt, wo das möglich gewesen wäre. - Ihr Kind bedeutet das Genitale, auf das sie allein Anspruch hat. Ein ihr gehöriges Membrum (der Kleine) wurde versteckt.”

Revision: Der Traum verhüllt dem Analytiker seine einfache Bedeutung grade durch seine merkwürdige Offengeit.

Traumschluss: “Ich sehe dann P. mit einer anderen Dame wie einen Schatten, als wenn er in einem Salzbergwerke oder in einer Grube wäre”.

Analysator: “Sie nimmt Rache für P. s Untreue mit der Tänzerin und lässt ihn in der Grube sterben. Sie sind im Reiche der Schatten”.

Revision: Die Dame im Schattenreiche könnte Frau P., die Tänzerin aber auch sie selbst sein. Sie und ihr Faust (Talion-Strafe).

Analysator: “Der nächste Tag steht noch im Zeichen der Uebertragung. Der Assoziationsversuch (freie Assoziationsworte) ergibt eine Reihe Worte, die sich auf mich beziehen.”

Assoziat.: Kind, Bücher, Tasche, Haer, Feder, Lampe, Tee, Schreibtisch, Bücherschrank, Vogel, Klavier, Wagen, Bilder, Büste, Frau, Portieren, Briefvorlagen, Teppich, Ofen, Gläser.

Analysator: “Kind ist wiederholt als Phallussymbol vorgekommen Bücherschrank-Symbol für einen sehr potenten Menschen (viele Bücher) Briefvorlage, worunter sie eine Unterlage versteht, die rot ist. Sie ist ein bequemer Wagen.”

Revision: Kind am Anfang und Unterlagen, die rot sind (bluing) vor dem Schluss müssen uns auffallen.

Am nächsten Tage: sie sang zum ersten Male einige Lieder und eine dramatische Szene (welche reis?) und bracht wieder einen Traum.

“Sie ist bei mir im Zimmer und singt das Gretchen im Faust. Sie bittet das kleine Tischchen wegzuschieben, sie möchte dort stehen. Dann sang sie. Es war nicht die richtige Stelle. Sie stand nicht so, wie sie wollte”.

Sie stöhte so, dass sie P. aus dem Schlafe weckte.

Analysator: “Hart an dem Tischehen, das sie fort haben will, hängt das Pastellbild meiner Frau. Sie will sich also neben meine Frau stellen. Wir verstehen also, weshalb sie nicht so stand, wie sie stehen. Wir verstehen also, weshalb sie nicht so stand, wie sie stehen wollte. Dass Singen für sie auch Beischlaf ausüben bedeutet, dass die

mangelnde Potenz von P. da verspottet wird, sei nur nebenbei erwähnt.”

Revision: Ihre Träume sprechen immer eindringlicher. Bis jetzt haben wir ihr Vorbild erraten. Jetzt nennt sie selbst ihre Rolle: M a r g a r e t e . Margarete hat ihr Kind umgebracht; darum brachte der Traum sie im Schlafe zum Stöhnen. ‘Es war nicht die richtige Stelle’, ‘sie stand nicht so, wie sie wollte’: Möglich bezieht es sich auf das Unverstandensein in der Analyse. Auch auf die schon ofte Klage über ihren Stand; sie wollte verheiratet sein, um ein Kind haben zu dürfen. Sie fühle sich deklassiert. Analysator macht keinen Erklärungsversuch, warm sie in diesem Traum das Gretchen singt.

In der nächsten Sitzung gibt es wieder einen *Traum*:

“Ich war auf einer grossen Heide. Es waren lauter Nebel, aber plötzlich hat sich aus dem Nebel eine Form wie der Rumpf eines Schiffes herausgeschnitten und bewegt, das in der Luft schweben konnte. Es war wagrecht und hat sich plötnlich aufgestellt. Dann bin ich herumgesprungen und mehrere Hunde ebenfalls, die Hunde aber sind schneller gewesen als ich”. Als Nachtrag fällt ihr ein: “Es war auch ein kleines Hunde dabei und sie hatte Angst, sich schmutzig zu machen. Die drei kleinen Hunde aber, es war ein gelber, schwarzer und weisser, sind alle schön und schnell hinüberggesprungen”.

Analysator übergibt eine Jugenderinnerung der Patientin an eine Begegnung mit einem Exhibitionisten und meint, dass des Traumbild den Schreck über den erigierten Penis bedeutet. Zu dem Nachtrag: “Das Wasser, bei dem man Angst hat, sich schmutzig zu machen, ist die Blase. Die Assoziation von Blase urinieren - Penis führt natürlich zu dem Hunden die auf der Gasse, sowohl durch die sonderbare Art des Urinierens als auch durch die Vorführung eines Koitusaktes früzzeitig die Aufmerksamkeit des Mädchens erregten. Der gelbe Hund ist P., der schwarze bin ich, und der weisse der Vater. Es ist ein sexueller Traum, bei dem ihr drei Männer zur Verfügung stehen, die alle den Sprung über das Wasser schön und elegant ausführen. Der Schluss (‘die Bunde waren schneller als ich’) ist damit zu erklären, dass sie damals dem Manne davonlief, was sie offenbar bedauerte. Jetzt war sie nicht so flink und wurde überholt”.

Revision: Es gibt Lieder von der Heide, die alle grausig sind. Ihn Kind ist als Heide gestorben - war nicht getauft. . . Der Heideknabe wurde im Nebel getötet? - “Rumpf” eines Kindes (Kindtragen, Kind - Hoffnung, auch Schiff - Hoffnung) ‘schneidet’ sich haraus: wagrecht und wieder aufgestellt. Eine poetische 8 childerung der Geburt, wo technische Ausdrücke der Geburt benutzt sind: Rumpf, schneidet sich geraus, auch Nabel (Nebel). Sie war wie im Nebel (Narkose?). - Hund ist schon öfters in dieser Analyse vorgekommen. Ohne genügende Assoziationen schwer erklärlich. Hund ist der Verführer, der Schwängerer, der leicht über Wasser gesprungen ist, schmutzig zu machen. (Drei Hunde drei-Symbol der Männlichkeit). Mephisto als Hund. (Puder um Faust). Bedenke noch die Ausdrücke: vor die Hunde werfen, Hundewetter - (ob nicht ihre denkwürdige Stunde an einem kalten Abend war - Lampe, Wind, Ofen, Hunde bellten?). Kleines Wasser - Fruchtwasser.

Analys. Material

“Die Stimme wird wieder heiser. Sie klagt über allerlei unerklärliche Angstgefühle. Es gibt fast unüberwindliche Widerstände”.

Nächster *Traum*: “Ich träumte, dass ich Schwindel gehabt habe und einige Male gestürzt bin. Meine Familie begriff diesen Zustand nicht, nur meine Cousine, die mir immer hilft. Auf einmal stürzte ich über eine viereckige Holzkiste herunter und habe mich dabei am Arme zerschlagen. Ich werde schwindlich und stürze.”

Analysator: “Durch diesen Traum wird zuerst erfahren, dass die Patientin an Schwindelanfällen leidet.” “Die Cousine ist ein Mädchen, von dem sie kolossal verehrt wird, ein hässliches, mageres Mädchen (viereckige Holzkiste, homosexueller Gedanke). Die Kiste erinnert sie an einen Sarg (für die Frau P.). Die Uebertragung ist noch nicht zu Ende. Im Traum fällt sie mit mir, nachdem sie am Arm verletzt ist, d. h. nachdem P. begraben ist und in einer Holzkiste liegt.”

Revision: In der Schwangerschaft hatte sie *Schwindel* möglich auch in Beziehung zu dem Blutsturz bei der Abtreibung. Ausser der Cousine, die in ihr Geheimnis eingeweiht war, (siehe späteren Traum) wusste die gesamte Familie nichts von der Schwangerschaft und dem Abort (Meine Familie begriff diesen Zustand nicht sie hat geschwundet). Möglich hatte sie zuerst durch Springen (auch im vorigen Traum) den Abort auzurufen versucht. Es steht an einer anderen Stelle: ein Schriftsteller hat ein Vergewaltigungsattentat auf sie in einem Wagen (öfters erwähnt) versucht. Sie erinnert sich daran mit Schrecken; sie hatte drei Wochen blaue Flecken an den *Armen* und konnte nicht auftreten. Ob dieser nicht der Schwängerer war? Es ist weniger wahrscheinlich aber nicht ganz auszuschliessen. Ausserdem: Arm zerschlagen- Armbruch- Ehebruch. Der Einfall mit dem Sarg kann sich auch auf den Tod des Kindes beziehen. Wohl auch Todeswünsche für Frau P. (Nebenbei bemerkt: kiste ist im Russischen Jaschtschik, Jashik ist Kosename für Jakob.

Traumschluss: “Ein klines Kind stehl in einer Rinne zwischen weissen und schwarzen Marmor.”

Analysator: “Kind in einer Rinne” - es handelt sich um ein Penis, der sich von einer Alabasterhaut achebt, von schwarzen Haaren umgeben ist und gefährlich steht”.

Revision: Kind, das ‘gefährlich steht’ ist wohl das unzählige malw wiederholte Schreckbild einer Mutter, die ihr Kind aus dem warmen Mutterleibe zum Tode frieren lässt. Weiss ist Tod. Schwarz ist Trauer. Kalter Marmor - gehirt auch zum Friedhof, zum Tödesymbolik.

Analysator: “Der Traum spricht von Stürzen und Fallen. Wir können hier einen tiefen Blick in die Genese verschiedeher hysterischer Schwindel- und Ohnmachtsanfälle werfen. Ich fordere sie nur auf, mir ihre diebezüglichen Erinnerungen mitzuteileln.

Sie weiss gar nichts. Erst am nächsten Tage ist wieder ein Stück der Amnesie geschwunden”.

Revision: Diese Bemerkung des Analysators lässt und nachdenken, ob nicht auch die ganze Geschichte mit der Abtreibung in Amnesie geraten ist, und in Spaltung ihrer Persönlichkeit (s. o.) das Erlebte verbergen war, wie ich es auch am Anfange angedeutet habe.

Mater.: Die erste Ohnmacht erlitt sie, als sie 17 oder 18 Jahre alt war. Ihre Mutter erzählte ihr entrüstet von der Haushalterin ihres Onkels, dass dieser sie heiraten werde (wir können wohl denken, nachdem er sich dazu durch Schwangerung gezwungen sah. *Rev.*) Es war eine Art “kataleptischer Starre”, dann aber kamen Anfälle, deren Einleitung ein herrliches Wonnegefühl war:

. . . vom Rücken aus kam ihr eine Empfindung, als ob sie gefühllos wäre, all ob alle körperlichen Gefühle schwinden würden. . .

Dann kam eine Sekunde lang

. . . ein Gefühl, als ob sie unter der Macht einer starken, fremden Kraft stehen würde. Ein sichgelassen, eine Hingebung, so dass sie alles von sich stossen konnte.

Anlst.: “Die Anfälle werden dadurch leichter verständlich dass sie immer in der Zeit der sexuellen Abstinenz aufträten”.

Rev.: Es sind wohl Geburtsphantasien. In der Ohnmacht will sie jedesmal eine Geburt imitieren.

Analysator: Es teilt doch Selbst mit:

Material: “Es fällt ihr ferner ein, dass sie schon als 4 oder 5 jähriges Kind einen ähnlichen kleinen Anfall hatte. Die Mutter war damales gravid, hatte einen grossen Bauch und ging mit ihr spazieren” . . . “sie war nah in Ohnmacht zu fallen”,

Anls.: “sie war auf das Kindchen eifersüchtig.”

Rev.: Wir meinen aber, sie war auf die Mutter (und ihre Schwangerschaft) eifersüchtig. (Nur so entspricht es den vom Analysator an einer anderen Stelle gemeinten an den Vater gerichteten Oedipus-Regungen der Patientin).

Weitere Beschreibung der Anfälle:

“als ob sie keine Eingeweide hätte. Als ob sich in ihr eine Säule gedehnt hatte. Als ob die Säule die Eingeweide ausdehnen könnte” . . .

Anls.: “Es handelt sich offenbar um einen pollutionsähnlichen Vorgang, wobei die

Sensation eines riesigen Penis (Säule) produziert wird”.

Rev.: Wir glauben aber, dass dies eine treus Beschreibung der Gefühle einer Frau bei dem Geburtsakt sei.

“Bei Schaukeln bekam sie Erbrechen und auch auf dem Schiffe wurde sie sehr leicht seekrank.”

Rev.: Es ist die Imitation der Schwangeren.

Mater.: “Sie erinnert sich auch, dass sie sinmal in der Kirche in Ohnmacht gefallen ist. Damals wurde gerade von Sünderin vor und entzog sih diesem peinlichen Bewustseinsinhalte durch eine rasche Ohnmacht”.

Revision: Es ist doch die Gretchen-Szene im Dom: sie fällt in O h n m a c h t () wenn der Böse Geist ihr sagt: “Verbirg dich! S ü n d und Schande bleibt nicht verborgen. Luft? Licht? weh dir!”

Mater.: “In der nächsten Sitzung klagt sie über Schmerzen im Steissbein, über eine Kokzygodynie”.

Der *Analysator* meint, es ist die Identifizierung mit dem Vater, der am Darmkrebs gestorben ist.

Rev.: Wir wollen denken, dass es auch die Imitation der Geburtswehen bedeute. Sie ist sehr suggestibel. “Erzählt man irgend eine grausame Geschichte von Qualen, die jemand ausgestanden, so empfindet sie einen heftigen Schmerz in den Oberschenkeln, der bis in die Schamgegend austrahlt”.

Anls.: “Masochismus und Sadismus prägen sich deutlich in ihrem Wesen aus.”

Rev.: Wer kennen aber keine Sensation bei Schwangerschaft oder bei geburtswehen die nicht von ihr getreu wurde.

Da der Analysator (und wir mit ihm) sämtliche Träume anführt, so will er auch den jetzt folgenden kurz erwähnen.

Der *Traum* lautet:

“Ich war mit zwei Cousinen beisammen und war im Begriff, ein Brtterbrot zu schmieren und da war noch ein geräucherter Hering von der Insel Rügen. Der war so fett und weiss und schön. Die Gräten gingen leicht heraus. Nicht auseinander, sondern wie ein Gerippe. Die eine Cousine, die jüngere, sagte: Den Inhalt eines Herings wird Nastasia auf dem Butterbrote essen. Dis ältere jedoch sagte: Das glaube ich nicht, eine Sängerin, die die Margerete singt, wird nicht so viel auf ein Butterbrot legen.”

Analysator: "homosexuelle Regungen." "Die eine ihrer Cousins ist ihre grösste Verehrerin, sie war bereits in einem Traume erwähnt und ist direkt eifersüchtig, wenn sie mit einem anderen Mädchen Freundschaft schliesst." "Butterbrot essen- häufiges Symbol für Koitus, ebenso wie Süßigkeiten essen. Der geräucherte Hering ist P., der den ganzen Tag übermässig raucht. Er ist fett; weiss und schön bezieht sich auf ihre Vorliebe für seine Haut. Die Gräten gingen leicht heraus- hat mehrfache Bedeutung (). Da ihre Glanzrolle die Margarete war, bezieht sich das auf ihren Abschied von P. Sie geht von P. leichten Herzens weg. Zwar nicht vollkommen auseinander, aber die Liebe ist tot-wie ein Gerippe. Die andere Bedeutung ist der Wunsch, dass P. sterben möchte. Endlich verbirgt sich hinter diesem Traume eine neue Paraphilie, die Fellatio." Sie hat mehreres darüber gehört.

Revision: Das Kind in ihrer Vorstellung ist fett und weiss und schön. (Es war ein Knabe, ein kleiner Herr - Hering). Hering - Häckerling (Gretchen am Brunnen), geräuchert - Gerücht, Rügen - tadeln, rügen: Es war kein eheliches Kind "Geräuchter Hering aus Rügen". Die Cousine (siehe Traum von der Kiste) sagte wohl, sie muss es herunterfressen. Die Gräten lassen uns wieder an die Grete aus Faust denken; sie wird schon im nächsten Augenblick mit ihrem Namen erwähnt. Das Gerippe-wie der Rumpf im Schiffsträumung heraus, und wie schon in einem anderen Traume versucht die singende Margarete vergebens ihr Geheimnis (den Kindesmord) preiszugeben. Eine Sängerin, die die Margarete singt, kann für eine Margareten-Sünde nicht der Strafe entgehen.

Der nächste *Traum:* "Der Himmel war grell beleuchtet. Unzählige Flugapparate erfüllten den Raum. Alle waren mit Menschen besetzt, die wie Silhouetten ausgesehen haben. Die Flugapparate haben mit den Beinen geschwungen, als wenn sie in der Luft gehen könnten, alle mit drehender Bewegung. Einige fielen ins Wasser hinunter aber sie stiegen wieder in die Höhe. Andere landeten auf grünen Wiesen. Alle Menschen waren weiss angezogen und in Gespräche verwickelt, sassen sie auf dem grünen Grase. Dort war auch ein Damenklub und wie ich hineinsah, hatten alle im Gesicht kleine Blutflecken. Die Damen waren halbnackt und nur bis zum Gürtel bekleidet. Auch die Beine waren mit roten Frecken besetzt."

Analysator: "Wie alle ihre Träume ist auch dieser Traum ein fast unverhüllt erotischer. 'Der Himmel war grell beleuchtet': sie hatte als Mädchen sich ein Himmelbett konstruiert, das sie mit einer roten Ampel wundervoll beleuchtete. Was sie in diesem bette phantasierte, erzählt der nächste Satz: unzählige Flugapparate erfüllten den Raum. Ein Flugapparat ist ebenso wie ein Regenschirm das Symbol eines Membru. 'Silhouetten' - bezieht sich auf ihre sadistischen Wünsche, dass Menschen, die sie liebt, sterben sollten. Sie werden zu Schatten. Sie ist wie ein Vampyr; sie läst im Traume alle Menschen. die sie küsst, umkommen. "Die Flugapparate haben mit den Beinen geschwungen', ist leicht verständlich. Die drehende Bewegung ist uns von den Ohnmachts-anfällen bekannt. Der Fall ins Wasser (Blase) ist bereits öfters dagewesen. 'Sie steigen wieder in die Höhe' - neuerliche Erektion. 'Andere landeten auf grünen Wiesen' führt zu einem ganz neuen Komplex."

Rev.: (welchem). Wir wissen bereits, dass das Sprechen in sitzender Stellung für sie den höchsten sexuellen Genuss bedeutet. 'Weiss angezogen' - im Nachtkleid. Dort war auch ein Damenklub - da setzen deutliche homosexuelle und sadistische Neugungen ein". "Die grüne Wiese des Traumes ist durch ein bekanntes Bild determiniert, das sie wiederholt in Auslagen in Berlin gesehen hat. Nackte Menschen sitzen auf grünen Wiesen, auch kleine Kinder, die auf Töpfen sitzen, sind dort abgebildet". Und noch in der *Fussnote*: "Andere Determinationen bezieht der Traum aus dem Religiösen. Sie ist im Himmel unter Engeln die sich nicht erheben können. Auch die Kriminalität spielt eine Rolle, ebenso wie die Phantasien einer Gravidität."

Revision: Himmel, Maschinen, Silhouetten bedeuten Engelmacherei (im Russischen Engelfabrik - die Patientin ist Russin). 'Brehende - kreisende - Kreissende. Im Geburtsspital sind glückliche Mütter und unglückliche Frauen. Die glücklichen Mütter bekommen ihre Besucher in weissen Spital Kitteln (oder festlich angezogen): 'Alle Menschen waren weiss angezogen und in Gespräche verwickelt'. 'Ihre Kinder' landen auf grünen Wiesen'; das bekannte Gemälde zeigte die Idylle der grünen Wiese: Dort sassen kleine *Kinder* auf Töpfen. Die Kinder der Mütter, die ihre Frucht abgetrieben haben, sind zu Engeln; Silhouetten im Himmel geworden. Auch solche, die ins Wasser geworfen waren, (wie ihres) sind zu Engeln geworden: 'Sie fliegen wieder in die Höhe' (Trauriger Trost). 'Dort war auch ein Damenklub' - das sind die abtrünnigen Mütter; sie haben abortiert - 'waren halbnackt', 'die Beine waren mit roten Flecken besetzt': sie erlangten die Abortbutung und auch die Menses der von Schwangerschaft befreiten. 'Sie hatten alle im Gesicht kleine Blutfleckchen': dieser "Damenklub" besteht meistens aus Dirnen, die angesteckt sind (Flecken). Diese Blutflecken im Gesicht sind auch die Kainszeichen der Kinder mörderinnen.

Der Analysator hat in einen Wort in dem Petit der Fussnote schon etwas angerührt, (allerdings in anderen neuen Traum die Rede ist nicht . . . d. grav. sondern von nach Abtreibung) geht aber entschieden wieder in seiner früheren Richtung weiter: und findet bei der Kranken: Masochismus, Sadismus, Homosexualität, Fellatio-Phantasieen, Nymphomanie, Exhibitionistische Neigung, Phantasieen von einem riesigen Membrun, von hoher Vagina, Oedipus-Komplex zum Vater, Identifizierung mit dem Vater, Oedipus-Komplex zum Bruder, Todeswünsche zu P., Liebe und Hass zu P., Todeswünsche für die Schwägerin und für alle geliebten Menschen, Vampirismus, Onanie-Trauma, Wunsch zu ständiger Dreiecksituation, Bedauern über nicht ausgenutzte Liebhaber, traumatische Erlebnisse der allen Angriffen ausgesetzten Künstlerin, religiöses Schuldbewusstsein, Wunsch sich durch Krankheit von P. ernähren zu lassen, P. für seine Untreue mit ihrem Verstummen zu strafen, Wunsch zur Krankheit, um P. besser zu gefallen, um sich interessant zu machen, auch weil sie der vielen Angriffe, denen eine Künstlerin ausgesetzt ist, müde geworden war, noch weil sie diem Tämzerin liebte, sich mit ihr identifizierte und weil die Tännerin ihre Stimme nicht mehr hören wollte, sie wollte die Tänzerin erdrosseln und erdrosselte ihre Stimme. . .

Weiterer *Traum*: "Ich befinde mich zwischen Arbeiterinnen, die weisse Stickereien gemacht haben. Dann bin ich mit meiner Grossmutter bei einem Gesandten. Sie macht

mich aufmerksam, dass die linke Seite der Bluse zerrissen ist. Ich hatte mich sehr geschämt. Ich hatte keine Strümpfe an. Wie ich sie anziehen wollte, fielen sie auseinander. P. steckte mir heimlich ein Paar schwarze seidene zu, die ihnen dunkelrot mit Seide gefüttert waren.”

Analysator: “Die Arbeiterinnen-es handelt sich um Handarbeiterinnen- beziehen sich auf Onanie. Es fallen ihr verschiedene Damen ein, darunter auch mein Stubenmädchen, die ihr besonderes Wohlgefallen erregt hat.” “Die Grossmutter im Traume hat folgende Bedeutung. P. hatte gefunden, die Patientin wäre kein Weib, sie hätte einen Fehler, sie hätte keine Brustwarzen. Schon ihre Mutter hatte keine Warzen und hatte darum die Kinder nicht gestillt. Dagegen hat die Grossmutter acht Kinder zur Welt gebracht und sie alle selbst gestillt. Im Traume ist die linke Seite ihrer Bluse zerrissen wie (sie eine so grosse Warze hat, dass sie die Bluse durchreisst. Denn im Nachtrage fällt ihr ein: ‘unter der Bluse befand sich ein harter spitziger Gegenstand, der die Bluse zerrissen hat: “Zu ‘Gesandten’ und zu den Strumpfgeschichten werden einige Erinnerungen produziert, die sich auf das homosexuelle Gebiet beziehen. In diesem Traume gibt sie gewissermassen den Männern den Abschied und wendet sich an jener Form sexueller Befriedigung, welche sie auch bei Frauen (Handarbeit!) erzielen kann.”

Revision: Arbeiterinnen, die weisse Stickereien gemacht haben können die Frauen bedeuten, (weise Frauen) die Stückereien gemacht haben. Frauen nähen Wendeln für Kinder aber auch Tücher für den Leichnam. Die Parzen sind Spinnerinnen. Grossmutter ist wohl tot. ‘Gesandter’ ist ihr Kind: ein Kind ist eine Sendung, wird gesandt (besonders im Russische), es ist dort, wo die Grossmutter, im Himmel. Die Mutterschaft (das Stillen, die Brust) ist durch einen ‘harten, spitzigen Gegenstand’ - Instrument vernichtet. Nur so wird ihre Scham vor der Grossmutter verständlich (‘ich hatte mich sehr geschämt’): Fruchtbarkeit der Grossmutter und ihre selbstverschuldete Fruchtlosigkeit. Linke Seite, der Weg der Sünde, der Vernichtung. Ihr Herz ist zerrissen. Sie bleibt kinderlos wie das gejagte Mädchen, das mit nackten Füßen ‘sie hat keine Strümpfe an’” über spitze Steine wandern muss. P. steckt ihr heimlich seidene Strümpfe zu (er sorgt dafür, dass sie nicht fruchtbar wird), ein mal ‘fielen sie auseinander’, ob nicht damals die ‘schlechte Packung’ entstanden ist? Dunkelrot und schwarz — Blut und Tod, ihr altes Motiv ‘Leidenschaft ist grausam.’

Analysator: “Ihre homosexuelle Neigung ist vielleicht noch stärker als die heterosexuelle. Sie berichtet auch, dass sie in ihrer Liebe zu Mutter und Vater geschwankt hat. Sie hat P. häufig mit “Mutter” angesprochen”.

Rev.: Wir wollen aber bedenken, dass sich in diesem Anruf zu ihrem Geliebten auch ein Verlangen, Mutter zu werden, ausdrücken könnte.

Analysator: “Im nächsten Traume macht sie auch mich zur Frau. Sie sieht mich in einer Schürze und mit einem Messer, als wenn ich ein Chirurg wäre. Die Analyse wird mit einer Operation verglichen. Eine weitere Erklärung ist überflüssig”.

Revision: Chirurg, Messer - Erinnerungen an ihre Operation? Aber gleichzeitig auch die Analyse und das Phallus-Symbol. Ohne in scherzhaften Ton zu verfallen, uns scheint, dass die Patientin diese Analyse mit der Operation des Abortes vergleicht, die Fruchtlosigkeit bedeutet.

Analysator: “Zur vollständigen Auflösung dieses Psychischen Dramas kommt es in der vorletzten Sitzung. Da wird die psychische Sonde bis auf den Grund hinab geführt und der empfindliche Punkt getroffen. Sie beginnt damit, dass sie nicht begreifen könne, weshalb sie die Tänzerin eigentlich hasse, und es stellt sich heraus, dass sie sich mit ihr idem tifiziert und sie geliebt habe”. “Sie benahm sich so, als ob sie nicht die Sängerin sondern die Tänzerin wäre und als Tänzerin braucht sie ja keine Stimme”. Weshalb sie das tut? Weil sie ein tiefes Schuldbewusstsein empfand. Das, was ihr Sonja zufügte, war ja nur ihre gerechte Strafe. Sie hatte sich als dritte in das Verhältnis zwischen Vater und Mutter hineindrängen wollen. Sie hatte sich zwischen P. und seine Frau gedrängt. War es nicht eine Vergeltung des Schicksals, dass sich Sonja zwischen sie und P. drängte?” “Als Sonja die Frechheit hatte, sie in Petersburg zu besuchen, fühlte sie einen Impuls, die Rivalin zu erdrosseln. Sie unterdrückte den Impuls und eine fühlte die Zusammenschnürung in der Kehle.” “Sie wollte Sonja töten, d. h. sie besitzen. Sie beneidete P., dass er ein Mann war und die schöne Sonja besitzen konnte. Sie war auf die Tänzerin eifersüchtiger als auf P.”

Revision: In ihren Handlungen, Körpersensationen, Tageshalluzinationen, Träumen und Assoziationen bebte immer wieder in tausendmaliger Wiederholung der Margareten-Affekt. Auch bei dem Hassimpuls gegen die Tänzerin brach der Affekt dieser anderen Tötung durch. Sie verstummte nach dem Konzert, wo sie das traurige Mutterlied sang, sie hat das Kind stumm gemacht, sie muss verstummen.

Am Abschiedstage hat sie ihrem Arzt vollkommen unberungen und mit voller Beherrschung ihrer künstlerischen Fähigkeiten vorgesungen. Sie brachte auch einen kleinen *Traum*: “Sie hatte auf meinem Schreibtische eine offene Lampe gesehen, die sie ausgelöscht und mit sich genommen hatte”.

Analysator: “Die Uebertragung ist zu Ende; sie war die offene Lampe die solange gebrannt, als die Kur gedauert hatte. Ich war ein kleines Licht, das ihr in der Dunkelheit geleuchtet und den Weg gewiesen hatte.”

Revision: Es scheint, dass das Unbewusste der Patientin, das sich die grösste Mühe gab, in allen Träumen und Einfällen das auszusprechen, was die verstummte Kehle nicht berichten wollte oder konnte, jetzt im Abschiedstraume bekundete: Es war alles ans Licht gehalten, aber sie nimmt die nicht verstandenen Geheimnisse wieder mit sich fort.

Das wirklich seltene in diesem Falle ist die grosse Ordnung, mit welcher das Unbewusste in kaum verhüllter Form sich immer wieder dem Verstandenwerden aufdrang. Mit all diesem wollen wir nicht sagen, dass nur ausschliesslich das Margareten-Erlebnis ihre Neurose bildete: Die Wurseln ihrer Neurose lagen in der

Kindheit; dort war die Affektivität für das Erlebnis oder für den Wahn schon vorbereitet (siehe ihr erstes Ohnmachtsgefühl neben der schwangeren Mutter). Manche der infantilen Regungen kamen in der Analyse zur Lösung, als der Analytiker nach allem möglichen zu forschen versuchte: Er beging auch alle Seitenwege, da er der Todessymboliker den Todesschatten, der im Zentrum stand, nicht erblicke.

Wie ist es wirklich zu verstehen, dass die Patientin die Wiederkehr ihrer Stimme erlebte? Durch Aufrührung der neurotischen Bindungen der Kindheit, auch Kraft der Uebertagung und dank seiner Suggestion: sie ist sehr suggestibel, der Analysator hat darüber Bericht gegeben (wenn einer von Zahnschmerzen leidet, so spürt auch sie den Zahnschmerz). Der Analysator hat ihr durch die ganze Analyse suggeriert, sie liebe den P. nicht und auch wiederholt seine sexuelle Potenz verdächtigt, die sie wohl nicht zu befriedigen im Stande sein sollte. So war er (P), ihr zum Glück verkehrt. Was sollte sie jetzt mit einem Kind von ihm, wenn keine. Abort geschehen wäre? Was soll man mit einem unehelichen Kind von einem Mann, den man nicht mehr liebt, der nicht mehr jung ist und sexuell als schwach eingeschätzt wird? So ist doch jetzt alles in dieser Weise in bester Ordnung. Sie trennte sich auch nach der Analyse von P.

Er bleibt noch die Frage; war dieses Margareten-Erlebnis ihre Phantasie oder die Wirklichkeit? Und falls die Wirklichkeit, war es eine in Amnesie verfallene oder verheimlichte? In dieser Analyse fanden sich auch sonst sowohl Amnesien als auch Verheimlichungen, - diese Fragen können wir hier nur aufwerfen aber nicht lösen. Eines aber ist deutlich: der angegebene Anlass zum Ausbruch ihrer *N e u r o s e* (das Lied von der Mutter und dem Kind); ihre *K ö r p e r s e n s a t i o n e n* (Erbrechen, Schmerzen im Steissbein, das Gefühl als ob eine Säule ihr die Eingeweide ausdehnte u. a. . . .) ihre *T r ä u m e* und *W a c h t r ä u m e* (das Kind, das friert, das schutzbedürftig ist, das man versteckt hat, das gefährlich steht; die Familie, die ihren Zustand nicht begriff; die halbe Krinoline; die ungeniessbare Torte; die schlechte Packung; die Nummer, die ausfallen muss; die aufgemachten Bänder; der Rumpf, sich herauschneidet; Heidekanne, Engelmacherei, Stückereien, Blutflecken; Trauer, die sie täglich trägt; Margareten-Gesang u. a. . . .) ihre Margareten - *A s s o z i a t i o n e n*, (singende Wasser u. a. . . .); ihre *F ü h r u n g* (Waschungen; Ohnmacht in der Kirche; Selbstmordversuch); - alles war durchtränkt mit denselben, sei es realen oder phantasierten Bildern: Mutterschaft und Abtreibung. Die Stummheit war die selbstverhängte Strafe dieser mystisch veranlagten Hysterikerin.

Und zum Schluss: ich habe nicht der Psychoanalytischen Bewegung angehört zur Zeit, wo sich grosse Streite, Ablösungen und Schismen vollzogen und bleibe ausserhalb der Partei-Debatten. Ich bewundere die Arbeiten von Dr. W. Stekel wegen ihrer grossartigen Ueberfülle von geistreichen Gedanken. Und meine Revisionsarbeit wurde nicht zu letzt von dem Wunsche geführt, sein grosses Gebäude an einer Stelle, die mir als schwach erschien, mit einem Ueberbau zu stützen.





Psychoanalytische Ahnungen in der Traumdeutungskunst der alten Hebräer nach dem Traktat Brachoth

Psychoanalytische Bewegung V.1 (1933), pp. 3-6.



Psychische Anaphylaxie und ihre Reaktionsgebundenheit an das erste Agens

Imago XX.2 (1934), pp. 10-16. The paper was published in an English translation in *The Psychoanalytic Review*, XXIII.2 (1936), pp. 187-194, and in *The British Journal of Medical Psychology*, XVII.1 (1938), pp. 98-104.



Verschiedene Intelligenzstufen in einer Person

Zum Problem der Abhängigkeit des Denkens
von den Ausdrucksformen.

Die hier vorliegenden Betrachtungen sind nicht deswegen zum Druck bestimmt, weil sie Probleme lösen, sondern eher darum, weil sie wichtige Fragen und Probleme aufzeigen sollen.

Diese Betrachtungen beruhen einerseits auf bekannten Funden der Lehre über die lokalen Zentren im Gehirn und andererseits auf den Beobachtungen der Ausdrucksformen des Denkens beim Menschen.

1. Es ist höchstmerkwürdig, dass viele Menschen, deren Intelligenz und Jahre hindurch bekannt oder und durch mehrere Monate der psychoterapeutischen Behandlung scheinbar in allen Details vertraut geworfen ist, bei einer Schreibprobe ein unvergleichlich tieferes Niveau der Intelligenz als erwartet, zum Vorschein bringen. Der Mensch, der redegewandt, reich in Ausdruck und Inhalt, erfinderisch und talentiert ist, liefert beim Verlangen, eine Schreibprobe zu geben, (seine Briefe oder sonstige, schriftliche Äußerungen zu zeigen) etwas nicht nur im Formniveau des Schreibens im Sinne der Graphologie, sondern, was uns hier allein interessiert, vom Standpunkt des gedanklichen Inhalts und besonders der Ausdrucksweise geradezu Bedauerliches. Schriftstücke, die dem täglichen Leben und solche, die bedeutenden Situationen des Schreibenden entstammen, zeigen denselben Tiefstand.

Das schlechte graphologische Bild sind wir bereit, auf die Charaktereigenschaften und auch auf die wenig ausgebildete, sogenannte "peripherische Intelligenz" zurückzuführen, (wenn auch z. B. bei Klavier - oder Violinvirtuosen dies letzte nicht so einfach anzunehmen ist.)¹ Aber neben dem tiefen Formniveau sehen wir armseligen Inhalt und Ausdrucksweise. Wir konnten auch dauernd Fälle prüfen, wo ein graphologisch hochwertiges Formniveau mit einem Inhalt gepaart war, der in keinem Falle der sonstigen Intelligenzstufe des Menschen entsprach.

Umgekehrt treffen wir auch Menschen, die in ihrer Redeweise eine sehr bescheidene Intelligenz aufweisen, im Schreiben aber ihr reiches Gedankenmaterial gewandt zum Ausdruck bringen können.

Sprachintelligenz und Schreibintelligenz eines und desselben Individuum können auf ganz verschiedenem Niveau stehen.

Man ist sich im Klaren darüber, dass verschiedene Menschen verschieden Begabungen zeigen. Dazu rechnet man auch die Redner- und Schriftstellergabe, die doch nur die höheren Leistungen der Schreib- und Sprechfähigkeiten sind.

Will man konsequent sein, so muss man die Fähigkeit zum Schreib- oder Sprechausdruck so beurteilen, wie die Ausdrucksfähigkeiten im Zeichnen oder in Musik. Einer, der zur Musik oder zum Zeichnen unbegabt ist, wird deswegen noch nicht als unintelligent bewertet. Daraus wollen wir schliessen, dass in gleicher Weise z. B. auch das Schreibtalent das nur eine der Ausdrucksformen des seelischen Geschehens ist, allein für sich nicht die Intelligenz eines Menschen bewerten lässt.

2. Wie ist es zu verstehen, dass die Psyche, die einen Wortausdruck sucht, ihn beim Aussprechen findet, beim Niederschreiben aber gelähmt wird?² Wir wussten, dass es auch die Intelligenz von der Ausdrucksform ist.

So kommt es, dass die Psyche eines Individuum, richtiger, sein angenommenes zentrales Ich, nicht autokratisch über die verschiedenen Gehirnzentren regiert, sondern sich in dem feudalen System der verschiedenen lokalen Zentren sehr abhängig fühlt!

Dennoch kann ein Mensch ein reiches Innenleben haben, ohne die Fähigkeit, es zu irgendwelchem Ausdruck, sei es Sprechen, Aufschreiben, Aufzeichnen, bringen zu können.

Ein Analphabet hat auch ein Schreibzentrum. Auch vor der Entdeckung der Schreibkunst befand sich im Menschengehirn ein Schreibzentrum; ein Neger, dessen Eltern und Ahnen nie gelesen oder geschrieben haben, dann doch lesen und schreiben lernen. So ist es nicht grade und nur die erbliche Ausbildung eines Zentrum; - bei Tieren ist das Schreiben und Lesen sogar nach langer Dressur nicht möglich.

Und so, wie das Lesezentrum existieren kann, ohne dass es zur Benutzung kommt, existieren im menschlichen Gehirn Fähigkeitsmöglichkeiten, die wir noch nicht kennen, die aber für gewisse Zwecke vorbestimmt sind. Das würde gleichzeitig bedeuten, dass diese Fähigkeiten gezählt sind, wenn auch nicht alle in Anspruch genommen, und dass ihre Zahl nicht überschritten werden kann.

Dies aber nur unter der Voraussetzung, dass die Zentren im Sinne des Wechsels der Funktion unveränderlich sind. Besteht wirklich diese Vorbedingung? Wie breit sind die Funktionsvarianten eines Zentrums angelegt?

Verkümmert die Rinde eines Lokalzentrums, wenn die ihm entsprechende Fähigkeit nicht ausgebildet wird? und inwieweit? Kann ein Zentrum auf Kosten eines zweiten verkümmerten sich ausbreiten? Kaum ist heute eine auch nur annähernd präzise Antwort möglich.

Entweder bildete die philogenetische Entwicklung die Lokalzentren aus, - (wieso kann aber ein Neger lesen lernen, wenn seine Ahnem es nie konnten? Wodurch entstand die philogenetische Entwicklung?) - oder die Zentren in der Gehirnrinde sind in bestimmter Zahl und für bestimmte Aufgaben prädisponiert, - (dies würde gegen die Theorie der Entwicklung der Arten sprechen), oder bei jedem Menschen sind schon vor Geburt - durch philogenetische Entwicklung entstanden - mehrere nicht differenzierte Zentren vorhanden, und die Lebensbedingungen bilden einige davon aus; (wieso befinden sich bei verschiedenen Menschen deiselben Lokalzentren an derselben anatomischen Stelle?) das letzte würde auch eine Transformationsfähigkeit der Lokalzentren bedeuten.

Dies wäre eine sehr gewagte Annahme, besonders in Anbetracht der grossen Unabhängigkeit der Lokalzentren von dem zentralen Ego des Individuums, die wir im ersten Abschnitt dieser problemaufzeigenden Arbeit—über verschiedene Intelligenzstufen im Sprechen und Schreiben gezeigt haben.

References

1. Unter den geprüften und gesammelten Schreibproben befinden sich auch einige von der Hand bekannter Klavier- und Violinvirtuozen.
2. Die Möglichkeit von Fällen organisch-pathologischer Zustände oder psychogener Störungen lassen wir nicht aus dem Auge.





Über die Zuverlässigkeit des visuellen Merkvermögens

von
Dr. Immanuel Velikovsky

Es ist nachgeprüft und bewiesen, dass Zeugenaussagen, sogar bei absoluter Ehrlichkeit des Aussagenden, ungenau sind.

In vorliegender Arbeit soll veranschaulicht werden, dass das Mass der Ungenauigkeit bei Zeugenaussagen, die mit Mitteilungen über Eindrücke des visuell Wahrgenommenen verbunden sind, oft die Grenze dessen überschreitet, was bis jetzt mittels Experimenten bewiesen wurde. Die Ungenauigkeit von Zeugenaussagen ist z.B. aus einem solchen Experiment, das mehrfach wiederholt wurde, bekannt:

Irgendain Zwischenfall eriegnen sich, meist plötzlich, im Auditorium, z.B. ein bewaffneter (organisierter) Überfall. Unmittelbar danach notieren die Zuhörer die Wahrnehmungen, die sie eben hatten.

Dieses Experiment zeigt, wie verschieden die Zuhörer, im Ganzen und un den Einzelheiten, ein und dasselbe Ereignis warnehmen.

Anders und noch einfacher geht unser Test vor sich: Dieser Test, mit dessen Hilfe wir zum Resultat der Unzuverlässigkeit bewusster Beobachtungen gekommen sind, besteht darin, dass der Prüfling bei geschlossenen Augen auf Grund seines Sehgedächtnisses eine Beschreibung des Raumes zu geben gat, den er öfters betritt oder den er ständig bewohnte.

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Meistens denken die Personen, die Zeugen irgendeindes Ereignisses sind, bei seiner Wahrnehmung nicht daran, dass sie später als Zeugen werden auftreten müssen; ihre Gedanken sind auf andere Dinge gerichtet, z.B., wie sie sich und andere aus der Gefahr retten können.

Von Beobachtungen, die im Ruhezustande gemacht und mehrfach in verschiedener Beleuchtung wiedergolt wurden, dürfen wir grössere Genauigkeit erwarten, als von spontanen Beobachtungen, die manchmal im Zustande der Gefahr und bei nicht genügender Beleuchtung ausgeführt werden und im Leben, nicht wie im genannten Experiment der Signale, den Menschen unvorbereitet antreffen.

Selbst wenn wir zugeben, dass der Affekt dazu beitragen könnte, dass sich irgendeine Einzelheit besonders deutlich dem Gedächtnis einprägt, so lehrt uns doch die alltägliche Praxis, dass der Mensch im Affektzustande in der hage ist, ganze Stadtviertek zu druchqueren, ohne Bekannte, denen er begegnet, zu bemerken oder den Weg und auf ihn zukommende Fahrzeuge wahrzunehmen.

Die Theorie von der vollkommenen Bewahrung der vom Menschen aufgespeicherten Eindrücke, (der Bewahrung im Unterbewussten,) wofür es in der der reichen parapsychologischen Literatur eine Reihe von Beispielen gibt, kann den praktischen Wert der von uns gemachten Beobachtungen nicht herabmindern.

Wenn eine an Hysterie Leidende während der lang danernden Behandlung durch Katarsis oder Psychoanalyse sich mit photographischer Genauigkeit an alle Einzelheiten von Begebnissen erinnert, die lange Jahre zurückliegen und unterdessen schon vergessen und ins Unterbewusste versenkt waren, oder wenn ein Somnambul mit absoluter Genauigkeit den in seiner Kindheit gelesenen Text wiedergeben kann, selbst wenn der Text in einer ihm fremden Sprache aufgesetzt und die Erinnerung an ihn aus seinem bewussten Gedächtnis und die von ihm bewahrten Eindrücke für die gerichtliche Medizin von Bedeutung sein.

Wie wichtig die Resultate dieses Tests für die Bewertung der Merkfähigkeit des bewussten Gedächtnisses sind, so einfach ist der Test selbst. Wir begnügen uns mit einigen Beispielen, deren Wiederholung jedem zugänglich ist.

I. Ein fünfzig Jahre alter Herr, Leiter eines Fiananzinstituts, befindet sich seit zwei Jahren in psychoanalytischer Behandlung. Er steht geistig auf hoher Stufe, wodurch er sich in seinem Amt besonders gervortut und das von ihm geleitete Institut zur Entfaltung bringt.

Ich habe diesen Patienten aus dem Grunde gewählt, weil er die besondere Fähigkeit besitzt, sich in Lebens- und Finanzfragen zu orien - tieren und auch deswegen, weil er unter allen anderen Patienten mein Sprechzimmer am häufigsten betreten hat (ca. 200 Mal).

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|-------------------|--|
| <i>1. Frage :</i> | Welches ist die Farbe der Fliesen des Fussboden? |
| Richtig : | Eine ganz ausgeprägte Farbe: gelb-schwarz-ocker auf weissem Grund. Das Ocker überragt. |
| Antwort : | Ich erinnere mich nicht. |
| <i>2. Frage :</i> | Wieviele Lichter enthä die Hängelampe und aus welchem Material ist sie angefertigt? |

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| Richtig : | Die Lampe ist verchromt (weisses Metall), hat 5 Birnen und hängt an einer braunen Schnur. |
| Antwort : | Die Lampe ist aus Holz und hat 4 Birnen. |
| 3. Frage : | Wieviele Fenster hat das Zimmer? |
| Richtig : | 4. Drei davon befinden sich in einer halbrunden Nische, mit Zwischenräumen von etwa der Breite eines Fensters (ca. ½ Meter). An einer glatten Wand befindet sich das etwas breitere vierte Fenster. |
| 4. Frage : | Wieviele Bücherreihen sind im Bücherschrank? |
| Richtig : | Drei. |
| Antwort : | Ich kann mich nicht darauf besinnen. |
| 5. Frage : | Wie sehen die Türen aus? |
| Richtig : | Zwei Flügeltüren aus Holz mit eingesetzten Scheiben. In der einen Tür enthält? Reihen mit je 7 Scheiben, darüber, 8 weitere, also im Ganzen 22 Scheiben. Die Scheiben sind aus durchscheinendem Glas. |
| Antwort : | Die Türen sind aus Holz. |
| 6. Frage : | Nur aus Holz? |
| Antwort : | Ach ja, es ist auch Glas dabei. |
| 7. Frage : | Ist das Glas farbig? |
| Antwort : | Ich kann mich nicht mehr darauf besinnen. |
| 8. Frage : | Wieviele Scheiben sind vorhanden? |
| Antwort : | Zwei oder drei Reihen und in jeder Reihe zwei oder drei Scheiben. (Richtig: 9 in jeder Reihe). |
| <p>Ich ersuche den Gefragten, sich die Türen und Fenster anzusehen, um sich von seinen fehlerhaften Aussagen zu überzeugen. Danach bitte ich ihn, die Augen zu schliessen und frage ihn nach dem soeben Gesehenen.</p> | |
| 9. Frage : | Wie sind die Fensterrahmen angestrichen? |

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| Richtig : | Weiss, |
| Antwort : | Ich glaube, gelb. |
| 10. Frage : | Wie sind die Türen angestrichen? |
| Richtig : | Braun. |
| Antwort : | Die Türen haben die Farbe der Fenster. |

Nicht eine richtige Antwort, nicht einmal die Farbe der Türen ist richtig angegeben, trotzdem er sie soeben gesehen hat, und durch die er 400 Mal ein - bzw. ausgegangen ist.

II. Ähnlich verläuft der Test, der in demselben Sprechzimmer bei einem anderen Patienten wiederholt wird, der am Ende der Behandlung ist. Der Patient, ein Landvermesser, (ca. 30 Jahre alt,) müsste über ein besonders gut entwickeltes und genaues Beobachtungsvermögen verfügen.

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| 1. Frage : | Wieviel Fenster hat das Zimmer? |
| Richtig : | Seihe oben. |
| Antwort : | Drei. |
| 2. Frage : | Farbe der Fensterrahmen? |
| Antwort : | Weiss. (Richtig). |
| 3. Frage : | Farbe der Türen? |
| Antwort : | Weiss. |
| 4. Frage : | Woraus sind die Türen gemacht? |
| Antwort : | Aus Holz. |
| 5. Frage : | Nur aus Holz? |
| Antwort : | Auch aus Glas? (Dann bestimmt): Mit je einer Scheibe in jedem Türflügel. (S. oben Beschreibung der Tüner). |
| 6. Frage : | Wie sieht die Hängelampe aus? |
| Richtig : | Wie oben beschrieben. 5 weisse, nach oben gerichtete kerzenförmige Birnen. (Ohne Lampenschirm). |

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| Antwort : | Vier Birnen in crêmemfarbenen, nach unten gerichteten, oder nach oben?, Lampenschirmen. (Bestimmt): Die Lampenschirme sind crêmemfarben. |
| 7. Frage : | Die Form der Fenster? |
| Richtig : | Ganz gewöhnlich, in Form länglicher Vierecke. Die Scheiben sind durch drei querlaufende Rahmen geteilt. |
| Antwort : | Die Fenster verrunden sich oben bogenförmig. Die Fensterrahmen und die Scheiben sind dementsprechend oben bogenförmig. Das ist bestimmt so. - Ich habe mir das Fenster genau angesehen. Die Scheiben sind nicht durch Querrahmen geteilt, sondern gehen in einem Stück nach oben bis zur Höhe des Bogens. |
| 8. Frage : | Die Farbe des Fussbodens? |
| Antwort : | Weiss ich nicht. |
| 9. Frage : | Die Zahl der Regale im Bücherschrank? |
| Antwort : | Darüber habe ich keinen Eindruck behalten. |

Die einzige richtige Antwort betraf die Farbe der Fensterrahmen. Solch überzeugte und phantastische Beschreibungen von nicht existierenden Bögen und crêmemfarbenen Lampenschirmen, wie auch die groben Fehler bei der Beschreibung der Türen (weiss statt braun, 1 Scheibe statt 11 oder 18), die von einem Menschen gemacht wurden, der diese Gegenstände mehrmals gesehen hatte und in seiner täglichen Arbeit gewohnt ist, seine Merkfähigkeit zu üben, veranlasst uns, - wenn dies keine Einzelercheinung ist, - jede Zeugenaussage die auf Grund von Seheindrücken gemacht wird, einer gründlichen Prüfung zu unterziehen.

Diese Erscheinung steht nicht vereinzelt da; für die gerichtliche Praxis sollte von besonderer Bedeutung sein, dass sogar gleiche Fehler und Fabulierungen von verschiedenen Personen gemacht werden. So behaupteten auch zwei Individuen, die demselben Experiment unterworfen wurden, tellerartige Lampenschirme und abgerundete Fenster gesehen zu haben. Um dem Vorwurf zu entgehen, dass die von mir gegebenen Beispiele von Personen handeln, die irgendwelche seelischen Komplexe haben, weshalb sie sich in die psychoanalytische Behandlung begeben mussten, - (obwohl die von mir gewählten Personen alle geistig entwickelte und im Leben gut vorwärts kommende Leute sind,) halte ich es für richtig, noch zwei Experimentbeispiele an Personen, die sich nicht in der psychotherapeutischen Behandlung befanden, hinzuzufügen:

III. Ein namhafter Rechtsanwalt, ca. 50 Jahre alt. Sein Büro hat er vor zwei Monaten bezogen.

Die Fragen über die Zahl der Fenster in seinem Sprechzimmer, über die Farbe der Wände und des Fussbodens, über die Form der Türklinken werden ungenau und teils falsch beantwortet. Er fabuliert von einem nicht existierenden Oberlichtfenster. Auf die Frage, ob der vor ihm sitzende Experimentator einen Schnurrbart hat, (er sieht ihn zum zweiten Mal,) antwortet er mit "ja" (falsch) und auf die Frage, ob der Experimentator Brillen trägt, mit "nein" (falsch).

IV. Ein Arzt, 38 Jahre alt, der sich auch literarisch und philosophisch betätigt, befindet sich seit drei Tagen im Hotelzimmer einer fremden Stadt. Er geht fast garnicht aus, hat keine Bücher und verbringt fast seine ganze Zeit, auf dem Sofa liegend. Durch besondere Umstände zum Nichtstun genötigt, müsste er auch folglich das Zimmer, in dem er sich befindet, genau ansehen.

Die ausführliche Angabe der Fragen und Antworten würde das Bild der vorangegangenen Beispiele ergeben. Z.B.: Das Zimmer ist mit Teppichen belegt. Auf die Frage, wieviel Teppiche im Zimmer sind, sagt er - keine.

Besonders merkwürdig und zahlreich sind die Fehler in Bezug auf Farbangaben. Die Hausfrau, die jeden Morgen ihre Zimmer aufräumt, weiss weder die Farbe noch das Fussbodens anzugeben.

Umso befremdender sind die Aussagen, die z.B. manchmal von einem Zeugen vor Gericht gemacht werden, der behauptet, sich in der Dunkelheit das verschwommene Muster des Anzugs eines Verbrechers beim Überfall zu gaben.

Mit welcher Vorsicht man sich der Behauptungen und Zeugen - aussagen, die täglich und allörtlich vor Gericht gemacht werdenm bedienen muss, kann man erst dann ermessen, wenn man die Aussagen vergleicht, die einerseits über im Zustande der Gefahr und des Affekts, manchmal bei unzulänglicher Beleuchtung und in geringer Zeitspanne Erlebtes gemacht werden, und andererseits solche, die über Vorkommnisse berichten, die bei genügendem Licht und im Ruhezustande geschehen sind, und wo es sich um Gegenstände handelt, die man vorher schon häufig gesehen hat.

Die alte Erfahrung der Gesetzgeber, die die Forderung aufstellt, z w e i Zeugen zu vernehmen, beruht nicht nur auf der Möglichkeit der Unehrllichkeit der Zeugen, sondern auch auf dem Verständnis der Tatsache, dass das visuelle Gedächtnis Irrtümern unterworfen sein kann, wobei vorausgesetzt wurde, dass bei zwei Zaugen gleichlautende Irrtümer ausgeschlossen seine.

User Test beweist aber, (vgl. Fall I u. II und das an II hinzugefügte,) dass sogar zwei verschiedene Personen sich gleichzeitig und auch identisch irren können.





Tolstoy's *Kreutzer Sonata* and Unconscious Homosexuality

There are elements of bisexuality in every individual. In the course of a normal development, the homosexual instincts are weakened and the heterosexual come to the fore, paralleling the development of the anatomical signs of bisexuality. The nipples of the male, for example, remain in an “embryonic” state.

If the homosexual instinct does not disappear, however, but continues its development, the result will be either open homosexuality, if the individual is conscious of his tendency, or latent homosexuality, if he is unaware of it and it is hidden in the unconscious by the authority of the moral censor.

However, the thinking, the aspirations and the actions of such a person will reflect his internal conflict.

In some cases, the homosexual elements are not manifested till advanced age, appearing like a mysterious flame glowing through the ash.

It seems to us that no other perversion (or to use a better term, paraphilia), in its latent occult state, makes such liberal use of various masks and distortions as the homosexual inclination.

A close study of Tolstoy's *Kreutzer Sonata* leaves no doubt in mind that the jealous murderer Pozdnuishef is presented as a homosexual who did not know his own nature; even the author, Tolstoy, failed to realize this.

Nothing is told of Pozdnuishef's childhood. At the age of fifteen, together with his older brother, a student, he lost his innocence at a house of prostitution.

It is very probable that this older brother had a determining influence on the development of the younger boy. Psychoanalytic studies have shown that a visit to a prostitute may conceal the unconscious wish of entering in this way into symbolic contact with her other clients. This unconscious wish is even more evident in a joint visit to a brothel: a joint visit to a prostitute is one of the masks of homosexuality.

Again there is a long hiatus in the biography. Up to the age of thirty, he and his friends had “on our souls hundreds of the most varied and horrible crimes against women.” (1) Before marriage, he had relations with hundreds or even thousands of women, “just like Don Juan,” and he believed that most men behaved as he did.

Don Juan, this picture of a man in the eternal quest of women, is likewise a masked form of homosexuality. He cannot find the object of his quest and is untiring in his efforts. Nothing can satisfy him since he seeks satisfaction where he cannot find it. He cannot abandon the search because an incessant voice from the unconscious drives him on, and he does not know whence will come the call and where it will lead him.

This unceasing flight from one woman to another is sadistic, and an even stronger sadism must develop when a latent homosexual is bound by marriage to *one* woman. Unconscious but aggressive homosexual tendencies and sadism are inseparable phenomena. When one of the partners to a marriage is a homosexual, the marriage becomes a form of torture, especially when the homosexuality assumes an aggressive shape. When it is passive in its manifestations, it is associated with self-humiliation and the homosexual then tries to play the role of a woman taken in violence.

Pozdnuishef is a sadist. He does not know, just as his creator did not know, that the hate impulses in his marital life were caused by the unconscious desire for a man, a partner of his own sex, in his marriage. It would be impossible for him to find happiness in any marriage. At the end of the story, Tolstoy, with a fine intuitive feeling for the truth of his character, has him say the following: "Yes, if I had known what I know now, then everything would have been entirely different. I would not have married for ...I would not have married at all."

In his marriage he sought the impossible. We learn something interesting from a chance remark introduced at the beginning of the description of the honeymoon. "That is the way they all get married and that is the way I got married, and the much-vaunted honeymoon began. What a vile name that is in itself! I was making a tour of all the sights of Paris, and I went in to see the bearded woman and the water-dog. It seemed that it was only a man decollete, in a woman's gown." A curious chain of associations; from talking of the honeymoon to the story of a woman with a beard who turned out to be a man. This process of association can be understood if it is regarded as a cover for something hidden.

A few pages further: "In spite of all my efforts to make my honeymoon a success, it was a failure. The whole time was merely vile, shameful and tiresome. But very soon it became also painfully oppressive." At one time sensuality would gain the upper hand but soon hate would come to replace it.

It may be said that when an excessive reaction follows coitus, expressing itself in hate and disgust, the act was contrary to the nature of the individual or was not performed with the real sexual object. Depression expresses the absence of satisfaction or the emergence of regrets at having created an illusion of replacing the real object. This may well be the reason why individuals who substitute an imaginary for a real object prefer to perform the act in complete darkness. Under cover of darkness, the unconscious has a greater leeway to create a fantasy-object.

The feeling of hostility recurred after each episode of sensuality and was the outstanding feature of Pozdnuishef's marriage. "Reason was not quick enough to sophisticate sufficient pretexts for the hostility that constantly existed between us."

"What is chiefly vile about this is that in theory it is taken for granted that love is something ideal and elevated; whereas in practice love is something low and swinish, which it is shameful and disgusting to speak of or remember. You see it is not without reason that nature made it shameful and disgusting."

This is an example of displacement and rationalization. What is actually so revolting is an act which remains unconscious and violates the normal ethical feelings.

There is insight in the following words: "This animosity was nothing else than the protest of human nature against the animal which was crushing it." "I was amazed at our hatred of each other.... This hatred was identical with the hatred felt by the accomplices in a crime, both for the instigation and the accomplishment of the deed." An unloved wife, it would seem; but men are usually not jealous of an unloved wife. "During the whole course of my married life I never ceased to experience the pangs of jealousy."

It was not till after ten years of marriage, however, and after his wife was the mother of five children that she gave him any real cause for jealousy. Till then it was groundless and artificial. Finally, he constructed the situation which he needed.

Pozdnuishef himself brought "him" together with his wife. "Even at the first glance he impressed me unfavorably. But strangely enough some peculiar fatal power impelled me not to keep him at a distance, not to send him away, but rather to draw him nearer to me. Why, what could have been simpler than to have talked coolly with him a few minutes, and to have said 'good morning' without introducing him to my wife? But no, I talked with him deliberately about his playing... I said that my wife played very well. Wonderful thing! My relations to him that very first day, that very first hour of my meeting with him were such as they could have been only after all that occurred subsequently. There was something strained in my relations with him.... I presented him to my wife."

The homosexual, unaware of his inclination, arranges to have his wife meet the man to whom he himself is attracted. Reason struggles with his unconscious desires. He describes "him" in an unfavorable light: "He had almond-shaped, humid eyes, handsome, smiling lips, a little waxed mustache, the latest and most fashionable method of dressing his hair, an insipidly handsome face, such as women call 'not bad,' a slender build, though not ill-shaped, and with *a largely developed behind, such as they say characterize Hottentot women* (my emphasis)."

It was to be expected that this description would contain some reference to the femininity of the object. The behind, like a woman's, made a special impression on

Pozdnushchikoff, and he remembered it well.

The attempt to make the desired object disgusting is the expression of the struggle against the forbidden impulses. However, the forbidden impulse was victorious and he becomes a match-maker, "I saw that from his very first glance her eyes shone with peculiar brilliancy, and apparently as a consequence of my jealousy there passed between him and her something like an electrical shock, calling forth something like a uniformity in the expression of their eyes and smiles. An unknown something forces him to act, apparently against his own interests."

"I remember that moment especially because at that moment I might have refrained from inviting him to call again, and if I had, the trouble would not have happened.... 'Do not think for an instant that I am jealous of you,' said I, mentally, to her,' or that I am afraid of you,' said I, mentally, to him, and I invited him to come some evening and bring his fiddle and play with my wife."

The unconscious had triumphed. The homosexual creates his wife's infidelity first in his fantasy (the first ten years of Pozdnushchikoff's jealousy) and then in reality (in the eleventh year), and his sexual affect is expressed as this jealousy. Such a hypertrophied jealousy is almost a certain sign of unconscious homosexuality. In the corollary of this, in the case of the passive homosexual, who desires the female role, the feeling of jealousy may be entirely absent, as in one of my cases. For several years after his marriage, the husband slept with a bachelor friend of his while his young wife slept in another bed close by. Their living conditions did not require such a degree of hospitality.

In another of my cases an active homosexual who did not recognize his true nature carried his jealousy to an insane extreme. This man, who was quite advanced in years, turned his home into a living hell. He suspected his wife of infidelity, and often involved his children, some of whom were still in their teens, in the ugly, embittered scenes, speaking of his suspicions as proved facts. Accusations, leaving home, attempts at murder—all were steeped in tremendous affectivity. But despite the fact that he fed his jealousy for more than twenty years by every possible suspicion, he never made any effort to convince himself of their correctness. He needed the impassioned state; he toyed with pictures of infidelity in his fantasy; he rehearsed the scenes in his thoughts; and he would have nothing of the truth, which might endanger his jealousy, the representative of his homosexual passion.

The chief protagonist of the *Kreutzer Sonata* played in the same way with the affects of attraction and repulsion, which terminated in catastrophe.

Pozdnushchikoff knew very well that it was "inevitable that this man should please her, and more than that, that he should get a complete ascendancy over her, without the least hesitation conquer, overwhelm, fascinate, enchain, and do with her whatever he willed. I could not help seeing that, and I suffered awfully. But in spite of this, or possibly in consequence of it, some force, against my will, compelled me to be

especially polite and even affectionate to him.... In order not to yield to my desire to kill him on the spot, I had to be friendly toward him."

He again invites the hated seducer to come for an evening of music with his wife, even though "all know that ... especially by music, the largest part of the adultery committed in the ranks of our society is committed."

"I wanted to heap abuses on him, to drive him away; but I felt it was my duty to be friendly and affectionate to him again, and so I was. I pretended that I approved of everything, and once more I felt that strange impulse which compelled me to treat him with a friendliness proportioned to the torment which his presence caused me."

Pozdnushchikoff (and Tolstoy as well) thus believes that the hostile impulses are his true feelings; he regards his endearments only as a cover. To us, however, it would seem more likely that the endearments expressed his true feelings and that the hostile sentiments were the cover. The feeling of hate for his wife, however, was genuine enough.

This chapter ends with the words, "I pressed his soft white hand with special affection." And the next chapter begins with, "That whole day I did not speak to her—I could not. Her proximity produced in me such hatred of her that I feared for myself." And when at night she came to visit him, "I began to fan my wrath to a greater heat, and to rejoice because it grew more and more intense in me... Having given free course to my madness I intoxicated myself with it, and I felt the impulse to do something extraordinary which should show the high-water mark of this madness of mine."

The secret feeling of the unconscious homosexual tries in vain to find its adequate expression. "Under the influence of music, it seems to me that I feel what I do not really feel, that I understand what I really do not understand, that I can do what I can't do... Music excites and does not bring to any conclusion."

Pozdnushchikoff, who had already had the experience of finding the violinist at his home at an improper hour, forgets all his concern and unthinkingly goes off on a business trip. One night away from home, however, anxiety overtakes him, and forebodings of evil crowd his heart. "How could I have come away?" He feeds fuel to the flame of his jealousy, that he may abandon himself to it.

The description of his return to Moscow is one of the best in Russian literature. The affect intensifies and grows out of all proportion. In the onward rush of the night express, there is something mysterious, symbolic and impassioned. To produce its greatest effect, *Tolstoy's Kreutzer Sonata* should be read at night while riding in a train. Jealousy is the expression of a forbidden fantasy; the mental picture of an infidelity scene is a painful experience for the jealous individual, but this suffering is only the secondary perversion of a perverse passion.

"As soon as I took my scat, I had no longer any control over my imagination, which ceaselessly, with extraordinary vividness, began to bring up before me pictures kindling my jealousy; one after the other they arose and always to the same effect: what had taken place during my absence and how she had deceived me! I was on fire with indignation, wrath, and a peculiar sense of frenzy, caused by my humiliation, as I contemplated these pictures, and I could not tear myself away from them, could not help gazing at them, could not rub them out, could not help evoking them... A kind of devil, perfectly against my will, suggested and stimulated the most horrible suggestions."

The blind affect leads him with irresistible force to the inevitable end. He shifts the blame from himself to another, his wife. "If she had not yet done anything out of the way, but had it in mind to—and I know that she did—the case is still worse; it would be better to have it done with, so that I might know, so as to have this uncertainty settled." In psychoanalysis, this is called rationalization, the use of false motives.

He comes home, late at night. The violinist is in the dining-room as his wife's guest." My self-pity vanished and in its place came a strange feeling of gladness that my torture was now at an end, that I could punish her, could get rid of her, that I could give free course to my wrath." He flung himself down on the divan in his room and sobbed. "I, an upright man ... I, the son of my own parents ... I, who have dreamed all my life of the delights of domestic happiness... I, a husband who has never been unfaithful to his wife!... And here she, the mother of five children, and she is embracing a musician because he has red lips!" "

The red lips—he has already spoken of them before—these lips and the musician's feminine behind have seduced *him*.

He turns into a beast. "I came into the state of a wild animal." He throws open the door of the dining-room. "The very same madness which I had experienced a week before took possession of me. Once more I felt the necessity of destroying something, of using violence; once more I felt the ecstasy of madness and I yielded to it."

When assault and murder are substitute actions, replacing a sexual act, a knife or a revolver, depending on the sexual symbolism, will be the weapon used. Pozdnuishef threw himself on his wife and then on the musician.

She seized his arm. "Her touch was repulsive to me and still more inflamed my anger. I was conscious of being in a perfect frenzy and that I ought to be terrible and I exulted in it." There is a detailed description of the knifing and of the movement of the blade in the wound.

After he had inflicted the fatal wound on his wife, he went to his room, was overcome with drowsiness and went to sleep. The affect of murder, which replaced the affect of the sexual act, had likewise a sedative action. This is one of Tolstoy's most wonderful intuitions.

He sees his wife in a dream. "I remember I dreamed that she and I were friends, that we had quarreled, but had made it up, and that some trifle stood in our way; but still we were friends." As he drove the blade into her side, he realized that this was not the deed and this not the person he was really concerned with; he would have liked to recall to life the accidental victim. Her infidelity remained unproved.

Up to this point, the hero of the *Kreutzer Sonata* speaks in the first person singular. In the sequel, which was written a year later, Tolstoy takes the word himself. He presents the principles of his sexual credo: sexual love should not be practised. Sexual intercourse and marriage are sins. The highest ideal is complete abstinence and celibacy. He is even opposed to the having of children.

Such preaching can come only from one whose sexual life is a surrogate for those forbidden desires the indulgence of which is regarded as sinful, shameful and disgusting.

"We must understand that no aim that we consider worthy of man ... is ever reached by means of union with the object of one's love (whether with or without a marriage rite). On the contrary, being in love, and union with the beloved object, never makes it easier to gain any end worthy of man, but always -makes it more difficult.... But carnal love, marriage, is a serving of self ... and consequently it is a fall, a sin."

In this sequel, Tolstoy is no longer a poet, but a law-giver. Over the head of Pozdnushchev towers the figure of Tolstoy; above Tolstoy is the shadow of another who preached to his disciples, "Leave thy wife and follow me."

"To seek to replace sexual love by the pure relationship of brother and sister"—is an error and leads into the shadow-world of deception.

[Translated by Dr. J. V. Coleman, Grasslands Hospital, Valhalla, N. Y. Published in *The Psychoanalytic Review*, Vol. XXIV. No. 1, January 1937. All quotations used in this paper are from the translation of the *Kreutzer Sonata* published by Thomas Y. Crowell Co. in *The Complete Works of Lyof N. Tolstoi*.]





Tolstoy's *War and Peace*

Using the major character of Leo Tolstoy's epic *War and Peace*, I would like to try to clarify my view that moral feeling originates as an inner protest against the homosexual instinct, which may be suspected at some deep level but is misunderstood at the conscious level.

I analyzed another character of Tolstoy's, the tragic hero of *The Kreutzer Sonata*, and I showed that sadism, as well as jealousy, are the consequences of this secret, insidious proclivity. There, too, Tolstoy was led to moral problems, and in a statement of moral postulates he denied and detested the erotic tendency and even rejected reproduction.

War and peace are in themselves a moral problem. Tolstoy in his lengthy philosophizing nearly failed to mention that problem. His main concern was the problem of free will. Does man act freely? Do the masses? Does the leader? Is their act the result of historical events?

This attempt is repeatedly developed in a contradictory manner. The leader's free will is made fully dependent upon the least of his soldiers. It is a protest against the man who has usurped the historical mission for himself. It is a protest against tyrants, a venomous indictment of the subduer of many men.

These lone accusations in the philosophical chapters of the novel will reappear as illustrations in the characters of the novel, and the one who seems to bear the most autobiographical traits will surely be the one closest to Tolstoy's heart.

Indeed: Count Pierre Besukhov prepares an attempt on Napoleon's life in Moscow. Tolstoy made an ideological attempt, and his hero wanted to perpetrate it physically.

It is probably not at all surprising that the same Pierre Besukhov in the first chapters of the novel openly revealed his enthusiasm and his love for Napoleon. Tolstoy has explained nothing from *his* point of view why this change occurred. In the year 1805 Napoleon was precisely the same despot as in the year 1812. Pierre experienced a moral transformation; from a frequent visitor to bordellos, he was to develop into a seeker of the truth. What was at the root of this transformation? We will accompany Pierre over those seven years.

Pierre, an illegitimate son of an old count, comes to St. Petersburg from abroad, where he had been raised. He leads a dissolute life there and shares adventures with

one Anatol Kuragin. Together they visit bordellos, and together they take part in nightly scandals. His father, an old courtier from the time of Catherine, is dying in Moscow. The son, who happens to be in the same city at that time, is summoned to him. While going there, he falls asleep in the *droshka*. This lack of interest softens only briefly at the sight of his dying father. After the death there are no questions of conscience, no changes of feeling: an emotional blockage such as we often find in neurotics. He is legitimized and becomes wealthy. He falls in love with Helena.

“But she is stupid, I used to say myself that she is stupid,” he thought.
“There is something nasty in the feeling she excites in me, something not legitimate.”

Helena is Anatol’s sister.

I have been told that her brother, Anatole, was in love with her, and she in love with him, that there was a regular scandal, and that’s why Anatole was sent away. . . he was at the same time meditating on her worthlessness and dreaming of how she would be his wife . . . and how all he had thought and heard about her might be untrue. . . And again he told himself that it was impossible, that there would be something nasty, unnatural as it seemed to him, and dishonorable in this marriage. . . . and he was overwhelmed with terror that he might have bound himself in some way to do a thing obviously wrong, and not what he ought to do. But at the very time that he was expressing this to himself, in another part of his mind her image floated to the surface with all her womanly beauty.

Six weeks after Anna Pavlovna’s party, and the sleepless and agitated night after it, in which Pierre had made up his mind that a marriage with Helena would be a calamity and that he must avoid her and go away; six weeks after that decision Pierre had still not left . . . and felt with a horror that . . . he could not go back to his former view of her, that he could not tear himself away from her even, that it would be an awful thing, but that he would have to unite his life with hers. . . . An unconscious sense of the sinfulness of that impulse paralyzed his will. . . “*it must inevitably come to pass. They all expect it so . . . that I cannot disappoint them. But how will it be? I don’t know, but it will be infallibly, it will be!*”

Just what was perverse in a young man’s infatuation with a young woman of the same social standing? One might well say that the infamous infatuation of a brother and sister were “illegitimate” emotions. However, his emotion was “not legitimate” because he loved the brother in the sister. Tolstoy thought that the experiences between the brother and the sister were obstacles to his determination, but they were the causes of Pierre’s inclination and his marriage. Later in a similar situation with another girl the same Pierre will once again act similarly. Not only the handsome

Anatol (Tolstoy will describe his elegant yet brutish beauty elsewhere), but another lecher, his and Anatol's friend Dolokhov, will have an intimate relationship with his wife.

Dolochov had taken advantage of his friendly relations with Pierre in their old rowdy days, had come straight to his house, and Pierre had established him in it . . . cynically Dolochov had praised his wife's beauty to him, and . . . had never since left them.

Every time his glance casually met Dolochov's handsome, insolent eyes, Pierre felt as though something awful, hideous was rising up in his soul, and he made haste to turn away.

However, he has an ambivalent feeling about Dolokhov. He loves him, the conqueror and his atrocity. "He recalled the expression on Dolochov's face in moments of cruelty."

He tried to play the masculine role himself, whipping up his fury against the offender. He did not believe the anonymous letter that he received, but he challenged Dolochov to a duel and, having mortally wounded him, "hardly able to restrain his sobs," he ran to the wounded Dolochov.

"I have been proud . . . of her unapproachability," and one page later: "I knew she was a dissolute woman, but I did not dare own it to myself." "And now Dolochov: there he sits in the snow and forces himself to smile; and dies . . . in answer to my remorse I am to blame."

If Tolstoy were alive now, I would like to know his explanation the guilty feeling on the part of the deceived husband. The feeling of guilt came from the pander's role and his feeling for Dolokhov. His self-deception, by which he wanted to believe in her untouchability, and his hospitality toward the infamous bachelor were means to his end. He tries to struggle against the feminine role in his homosexual attachments, he sulks, and he has the duel. His hatred belongs to the woman.

"I'll kill you!" he shouted, and snatching up a marble slab from a table with a strength he had not known in himself till then, he made a step towards her and waved it at her.

Pierre felt the abandonment and the fascination of frenzy.

All this brings to mind various scenes in *The Kreutzer Sonata*, even in the details.

The homosexual instinct, if not overcome, can either follow the path of regression into sadism, or it can follow the path of sublimation, to the development of an ethical system. After emotion has freed itself in a sadistic manner, the opposite attempt is

made, to overcome the impulse of his sublimation.

After the duel and estrangement from his wife, Pierre leaves. At the station in Torkhok he finds a traveler, an old man with drooping eyebrows. A servant accompanies him, a little old man without beard or moustache, which had not been shaven off but seemed never to have grown on him. This apparently arbitrary description by Tolstoy is symptomatic. Pierre is turning into a disciple. And what is the spiritual difference between a disciple and a youth? "Pierre began to feel an uneasiness and a sense of necessity, of the inevitability of entering into conversation with the traveler."

Pierre wanted to turn away from his gaze, but the sparkling old eyes held an irresistible attraction for him. The traveler's face was unfriendly, even cold and austere, but in spite of himself the speech and face of the new acquaintance irresistibly attracted Pierre. Religio-moral instruction was given. It was the right moment in Pierre's life, since this meeting had cleared the way for a positive victory over the homosexual instinct.

Pierre gazed with shining eyes into the freemason's face, listening with a thrill at his heart to his words . . . and felt a joyful sense of soothing, of renewal, and of return to life.

Pierre walked about the station room . . . He reviewed his vicious past, and with an ecstatic sense of beginning anew, pictured to himself a blissful, irreproachably virtuous future.

Here it becomes obvious how "sin and salvation" draw on the same source.

It is assumed that in one period of his life Tolstoy was associated with the doctrines of the Masons. (The old man himself, Osip Alexyevitch, is in reality the image of Tolstoy as he will be many years later.) "The source of salvation is not external but within us." Tolstoy repeats this sermon many years later: "The Kingdom of God is within us," he calls one of his works.

Initiation into the lodge is a mystery which takes place in secret and in darkness, A naked saber is extended and touches the breast of the new brother in solitude with the inducting brother, who binds his eyes and gives him a kiss.

The goals named by the writer in solitude "for the betterment of mankind" were especially close to Pierre. Gifts were demanded as a sign of generosity, and he is bidden to give up whatever cash he has on him. As a sign of obedience, he is required to undress. As a sign of sincerity, he is asked to confess his greatest passion. "Pierre paused, seeking a reply. Wine? . . . laziness? hasty temper? . . . women? . . . 'Women.'"

The rhetor answers: “Turn all your attention upon yourself, put a bridle on your feelings, and seek blessedness not in your passions, but in your own heart. The secret of blessing is not without but within us. . . .”

During this ceremony he was called “seeker,” “sufferer,” and another time “sustainer,” i. e., he was attributed either an active or a passive quality. He was told he had to devote himself to it: he knelt before the gates of holiness. He is given a shovel, three pairs of gloves, and an apron. The grand master tells him he is not to defile the whiteness of the apron which represents the power of innocence. “Then of the unexplained spade” the grand master “told him to toil with it at clearing his heart from vice, and with forbearing patience smoothing the way in the heart of his neighbor.”

Smoothing the hearts of one’s fellow man with a spade is not very obvious symbolism. According to Freud, a shovel is a masculine symbol, and an apron a feminine one. The grand master’s explanation immediately confirms our view that this is sexual symbolism. The first gloves are “masculine” ; he cannot know their meaning, but he is to hold them in safekeeping. The next pair is also “masculine” ’ he is to wear it at meetings. The third pair is “feminine.” The two pairs of “masculine” gloves symbolize the possibly bisexual role of man; “masculine” gloves, whose meaning cannot be known, unlike those worn at meetings, refer to what is secret, and being called masculine they belong to the sexual secret.

Then he is told: “Fly to the succor of a brother whoever he may be . . . Be thou friendly and courteous. Share thy happiness with thy neighbor, and never will envy trouble that pure bliss.”

The gathering of the freemasons consists only of men.

It becomes obvious how the blossoms of this religious feeling and these moral imperatives grow out of the roots of instinct. In the thicket the roots and blossoms intertwine. Pierre surveys each of his assets and institutes humane reforms. He believes and declares his belief that a time will come when there will be no more wars.

We are now the children of earth, but eternally the children of the whole universe. Don’t I feel in my soul that I am a part of that vast, harmonious whole? . . . one grain, one step upward from lower beings to higher ones? . . . I feel that I cannot disappear as nothing does disappear in the universe, that indeed I always shall be and always have been. I feel that beside me, above me, there are spirits, and that in their world there is truth.

* * *

“Venez demain diner . . . le soir. Il faut que vous veniez. . . Venez.” Boris Drubetzkov

has become an intimate in the house of Countess Besukhov.

“I am reconciled with my wife . . . I recalled my conversations with Osip Alexyevich, and . . . reached the conclusion that I ought not to refuse a suppliant . . . and that I must bear my cross. But if I forgive for the sake of doing right, at least let my reunion with her have a spiritual end only.”

He told his wife that he was asking her to forgive him, and that there was nothing for which he had to forgive her. He felt the blissful sense of renewal. Boris Drubetzkov was the very most intimate person in the Besukhov house. Pierre had suffered so painfully from the insult caused by his wife three years earlier, that he was escaping from a similar insult, first by not being a husband to his wife, and second by not permitting anyone to doubt her.

“Such a strange antipathy,” thought Pierre; “and at one time I really liked him very much.”

Tolstoy says about this:

In Pierre’s soul all this while a complex and laborious process of inner development was going on that revealed much to him and led him to many spiritual doubts and joys.

This sentence is inserted unintentionally but conspicuously between the account of the Boris-Helena liason and the immediately following casual and apparently accidental account from Pierre’s diary about Boris’ initiation into the freemasons’ lodge: Pierre is the welcomer.

The apparently unintentional, accidental, and unsuspecting nature of the motives of his behavior is indeed a characteristic phenomenon.

In the evening the reception took place. . . . Boris Drubetsov was admitted. I had proposed him, and I was the rhetor. A strange feeling troubled me all the time I was with him in the dark temple. I detected in myself a feeling of hatred which I studiously strove to overcome. And I could sincerely have desired to save him from evil and to lead him into the way of truth, but evil thoughts of him never left me. The thought came to me that his object in entering the brotherhood was simply to gain the intimacy and favor of men in our lodge.

As we see, with all his closeness to masonic ideology from 1864 Leo Tolstoy was not blind to the negative aspects of the institution of Freemasonry.

“He is incapable, so far as my observation goes, of feeling a reverence for our holy

order.” Then why did Pierre recommend him? A deceived husband, who closes his eyes and does not wish to see what is going on in his wife’s bedroom, leads the deceiver into his brotherhood. A person considered suitable for initiation must have a pure heart. It is a trivial rationalization to claim to initiate the deceiver in order to reform him. “I should have liked really to stab his bare chest with the sword I held pointed at it.”

An identification has emerged between Dolokhov and Boris, as there had been previously between Anatol and Dolokhov. On the next page of his diary Pierre writes that he “would like to think it over,” but the train of thought leads him back to the meeting with Dolokhov after the duel, and “now I recalled all the details of that interview, and in my mind made him the most vindictive and biting retorts.” Then immediately, without transition: “Afterwards Boris Drubetskoy came . . . I said something horrid to him. He retorted. I got hot, and said a great deal to him that was disagreeable and even rude.” Then follows the dream.

I dreamed I was walking along in the dark, and was all of a sudden surrounded by dogs. . . . one seized me by the thigh with its teeth . . . I tried to strangle it with my hands . . . another, a bigger one, began to bite me. . . I began clambering on the fence . . . After great efforts I dragged my body up, so that my legs were hanging over on one side and my body on the other.

On the other side of the fence was “a great avenue and garden and in the garden a great and beautiful building.” He wakes up. “Lord, Great Architect of Nature, help me tear away these dogs—my evil passions, and especially the last—that unites in itself the violence of all the former ones, and aid me to enter the temple of virtue, of which I was vouchsafed a vision in my sleep.”

This is one current interpretation of the dream. Hidden passion conceals in itself the passion of all other passions. But there is another interpretation, a parallel determination of the contents of the dream. In order to understand it, we must decipher the meaning of the awkward position on the fence. What does this posture mean?

In the same volume of *War and Peace*, part 2, chapter 16, we read: “Dog on the fence, a live dog on the fence,” (said Denisson as a cavalryman’s greatest ridicule of an infantryman on horseback). This association is so distinctive—dog and fence—that we can interpret without hesitation: Pierre on the fence in the awkward position of a dog. The other dogs are his rivals. Both Dolokhov and Boris were mentioned immediately before the dream. The dog is considered a sexual (and homosexual) animal.

“Aid me to enter the temple of virtue,” Pierre concluded the narrative of his dream. This temple, to which a “narrow path leads,” may have a double meaning, which repeats the theme of our comments: The creation of moral pathos and fervor as the

conquest and sublimation of the “canine” (in the *Kreutzer Sonata* the “porcine”) tendency.

After the duel with the tempter, we expressed our conviction that the moral renaissance resulting from the meeting with the old freemason is drawn from the same source as the sexual confusion. It could likewise appear as Tolstoy’s mockery of the direct meaning: An old man preaches to a young man who has undergone harsh experiences, and we, like the fool in the storm, run off in haste shouting that the emperor has no clothes.

However, another dream follows the one in Pierre’s diary:

I dreamed that Osip Alexyevitch was sitting in my house, and I was very glad to see him and eager to entertain him . . . and I wanted to come close to him and to embrace him. But as soon as I approached him, I saw that his face was transformed, and had grown young, and he said something to me softly, some doctrine of our order. . . . something strange happened. We were sitting or lying on the floor. He was telling me something. But in my dream I longed to show him my devotional feeling, and, not listening to his words, I began to picture to myself the state of my own inner man, and the grace of God sanctifying me. And tears came to my eyes. . . . Then all of a sudden we found ourselves in my bedroom, where stood a big double bed. He lay down on the edge of it, and I seemed to be filled with a desire to embrace him and to lie down too. And in my dream he asked me, ‘Tell me the truth, what is your chief temptation? Do you know it? I believe that you do know it.’

Is it possible that Tolstoy himself has not yet understood it? An unusually strong case of scotoma!

Abashed at this question, I answered that sloth was my besetting temptation. He shook his head incredulously. And even more abashed, I told him that though I was living here with my wife, I was not living with her as a husband. To this he replied that I had no right to deprive my wife of my embraces, and gave me to understand that this was my duty. But I answered that I should be ashamed of it.

These are probably autobiographical dreams. Tolstoy and Pierre have understood the dream to mean that one is supposed to live with a woman. But why? They continued to misunderstand it, although it is set forth quite clearly. If a dream is not understood, its idea is repeated in the next dream. The unconscious tries unremittingly to find a way to be understood.

I had a dream from which I waked up with a throbbing heart. I dreamed I was in Moscow in my own house, in the big divan-room, and Osip Alexyevitch came out of the drawing room. . . . I kissed his face and his

hands, while he said: "Do you notice that my face is different?" I looked at him, still holding him in my arms.

In the sequel to the dream Osip Alexyevitch shows him a large book and

I said: "I wrote that" . . . and on all the pages were fine drawings. And in my dream I knew that these pictures depicted the soul's love adventures with its beloved . . . a beautiful presentment of a maiden in transparent garments . . . flying up to the clouds. And I seemed to know that this maiden was nothing else but the figure of the Song of Songs. . . I perish from my vileness as though Thou was utterly forsaking me.

But this was the Song of Songs; why then corruption and damnation? Clouds and depravity, religious feeling and homosexuality, salvation and depravity. . . The emperor indeed had no clothes.

* * *

Natasha was the beloved fiancée of Pierre's "bosom friend Andre." This feeling was genuine; Tolstoy depicted it with a fine artistic brush. This love was put to a severe test and came close to a catastrophe. The aforementioned Anatol was to blame for what happened. So it became a double magnet for Pierre: Anatol and Andre in effect in the same girl. The catastrophe came, the magnet worked with double force, so Pierre became aware of a feeling for the girl. With Helena it was Anatol and Dolokhov, and with Natasha, Andre and Anatol, who made the woman attractive to him.

Pierre avoided Natasha. It seemed to him that he had a stronger feeling for her than a married man should have for his friend's fiancée. And yes some fate was constantly bringing him together with her. Because of Natasha's infidelity to Andre, Pierre thinks of her with suspicion and antipathy. Andre says that he is incapable of competing with the gentleman. Pierre is already doing it for the second time. A few minutes later, as an answer to his question, "I should like to know, did you love . . . did you love that bad man?" he hears Natasha's cries; Pierre is overwhelmed by a feeling of pity, tenderness, and love, and he makes her his fiery confession of love. That evening, "looking up at the sky, Pierre forgot the mortifying meanness of all things earthly in comparison with the height his soul had risen to." Here again we see the origin of the source of moral feeling. Pierre, who remained in Moscow to kill the Antichrist (Napoleon), saved a child instead, and during his imprisonment found the divine within himself; God is here, everywhere. He learned to see the great eternal infinite in everything. His further adventures are of no interest to our study. Helena dies. He marries Natasha. We sense a trace of delusion in the relationship, ⁽¹⁾ when he tells how

it often seemed to him that all men are preoccupied with their own future happiness. It often seemed to him that all of them take pleasure in the very same things that he does, and only try to conceal these joys and make themselves appear to be busy with other interests. In each word and in each movement he saw a hint of his happiness.

Will Tolstoy comprehend the situation in the prosperous bourgeois marriage of his hero? The common opinion was that Pierre was under the boot of his wife, and this is also how it was. Still he often felt that he had been called upon to give Russian society and the entire world a new direction.

We can content ourselves with this brief report of the Pierre-Natasha romance, and pass by a series of illustrative quotations.

Mysticism and the great historical mission approaching megalomania are drawn from the trickling waters of the spring to the outlets which we have examined.

The letters of *L'Empereur Napoleon*, expressed in numbers and added up, total 666, an apocalyptic number. "He tried *Le russe Besuhof*, and adding up the figure made the sum 671." Then he counted *L'russe Besuhof* and came up with 666. "His love for Natasha, Antichrist, Napoleon's invasion, the comet, the number 666, *l'empereur Napoleon*, and *l'russe Besuhof*. . . Pierre found himself in a position that was close to madness." "He, *L'russe Besuhof*, had somehow the mystic value of the number of the beast, 666, [and] his share in putting a limit to the power of the beast, 'speaking great thing things and blasphemies,' had been ordained from all eternity." He leaves his home but remains in the city as Napoleon approaches Moscow.

"Pierre had left his own house simply to escape from the complicated tangle woven about him by the demands of daily life, which in his condition at that time he was incapable of unravelling." He seeks symbolic nearness to the deceased Osip Alexyevitch and hides in his house. Concealing his name, he had to find Napoleon and kill him, either to perish himself, or to end the distress of the entire nation, which as Pierre saw it, was one due to Napoleon alone. He had "the craving for sacrifice and suffering through the sense of the common calamity." Pierre is a feminine type who struggles against his natural inclination. Tolstoy's very negative relationship with Napoleon is identical to Pierre's, who decides in an almost symbolic way, after inadequate preparation, to kill Napoleon. In fact,

Pierre never clearly pictured the very act of striking the blow, nor the death of Napoleon, but with extraordinary vividness and mournful enjoyment dwelt on his own end . . . "Yes, one man for all, I must act or perish."

Masochism and morality: an attempt to overcome his femininity and carry out a masculine assassination.

The sleepless nights “reduced Pierre to a state . . . bordering on madness.”
“Sympathy, love for our brothers, for those who love us, love for those who hate us, love for our enemies; yes, the love that God preached upon earth,” thought the dying Andre, but characteristically these are ideas that Tolstoy should attribute not to Andre but to Pierre.

Divine love for the enemy is unknown to us in the cult of Yahweh. Divine love in a group of men is a concept that reminds us of the Greek philosophers. In the evangelic sermon, among expressions of hate, this postulate reappears here and there. Moral imperatives seek their sap and vigor in the blossoming of the unsubdued tendency. However, Tolstoy lets the pendulum of his moral sermon swing ultimately in much later years in the direction of submission and love of one’s enemy. In this work he acknowledges the biological necessity of war.

“Why do millions of men kill one another, when since the beginning of the world it is known that it is a physical and moral evil?”

More than that: In *War and Peace* we see no pacifist feelings in Tolstoy. War gives him pleasure. Killing is a recurrent image and never a shocking one in the course of the entire novel. Even the description of the partisan group and its gruesome annihilation of the French is presented in the high tones of Cossack heroism. It is a contradiction of the teaching of love for one’s enemy.

Tolstoy hates Napoleon. It almost seems that because of him the theory of free will in social life is developed, in order to debase him. According to this doctrine man is free as an individual (otherwise there would be no place for guilt and reward) but not free as a social being. It seems to me that there is a contradiction in such an arbitrary and indefinite drawing of limits, if one assumes simultaneously no freedom in the conscious and dependence in the unconscious, a life led by instinct.

It contradicts another of Tolstoy’s doctrines of social action to depict Napoleon as dependent on every single one of his soldiers, and to maintain his “miserable unworthiness” to the Russian general Kutusov, (to whom the other half of the ambivalent feelings has been assigned), to call him “the truly generous character” and ascribe to him alone “the unusual power of foresight,” the result of the Borodino slaughter and the whole campaign.

All these contradictions stem from one inner contradiction: the unconscious homosexual instinct has not been deciphered. Its conquest is attempted in two simultaneous directions: In the sadism of war and in moral and religious progress.

References

1. See Freud’s study on *Paranoia and Homosexuality*.





Casanova's Eternal Chase

The combination of three names on the title page of a book by Stephen Zweig strikes one as surprising when two of them are Tolstoy and Casanova. Whatever can these two names have in common? The author of that book hardly grasps this. As a follow-up we perform here an analysis of the story which has a considerable amount of Tolstoy's self-confession in it—the narration of a *Kreutzer-sonate*.

Together with that we shall analyze a characteristic episode from Casanova's memoirs because we can thus produce a confirmation that what Don Juan actually looks for in his eternal search is not to be found: a man in a woman.

Here is Bellino's story. Casanova made a chance acquaintance of an artistic family — mother, two sons and two daughters. One of the "sons" seems to him to be of uncertain sex. The friend who had introduced him to the family invites him to listen to a lady singer, but actually means Bellino. Bellino was introduced by the mother as her son. Casanova thinks that he must be a eunuch who plays women's roles, as was the custom in ancient Rome where women were forbidden to appear on stage. While listening to the singing Casanova feels a fire flaring up in his heart and sees with his eyes that Bellino has a bust. He allows his imagination a free rein and feels that he is passionately in love. He leaves the spot where he accidentally met the Bellino family without feeling intrigued about whether Bellino is a boy or a girl.

The next day he tries to start a sexual play with Bellino, but he still faces the two younger sisters "two buds who only wait for a breath of love to come into a bloom. If I had thought that Bellino was a eunuch, regarded as scum of the human race, I would have naturally preferred him to his marvelous sisters."

Grateful for a gift of money given to him for his efforts, the other brother kisses him on the mouth with half-open lips. "Seemingly he presumed such tendencies in me which I did not possess. I let him know that he was mistaken."

Casanova also uses money to find out from the mother whether Bellino is a boy or a girl. The mother claims that he is a boy, but Casanova does not believe her anymore than if himself could look over Bellino over with his own eyes. He leaves the mother some money. He feeds the whole family, even offers money to Bellino, who insists that he is a eunuch. However he puts his hand on Bellino's chest and finds that it is the bust of a seventeen-year old girl, and not the repulsive one of a eunuch. Bellino retorts that eunuchs also have developed chests.

Casanova covers Bellino with kisses—he still calls him a “he” although he considers him to be a girl. Bellino runs away. He (Casanova) spent the night with the beautiful young sister, with the approval of the match-maker mother. This time, however, unusually for him, he finds that he cannot whisper the usual love words to her. He stays another night in order to establish whether a male or a female being is the object of his passion. The second night they give him the young sister, again for remuneration. The secret must be exposed that day.

In the evening Bellino appears in a woman’s dress. “At the table I could not tear my hungry eyes away from that adorable creature. I felt a sweet blissfulness in imagining that Bellino was of that sex that I wanted him to be.”

"I completely lost the rest of my reason... my instinct could not have led me astray so much, and I could not have the feelings which underpinned my fiery hopes towards a eunuch. But I wanted to convince myself of the truth with my own eyes."

Casanova is unsure. He says so himself. And at the same time he loves him passionately and hopes very much that it is a girl. This is characteristic. We shall soon see that this hope was actually a disappointment. The hope to find a girl in him and his expressions of aversion towards eunuchs before he had found out who he was dealing with are the games of the double ego.

Casanova’s friend, who does not care one way or the other, thinks that Bellino is a eunuch.

Bellino’s behavior was intriguing. But we can already solve the puzzle—it was a girl. Casanova tells us only after twenty-five pages. She said to Casanova: “I am that which I told you I was, and cannot resolve to prove my disgrace to you, especially since I would risk to be pursued by your worthy self.”

Something psychologically revealing lies in her words. But he makes a few more passes at Bellino and draws back in fear. It seems that he recognizes the man.

Then he allows Bellino to accompany him to the nearest town. “*The whole affair is still strange and incredible, and although I was entirely convinced of my error. I did not stop to wonder about him (Bellino) and his true character.*”

The next day they drove off together. The mother whispers the Lord’s prayer when saying goodbye and afterwards Casanova makes the following rejoinders “The belief in the blissfulness of providence which is peculiar to most people who practice unlawful or immoral professions is not nonsensical or hypocritical. There are many feelings in it, and also love for God.”

To this he adds a saying in Latin which was used by thieves in the time of Horace while they turned to their goddess: “Fair Laverne, give me the power to and to appear

sincere and holy and cover my deeds with darkness (night) and my sins with a deceptive cloud."

During the voyage emotions rise again in Casanova's head. Once again he demands to know the truth from Bellino because he has a "magic" influence on him. If you still refuse, I shall think that you took it upon yourself to torment me, and that you are a good physiologist who found the best way to make a love-inflicted illness incurable, constantly heating the passion without ever satisfying it." This is actually Don Juan's fate, because he is unable to commit himself.

"You would not be cured," answers Bellino, "even if I proved I was either a boy or a girl; you are in love with me regardless of which sex I am." These words tell about the attraction to people of the same sex (homosexuals) because — as we explain in another paper—it is actually the indifference to sex arising from a narcissistic self-love which swings the pendulum of passion towards its own kind. This is safer. The movement in amplitude towards the two poles is like that of a man trying to secure this attraction to the most distant pole. However, it is the force of gravity, and not the artificial intellectually derived force which is the stronger one that always tends downwards towards homogeneity. It is one of the conditions of life, and the origin of culture to overcome this tendency.

"Oh no," says Bellino, "the male would not evoke a feeling of repulsion in you. I am convinced of it. Your hot temper would triumph over your reason and your reason would even serve your passion." ... "*You shall not have any peace, you shall seek what cannot be found.* How can you believe that you will stop to love me when I prove that I am a man? Will the beauty and the charm you find in me disappear? You shall be able to convince yourself that you can change me into a woman or, worse still, you will imagine that I myself can change my sex."

This girl who speaks here through Casanova's pen is balking about some deeply psychological subjects here. The origins of paranoid insanity are also sketched here with an unsuspecting hand.

And he also answers: "If everything were as you say it is, then it would be better to commit occasional sins against nature, which is actually a brief attack of madness, than to let one's reason go mad with an incurable disease." The discovery of the secret and the closeness of the relationship are described by Casanova as very passionate. This time we can believe him.

The discovery of male attributes in a woman constitutes the best possible circumstance for love in a latent homosexual who toys with the idea of male-female in his fantasy. (During the transvestitism an artificial phallus was used in the erotic culmination, according to Casanova's description.)

We might expect now that this "magic" attraction, or set of circumstances will quickly fade with the advent of reality. The usual psychological game of retreat starts

now. In the morning he resolves to marry her. They travel on during the day. He forgets his passport. How are we to explain this in a man who has just decided to get married? Casanova says it was a coincidence. We know otherwise. He is arrested and separated from his bride. In jail he philosophizes about happiness and sorrow. The retreat continues in spite of his resolutions and philosophical ideas. On the day when he should have received a new passport from Rome he makes an unexpected (even to himself) escape attempt using an officer's horse. The escape seems quite Irrational because it can only complicate his situation. However, we shall understand the psychology of this when we realize that it is a flight from marriage, from the commitment of oneself to one woman, from women altogether and from his dark impulses.

In a few days he once more meets Bellino—secretly this time, because he is in hiding. She now lives under the name Theresa. She thinks that he is in love with her more than ever, but this is not the case anymore. Very soon he must put two feelings to a test: love and self-love. He advises Theresa to go to Naples and tells her that she should not sacrifice her career for him, but that he cannot go with her because in that very place the local society will turn against him. So much rationalization. “I have resolved not to listen to the voice of my heart.” Just when that voice was dying away. “To drink love for a week was stronger than reason, but reason sweeps away love just as everything else in life.” This is Peter Gynt, seeing to be without principles, but haunted by impulses which he cannot overcome.

It was this secret, the male and the female, which attracted his passion in such a way which even for him was unusual. This exerted a magical force on him only as long as the object was a magical sphinx. When it lost the cloud of glory for him, and Casanova went on in his infinite search. Is not the sphinx himself thought to be the symbol of the puzzle, since this stone figure seems to be of an indefinite sex?





INTROGENESIS

*More will I tell thee too: there is no birth
of all things mortal, nor end in ruinous death;
But mingling only and interchange of mixed
there is, and birth is but its name with men.*

— Empedocles

Written in 1936; translated from the German.



CHAPTER I

Assimilation

Every living being strives to transform all within its reach into itself, as far as it can possibly do so.

Let us contemplate the life and the activity of any and every living thing: it is in constant search after nourishment in order to turn food and drink into parts of its body; it breathes in order to assimilate into its body all that is usable in the air; its need is ever in a state of renewal, for this drive to life is the condition of life itself.

This is the primal instinct. We call it the assimilation instinct.

Not only is self-assertion an assimilation instinct in the ontogenic sense, but in the phylogenic sense as well.

Every living thing tries to recreate its likeness by means of its seed from the universal whole, to mold all there is in its own image.

A grain of wheat sends out roots in order to fashion a new grain of wheat from earth, sunlight rain and air. The cornflower, too, extorts its blue blossoms from earth, sunlight rain and air. Coral strives to transform the whole ocean into coral islands. Throughout the slow development of the earth's crust a crystal tries to change everything around and about into crystals.

The man's seed is forced into the body of the woman and forces her to nourish the man's likeness with her blood. The life principle hidden - within her lets her mold the seed according to her features. Results a struggle between the instincts of assimilation. The characteristic qualities of both find themselves locked in embrace within the new being. The assimilation instincts of the parents will keep on fighting in the child.

Procreating, nurturing, drinking, educating, learning, breathing, creating—all are processes of assimilation. The fight for assimilation requires consumption of strength and therein lies the condition for death. The struggle is brought to a minimum in anabiosis. It is like a truce in war. Death is the succumbing to the powers of assimilation of the outside world. Death is an enormous loss in assimilation strength. But the body fights for its assimilation even while in the process of decomposition.

Whatever is assimilated tries to assimilate on its part, too. In the consumed flesh of an animal still flicker the powers of assimilation of its body.

The drive for assimilation is a form of energy. All the energies of the world are powers of assimilation: they spread themselves in order to transplant all there is into their state.

This pertains as much to heat as it does to electricity. The loss of a body's life energy is calculated by the extent to which the power of assimilation of a body that has died is smaller than the same power was during its lifetime.

The drive for assimilation as a form of energy plays a part in the ensemble of energies. Thus arsenic enhances a body's power of assimilation.

In depression the instinct for assimilation grows weak. That is why the depressed person refuses nourishment, starves, is immobilized, goes into a stupor, takes his life. The manic state of manic-depression psychosis is an attempt to whip up the life drive for assimilation; a person who feels he is in danger of being swept away by the flood develops the greatest of physical disturbances.





CHAPTER II

Assimilation and Disassimilation

Not only does each act of assimilation evoke a contrary process in which the assimilated tries to assimilate - the struggle between these two drives is an image of what happens universally - but a deeper insight lets us recognize that the process itself is always simultaneously one of disassimilation. We explain this curious contradiction in the following way.

When someone makes an inspired speech and affects the psyche of his listeners, then the speaker has formed his listeners to resemble himself to a certain extent. And as each listener went through a process in which the speaker and his line of thought became like him, it was the speaker who was assimilated.

As seen from a different point of view: the listener is possessed by the emotions emanating from the speaker and assimilates them in his psyche, his brain. And even if, as in hypnosis, the attention of the listener should be entirely passive, it would still be he, the listener, who is assimilated.

In the same way, the sight and contemplation of a natural scene exercises an influence upon the psyche of the viewer. Colorful beams excite the brain and transform themselves into psychic energies, into memory traces.

It is therefore the natural scene that influenced him, that formed his psyche, and that assimilated him to its image.

But it was also he, the onlooker, who absorbed an amount of nature's beams and who made them his own assimilated them.

A sculptor works on a stone. He molds the stone according to his inner vision. The stone adapts itself to the shape which had previously lived within the sculptor. Who assimilated whom?

But there exists even a second reciprocal process of assimilations the stone, according to its nature, resisted the changing of its shape, and forced the sculptor to overcome obstacles; these obstacles left an impression within his body which linked itself to his basic nature and character. Once again - who assimilated whom?

From these observations, just as from our comprehension of immortality, a picture of interaction and together-ness, and of the true unity of all that exists, appears with clarity.

In the absolute sense, there is no such thing as individual existence; everything becomes the common good, nothing knows an owner. For all eternity, everything in the assimilation process circles through stone and soul, everything acts reciprocally, everything is owned reciprocally.

There is nothing about which a man should say, “this is mine” . Not about possessions, not about the body, not about thoughts.

All things circle and stream through one another, and everything wants to shape everything else and leave something of itself in the thing reshaped. What shapes and what is reshaped become one. We call this phenomenon *introgenesis*.





CHAPTER III

On the Four Kinds of Immortality

There are four kinds of immortality. The first is the immortality of all matter. The body disintegrates, but it is not annihilated; it steps once again into the eternal cycle of nature and continues on its road of disassimilation and assimilation. The body has no death because in the absolute sense there is no death, since nothing exists that does not attempt to assimilate its surroundings. (Here we refer to our exposition: there is greater or lesser aliveness corresponding to stronger or weaker assimilation capability, and there is nothing that is absolutely dead.)

The body, though in a process of decomposition, still attempts to assimilate its surroundings, even if in a weak way.

This immortality is not an individual one: but from a philosophical view, in which life is thought to be a whole that has fallen into parts (individuals), the further crumbling into single cells is nothing else but the identical process of breaking up, only carried a step further.

It seems as if the individual has a private consciousness, whereas the cells of disintegrated matter have no communal life; the basis of such an antithesis will be seen when we consider the other forms of immortality. In the absolute sense, there is no such thing as private consciousness.

The second immortality is that of the seed. Single cells of the organism are able to escape disintegration. They are left to us by our forefathers and we give this heritage from generation to generation in perpetuity. Sperm and egg are the carriers of life, of character and of propagation.

Through the vigorous assimilation drives inherent in them, these germs create new bodies in a continuous chain of renewal; these bodies experience themselves as perishable individuals; the germs, however, remain immortal.

On the other hand, these germs which possess such great assimilation strength and therefore enormous energy as well, simultaneously serve also as an object for the surrounding assimilation drives of nature.

That is why the germ is not unchangeable. Poisons destroy it. The germ is in constant

flux, but it has such a high assimilation drive (and concomitant vitality), that it withstands most onslaughts of other assimilation substances and, besides the immortality of matter, possesses the potential immortality of continued propagation.

In any case, until old age, the body's own cells are incapable of defeating the assimilation power of germ cells and are exploited by the germ cells for their growth. But if one sacrifices the germ cells to the other cells of the body (Steinach operation), that is, if one frees the body of its power of assimilation, then the body frees itself from a strong assimilator and the tissues enlarge their lifespan. Under conditions that are not too poor, germ plasm remains eternally alive and does not lose its vast capacity for assimilation. And the fact that organized life exists on earth proves that such adequate conditions are actually present.

The third immortality is that of creativity. What was created by a living being remains perpetually alive in the indestructible chain of origins and consequences. An effect that has apparently passed leaves its traces behind. In an even clearer way every effect that imprints its form or its power on what has been created remains immortal.

A being's power of assimilation is immortal in his work: in a stone sculpture carved by him, in a composition noted down by him, in poetry written by him. And from the point of view of assimilation doctrine, this immortality should not be appreciated merely as poetic expression, but rather as real perpetual life of a being's assimilation drive, a being that has created.

Then what is life? Assimilating. A work is the product of assimilation which can affect both mind and body through further assimilation, and therefore to be understood as being truly alive. (But it does not possess the second not?, apparently, the fourth capacity for immortality, and thereby differentiates the vitality of the creator from the vitality of the created).

The fourth immortality is that which finds its direction in psychic energy and its interaction of assimilations.

Thinking is not isolated - within, each individual organism. (See *Über die Energetik der Psyche*, Zeitschrift für Neurologie und Psychiatrie, Volume 133). Thinking is an energetic process which affects everything around it, particularly the thought centers of other beings.

Therefore no man can be sure about the true origin of his thoughts, nor will he ever know where his thinking will be transplanted by assimilation power. Thus thinking is a capacity which belongs to many simultaneously. A common unconscious originates through the transplanting of unconscious concepts from one brain into many others in space, as also at a time when the brain is no longer able to create psychic energy.

The thought is altered in every new brain. Pear, apple and nut draw their nourishment from identical matter, but produce different fruits. Thus psychic matter from different brains is modified in a variety of forms; the assimilation power of thought is ever alive and active. This is the fourth immortality.

There is nothing that does not change its form. Everything is transitory and immortal.





CHAPTER IV

On Free and Unfree Will

A sleepwalker wanders over walls and on roofs with unfailing surety of step. But should he be accidentally awakened or wake up by himself, he will fall off.

This strange behavior and accident can be taken as a point of departure for a consideration of the problem concerning freedom of will. All argumentations of philosophy and psychology on this theme were till now built solely upon speculative ideas.

A sleepwalker's conduct is unconscious. If the sleepwalker gains consciousness, he loses his security.

The infallible belongs to unconscious actions. But when the conscious comes into play, confusions result, as e.g. in slips of the tongue and inadvertent acts. Where inadvertencies are concerned, it is really not the unconscious, but the conscious which carries the blame for the blunder. Unconscious actions are not free, they are compulsive, instinctive. The instinct belongs to the deepest layer of all, the uniquely infallible layer of the unconscious; it is this same layer which compels the embryo to grow in the mother's body, or which responds to the reception of food with lymphocytosis.

Here free will exists. A measure of coercion is present, just as there is coercion in inorganic nature.

The instinct is the automatic in living nature that acts according to the law of physics, as long as the conscious or the near-conscious does not get into the fray. I say 'into the fray' because it deals most often with a dual struggle, the fight of the instinctive—the automatic—with the conscious psyche.

Living nature does not require the conscious in order to preserve itself through generations. The masculine would come together with the feminine with the same inevitability that copulates the sperm with the egg. The urgency for life was precisely that power which separated the animal from the earth, uprooted it, brought it into motion; in water, in air, and on earth. Due to its very existence, the animal must come into conflict with other species and individuals. The only infallible powers were at work here, a totality and a parallelogram of powers would quickly begin, along the diagonal of which everything would be consumed. The similarity would lead to

uniformity and to death, in the sense of the transformation from conscious life to unconscious inorganic life.

Unconscious will is unfree; conscious will is free. But since the conscious alone never rules man, his actions are but the result of the struggle between *the freewill* of the conscious and the *unfree* will of the unconscious. That is why, until today, it was equally impossible for the adherents to the doctrine of the freedom of will to prove anything, as it was for the adherents to the doctrine of the unfree will. Obviously, both powers exist, but the activity of man is the product of the confrontation or the co-operation of both.

The unfree will of the unconscious would never itself endanger the individual for its own sake, because it deals with the security of the infallible automatic and follows the introgenic instinct. The automatically-wandering somnambulist does not fall from roofs. But the fact that the automatic transaction is infallible will never be purposeful to the extent of helping a victory for the unfree will of one person over the similarly unfree will of another one. If an aggressive danger confronted a sleepwalker, he would become its victim. If a sleepwalker, while wandering on a wall were to collide with another sleepwalker who is sauntering towards him, then both would hurtle down.

Conscious transaction can be faulty insofar as man's calculation can deviate from the infallible logic of the physical nature of things. And yet it is just this instability, this fallibility, this tendency to waver, sometimes to slip and to tumble, — it is peculiarly this very quality which raises man above infallible inorganic nature. A stone is never in error and falls only as it overcomes its own inertia. Bacteria are also virtually free from error and act according to the dictates of the laws of chemotrophy. Erring is the convulsing of the automatic in nature's biology, and free will is the blessed store of capacity for error.





CHAPTER V

Hostile Assimilation Drives and the Spectre of Paranoia

The paranoiac, it is said, lives in a delusional system unfounded upon any objective circumstances; he believes that people talk about him, make remarks and allusions, hatch plots, are disposed to be hostile toward him.

Is this entirely and solely just imaginary make-believe, a psychic *fata morgana*? For is not society really hostile toward each and every single individual? Are not the drives, and the introgenic drives in their crude form, all directed against one another? For is the idea so entirely absurd that every one of us has to serve as an object of malevolent gossip, of degradation, of being made ridiculous? And does one not lie in wait for us to falter, in order then to ventilate hostile feelings with loud laughter? Is not *bellum omnium contra omnia* an actual fact? Has not man, more than any other creature, brought cruelty and bestiality to expression in war and revolution, inquisition and exploitation? When society behaves in a friendly and well-bred manner, however, is not this friendliness merely an acquired one? Does not the demeanor of human beings resemble that of the skilled entrepreneur who fleeces his customers, but in such a way that they imagine that they were being stroked?

When the hostility of the environment has seized someone, when it has shaken him and brought him outside the path of reason, then he becomes a paranoiac who lapses into fear and terror and in his dread crosses over to the offensive of the desperate.

Freud's keen eye let him see something of this connection. In his work, 'Concerning Several Neurotic Mechanisms of Jealousy, Paranoia, and Homosexuality', he says about a patient:

His material referred to the attack...totally unconscious coquetry ... the hostility which the persecuted person finds in others is also a reflection of his own hostile feelings against the others.

And this is true; Not only are the environment's hostile impulses directed against him, but rather he himself, member of the family of man, is permeated by hostility against the others. In the inversion, this impulse must appear as one that consecrates itself to the role of redeemer. This ambivalence of emotion comes forth at its most conspicuous precisely in the case of the paranoiac who saves the world and murders

people. Ambivalence in general is the reflection of the struggle between one's own impulses and tendencies and those that are newly incorporated.

Does this realization by the paranoiac come about only through his keen view, only through an unconscious but usual sensory course of acquired knowledge about the actual hostile environmental character, or must we understand this unconscious and mind-boggling perception rather as the result of the ubiquitously emanating, flowing, introgenic activity? Surely the latter is correct.

Even in a close room, no thinking mind can remain unperturbed in the midst of war and revolution or in the midst of mutually self-destructive population, such as particularly in times of inflation and speculation. The mutual interaction, the intrinsic deficiency of boundaries between different personalities makes itself particularly noticeable in the limited sphere of family, neighborhood, or city.

The paranoiac who likes all the mentally ill seemingly forfeited the protective mechanism that shapes the personality into relative, though in no way absolute individuality, succumbs to this intrusion of the foreign (as far as something can be foreign within the meaning of introgenesis) and hostile drive of the power of assimilation. The depersonification of the schizophrenic or the split of the paranoiac follows: a primal I, self-affirming on the widest possible scale, wants to incorporate everything into itself as world savior, as the unique one, as God himself, as unbridled primal power (introgenic power) solely affirmative of itself, and at the same time a living being, persecuted, beset by all sides, barely saving himself from foreign assassinations.

The psychic barriers that offered resistance to the absorption of foreign greedy instinctual forces have become slack. The mentally ill is depersonified because he absorbs foreign matter on a significantly larger scale; he is however already less accessible to sensory intake. Someone speaks and he misunderstands, whatever he sees is uncertain; certain for him, however, are the figments of his fantasies, his inner voices, as well as his telepathic impressions.

His ego affirms itself almost to the fullest extent in the instinctive urge: the demand of the introgenic drive to incorporate everything, to influence everything - *that* he personifies, while he imagines himself and poses as a great world power; at the same time, however, he senses unlike anyone else, the deployment of all world powers against him, and then there is no possible escape in this world - and perhaps death alone brings it. (We know that death does not bring any rescue, for it is a capitulation to the oppressive forces of the environment).

In this connection "we do not have much to add concerning the homosexual components of the paranoiac's urge to life. In conformity with our interpretation this component is the primary tendency of the assimilative power which strives to transact according to the economic principle *similis similia*. This tendency endeavors to break through again" in delusion; but the boundaries have already become rigid, and the

ferocious beats itself in the cage of the imprisoned personality.

We also want to try finally to understand as no longer senseless the remarkable and ever-recurring phenomenon of the illness of schizophrenia.

The almost constant assertion of patients that one influences them, induces them, telepathizes them: is this assertion to be understood as entirely senseless merely because it comes from the mouths of madmen? Or is not the constant recurrence of the assertion on the part of thousands upon thousands of patients an obligation to ponder over this complaint, and to attempt to pursue its cause? When one after another asserts that his thoughts are besieged from the outside, and when we, without giving it much thought, let these thousands, one after the other, go the way of the lunatic asylum solely because of the madness of their assertion, then possibly we, who are unable to see the partial truth in the remarkable repetition of a phenomenon, stand accused of a rigid psyche as veil.

A human being feels bereft. His former ability to feel his thoughts, memories, and wishes as his own inner realm goes to pieces. That which shaped him into a personality, that which kept away his mental possession, as it seemed to him, from the glance of others, this ability floats away, and vague thoughts of an origin unknown to him stream into his own. No longer do they trickle in slowly as before - the dam is washed away, they flood inside in disorder. In vain he tries to defend himself. Even in this catastrophe he struggles to differentiate his own from the foreign, to designate the foreign and hostile as such. He implores, shouts, rages, and all his assertions are in our eyes a certain sign of illness and of the necessity for his internment.

Thus the outcry of a human being who has swallowed a corrosive poison and who writhes in pain and moaning might as well be looked upon with equal justification as the real phenomenon of the poisoning. This is not the phenomenon as such, however, but rather only the loud complaint about the unbearable quality of the phenomenon: its magnification and its pain.

The feeling that the tissue of one's thoughts is woven through with foreign pessimistic threads is, moreover, precisely a sign of insight, the insight into the depersonification. If the reestablishment of the barriers cannot happen, if the insight is lost, then the derangement begins, a chaos that paralyzes the will and the imagination.

Side by side with the feeling of being influenced by others, of having to absorb the foreign in intolerable doses, there exists a very similar sensation; that of being observed by others, of being in a position to protect the inner self from the psychic eye of strangers: one whispers to him; one telepathizes him; thus he has absorbed the foreign.

The other means that his thoughts are discovered by others, have been absorbed by

others. The first is the schizophrenic type, the second the paranoiac. If the barriers of his psychic personality have broken to pieces, then his property has become common property. He who is slain in the field is delivered up to all marauders. One exhausts his thoughts, one leaves him nothing he may still deem his own, one pursues him with glances, his psychic realm is defenseless and at the mercy of plunder; he defends himself, tries to close himself up into himself in order, if possible, to hide by exterior means the *secret*, the protection of which an individual ranks as his sacred right. *Autism is an attempt to protect oneself from depersonification with extreme measures.*

He shuns people because he is not certain of being able to conceal his thoughts from them, he senses the foreign glance as piercingly scrutinizing and persecuting, he defends himself desperately.

Not only does the thought pattern of the schizophrenic and the paranoiac become comprehensible from the standpoint of introgenesis, but so do the patterns of ... thought and feeling of the neurotic, hysteric, and the manic-depressive. The entire cycle of psychic disturbances which do not rest on crude ... anatomical foundations is embraced thereby. And when the most diverse forms of thought disturbance, which otherwise find no explanation, each singly and all together fit into one formula and are explicable according to one formula, is this, then, not a sign that the trodden path is well-chosen?

The compulsive neurotic with all his compulsive inversions and compulsive thoughts *casts spells*. His witchcraft concerns the most important moments of existence: life and death. Thus compulsion neurosis and its inversion are nothing else but a black and white magic. He conjures constantly and hastens to carry out counter-magic. Because the thought concerns the death of someone close to him, the counter thought must annul the first thought. He wants to curse and is forced to bless by his moral imperative, his superego. He curses and blesses because he is confronted by an insoluble dilemma; to wish someone put out of the way (or to see him done away with), yet this someone was already absorbed into his own psyche, was "incorporated", and now he will naturally protest the annihilation of his origin, the living father or mother. Here I would like to cite some lines by Anna Freud; "We have no doubt about the origin of these inner voices, or of the conscience. It is the continuation of the parental voice which now functions from the inside instead of from the outside as before. The child has swallowed a piece of father and mother, or rather, the commands and prohibitions it has received from them, likewise swallowed and transformed into a permanent part of his own being."

From the standpoint of introgenesis, in this theory of "incorporating of parents", a kernel of truth is contained, as it is in the collective unconscious of C.G. Jung, in the universal unconscious of parapsychologists, and in the cosmic soul of pantheists (or, more correctly, panpsychists).

It is precisely the circumstance that parents, in the introgenic sense, are "incorporated" into the psyche of their child on the one hand, but that they can be

most disturbing for the human being's expansive self-affirmation on the other hand - this condition is at fault in that compulsive neurotics, people with a highly developed conscience, that is, with well-"incorporated" parents, have become ill precisely over the magic of life and death of parents.

Yet, it is a nearly insoluble problem that someone may be the destroyer in relation to himself (or rather to a part of his self) or that he should even so much as think of himself as the destroyer. (I will make some additional comments about that in connection with melancholia).

According to the introgenic drive, the human being wants to consume these old, disturbing, no longer useful roots, his parents, instead of incorporating them introgenically as before. He wants to rule the arena alone, if possible to appropriate even further the power of command over the store-up assimilation force. But the "incorporated" father - to address Anna Freud - cannot wish nor aim at his own destruction, the destruction of the living father. From this schism both formulas result; the thought of destruction and death, and the counterthought, to annihilate the first one. But since a born thought exists as a force, a physical quantity, then it must be attempted repeatedly and increasingly more painfully to enfeeble it through another thought, or through another action. Black magic must be followed by white magic, and in order to be on an entirely sure footing, the formula of benediction is repeated over and over again. Thus repetition compulsion, compulsion mania originates; and whether or not that which is brought into the thinking process is really elicited and enfeebled by the powers of benediction - this uncertainty is the cause of the compulsive neurotic's doubt. Have I really carried out the ceremony? And the formula is repeated.

Thus the ceremonial originates; inasmuch as prayer is also a formula that brings a benediction, a white magic, it is a substitute for compulsive neurotic transacting; more correctly stated, religion substitutes for compulsion neurosis, a connection recognized by S. Freud. Thus compulsion neurosis, like other "thought disorders", is convinced by the omnipotence of ideas", and, moreover, nourished by it. Thinking can bring cure or harm and, as a result of the defined condition, can affect all sorts of things, but most easily those nearest and dearest.

Is the "omnipotence of ideas" a totally diseased, an entirely repudiated, fallacious concept? Whoever has read my work about "The Energetic of the Psyche and the Physical Existence of the World of Thoughts" attentively, will entertain no doubt as to the kernel of this idea.

Somewhere the compulsive neurotic is right. That is not to say by any chance that white and black magic are scientific methods; nevertheless, the good will of human beings is a beneficial power, envy a crippling one.

This is known by everyone who has to appear before a crowd, for instance, an artist who plays for disapproving listeners. Does not a healing power lie intuitively in the

fervent prayer of many for a seriously ill person? The world of consciousness of others streams into a human being in the waking state or in dreams and acts destructively or nourishingly.

The ancient practices of magicians which are still customary even today (such as in the Balkans and in Tibet) are transactions equivalent to those we find among compulsive neurotics: one kind of transaction or idea brings misfortune, another one benediction.

This belief is reflected over and over again in all religions, as it is in superstition, in primitive thought and in the thinking process of the compulsive neurotic.





CHAPTER VI

The Dual Struggle within the Germ

The struggle for assimilation proceeds with violence as early as in the fertilized germ. The plasma characteristics of the mother and the father grapple with each other. It is a dual fight for the attributes, and first of all for the victory of the masculine or the feminine in the embryo. And when one of them has prevailed, then the other one does not stop rebelling within the individual throughout the whole of his life.

Under conditions that approximate psychoses, the dual struggle will again become apparent as a split of the personality.

Much can be regarded as a basis for the split belief and disbelief, vacillation between love for the father and for the mother, between hate and love. But we must expect the enormous split in the inner life of man without preconception at a place where nature itself has intrinsically drawn the great line of separation; in the division into the masculine and the feminine. This split touches all bases.

The split within neurotics is the continuation of the struggle which the fighting powers have carried on in the embryonic bioplasm.

It is precisely for this reason that all alert analysts find a latent homosexual tendency in the inner lives of their patients; except that it is not right to regard this tendency as a concomitant phenomenon. The split of man into his two original, inimical camps is the basis for the uncertainty of his role, of sexual confusion, of doubt, and of compulsion.

The origins of the split are to be sought where the double principle of the decisive fight was determined: in the embryonic overpowering of one of the two by the other.



CHAPTER VII

Sublimation and Abasement

We know about the concept of sublimation through Freudian theory. An inner need can be compensated for (as seen ethically or esthetically) by a loftier inclination or activity. A sadist can establish himself as a surgeon; an infantile interest in feces can be sublimated by the sculptor's occupation (Freud). Such cases imply no loss of assimilation strength, and are, therefore, to be morally affirmed.

We must propose a differentiation through the introduction of the concept of abasement, which we likewise understand to be the transformation of an inclination but, from the standpoint of moral worth, not in the ennobling sense (the word *sublimation* is indicative of positive moral worth), but rather in the opposite direction: therefore; abasement. The conversion of an impulse toward homogeneity into hate, anger, envy, brutality - that is abasement. It means a loss of collective introgenic capacity.

The fact that the secret origin of exaggerated jealousy is a repressed homosexual tendency was already recognized by Freud and Abraham. But hate, and anger as well, and every sadistic emotion in general, is also a repressed impulse for the homogeneous, one that has not reached consciousness.⁽¹⁾

References

1. Compare with my work on the [Tolstoy's *Kreutzer Sonata*](#), that will appear this year in *Imago*.



CHAPTER VIII

The Hatred of Nations

In light of these presentations, I would like here to consider here one of the most searing of ethical problems—the problem of the hatred of nations.

A nation as a whole rages, hates, becomes ferocious and frenzied. Group hatred and group enmity, like individual hatred, are aspects of an unconscious but active drive for the homogeneous.

This unconquered impulse for the homogeneous lives in very many. It expresses itself within a single person through sadistic emotions against man and animal in the environment, at times touched by sorrow, at times tinged with glee. The hidden leaning toward the homogeneous seeks a substitute for the forbidden object and strives for transformation. A husband who has not overcome his impulse for the homogeneous is inordinately jealous, torments his wife, and often hates the imaginary rival; yet, fundamentally, he has just this very man in mind and thus displaces the emotion and the object with another emotion and another object.

The same process of abasement also goes on in the unconscious of a collective. A member of a nation appears to another nation as somewhat heteromorphous. With great inner relief, the stifling feeling of the secret but unobliterated penchant for the homogeneous, finds a substitute object in the representative of a foreign nation. Hatred for that which is of the same sex, yet heteromorphous, is a permuted, unsurmounted impulse for the homogeneous; instead of the other sex, another nation; and in place of the inclination, hatred. Thus the sadism of one nation against another nation is an unsurmounted, accumulated and equi-directed leaning toward the homogeneous among many individuals.

The metamorphosis of a homosexual tendency into a sadistic one is an abasement.

The sadism in the life of a nation-collective shows itself at its most conspicuous in militarism. War games, exercises in stabbing, striking, shooting, are legitimized satisfactions of the sadistic needs of the masses.

Residence in barracks at an age of strong sexual desires, communal living among juveniles, men who sleep in common, are confined together for months and years - this is a tribute to the same passion. In barracks the unconscious tendency also breaks out often into a conscious one and leads to acts of pederasty.

From the symbolism of dreams we know that a saber, a revolver, a rifle, a cannon are altogether obvious sexual symbols. Stabbing through, piercing through, shooting through, are symbolic acts. directed against men, however, they are symbolizations of homosexual activity. The sexual act is replaced by a sadistic one, exactly as it is also replaced in the private life of a single person in the case of an unconquered unconscious homosexual passion.

Nations have their emblems, which are intrinsically symbols of conscious and unconscious national characteristics. Collective sadism contains a collective emblem. Most nations have beasts of prey as national emblems. Lions with open jaws, eagles with spread-out claws, are the most beloved of symbols <

Corresponding to man's unconscious bisexual nature, countless emblems show both heterosexual and homosexual symbols. Many emblems have a double face. The two-headed eagle, as well as the Janus-face are to be understood as signs of dual sexuality, or as an expression of dual emotion.

In the interest of common nationhood, the homosexual drive becomes displaced, being directed against the racially foreign, and in times of peace this tendency is content, as stated with the barracks surrogate - and not always just as surrogate.

The developmental process led to the transformation from "love thy neighbour" to "hate the stranger" . But hate is the same attraction as love. When it is claimed that war and hostility between neighboring nations are exclusively economic in origin, then such an origin should be demonstrable in the reciprocal relationship between Turks and Armenians.

The Turk who attacks and stabs the effeminate Armenian, is reminiscent of the jealous man who murders his victim.

Things do not differ very much in the century-old enmity between Germans and the French. Here the wish to penetrate to the core of the foreign land and to avenge oneself, appears to be the sole motive. An actual contradiction of economic interests between Germany and France is hard to prove, yet the enmity exists.

The inclination for the homogeneous within the unconscious of the single individual, becomes a common channel and is directed toward the "similar but foreign" .

All writing, reading, and lecturing in the cause of peace has been fruitless up to now. Why? No matter how much the proclaimers for reconciliation between nations may preach, they will accomplish no more than the physician who advises a sufferer to leave his illness and get well, without having solved the riddle of feeling and conduct.





CHAPTER IX

Psychic Values and Introgenesis

A work of art must have the faculty to assimilate: it is a power of assimilation, accumulated and transmitted to “lifeless” nature ~ often only in token, symbolic form.

A work of art utilizes energies that come from the outside - light for the sculpture, muscular energy for music), acts through them, and remains unchanged.

The work of art has acquired the power of psychic assimilation from the creative psyche, and remains unchanged itself.

The concept of the creative artist - that is, his psychic energy - was brought to his work; the work retains this energy, acts upon thousands, evokes an image and a mood within them, transfigures the mental realm of the observer according to the idea of the artist. The artist himself may no longer be alive - or, what is equivalent, live in another world of ideas - but his work, without diminution, is continuously effective. It is really like a miracle in which five thousand had enough bread, yet the baskets are still full.

The law of the preservation of energy is correct only in the imaginarily separate sphere of inorganic nature. The vital processes connote an appreciation or a depreciation (at death) of assimilation value, that is, of the quantity of energy in the world. And concerning this, the introgenic energy of an idea has the possibility through stone, through printer's ink or whatever else, by means of a one-time addition of mechanical energy, to produce a result that disappears only as slowly as the decomposition of the material in which it is preserved, and meanwhile causes an extremely significant introgenic effect in someone receptive to it.

On observation of this distinctive characteristic of introgenic activity by the vital processes, and even more, of physical activity, as opposite to other forms of energy we are compelled to apply moral value-judgements, and to contend; whatever is lost in introgenic worth by dying, is consequently all the more precious in life; whatever possesses the ability to procreate itself - and thereby parti-cipates in the “immortality of the seed” - is of increasing value to the introgenic wealth of the world.

Yet all this, as said earlier, is overshadowed by comparison with the introgenic ability of those endowed with the talent for spiritual creativity.



CHAPTER X

The Criterion for Ethical Values and Its Determination

What is evil? Evil means assimilation of the superior by the inferior.

Evil means a failure - Beethoven's nephew, who sponged at the expense of genius.

Diseases are evil, as is the action of bacteria. Also death is evil.

Relative evil is the assimilation of something that could have been replaced by the inferior - that which has a lesser capability for the production of lasting values [these last being defined as] accumulated powers of assimilation.

Thus the eating of meat is relatively evil. The assimilation drive, in and of itself, is neither good nor evil: it becomes good when sublimation takes place, but when abasement occurs, it becomes evil.

Mean is the embezzlement of life from something that is meant to serve the assimilation only to a limited extent. It is mean, because the greater portion is thus condemned to go the contrary way of useless devaluation.

Thus the consumption of bird tongues, for which birds are killed, is meant mean, and relatively evil. Equally mean is the activity of bacteria who, for want of a small portion of the human substance which they need, destroy a whole organism -that is, diminish its assimilation capacity excessively.

The usurer who destroys the livelihood of a person for a few pennies, is just as mean.

If it is possible to calculate the energetic values of an introgenic event mathematically, also nothing stands in the way of determining ethical values in mathematical quantities.



CHAPTER XI

Moral Instinct as a Partial Introgenic Drive

It is the moral instinct in the human being which takes this evaluation into consideration intuitively.

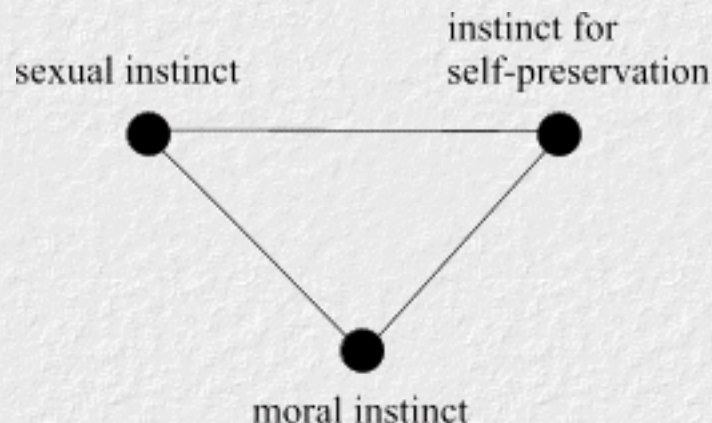
Is there such an instinct? According to the chapter on the inimical powers of assimilation and paranoia, it could appear as though no place for moral sensibility existed: as though the assimilation drive, the drive to expand, the drive to embody, to destroy, left no room for compassion.

But consider the following illustration. A child climbs onto the railing of a bridge, takes a few steps, and falls into the water. Fright and horror grips those who see it.

If man is a thoroughly egotistical being, how does he get the feeling of horror? Several of those present even make the attempt to rescue the child, some of them at the risk of their own lives.

I stated: there is only one drive—the drive for assimilation. Thus even the moral instinct is a partial component of this drive.

I would like to illustrate this fractional part in the form of a triangle: sexual instinct—instinct for self-preservation—moral instinct



One could determine graphically the place of any character among these three poles.

The morally defective character adjoins the line which connects the pole of the sexual to that of the self-preservative instinct; we find the autistic character on the line connecting the self-preservative instinct and the moral instinct; the altruistic character is situated near the line of the sexual instinct—moral instinct. A graphic character line cuts diagonally across the triangle. Even the sexual instinct and the instinct for self-preservation, rather than being independent instincts, are partial components of the primal drive; one acts in the interest of ontogenesis—self-preservative instinct, the second in the interest of the collective—moral instinct, the third in the interest of phylogenesis—sexual instinct.





CHAPTER XII

The Subjective and the Objective Criterion

There is no contradiction of the introgenic principle in the contention that a partial drive acts in the interest of the collective.

Inherent in the drive for assimilation is an egotistical feature, but at the same time also an altruistic one - because each assimilation demands the consumption and the renunciation of one's own power, and because introgenesis always connotes a reciprocal process.

Someone loves in another that which is similar to himself, that which the introgenic power formed alike in both. It is of course natural that the image he carries within himself - and which is consequently a part of himself - resembles the beloved object.

A man loves his child because he has produced it from that which is his own, because part of him is embodied in the child, and because the permanent influence, his upbringing, has made of the child an offshoot of himself. What he really loves is himself.

When someone mourns a deceased life's companion, he thus mourns that part of himself that was embodied by him within the deceased through introgenesis; and the psychic part of the deceased which he himself had embodied, also mourns about itself its origin.

The subjective criterion of compassion and that of moral instincts especially, is expressed by the affinity for that which is created alike in proportion to the greater or lesser perfection of the similarity. The persons on the bridge were terrified because it was a human being that fell into the water; had it been an animal, the terror would have been slighter. But had it been one's own child, the terror would have been extraordinarily great.

The latter emotional increment would not be justified by the objective criterion. The objective criterion is stipulated upon the quantity of introgenic abundance; if this abundance increases, the cause for the increment was objectively good, but if it decreases, it was evil.



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| Edwin Schorr | Ph.D. candidate in Aegean archeology, researcher | 3 |
| Harlow Shapley | to Ted O. Thackrey | 4 |
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| Robert Stuckenrath. Jr | | 2 |
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Dr. Walter Federn

My first contact with Dr. Walter Federn came through my acquaintance with his father.

I knew Paul Federn from the days of my sojourn in Vienna in 1933. As the president of the International Psychoanalytic Association, he chaired that year the monthly meetings of the Vienna Psychoanalytic Society of which Sigmund Freud was the founding member. At one meeting that spring at which I was present, the discussion became rather emotional—a chapter dealing with telepathy in the new book by Freud—was the theme. Freud, as usual, due to his poor health (he was undergoing repeated surgery on his cancerous jaw) was absent, but his daughter Anna was present. The subject of telepathy, foreign to the tenets of psychoanalysis, caused visible and audible consternation among the assembled members of the Society, mostly psychoanalysts, well known for their publications in *Imago* or in the *International Journal of Psychoanalysis*. (In the latter, medical or clinical problems were the usual subject. At that time there was also a third periodical of the analytical movement in Vienna, *Psychanalytische Bewegung*, and in it I published a paper on “Psychoanalytic Glimpses of the art of Dream Interpretation according to the *Tractate Brakhot*,”⁽¹⁾ I prior to my coming to Vienna.)

Only Paul Federn and I sided with Freud and spoke up. After that meeting, Federn and I spent the rest of the evening in a Viennese cafe, and though I soon left for home—I was then living on the hills of Carmel, above Haifa, Palestine, our friendship can be dated from that day.

Paul Federn and his son Walter fled Vienna and resided in New York since the beginning of the Second World War.

Walter Federn, whom I first learned to know in New York, got his Ph.D. in Egyptology under Prof. C. Junker at the University of Vienna. Walter wore his hair long, had very bushy eyebrows, and looked almost like a medium—and actually, for a while I feared that he might read in my thoughts the scheme of my reconstruction of history, and make this my discovery his own. It was in February, 1941, after one of our chance meetings at the Public Library at Forty-second Street in New York that I decided to discuss with him my entire reconstruction, conceived almost two years earlier. For about two hours we walked forth and back the length of the sidewalk along Bryant Park adjacent to the Library: Snowflakes were falling and it was already dark. I was narrating and he listened, all enchanted. From then on he never ceased to answer my very numerous inquiries, mostly in the field of Egyptian bibliography, but also in the area of Egyptian philology and other cognate fields. He soon became

rather convinced that the conventional chronology, and therefore also the ancient history of Egypt, are not built on unshakable foundations. Though recognizing the striking correspondences between the Egyptian and Biblical histories, as brought out in my work of reconstruction, he was not ready to follow the decisive “surgery” which it contains, with “centuries moved along the scale of time.” Yet, in the spirit of constructive criticism, in the letter exchanges that we had, on numerous occasions he led me to manifold sources and references; the perusal of our correspondence that embraced many years and hundreds of letters demonstrates his great patience (I would return to raise the same question again and again) and great store of knowledge and great generosity with his time and efforts.

One evening in the spring of 1950 I was in the home of the Federns. Paul Federn, expressed to me his worries about his son’s future, knowing that Walter was not well prepared to deal with life’s hardships. I did not yet understand the reason for his worry that night, nor the reason for the promise he asked of me and also received that I should take care of Walter; I understood only the following day when I read of Paul having shot himself. He had been suffering from cancer of the bladder and was facing a second surgical intervention. His wife had died of heart disease a few months earlier.

After the death of his father, Walter Federn moved from Central Park West to Forest Hill, where he lived until his end. A roomy apartment, protected from noise, was the only luxury he permitted himself.

On September 30, 1958, after some seventeen years of our contact, Walter wrote to me in a dramatic communication that he had finally become convinced of the full truth of my reconstruction. He wrote:

30. Sept. 1958

Lieber Dr. Velikovsky, Ich habe Ihnen folgende geradezu weltererschuttern jedenfalls mich selbst erschutterende, Mitteilungen zu machen . . . das allerwichtigste: Ich bin jetzt der festen Ueberzeugung, dass “Ages in Chaos” *richtig* ist, und habe eine fast unuebersehbare Fuelle von Beweismaterial. Der 2. Band muss nun grossenteils neu geschrieben werden. Die Folgen fuer die gesamte Altertumswissenschaft einerseits, fuer meine weitere Lebensgestaltung andererseits, sind unabsehbar.

Herzlichst Ihr,

Walter Federn

September 30, 1958

Dear Dr. Velikovsky,

I have the following report to make to you—it is quite world-shaking, and shattering for me personally, report to make . . . the most important: I am now of the firm conviction that “Ages in Chaos” is *right*, and I have an unmatched grasp of the scholarly literature. The second volume must by and large be written anew. The consequences for the discipline of ancient history on one hand and for my future life on the other, are unforeseeable.

Most sincerely yours

Walter Federn

His concession was followed by vacillations; yet to the end it was his conviction that the accepted way of writing history was decidedly wrong. He could think history simultaneously in both versions—and this was a great asset to me; thus he could draw my attention to quite a few data that were in conflict with the accepted, and in harmony with the reconstructed history.

When I settled on writing *Oedipus and Akhnaton*, conceived much earlier, before my coming to the United States on the eve of World War II, and the subject of my library research from then until April 1940, Dr. Federn was helpful again, and drew my attention to a few supporting data even outside the field of Egyptology, like the Iranian sanctity of incest.

For some time Dr. Federn taught Egyptology at the Asian Institute in New York, where he had very few pupils (neither Columbia University nor any other university in the area had a course in Egyptology, and only the Metropolitan Museum of Art had Egyptologists on its staff). One or two of his pupils went to work in Egypt. For a while among his pupils was the leading Assyriologist Max von Oppenheim of the Oriental Institute of the University of Chicago, who would come especially from Chicago. After the closing of the Asian Institute, Walter translated works of Late Renaissance Latin (Paracelsus and others) into German for a medical doctor and author.

Toward the end of his life Federn first became solitary and very seldom left his apartment, then completely discontinued his visits to the Egyptological Department of the Brooklyn Museum; then, for a longer time, he became bedridden; yet he remained mentally alert and when he could write only with great difficulty, he would answer my calls from Princeton.

Walter Federn died on July 28, 1967, in his fifty-seventh year. I wrote his necrologue

for *The New York Times* He was of a fragile body, unmarried, and given to no pleasure other than books. His enormous store of knowledge did not spill into productivity, and his scholarly publications were few and brief. The largest work of his was a bibliography in Egyptology covering the years of World War II and commissioned by the Library of the Vatican.⁽²⁾ He was highly regarded by other Egyptologists, as witnessed by the dedication of Volume VIII (1969-1970) of the *Journal of the American Research Center in Egypt*, the only American journal specializing in Egyptology, to him. In his article in this volume, Bernard V. Bothmer wrote:

He could discourse on any complex question at a moment's notice, and this writer vividly retains the memory of Federn's learned discussions on subjects as disparate as the meaning of *b w iwnw* or the origin of the back pillar in Old Kingdom statuary.

A *Privatgelehrter* of the old school, he read every line published in the field of Egyptology and kept a running account of corrections, amendments and addenda to every major study that appeared—unfortunately in a minute script; and the maze of his original notes was intelligible to no one but himself. His vast knowledge, which he disclosed in a hesitating, modest, yet most engaging manner, brought forth—alas, mostly in conversation—a host of new ideas which, unendingly, he proposed as working hypotheses. His critical comments, so freely dispensed, deserved to be acknowledged in print far more than has actually been done.

His study of Egyptology and his almost incomparable knowledge of it were of immense benefit to my work of reconstruction, even if his role was mostly one of *advocatus diaboli*.

I can say that nobody, not even by a long stretch, helped me in feeling secure in my work of reconstruction as far as Egyptological sources were concerned, as did Federn. I missed an equal assurance in the field of the cuneiform (Sumerian, Akkadian, "Hittite") and do not doubt that were it different, I could enrich my work by more evidence, and be bolder. I was rather like a walker on a very high staircase with only one handrail to feel secure.

After Walter Federn's death I succeeded to disentangle the great web that is the so-called Twenty-first Dynasty, and also to enrich by several strong points the reconstruction of the so-called Twentieth Dynasty (*Peoples of the Sea*).

Federn offered me innumerable references in literature, but the work of *Ages in Chaos*, from the beginning to its end, was my own creation and my responsibility. Yet it would not have been the same, were it not for Walter Federn. Our correspondence, from 1941 to about a year before his death, when the process of

writing became too difficult for him, is preserved in my archive. It covers nearly a quarter of a century and consists, as I said, of hundreds of letters, English and German alternating; almost all of his letters of later years are in handwriting. They contain an inexhaustible source of learning, even today.

References

1. Original title: “*Psychoanalytische Ahnungen in der Traumdeutungskunst der alten Hebraer nach dem Tractat Brachoth,*” *Psychoanalytische Bewegung*, Vol. V (1933) no. 1.
2. Published in *Orientalia* Vol. (194 -19).





(draft)

Dear Dr. Federn

During the spring and summer 1941 we corresponded often in matter of my reconstruction of history, and to all my questions I received a friendly answer in writing. You always stressed that you do not accept my view, and when I wrote down a table of chronology where I admitted the identity of Ramses.III and Nectanebo I, you wrote to me:

.....

I summer of 1941 I was challenged by the conclusions of my research to show this identity and also to prove that Khetasar (Chattusil) of Ramses II's treaty and of Boghazkoi is really Nebuchadnezzar. The fall of 1941, when I returned to N.Y. I worked through the Greek sources about Nectanebo and the "Hittite" texts from Boghazkoi, and I was in no wise disappointed. Without any previous knowledge of these Greek and Hittite texts, I asserted the identity of Hattusil and Nebuchadnezzar and Ramses III and Nectanebo, and therefore it cannot be but a miracle the new coincidences. I had to show you these new chapters at that time, but I thought first to write also the last missing chapter: about Sennaherib-Haremhab; and it happened to me repeatedly that when I started to write this chapter I was distracted by a new problem which has in common the same epoch. So for my other book I understand things which were secret to me for more than a year. My comet and Venus work was enriched by a chapter about Mars. I knew also the "role" of Jupiter and Saturn. So during the spring I was "on Mars." This summer I spent two weeks in Cambridge, Mass. and I gave my ms. to Pfeiffer, Director of the Semitic Museum there. He was very much impressed, but he told me that he needed weeks or even months to make himself acquainted with the reconstruction, because "it is just as a change of religion" it means after 25 years of learning and teaching in the conventional manner, it is not easy to start to think in new terms; in short "not book but dynamite," and he professed that he is dizzy after its reading, but he offered me no opposition, but in point of art, and I answered him from here in writing. It is it not excluded that Harvard University Press will be willing to publish my work.

Since August I improved the chapter about Ramses III by adding some pages about Elephantine papyri, and now I am bringing in the material of Ras Shamra into my scheme.

Now, with a delay of one year, I would appreciate it if you would like to see the chapter about Ramses III, where you will find also few pages about Greek letters, about which I wrote you last winter.

Now, during the time many questions did gather themselves and I knew my better position in Egyptian than in other fields (Greek, Hittite, Assyro-Babylonian) because here I could reason on your answers.

Questions

1. Records II, no. 802 (Amenhotep II): *hps*—does it mean some metal or form of a sword? It is written daggers. Is in Eg. text next to it also the word *snn*? My supposition is derived from Ras Shamra texts.
2. Records II, no. 803 Breasted writes his (Amenhotep II's) mother Hatshepsut. Is there any hint that Hatshepsut was his mother? Comp. Petrie, XVIII D, p. 154 (Queen Merytra) p. 164 (Queen Ta.aa.)
3. Is in Egyptian mouse or mice in some philological similarity with words for flame, blast, star, comet, planet? (The Herodotus story about Sennacherib)
4. Is Akhet Aten and Ikhnaten written similarly (Herodotus Anytis). Is it possible to read the first part as if derived from Yahu. Is it possible to read the second part Anat?
5. Is it possible to read in Harris papyrus Ezra instead Erza or Irsu
6. Is it possible to read in Tah-peneth.
7. What is the Egyptian word for chariot?
8. In Champollion vo. IV CCCV (3) I found a "Canaanite City" with Champollion's remark King Rechoboam. If I am wrong, the figure is one of the "cities" captured by Thutmose III. Champollion, unsure in general in fixing the times of the pictures (R.III he describes as Sesostris), but in this point he came near the truth; Thutmose III acc. to my reconstruction was the scriptural Shishak, NoqW I would like to know what is written on this picture? and What position has this picture among the cities of Canaan? I enclose a copy from Champollion
9. Where is a picture of Sheshonq inscriptions about Canaan cities? Are the cities also in form of figures?
10. Was Marnepta a son of R. II or his grandson? Was Marneptah mummy found? (According to Herodotus, Apries was embalmed and buried next to his father)....





April 20/21 1946

Sehr geehrter Herr Doktor,

verzeihen Sie bitte—es tut mir wirklich *sehr* leid—die lange Verzögerung der Antwort auf Ihren Brief vom 3.IV. - Fast 14 Tage lang bin ich arg verkühlt gewesen, nicht so krank, dass ich nicht ins Museum fahren konnte, aber doch zu keiner geistigen Anstrengung fähig. Auch jetzt bin ich noch nicht ganz wohl und geistesfrisch.

Ihr “Worlds in Collision” habe ich sogleich gelesen, d.h. am nächsten Abend. Trotz Müdigkeit in einem Zuge, und mit grösstem Interesse, ja Erschütterung (Wie Sie vorher sahen: I was shocked), wenn auch natürlich in geringerem Masse als es bei “Ages in Chaos” der Fall war, wo die Grundlagen meiner geistigen Existenz auf dem Spiel standen. Inzwischen ist der Eindruck wieder stark verblasst. Meine erste Reaktion war: “Dafür wird Dr.V. ohne jede Schwierigkeit einen Verleger finden.” Ihre Überredungskunst ist unwiderstehlich. Als dann aber die nüchterne Überlegung wiederkehrte, begann der Verdacht gross zu werden, dass auch hier, wo ich das Meiste auf Tren und Glauben hinnehmen muss, ebenso wie in “Ages in Chaos” viele Argumente auf Missverständnissen und Ungenauigkeiten beruhen werden, und kam schliesslich zu dem beruhigenden Ergebnis, dass ich mir trotz der geringen Sachkenntnis, gestatten darf, zu sagen: Ihr Beweismaterial zwingt *nicht* dazu, Ihre Schlussfolgerungen anzunehmen. Aber ebenso wie im historischen Teil bewundere ich die Kühnheit und Originalität Ihrer Gedanken, und zweifle nicht an dem Vorhandensein wertvoller Einzelheiten, auch wenn das Ganze verfehlt sein sollte. Daran, dass tatsächlich die Erde einmal in Menschengedenken, vielleicht sogar öfter, durch den Zusammenstoss mit einem Kometen aus ihrer Bahn geworfen wurde, mit all den Folgen, die sie schildern, wird nach der Lektüre Ihres Buches schwerlich jemand zweifeln können. Diese Erkenntnis war aber, zumindest in Deutschland und Österreich, schon durch Hörbiger’s Welteislehre geistiges Allgemeingut geworden.

Das Umstürzlausche *Ihrer* Lehre liegt darin, dass Sie dieses Ereignis in historische Zeit versetzen. Ich fürchte, Sie setzen sich damit vor allem der Kritik von *ägyptologischer* Seite aus, sodass ich mich also auch mit diesem Teil abquälen werde müssen. Prinzipiell muss sich der Aegyptologe wundern, wieso ein derartig ungeheures Ereignis in Ägypten niemals eindeutig und deutlich als historisch erwähnt wird. Wie ich schon seinerzeit betont habe, kann der Pap. Ipuwer in Ihrem Sinn interpretiert werden, aber besser in der herkömmlichen Weise, wobei überdies an seiner Datierung zwischen Altem und Mittlerem Reich jetzt wohl niemand mehr zweifelt. Und dass die einzige unzweifelhafte Anspielung auf jene Katastrophe sich in einem *Mythus* vorfindet, spricht doch wohl stark dafür, dass sie sich in

vorgeschichtlicher Zeit abgespielt hat.

Der Gedanke, dass die Venus in alter Zeit stärker geleuchtet hat als jetzt, ist faszinierend. Ihr Hinweis auf die babylonischen Sterntafeln *scheint* sehr beweiskräftig, aber ich habe da kein Urteil, und bin sehr gespannt, ob es Ihnen gelingen wird, auch in Ägypten Gleichartiges zu finden, und bedauere im Vorhinein, dass mein mangelndes Verständnis für alles, was Sache der "Science" ist, es mir vermutlich sehr schwer machen wird, Ihnen bei dieser Suche von Nutzen zu sein.

Die Fremdheit des Stoffes liess es zu keinen Bemerkungen oder oder Richtigstellungen kommen. Bloss einmal, auf p. 3 von "Pallas Athena," habe ich am Rande daran Anstoss genommen, dass Sie die Göttin Pallas Athena mit dem lateinischen Heros verwechselt haben, trotz des eindeutigen Zusammenhanges und Masculinums. (Aeneis 8, 588.)

Kennen Sie übrigens den Aufsatz von Sp. Marinatos, The Vulcanic Destruction of Minoan Crete, in: Antiquity, v.13 (1939), p.425/ 39?. Wenn nicht, dürfte er Sie interessieren. Insbesondere auch, weil, wenn er Recht hätte, für den ägyptischen Ausdruck, den Gardiner ziemlich willkürlich "upside down" übersetzt hat, auch in der Stelle des Tutanchamun, wo er gleichfalls vorkommt, die Ihnen genehme physikalische Auffassung möglich würde.

(Das bezieht sich auf p. 5 von "The Shadow of Death.") (Brauche ich zu wiederholen, dass der Petersburger Papyrus sich auf die Zeit zwischen Altem und Mittlerem Reich bezieht, und dass der Umsturz ebenso wie im Pap. Ipuwer rein sozial aufzufassen ist?)

Nun zu Ihren Fragen vom 3.April:

1) That city is undoubtedly "Letopolis." Its name Hm <o> is written with a thunderbold. Wainwright has written often about it, in Voll. 16-21 of the J. E. A. (Journal Eg. Arch.) particularly v. 18, 159/72; "Letopolis." Besides, I remember to have read many years ago somewhere that near Letopolis traces of a fall of meteorites in ancient times have been found. Unfortunately I have been unable to recover that reference among my notes.

2) On the history of *Thebes* read Kees in Real-Encyclopädie (Pauly-Wissowa) V. A, 1554. The oldest certain reference to the town, not merely the name or sanctuary, seems to date from the time of the 13. Dynasty, the Sebekhotep's (Cf. Weill, Fin du Moyen Empire, p. 248 ...que les Sebekhotep ont précédé les Apopi non de long, mais, à courte distance.) —"Ogygian" in v. 37 of the "Perses" evidently means nothing more than "primeval" (See Liddel-Scott, Greek-English Lexikon, (1883), p. 1762.), just as Athens in v. 974 is referred to as: tas ogygias athênas. (Cf., however, Roscher, Mythol. Lex., III, 689, (38): Ogygos als König des ägyptischen Theben).

3) In order to see that Aton can not possibly be the Morning Star, you need only to read the Great Hymn to Aton, which you find translated in every book on the subject

of Amarna (also the related Psalm No. 104). However, it is interesting to note, in this connection, that Ikhnoton reintroduced a particular worship of the Morning Star. See Davies, *The Tomb of the Vizier Ramose*, 9Pl. XXXIX, 2,3), p. 38, 1.2: "...house of the Ben (-bird). — The second part of your sentence is based on a misconception. Hammong, the god of the Siwa Oasis when Alexander visited, had nothing to do with the Amon of Thebes. See Eric Bates, *The Eastern Libyans* (1914), pp. 189/200: *Deus Fatidicus*.

4) Most literature on "the astronomical ceilings of Seti and Ramses II you will find on p. 120 (-126) of v. 26 of the J.E.A. (+ v. 27, 149/52). To this list may be added Hom. Schott, *Die altägyptischen Deane*, in Wilhelm Gundel, *Dekone and Kedon-Sternbilder*, Heft 19 der Studien der Bibliothek Warlung. 936. Also the references in Porter-Moss, *Topogr. Bibl.*, vol. I, p. 1, bottom (Ramses VII), p. 4, center (Ramses IV), p. 6, center (Ramses IX), p. 10, center (Ramses VI), p. 25, bottom (Seti I) and v. II, p. 156 (Ramesseum, Temple of Ramses II). (The ceiling in the tomb of Ramses II is completely destroyed, see Maystre in Bull, *Inst. Franc. Arch. Oritn.* 38. 187). The content of these astronomical treatises is ununderstandable to me. That of Genster, *Die Thebanische Tafeln Südlicher Sternaufgänge*, seems particularly valuable, — perhaps...





May 22, 1946

Dear Dr. Federn:

I assume that you read already the chapter about Mars, and I am eager to know your impression. Meanwhile I gave it also to Prof. Kallen, Dean of the Graduate School of the New School of Social Research, and today I had a letter from him which I hope will help me to influence Prof. Shapley to undertake the tests.

I have a few questions, and here they are:

1. Wainright, JEA 18 (1932) p. 164 mentions a text about the night of fire for the adversaries. Where is the text? In the same article on the p. 167 there are references to Divine clouds, and Great dew, and I think about the "clouds of glory" which are also the "shadow of death" and about ambrosia (manna); where is this text?
2. I referred to 360 (day) year of the Ebers papyrus, divided in 12 months; this I found in some text; but how is the reading of the Papyrus-which translation I should read?
3. Reform of calendar of Sesonk III, to which I referred in my Mars chapter. As you see I suppose that it was a real calendar reform. What was the reform?
4. Cambridge Ancient History I, p. 159, states that Septuagint I Kings xvi. 29; xx. 51; 2 Kings I, 17 show traces of another system. I expect to find something that would support my chronology of the Ahab period. Would you please translate these texts? I have not seen a Septuagint translated into German or English, have you?
5. Avienus-Servius you translated from Wachsmuth, refer to Campester and Petosiris. I do not expect, but still it may be that in the fragments extant of these authors, there is more information about the comet Typhon and the plagues. Pauly Wissowa refers to E. Riess, Nechepsonis etc. frgm. magica, Diss. Bonn 1890.
6. I wrote that the day of the Egyptians started with the morning; but I read once that it started with the evening.

7. Meyer, *Chronologie* in to p. 39 says in the name of Bissing that the Apis Cult was initiated under Aseth. Correct? It is also said by Weill (I think he also quotes Bissing) that the year of 360 days was introduced by the Hyksos. You read about it in my Mars chapter. What is the text of his source?

8. My deduction of Deukalion from Dekal; is it wrong?

I enclose the last chapter of *Ages in Chaos*, unpolished as it is.

Immanuel Velikovsky





May 30, 1946

Dear Dr. Federn:

The passage in R. Weil, page 32 is: "Bissing révoque en doute toutes les bases de la 'Theorie Sothiaqe', prenant en consideration les décomptes en jours de mois lunaires qu'on trouve aux documents de temple des papyrus de Kahoun, il pense y trouver la trace d'une ancienne année calendarique lunaire de 354 jours, a laquelle une année solaire de 360 jours aurait été sutstituée sous les Hykos: réforme dont une note du scholiaste de Timaios serait le témoignage." (Bissing, Gesch. Aegyptent 1904 pp. 31-33.) I have not read about this note to Timaios in any othe book.

Cordially yours,

Immanuel Velikovsky



New York, June 13th, [1946]

Dear Dr. Federn:

Your argument concerning Osorkon II erasing the cartouches of Ramses II sounds as a real argument. But it stands alone against hundreds of arguments that I presented in my Ages In Chaos. Still it must be eliminated. What makes it certain that Osorkon II belongs to the Libyan (XXII) Dynasty? I suspect that he might have lived later.

In your last letter there were so many reference that it will take time before I shall be able to go through all of them. Thank you so much,

In about two weeks I halt have rewritten the third file of my cosmology, on the condition that I shall work on it.

Cordially yours,

Immanuel Velikovsky



New York, 7 Dez. 1946

Sehr geehrter Herr Doktor,

vielen Dank für die Zusendung Ihres "Cosmos without Gravitation." Ich habe es sogleich gelesen. Obwohl es sehr klar und einfach geschrieben ist, verstehe ich leider von dem Gegenstand so gar nichts, dass ich kein sachliches Urteil über dieses Werk abgeben kann. Doch habe ich den Eindruck, dass es genial, umstürzend und grundlegend ist, ebenso wie "Worlds in Collision" und "Ages in Chaos," dass es Ihnen aber hier ebenso wie dort bloss gelungen ist, die grosse Unsicherheit der derzeit geltenden Axiome aufzuzeigen, dass Sie es aber den betreffenden Wissenschaftlern überlassen, die Schwierigkeiten, die sich Ihren neuen Erklärungen entgegenstellen, aus dem Wege zu räumen. Mein Vater, der es gleichfalls sofort zu lesen wünschte, hatte einen ähnlichen Eindruck. Haben Sie es schon an Einstein geschickt? Und wünschen Sie eigentlich, dass man dafür Propaganda macht?

Auf p. 3 steht: "a work of research entitled 'Worlds in Collision' now being prepared for publication." Heisst das, dass Sie nun endlich einen Verleger gefunden haben? Ich warte schon geradezu sehnsüchtig auf diese frohe Nachricht von Ihnen.

Seit dem Sommer habe ich schon 4 oder 5 neue Argumente gefunden, die Ihre These bekräftigen würden. Aber nach wie vor weiss ich keines, dass sie *bewiese* und so muss ich leider dabei bleiben, sie für *falsch* zu halten, so sehr mir auch der Gedanke Spass macht, dass sie richtig sein könnte.

Soeben habe ich nach langem Zögern meinen kleinen Aufsatz, in dem ich das Vorkommen des Königsnamens Haremheb im Grab des Petamenophis durch die Annahme eines bisher unbekanntes Königs Haremhab II erkläre, nach Brüssel an die "Chronique d'Egypte" geschickt. Es ist wenig wahrscheinlich, dass sie es drucken werden. Ich habe Ihnen voriges Jahr von diesem Plan erzählt, und Sie hatten nichts dagegen.

Bei mir gibt es allerhand Neues, ich bin stets busy, und meine meist schlechte Gesundheit gestattet mir nur einen Bruchteil dessen zu tun, was ich möchte, sollte und müsste. Vor allem werde ich allerhöchst wahrscheinlich ab Februar Ägyptisch-Kurse an der School for Asiatic Studies (Iranian Institute) halten, als offizieller Lecturer. Ob ich's können werde, weiss ich nicht, aber das Engagement scheint perfect. So brauche ich mich also nicht länger um eine Anstellung bei der Columbia University zu bemühen.

Im letzten Heft des JNES ist ein kleiner Aufsatz von mir erschienen, nur 1/2 Seite lang,

aber immerhin ein Anfang, und als Lebenszeichen sehr wichtig.

Momentan bin ich damit beschäftigt, für Professor Yahuda (er telephonierte mir, nachdem er aus meinem Aufsatz ersehen hatte, dass ich der einzige ägyptische, Philologe in New York sei) einen Aufsatz von Fehlern und Ungenauigkeiten zu säubern. Falls Sie den Mann näher kennen sollten, würde mich Ihr Urteil über ihn sehr interessieren, ich selbst bin mir über seinen Charakter noch nicht ganz im Klaren, ich bin neugierig, wie er es aufnehmen wird, wenn ich ihm die Ungenauigkeit seiner Arbeitsweise vorhalten werde, im Gegensatz zu Ihnen scheint er sich nämlich nicht für einen genialen Dilettanten, sondern für einen ausgelernten Ägyptologen zu halten. Falls er Kritik vertragen sollte, würde ich ganz gerne für ihn arbeiten, denn es schmeichelt mir natürlich, wenn mich jemand braucht. Aber nur, wenn er mich ordentlich bezahlt. Denn was er zu sagen hat, ist sehr wenig interessant.

Indem ich hoffe, dass Sie bald einen Verleger gefunden haben werden, und mit den besten Grüßen und Wünschen

Ihr Walter Federn





December 9, 1946

Dear Dr. Federn:

It was thoughtful of you to write me in response to my "Cosmos without Gravitation." I am really happy that you are invited as a lecturer in the School for Asiatic Studies. I wish you every success. The day is not yet there when my word or recommendation will signify anything in the official academic circles; I would very much wish to be of use to you; may be that day will yet come.

I do not need mentioning that you will not discuss with Dr. Yahuda my theories.

It is good that you started to publish your papers. But in the case of Haremhab II you resurrected the old Haremhab for another existence with little chance to enjoy this second existence, as he is resurrected for a life that is already terminated. Seriously, for this little instance of a cartouche of Haremhab in an Ethiopian grave, you help yourself with creating Haremhab II; for my entire scheme I need no more than to have an Osorkon (?) in post-Ramses II time.

I have not yet a publisher, although I have a little hope: this time Macmillan. After the review of O'Neill was published by the Herald Tribune, the Director of the Hayden Planetarium became interested to present my theory of the catastrophes of the past in their annual show of 1947; but they wait till I have a publisher, or till the book is published. Also a new venture in the field of magazines, '47, the Magazine of the Year (of a large group of writers) invited from me and O'Neill an article about my cosmology; the Magazine will start in March and this paper, if it will be written, will appear probably in June. The thing that matters here is that the initiative for this invitation came from Harry Sherman, a President of the Book-of-the-Month Club and Mr. Fadiman, a judge of this organization; I did not know that the latter read my Cosmology.

I work hard to complete my cosmology. Occasionally I would like to ask your assistance. Boll. Sterngläubige, p. 201, refers to two texts: Heraclitus, Homer. allegor. cap. 53 and Gennadius, Dialogus Christian c. Judaeo, p. 37, 23f. These texts must refer to collisions among the planets. Also Plato, Timaeus 40c; the available translation seems not precise.

Occasionally I found that Josephus' manuscripts have Tutimaeus in two words: Would it be correct to read Taoui Timeus? (I do not remember, whether in Manetho edition of Loeb Library, or in their Josephus).

With thanks and as ever,

Im. Velikovsky

Your father and you were the first to react to my gravitation.





New York, 6.II.1947

Sehr geehrter Herr Doktor,

vielen Dank für die ausführlichen und erfreulichen Mitteilungen über's Telephon heute abend. Gerade heute hatte ich so viel an Sie gedacht, dass ich beabsichtigte, Ihnen zu schreiben. Erstens dachte ich bei den Nachrichten aus Palästina, dass Sie jetzt wohl grosse Sorge um Ihre Tochter haben werden.

Zweitens fand ich soeben einen Aufsatz der, obwohl unbedeutend, Sie gewiss interessieren wird, falls Sie ihn noch nicht kennen: Palestine Exploration Quarterly 18 (1946), July-October, p. 116/124: W.J. Phythian-Adams "Meteorite of the Fourteenth Century B.C." Darin wird Ihre Josuastelle so gedeutet, dass infolge eines sehr starken Meteor-falles der Himmel die Nacht hindurch hell geblieben ist.

Drittens bin ich aufgefordert worden, eine ägyptologische Bibliographie der Kriegsjahre zu verfassen, für die "Orientalia" in Rom. Soll ich darin Ihre "Thesen" aufnehmen?

Dass Sie nun endlich einen Verleger gefunden haben, freut mich ungeheuer. Obwohl Ihnen gewiss noch viel ärger bevorsteht, gratuliere ich von Herzen.

Meine Einstellung zu Ihrem "historischen Teil" hat sich nicht geändert, entwickelt sich aber beständig in der Richtung, dass es mich freuen würde, wenn Sie Recht behielten.

Meine Kurse in Iranian Institute sollen Mitte Februar beginnen, doch weiss ich noch gar nichts Näheres. Offiziel habe ich von meinem Appointment überhaupt noch nichts gehört, doch sagte mir der Professor, der es mir verschafft hat, ich werde einen Interessenten für die Anfänger-Kurse habe (Ägyptisch und Koptisch) und 3 für das Totenbuch-Seminar.

Die Arbeit für Prof. Yahuda hat mir die Weihnachtsferien ruiniert, und mehr ärger als Geld eingetragen. Ich werde nichts derartiges mehr übernehmen, aber ob er mir vorschlug, später mit ihm ägyptische Texte zu lesen, konnte ich nicht Nein sagen. Er ist ein gescheiter Mensch, überschätzt aber masslos sein eigenes Urteil.

Falls meine Kurse Zustandekommen, werde ich wohl für nichts anderes daneben Zeit finden. So bemühte ich mich die letzten Wochen um einige Wort-Bedeutungen, eben bisher habe ich nichts als Misserfolge gehabt, d.h. ich kann meine Ergebnisse nicht beweisen, oder nichts damit anfangen.

Mit herzlichen Grüßen

Ihr Walter Eedern





New York, Febr. 13, 47

Dear Dr. Federn:

I thank you, indeed, for your letter of Febr. 6. It is not so that Macmillan signed with me a contract; they only wrote letters to me promising a contract. They showed interest and negotiated with O'Neill, and with me; their editor also visited me. But sometimes I think that at the end they may discover that I brought a sack of dynamite into their mill, and it is not flour. Then they will become frightened. And then, it may happen, that I was lifted high in my hopes only to be thrown down from a higher floor than in the case of other publishers, all of whom are afraid of revolutionary ideas, in science even more than in politics. They live on conservative college books, and colleges live on the science of the foregoing generation, when the present teachers absorbed it in their student years. Under these conditions to be a reformator equals to being a heretic. In the attitude of Macmillan I see two contradictory trends: they try to persuade me to make the book more popular, so that the general reader of the Book-of-the-month-club type could read it, and to limit it to two parts (which you read), omitting the story of early catastrophes and the entire paleontological and geological material; and on the other hand they have received already the inkling that my book is a heresy, and they inquire whether it is academical as a book published by their reputable firm must be. Which is a worship of God and Mammon simultaneously (Mammon is the Book-of-the-month-club). They even tried to persuade me (through O'Neill) that reworking the book (to some unclear plan) I could have forty thousand of royalties; I refused rewriting, and O'Neill, who spent with me an afternoon at my studio, was apparently impressed by that my stand. I agreed only to reediting but not to rewriting. I shall inform you what further development will be.

I feel with you the importance of starting a career of an academic lecturer. But I think that you overestimate the work of preparation to the lectures you have to do. You know much more than what you have to give to your students, and the task, as it seems to me, is not in increasing details, but omitting them. Think that your students know nothing; and in the beginning, in order not to frighten them, a series of lectures, or better plauderies about Egypt, the Nile, the pyramids, the discovery of a clue for reading hieroglyphics, may make the students better prepared to listening to the texts. The finenesses should be left for the advanced students, who already listened to you a couple of

years. May be, I should not give you any advice; but you know that sometimes the cow is prepared to give more milk to the calf than the calf is able to take.

I take this occasion to repeat my thanks expressed in the telephone conversation for the explanations given in your December 11 letter. Most of the works you mentioned there, like those of Cumont, Bousset, Chwolson, I knew already, and I disagree that the quoted books are “für Sie ohne Interesse.” I have found there and used many details in the third part of *Worlds in Collision*.

Also the Heraclitus work was already earlier in my hand, but I could not read it. That the idea of the *Ilias* is a battle of planets I found independently, as you read it, and my agreement with the old commentators is agreeable to me. Boll speaks of “Zusammenprallen der Planeten,” real collisions, and you translate “Zusammenkunft.” If, at some occasion of your work in the library, you could make a translation of Heraclitus 53, so that I could quote it, it would be of help to me.

My daughter enjoys her life in Palestine; she would not like to miss such a time there.

Cordially yours,

Immanuel Velikovsky





June 27, 47

Dear Dr. Federn;

When two or three months ago I visited your father, and had at that occasion a chat with you, and at my leaving your home you said, and repeated it (I did not believe that I had heard right) that my "Ages in Chaos" "erschütterte die alte Chronologie," I had the little satisfaction, which is very human. In having persuaded you at least so far as to question the old chronology; it took me six years. A motto to my correspondence with you is in Genesis 32:96: "I will not let thee go, except thou bless me."

Nothing strange therefore that I miscalculated with Mercer. Yesterday I received a letter from him with his criticism; he kept the manuscript for more than three months, but it seems to me that he did not read beyond the el-Amarna chapter, because there are no remarks to anything what is said in the Chapters VII-XIII, except one.

Occasionally I shall show you his entire criticism together with remarks of a lay-reader whom he entrusted my work for additional criticism. The only point which deserves attention is Mercer's opinion that the Assyrian chronology can be built without the help of the Egyptian chronology, and Assur-uballit the first comes there in the period 1326-1317, which is therefore the time of el-Amarna with Burraburias and Amenhotep IV. I shall go into this matter and see how much truth is in the assumption on the basis of the Assyrian lists.

Other remarks of Mercer which require attention deal with philological equations. As you know I built my work on collations and parallels in texts, and a few philological remarks take a very secondary role. I can judge his remarks which concern the Hebrew language, and I do not find him persuasive. But there are three remarks dealing with Egyptian philology:

A. "In Duk-hat-amen you make duk-hat = dah." This is the queen of Tirhaka whom I identified with Hurria of el-Amarna; and whose queen-dowager of Egypt was called in cuneiform Dahamun (comp. Letter 41 of EA; Hall in *Anatolian Studies Presented to Ramsay*, 1923, p. 179).

B. "In spite of the fact that the Egyptians themselves never confused

their word 'iswr (Assur) with 'isr'i;l (Israel), you make the one equal the other." (In my Ch. of Thutmose).

C. "In like manner the Egyptians wrote pwls;t (Philistia) and prs or prswt (Persia) and yet you equate them, a thing which no philologist would admit." I remember to have read of Pareset invading Egypt of Ramses.

The article of Macnaughton D. is: "The use of the shadow clock of Seti I," The J. of the British Astronomical Association, 1944, September, Vol. 54, Numb. 7.

I hope It Is all well with you. I was sick for a few weeks and had a chance to think what will happen if I shall not finish my two books.

Cordially yours,

Im. Velikovsky





New York, 13. Juli 1947

Sehr geehrter Herr Doktor:

Besten Dank für Ihren freundlichen Brief vom 27. Juni. Ich wollte ihn über den langen Feiertag, voriges Weekend, beantworten, verbrachte diesen dann aber mit einer leichten Grippe oder dergleichen. Meine Eltern sind am 1. aufs Land gefahren (bis 1. September), ich bin allein hier, und immer noch völlig von dem Verzetteln für Bibliographie in Anspruch genommen. Mein Termin ist jetzt der 1. Jänner; im September möchte ich mit den Typen beginnen; vielleicht kann ich es dann doch bewerkstelligen. In der kommenden Woche werde ich mich ganz besonders plagen müssen, da dann für ganz Kurz, bevor sie zum Binden geschickt werden; die Bücher und Zeitschriften, die während des Krieges in Ägypten erschienen sind, nur vorliegen werden. Zum Weekend hoffe ich dann frei zu sein noch glaube, falls sie noch in New York sind, und meine Gesundheit nicht gar zuschlecht, wäre das ein guter Zeitpunkt für eine Zusammenkunft, bei der Sie mir die Kritik Mercers und des Laien-Lesers zeigen könnten. Wenn Sie mich zwischen 9 und 10 abends anrufen, bin ich wohl immer zu erreichen. Falls Sie schon am Land sind wünsche ich Ihnen alles Gute, und neue Kräfte für den End...

Dass Mercer sich nicht die Mühe nahm, dass Wertvolle in Ihrem Buch zu entdecken, wundert mich nicht, und sollte auch Sie nicht wundern. Dass ich selbst imstande bin, es zu schätzen, und Teilweise zu billigen, hängt mit einer verzweifelten geringen Achtung meines eigenen geistigen Besitzes zusammen, mit der niemand auf die Dauer auskommen kann (und so bin ich nicht nur körperlich andauernd in einem sehr schlechten Zustand, sondern auch seelisch.). Kein Ägyptologe, der halbwegs normal ist, wird jemals imstande sein, auf Ihr Buch im Ernst einzugehen (und im 2. Teil finden sich Argumente, die einen beunruhigen können). Kein Wunder also, dass sich Mercer auf diesen nicht mehr einliess). Was ich vom Druck des Buches erwartete, war vielmehr, dass es in Leihen Kreisen ein ganz neues und grosses Interesse an ägyptischen Dingen erwecken würde, und dieses dann die Wissenschaftler zu einer Antwort auf Ihre Herausforderung zwingen würde. Ich bin sicher, Ihnen bereits gesagt zu haben, wenn auch vielleicht nicht mit der nötigen Emphase, dass meiner Meinung die Ägyptologie nicht imstande ist, Ihre These zu widerlegen (beweisen zu zeigen, dass sie ungeheuer unwahrscheinlich ist), dass dies vielmehr

den orientalisten überlassen werden muss. Es freut mich also, dass Sie nun, von Mercer genötigt, endlich die assyrischen Königslisten Maraufhig studieren werden. Ich bin gespannt, was Sie da finden werden.

Dass Sie die derzeit geltende Chronologie erschüttert haben, glaube ich noch wie vor. (Freilich sind Sie nicht der erste, der das versucht hat). Auf welche Art der Bau renoviert werden soll, weiss ich nicht. Ihr eigener Plan dürfte unbrauchbar sein. Zunächst würde wohl, auf Grund Ihrer argumente, das Alte Testament aufhören, historisch ernst genommen werden zu können, allen fundamentalisten zum Trotz. Über die Notwendigkeit einer Neuordnung der kretisch-mykenischen Chronologie siehe in letzten Heft der Comptes Rendus Academie des Inscriptions (1946, 519-23), J. Bérard, Recherches sur la chronologie de l'époque mycénienne. In Ägypten spiele ich immer noch mit dem Gedanken, dass die Libyschen Dynastien teilweise mit der 18-21 parallel laufen könnten. Dass Ihre philologischen Gleichungen einerseits der schwächste, andererseits der unwesentlichste Teil Ihres Buches sind, ist Ihnen ha hinlänglich bewusst, und Sie have sie ja auch nie als positive Argumente veruntendet. Die Frage ist jeweils nur, ob die betreffende Gleichung völlig unmöglich ist. Bei den dreien, über die Sie mich nun befragen, muss ich das durchaus verneinen. Alle drei sind häusstest unwahrscheinlich, aber doch möglich. Der Name der Frau des Tirhaka: Dj k ht-Imn, ist unägyptisch; vielleicht is Mkht-Imn zu lesen; aber die *Möglichkeit* des Dj am Anfang besteht, und mir zumindestens scheint, in diesem Fall, die Ähnlichkeit mit Dakhamun gorss genug, um die Möglichkeit zu acceptieren, dass derselbe nubische namen zugrundeliegt, in ägyptischen und assyrischen etwas verchiede ausgesprechen.— Der Gendake, dass die Ägypten Assur und Israel verwechselt hätten, kommt mir so unsinning vor, dass ich ihnt Ihnen nicht recht sutraue. Ich glaube mich zu erinnern, dass Sie vielmehr die Gleichung Israel: Is'r verschlungen (was als Asher erklärt wird. Mit *einem* s geschrieben, strengetan unterscheiden von Isswr mit zwei s; cf. Gauthier, Dict. géogr., I, 105). Diese Gleichung scheint mir nun zwar unbeweisbar, aber gar nicht unmöglich, das l in Israel wäre dann eben sekundär (und der Name Iršepel allenfalls zu vergleichen) und in der 18. dynastie noch nicht vorhanden. Ich verstehe von diesen Dinger nichts, aber die Gleichung Isr = Isrl scheint mir nich unmöglich.—

Ihr Walter Federn





N.Y. 30.VII.47

Sehr geehrter Herr Doktor,

Es ist nun sicher, dass ich übermorgen aufs Land fahre (ausser ich verschlafe den Zug), und da möchte ich zu unserem Gespräch am vorgangenen Samstag noch einiges bemerken: 1) Es ist mir nicht gelungen, eine Publikation von den Canons des Ptolemaeus ausfidig zu machen. 2) Da Prof. Seele eben nach Ägypten gefahren ist, ist Prof. W.F. Edgerton tatsächlich der einzige Ägyptologe, der als Begutachter Ihres Buches in Betracht käme, und unter den Orientalisten am ehesten Prof. Goetze in Yale. (Mehr als 1 oder 2 Kapitel wird Ihnen eben bestimmt *niemand* lesen, und die Chance, nützliche Bemerkungen zu bekommen, scheint mir viel geringer als das Risiko, dass der empörte Leser Ihren Perspektiven Verleger spontan vor Ihnen als vor einem gemeingefährlichen Irren warnt).

3) Nach langem Hin - und Her - Überlegen, da ich ja Ihre Obstinateit kenne, möchte ich nun doch versuchen Ihnen klar zu machen, dass die aus stilistischen Gründen notwendige Datierung der Admonitions in die I. Zwischenzeit, bzw. frühes M.R. mit Ihrem chronologischen Schema nicht um vereinbar ist, sondern sogar sich aus diesem ergibt, falls Sie Konsequenz bleiben wollen. Denn wenn Sie einerseits an der I.Kings 6. 1 überlieferten Zahl von 480 Jahren festhalten wollen, (woran ich bei Ihrer Einstellung dem Bibeltext gegenüber nicht zweifle) und Salomon als Zeitgenossen der Hatshepsut ansehen, so folgt daraus mit mathematischer Genauigkeit eine Datierung des Exodus in die Zeit der Bürgerkriege vor der Einigung Ägyptens unter der 12. Dynastie.

Darüber, dass zwischen Ende des M.R. und Beginn des N.R. nur ca. 200 Jahre liegen, ist man sich seit langem einig, in Winlock's "Rise and Fall of the Middle Kingdom in Thebes," das vor ein paar Wochen bei Mac Millan erschienen ist, haben Sie nun die ungefähr genauen Jahreszahlen für die einzelnen Dynastien von der 11. bis zur 17. Falls Sie sich auch für *diese* Periode über das akzeptierte Schema hinwegsetzen wollen, so müssten Sie ebenso viele Argumente (oder Scheinargumente) für die *Verlängerung dieser* Periode beibringen wie für die *Verkürzung* der Periode zwischen 18. und 31. Dynastie; ersteres dürfte noch viel schwieriger sein als letzteres, und ich kann mich nicht erinnern, dass Sie auch nur ein einziges Argument dafür vorgebracht hätten. Falls Ihre Gleichung Hyksos-Amalekiter (die mir sehr gut gefällt) richtig ist, so sehe ich keinen Grund, warum die bei Nefer-rah und Merikare erwähnten Asiaten nicht Amalekiter gewesen sein. Von *Königen* dieser Eindringlinge steht in keinem Papyrus was. Das war eben eine spätere Entwicklung. Studieren Sie jedenfalls Winlock's Buch!

Mit herzlichen Grüßen, und vielem Dank für die freundliche Aufnahme und das wunderbare Oatmeal, an Sie und Ihre Frau Gemahlin

Ihr Walter Federn

Wenn ich zurückkomme, wird meine erste und wichtigste Aufgabe die Erlangung des Permit für die Columbia-Library sein. Ich hoffe. Sie werden mir dabei behilflich sein.

Meine Sommer-Adresse ist: Box 191, Belten Landing, N.Y., doch wird natürlich nachgeschickt. - Mein Vater lässt Sie freundlich grüssen.





Parksville, N.Y.
August 4th, 1947.

Dear Dr. Federn:

The day you wrote the letter of July 30, we left New York, and went to a retreat near Parksville, N.Y. The retreat is actually a bungalow. (My address for letters is as before 526 W 113).

I thank you for your friendly letter. It is really strange that in all these years we met only once in my place. We should meet each other more often. I shall advise you how to obtain a permit to use the Columbia Library: it should be a simple matter.

Mercer's argument concerning Assyrian chronology appears to me no problem and no argument at all. All is built upon the idea that Assuruballit, of whom there are two letters in EA Letters, is the same Assuruballit whose name is found in Assyrian Kings lists. This assumption has no basis whatsoever. Assuruballit of the EA Letters is son of Asur-nadin-ahi, as he attests himself; Asuruballit of the Kings lists is son of Eriba-Adad.

In order to make Assuruballit of the Royal (Kings) lists to the king mentioned in Merosar-Seti-Assuruballit war (Merosar's Annals) it is necessary to let him live from the time he corresponded with Amenhotep IV or even Amenhotep III until a late year of Seti's reign. Actually, as I have shown:

Assuruballit I is the king mentioned in the kings lists, and he may have reigned in the 14th c., or not, all depends how much truth is in these lists. Assuruballit II is the correspondent of EA: ninth century. Assuruballit III, the last king of Assyria, is mentioned in Merosar's as well as Nabopolassar's annals: seventh century.

Now to your new argument that I have to disprove the chronology of the Middle Kingdom besides that of the new Kingdom. I have not read yet the book of Winlock, but I will certainly read it. I imagine in advance that his chronology is built upon the Sothis period; adjusting 200 years to the Hyksos period, he follows the Berlin School. But you know that Petrie added another 1460 years to these 200 years, and his "long chronology" had some followers. Hall in Cambridge Ancient History writes that if not for the Sothis period, 500 years would be the right span of time judged by cultural and other developments. He even

surmises that some change in the calendar was undertaken early in the Hyksos time: this he does in order to avoid the Sothis difficulty which requires either 200 or 1660 years for the same period. After reading my *Worlds in Collision* you may realize that Sothis period is a sheer nonsense, since at the end of the Middle Kingdom the terrestrial globe was thrown out of its axis and orbit. - Since it is possible to move the end of the Middle Kingdom by 1460 years, and no synchronisms (say, with Babylon) made it impossible, it must be possible to return to Josephus Flavius (Hyksos 511 years; or is it 519? - I have no historical books here, and I have to write from memory); also to the Scriptures (ca. 450 years), and Hall (ca. 500 years). Thus the end of the Middle Kingdom falls in the fifteenth century, about 1430).

Since I last saw you and a little bit complained about my health, I feel perfectly fine—as far as my health is concerned; but my planned short trip to Palestine (for 6 weeks) may be postponed again, since it is not appropriate to come there in such a time to take care of property. On the other hand, I have a strong desire to see my two books in press.

I wish you a good rest. Enjoy the beautiful nature of Lake George. I shall write to your father separately.

Very sincerely yours,

Im. Velikovsky





September 30, 47

Dear Dr. Federn:

You find here two forms; you have to fill one and to mail or better bring it to the Columbia University, and require either reference privileges or borrowing privileges, too. They charge Dollar a month for borrowing, and nothing (in some cases one Dollar also) for reference privileges. You may ask for six months. If you have borrowing privileges, you can take home as many books as you like.

I am sorry to hear that you went through a period of depression. If you would like sometimes to come to my place and talk about scientific matter as well as of yourself, you are always welcome.

It pleases me that you have good experience with the Smith-Corona, my first instalment in my great debt. But if you prefer any-other typewriter, you are free to choose the model you like, and I can exchange.

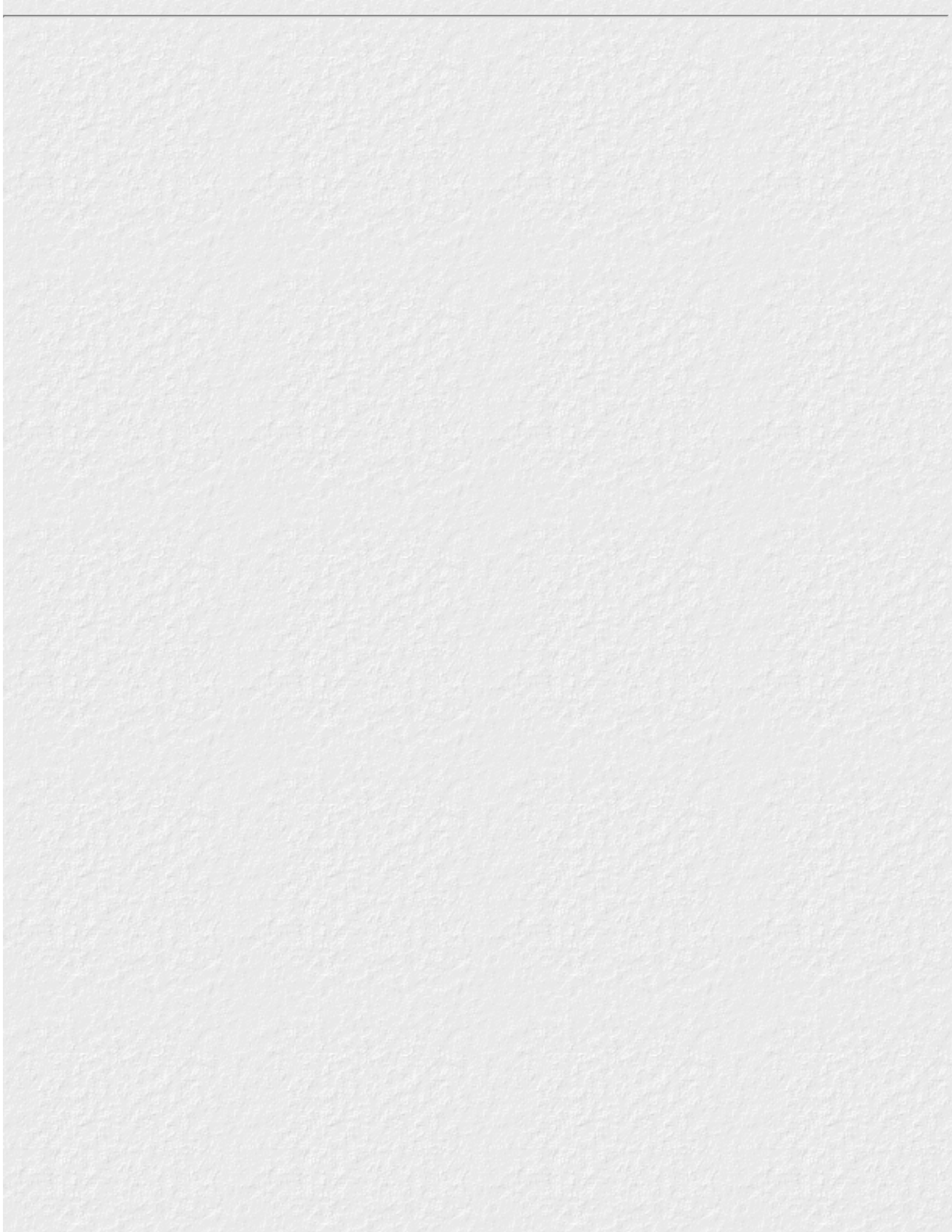
Now that you are not pressed anymore with the catalogue for the Vatican publication, you should relax a little. For your lectures you should not prepare yourself; do it as simple as possible; you certainly overestimate the knowledge and the ability of your pupils. Egyptology can be a very interesting subject if you take it in broad lines. But if you make a philological study, it can interest only scholars of the same field. But your pupils are not yet scholars.

There are a few Latin texts in my cosmological book which I would like to translate into English. If I do it myself, would you control the translation?

Congratulations to your little niece.

My wife greets you.

Sincerely,
Immanuel Velikovsky





31 Dezember 1947

Sehr geehrter Herr Doktor,

Sie sind gewiss schon sehr erstaunt, vielleicht sogar böse,-dass ich so lange nichts von mir hören liess. Der Grund war sehr einfach: infolge der Entdeckung immer neuen bibliographischer Möglichkeiten der Columbia Library bin ich mit dem Sammeln und Sichten für meine Bibliographie nicht und nicht zu Ende gekommen, und durch diese Aufregungen in einen ganz schlimmen Zustand von nervöser Überreizung geraten. Vor 14 Tagen wurde es besser, ich machte endgültig Schluss mit der Bibliotheksmalerei, und diese Woche habe ich nun endlich mit dem Tippen des I.Teiles begonnen; ich stecke jetzt mitten darin; die deadline, 1.1. ist zwar schon überschritten, aber die unbedingte deadline, i.e. die Ankunft meines Bruders *muss* und *wird* eingehalten werden. Danach werde ich eine mehrwöchige Pause einschalten, bevor ich mich ins Tippen des riesigen 2. Teiles mache. Denn das Kommen meines Bruders, der ja einige Zeit, vielleicht sogar lange, bei uns wohnen wird, bedeutet für *mich* zunächst nichts als eine entsetzliche Erschwerung des täglichen Lebens. Ich muss es mir so einrichten, dass ich möglichst wenig im Hause bin, wo ja niemals Ruhe sein wird, ohne die ich nicht geistig existieren kann. Da unter den vielen, *sehr* vielen Dingen, die ich in dieser Pause tun möchte, und zu denen ich mich verpflichtet habe. Ihr Buch bei weitem an erster Stelle steht, so habe ich mir folgenden Plan ausgedacht, über den ich gerne Ihre Meinung hören würde: Ich möchte jeden Mittwoch oder Donnerstag , oder vielleicht an beiden Tagen - an den anderen Tagen kann ich nicht, der Vorlesungen wegen - punkt 6 in Avery Hall sein (da das Brooklyn Museum um 5 schliesst, und die Subway bis zur Columbia Library genau eine Stunde braucht, ist Unpünktlichkeit , sonst mein Fluch, ausgeschlossen), und dort bis 9, oder bis Sie mich abholen kommen, in Ihrem Buche lesen, indem Sie mir ein oder 2 Kapitel um 6 hinbringen, oder vorher dort hinterlegen. Sie müssten das mit dem Bibliothekar arrangieren. Wenn Sie Zeit haben, könnte ich dann bei Ihnen gleich Vieles mündlich besprechen, was ja manchmal vorteilhaft sein dürfte. Falls ich nicht krank werde, (momentan bin ich verkühlt, aber nicht sehr), wird es mir wohl möglich sein, am 14. oder 15. mit der Durchführung dieses Plans zu beginnen. Vielleicht rufen Sie mich einmal telephonisch, damit wir das Nähere besprechen, oder einen Ersatz-Plan. Ich werde voraussichtlich nicht das Haus verlassen, bevor ich mit dem Tippen fertig bin.

Mit dem besten Wünschen für das neue Jahr, das ja wohl nun endlich wirklich das Erscheinen Ihrer Kosmologie sehen wird, und herzlichen Grüßen, bin ich Ihr alter und an Ihnen interessierter

Walter Federn

Herzliche Grüsse und beste Wünsche an Ihre Frau l

1. Jänner 1948

Ich möchte noch bemerken, dass ich ohne Ihre Schreibmaschine die Arbeit wohl niemals hätte bewältigen können.





526 West 113th Street, New York, N. Y.
Phone: Monument 2-2225

January, 1948

Dear Dr. Federn:

I tried to reach you by telephone, but without success. In your last letter you offered to come to the Avery Hall on Wednesdays and Thursdays. I shall leave at the Librarian desk the first cover of my historical manuscript on Wednesday, and shall myself come before nine o'clock; but if you cannot come on Wednesday, then the manuscript will remain in the hands of the Librarian for the next day (Thursday). On a number quotations, the year or the publication place are omitted, but will need to be filled in.

I hope that this experiment of controlling the bibliographical material used in my manuscript will be a successful team-work, and I understand that your work will be done on a professional basis.

Cordially yours,
Immanuel Velikovsky



January 8, 1948

Dear Dr. Federn:

Have my best wishes to the arrival of your brother in America. It is the final act of a resurrection.

I look forward to your reading the final version of the manuscript (after the English was corrected). Of course, it is a good place to work in the Avery Hall. But as up till now we made all our communications in writing, I think it will be good also in future to keep to this procedure: I shall ask you several questions on a sheet of paper, or a letter, and you, if possible, will write down your remarks, so that we would be able later on to return to them.

Here I place one question for the future:

Polyhistor by Caius Solinus, Ch. XI: *Meminisse hoc loco par est, post primum diluvium Ogygi temporibus notatum, quum novem et amplius mensibus diem continua nox inumbrasset.*

Agnot (1847) translates: “Rapellons ici qu’après le premier déluge, que l’on rapporte au temps d’Ogyges, une nuit épaisse s’étant répandue sur le globe pendant neuf jours consécutifs.”

Brasseur (“S’il existe. . .”) refers to this passage as if it has nine months (not nine days). Which is right in your opinion?

Cordially yours,
Immanuel Velikovsky

After I had your letter, I tried to reach you by phone, but you were not at home.



Walter FEDERN 105-20, 66 Avenue,
Forest Hills 75, N.Y.

September 28, 1953

Lieber Dr. Velikovsky:

Ich war natürlich schon etwas besorgt wegen Ihres langen Schweigens und freue mich sehr über die Nachricht, dass Sie leben und gesund sind und Ihre Arbeit gut fortschreitet.

Gesundheitlich geht es mir derzeit weniger schlecht als im Frühling, aber schlechter als vor einem Jahr. Im Juli war mein Zustand entsetzlich, der August brachte dann endlich die allsommerliche Besserung (die vor zwei Jahren im Juni begann, voriges Jahr im Juli), aber sie hielt nur 5 Wochen an, und genügte nicht dazu, mir das Erreichen der Subway zu ermöglichen, geschweige denn eine Benützung der Bibliothek. So besteht also (zunächst) auf ein weiteres Jahr keine Möglichkeit, dass ich wieder für Sie arbeite, und dass ich jemals wieder zur Ägyptologie zurückkehren könnte, scheint völlig ausgeschlossen. Auch für das Werk meiner Mutter habe ich noch nichts unternehmen können, dazu müsste ich ja irgendwie mit fremden Menschen in Verbindung treten können. Mit der Übersetzung des Buches meines Vaters bin ich vor 4 Wochen fertig geworden, aber nun beginnt das Ausfeilen und das erweist sich als ebenso mühselig und langwierig wie die erste Niederschrift. So wird mich diese Arbeit wohl noch ein zweites Jahr vollständig in Beschlag nehmen, immerhin besteht die Möglichkeit, dass das Endresultat halbwegs zufriedenstellend ausfallen wird. In der englischen Ausgabe ist durch die Ungeschicklichkeit der Bearbeiter die Hälfte der Kapitel oft bis zur völligen Sinnlosigkeit entstellt worden. Der deutschen Ausgabe droht ähnliches, wenn ich nicht noch mindestens ein Jahr lang am Leben bleibe. Und auch sonst quält mich der Gedanke an den allzunahen Tod. Seelisch geht es mir insoferne besser als die ausgesprochen katatonischen Erschöpfungszustände aufgehört haben (eine Diät-Dummheit dürfte die Schuld an ihnen getragen haben). An ihre Stelle ist eine Dauerdepression getreten, die augenblicklich besonders heftig ist, und die durch die Wirklichkeit des ständig fortschreitenden körperlichen Verfalls, von dem das Nicht-mehr-gehen-können ja nur ein besonders auffälliges Symptom ist, vollauf gerechtfertigt erscheint. Genug davon !

Mit herzlichsten Grüßen an Sie und Ihre Frau

Ihr einstiger

Walter Federn





Wednesday, Sept. 30, 1953

Dear Dr. Federn:

I just finished reading your letter. It quieted me down, because I was afraid not hearing from you so long, and knowing that you starve yourself already for years. But I have only a respite in my fear for you, because you declared yourself a moribund and do everything to shorten your existence, though you are afraid to face the consequences. Still I admire you that in such circumstances you have been more productive than many others, myself included: you published mother's poetry; you published father's book; you translated it; and knowing your manner of work, I know how painfully exacting you have been; and no wonder that you see errors or omissions where other do not see them.

I wish you could come and spend time with us. My wife would certainly prepare for you the most delicious meals, still not overstepping your prescriptions concerning "allowed" and "not allowed." The only difficulty is the staircase from the living quarters in our house to the bed rooms. If you could manage these ca. fifteen steps, you would certainly enjoy a little change. We can heat the house to your own preference of temperature, so you would not freeze. The fall is beautiful here. And you would find interest in many things you would hear and read here. The library is very good. It could mean a resurrection for your spirit and body. If you have not enough will power to come over (your brother could drive you here, it is one hour from Washington Bridge), and you could use some help through encouragement, my wife and myself would come to you and spend an hour to bolster your decision to spend a vacation with us. For your mind's sake you need a change, and also a contact with human beings who understand you.

If God helps, it can happen that three books will be ready for 1954 publication: ("*Earth in Upheaval*," "*Stargazers*," "*Ages II*") And besides, *The Orbit*, and *Saturn and Jupiter*, are partly written. Leaves of *Akhnaton and Oedipus*, and a few others to follow.

I am invited by the Graduate Students Forum of Princeton to read before them (guests admitted) on Wedn., Oct. 14, in an auditorium that takes up to 300 people. I intend to read: "Worlds in Collision in the light of new finds in Archaeology, Geology, and Astronomy." I wished

to add also: “Refuted or verified?”, but the title will be too long. I look forward to this occasion and I have certainly a lot to say. Then there will be a question or debate period.

Now, think over our proposition—think of the quaker-oats that my wife made so good to your taste—and write a positive answer.

Cordially yours,

Immanuel Velikovsky





October 6, 1953

Dear Dr. Velikovsky,

Thank you very much for your great kindness! — I am not lacking in will power, but I know myself better than you do and I know that in my present condition and situation to accept your invitation would have the most disastrous consequences. Please, keep it open until I *can* come! (I still hope that after your books are out and my present work is finished I shall be able again to work for you in some fashion.)

Affectionately yours,

Walter Federn

Best regards to your wife!



Oct. 23, 1953

Dear Dr. Federn:

It may interest you that ten days ago, Oct. 14, I have read an address before the Forum of the Graduate Students here. In the presence of many professors, the Dean, and people from outside, at a capacity audience on:

“*Worlds in Collision* in the light of recent finds in archaeology, geology, and astronomy; refuted or verified?”

From the two long accounts in *The Princetonian* (a daily of the students) I quote:

“After his lecture last night, he impressed all attending by his well-reasoned and well-documented answers to questions posed by experts in physics, geology and other sciences.”

I intend to put the address in writing, and then, possibly, to look for a magazine to publish it. The main point in archaeology was of course the work of Claude Schaeffer.

I trust you have realized that a living person needs food; the ancient Egyptians have believed that even, after passing away people need food. But in life-time eat, and enjoy the food; and if you have not read the book of Menninger: *Man against himself*, let me know, and I will mail you my copy for reading. You need to read it: it was written for you.

With all good wishes,
yours,

Immanuel Velikovsky



Sunday, December 13, 53

Dear Dr. Federn:

I liked to have again a letter from you and read the familiar handwriting. How many letters in the past I have received from you! Now you write that I am the only correspondent you have; then, certainly, I should write you from time to time. - You are invited to come here in order to become again healthier; but you are not invited to come here in order to pass away; for that here are not the conveniences, and it would be too inconsiderate for all concerned. Therefore strengthen yourself, and my wife will do her best if you like to spend some time with us; but not when you cannot walk anymore and are confined to bed. Then you will need a hospital.

I shall send you the book of Menninger, and you will find immediately the chapters that concern you most. The book is written for you; and if you have not read it, then it was an oversight by your father, and by me, too. After reading, you will return the book; but probably you will like to read it twice, or three times.

I did not know that your father spoke to Einstein about my paper on Gravitation, and reading your letter, I have first misunderstood the sentence, but my wife read it correctly. I am interested also to know what at various occasions your father told you of my work as psychoanalyst; his opinion of me as a historian was an echo, probably of your opinion.

Again, don't burn your candle so inconsiderately—you have still things to do; and the greatest thanks you can say to your late parents, is in bringing to some achievement your knowledge in Egyptology, that they helped you to acquire.

At present I regret that I have not published both volumes of *Ages* simultaneously. I do not see how this can be for the better, though I always have in me the philosophy: "This too for the better" (Gam zu l'tova).

When you feel like writing, write me again. Cordial regards from my wife, and from me,

Yours,

Immanuel Velikovsky





4 Hartley Avenue
Princeton, N. J.

April 29, 1954

Dear Mr. Federn:

The letter which I received from you the day before yesterday, relieved me from a great anxiety; I was even afraid to open the letter. A good work you have done!

I have written today to Walter a few encouraging lines. I understand your financial worries. I would like in future to help Walter; my income from books is at present very low; but I would take a psychoanalytic case, if I can get one, to make my help to Walter possible. Your father trusted me several cases in which other analysis did not succeed; but presently, because of my work on books and having cured all the cases sent to me, I am out of touch with analysts. Princeton is only one hour by train from NY, and I imagine that it should not be difficult to resume (an hour or two a day) psychoanalytic work, especially I will finish next week my volume "Earth in Upheaval."

With kind regards,
Immanuel Velikovsky



8. Juni 1955

Lieber Dr. Velikovsky,

Anlässlich Ihrer Jubelfeier gratuliere ich Ihnen herzlichst—zu Ihrer reichen Gaben, dem schönen Gebrauch den Sie von ihnen gemacht haben, den grossen Erfolg, der Ihnen zuteil geworden ist, und zu der Lebens-Gefährtin, die Ihnen das Dasein erleichtert und verschönt hat.

Dass ich es also persönlich Beteiligter, nicht bloss beobachtend die Universalität und das Genie Bewundernder, tun kann dass ich Ihnen nicht nur für stärkste Beeinflussung meines Denkens durch Ihre unermüdlische, furcht—und rücksichtslose, durch nichts ausser den Schlingen trügerischer Wahrscheinlichkeit bestechliche, Wahrheitssuche danken darf, sondern auch für die Kenntnis Ihrer Güte und für vielfach bewiesenes Wohlwollen, sehe ich als eine besondere Gunst des Schicksals an.

Ad multos annos!

Ihr Walter Federn



April 20, 1956

Dear Dr. Federn:

I read and reread more than once your very interesting and useful comments to "Earth in Upheaval". I did not know that you would even go to check on my sources and actually enter the entire area of research of disciplines far removed from Egyptology. Many thanks. I intend to discuss with you several points when we see one another. Soon it will be blooming in Princeton; and though we have our daughter and family here, a room (guest room) is free.

A few days ago I have written to Scientific American—not an answer to H. Brown—but a clarification of one point in his review—my relations with Einstein.

I was pleased to see your signature written with a strong handwriting, and the typing also as if done by a vigorous hand.

Cordially,

Im. Velikovsky

My wife sends you her best wishes and her invitation to come and stay with us.



May 29, 1956

Dear Dr. Federn:

Finally I got so bad a conscience about "Ages" vol. 2 that I sat down seriously to finish it. But there is quite a work left for me.

For the first time in sixteen years that I occupy myself with this work I met a document that can be regarded as an obstacle. It is a text published only now by the British Museum although the tablet was in their hands from before 1907. It is a Babylonian chronicle of the end of Nabopolassar's reign and the beginning of Nebuchadnezzar's reign. It names the latter as a direct successor of the former. I must admit that for days and nights I have turned the problem in my mind, since I received the text from London. I came to the conclusion that the error is with the text. On my inquiry, Wiseman (the editor of the texts) wrote that the texts were purchased from different sources in 1907. If the text is not an outright forgery (in difference to the annals of Nabopolassar those of Nebuchadnezzar are very short and give actually only what is known from the Scriptures), then I assume that it is an erroneous presentation: my reconstruction requires that after Nabopolassar reigned Nergilissar, his son Labas-Marduk and only thereafter Nebuchadnezzar: this is the succession as revealed by the Boghazkoi texts, where accidentally the kings are called by the same names Nergil and Labas. In the galleys of my vol. 2 you will find why even without the Boghazkoi texts the order must be: Nergilissar before Nebuchadnezzar (Nergilissar calls himself in official inscriptions son of Bel-Shumishkun, king of Babylon; the temple of Ezagila was found by him in a ruinous state whereas Nebuchadnezzar took pride in keeping it in a very good condition; the same with the palace—and actually bricks with the name of Nebuchadnezzar in perfect order were found by Koldewey—Nergilissar could not have repaired a decayed foundation. Then all other collations; it should suffice to recall that Mursilis warred in Harran against the Assyrians and the Egyptians, and Assurballit was his opponent there; exactly the same place, the same alliance, and the same king as his opponent, in the story of Nabopolassar.

Then what is the solution. Wiseman admits that these chronicles could have been as late as the end of the Persian time; this is only a few decades before Berossus; this would explain where Berossus, and others

after him, took his wrong succession. With Berosus' error I dealt already in my book.

I have received a new letter from the boy in Texas. I mail you his letter and my reply. At first I was very happy about the "captivity of Ramses I". But possibly he has another text in mind.

I wonder whether you know anything about Ramses II tiles with Greek letters. Who published anything on the subject? Would Hayes be the person?

I owe you for taking time with various questions I have put before you. I enclose a check. Anyway I am in your debt. (I just guessed the hours you have recently spent on the questions).

Cordially,
Im. Velikovsky

Warm regards from my wife.

Ps. The same book by Wiseman presents a more detailed chronicle of Neriglissar's wars: he went on a war expedition against Lydia which is rather far for a Babylonian king. not if the original capital of the Chaldean kings was in Boghazkeui. I will need to compare the text about these activities with what is known about Muwatalis-Nergil.





September 16 , 1956

Dear Dr. Federn:

I have worked only very insufficiently on the galleys of "Ages in Chaos", vol. 2. I have spent some two weeks on "Oedipus and Akhnaton"; this would make a small book. I had a list of questions for you but I have first misled [misplaced?] them, and now I will mail it in a few days. I have written to Prof. Schaeffer that I was prepared to come to France and select the objects for the Radiocarbon test and to discuss with him our common theory of catastrophes in the Middle East in historical times; but he answered that he was before leaving for Syria and Cyprus and better I should come in the early spring when he would be again in Paris; and unless the political situation in Syria and Cyprus would make it unwise to travel now there, he would leave in the middle of September for the East. So I have answered that I will comply with his schedule and have asked him to pay attention to various things during his excavation work: some of them refer to the fact of the catastrophes and some to my reconstruction of chronology.

A German woman by the name of Mrs. Fuhr wrote me several letters and then too the initiative to translate "Ages in Chaos" into German; her English is rather poor and she did the work on approx. a third of the book with the help of her brother-in-law who as she says knows English. I have received that part of the mss. they translated; she asks my opinion; I would not know how good their work is; it is close to the English text; Elisheva is already so foreign to German that she has no "real feel" for German style. So please let me know how good is the work. You need to examine only several sections to find it out. I made no promises to Mrs. Fuhr who lives in Munich. I have only glanced through the translation on a few pages; I noticed that the very last sentence is not correctly translated.

There are many more things to write but I will do it the next time. I hope that you feel yourself stronger.

Cordially,
Im. Velikovsky

Ps. I have not mailed this letter on the day I have written it: I had no

large envelopes; and then being a procrastinator I kept it some more days on my desk. Yesterday came another letter from Mrs. Fuhr, in which she writes concerning the translation: “Ich möchte noch einmal ausdrücklich bemerken, dass die Uebersetzung vorerst nur direkt vom Buch in die Maschine vorgenommen ist—daher die vielen Striche usw. Ich bin mir durchaus gewusst, dass stilistische Feilungen und Aenderungen oder Satzstellungen noch vorgenommen werden müssen.”

Today arrived the second third of the translation, and the rest, she writes in the letter that arrived yesterday, will come after October 15th. It is amazing how quick they do it, esp. since Mrs. Fuhr not even an English letter can properly understand.

She writes also: “Der Widerstand gegen Ihre Bücher rührt von evangelischen kirchlichen Kreisen her.” And she gives several details. I may mail you her letter for reading at the next occasion.

I.V.

Please keep the translation in the meantime, for the chance that it is “brauchbar” and needs editing.





September 28 , 1956

Dear Dr. Federn:

Thanks for your criticism of the translation. I did not feel that it is so bad. Have you not been a too severe judge? Would you please mail me back the translation and please mark with pencil places that appear especially wrong (on the pages that you have examined). I remember that the translation of "Welten in Zusammenstoss" also requiree my (and Elisheva's) corrections.

It is a good news that you feel strong enough to accept a job that requires riding in the subways. More strength to you. I had a letter from Schaeffer—he wrote it between Alexandria and Beyrouth` he read on the boat my "Worlds in Collision", hopes to discuss it with me in the spring and intended to start that evening the "Ages".

In my letter to him, written before that, I asked him to pay attention whether the unexpected (expected by me) combinations of finds would come up.

Cordially
Im. Velikovsky

Mrs. Fuhr showed great enthusiasm for my work, studied ancient records, wrote many excerpts and I would not like to discourage her if it is not mandatory. Of course, "Ages" will be published in German only once, and I owe it to my work that the translation should be perfect.



October 29, 1956

Dear Dr. Federn:

You see how slowly I move. When I have a list of questions and displace them, I make another list and displace it again. So let me ask you just one or two questions as they come my way.

1. Whether the sarcophagus or the mummy of Beketaten or Merietaten, daughters of Amenhotep III and IV, were discovered? I will show that Beketaten was a daughter of Tiy and Akhnaton, her son.
2. Was it Drioton who established that Davis' "Akhnaton's mummy" was actually of Smenkhkare?
3. Lord Carnarvon and a series of others died soon after the discovery of Tuthenhamun's grave. Where is the story of these coincidental deaths?

You may imagine—in my reconstruction of the historical substratum of the Oedipus legend—Thutenkhamun—is Eteocles, and Smenkhkare is Polineikes.

Cordially
Im. Velikovsky



November 06 , 1956

Dear Dr. Federn:

Thanks for your reply of Nov. 1st. I made myself not entirely clear. I intended to inquire about the tombs and mummies of Beketaten and Merit-Aton, the wife of Smenkhkare, not Meket-Aton, who died unmarried.

By the way I came across an information that in Luxor there is an inscription and basrelief concerning Alexander's visit in Thebes. I wonder whether a comparison of this text with the text of the Banned (Meunier) gives any support to me, namely the similarity of the texts, or even the same name of the priest?

When in New York I shall call you by phone and find how are you and how is your work progressing.

Regards from Elisheva.

Yours
Im. Velikovsky

Ps. Once I read about 70 tablets of "Illuminations of Bel." Never saw again any reference to them. If by chance you have come across this unilluminated "illuminations", let me, please, know.



February 26, 1957

Dear Dr. Federn:

As I have told you on the telephone on the last of December I have signed a contract with Doubleday for two more books: "Oedipus and Akhnaton" to deliver the manuscript the coming fall, and "The Orbit", the fall of 1958. From these titles you may judge how an idea ramified itself into most divergent disciplines. You know only a little from what I told you years ago about my idea of Akhnaton being the historical Oedipus. The similarity at the first sight is non-existent. But wait and judge when you see the manuscript. The generation that followed of Smenkhare, Tutenkhamen and Aye, will be shown by me to be the prototypes of Polineikes, Etecoles and Creon. Tiy is Jocaste, and Beketaten her daughter from Akhnaton.

Although I work sporadically on both contracted books (the work on Deluge and Saturn I have put aside), I must dedicate myself to "Ages" vol. 2. The British publisher is very persistent and asks repeatedly the date of the second volume will be ready; he has also a considerable amount of advance orders that he is afraid may be cancelled if there is no volume in sight. Although I have often thought that it was unfortunate to publish one volume only in 1952, the facts show that it may have been, after all this way better. The interest did not die down but increased, in some quarters, at least. Then, I have the opportunity to improve the volume, and especially to meet the argument of the newly published Babylonian chornicles (Wiseman), – and interestingly, already two or three of my readers drew my attention to these chronicles, mentioned in articles or books. Up till recently I felt the difficulty—and together with it the absence of interest and will—to complete the work on the page-proofs—since every correction must have been squeeze in without disrupting the page forms. But recently I discussed the mater with my editor at Doubleday, and I obtained a great freedom for changes. Namely, the printing plant where the set was made belonged to Doubleday; they do not have it anymore; the pages set are kept still; but the new printer will have to start from where I will submit now, with all the corrections, also such that would shorten or lengthen the text. But then, afte the printer whom they wil contact will partly use the text and partly reset it, any additional correction will be prohibitively costly.

I have also the feeling that the additional five years (1952-57) brought my work much closer to some discovery that will take the weapons out of the hands of possible opponents. The Hittite pictographs are probably read by now. I do not know whether Bossert published the texts and translations from Karatepe (beside the first publication in *Archiv Orientalni*, 1950, #3-4). I assume that Benveniste published already the Carian inscriptions he found at Mylasa in 1935. And did he translate them? Then Bittel found six or eight thousand Babylonian (or cuneiform?) tablets in Boghazkoi. If they are read, there must be some strong argument for my reconstruction. I don't know whether he published his texts.

Next there are the Minoan Linear B texts found in Pylos and other places; facsimiles are published by E. L. Bennett; but the content is not known to me. Possibly there are translations in *Antiquity*, or *Archaeology*. Would you like to help me in tracing these publications?

Goell published in *AJA* in Autumn 1955 of her work in Commagene (Nemrud Dagh); final publication should have followed. She found Hittite influence in art down to the first century. As you probably know, coins with "Hittite" signs were found dating from the first post-Christian era. And this, if you remember, goes even farther than I have predicted, of "Hittite", actually Chaldean texts, dating from the first pre-Christian century, actually the time of Augustus, from which time date the last cuneiform tablets. I read the article of Bossert on such a coin, and Miss Goell wrote me that she has also one such coin (purchased)—they date from the time of Vespasian. And I think only that no Greek or Roman author or military man knew anything of the Hittites, or their forgotten language, race, or kingdom.

I have not seen anything of importance that could be used, say, for a second edition of the first volume of *Ages*; but the unpublished second volume has many important new discoveries to discuss. By the way, the boy in Texas drew my attention to a passage in a book by J. G. Duncan, *Digging Up Biblical History*, II, 136, concerning the names of the officials mentioned in the Samarian ostraca: "Most of these names sound very unusual and un-Biblical. In form they recall more strongly the names occurring in the Tell el-Amarna letters and the records of Thothmes III's conquests in Syria."

In *Gamza* there is very little about "Greek" signs on tiles of Ramses II. Did Hayes publish anything on the subject?

I will have to look into Lachish, third volume. In *Viyra, Hittite Art* (2300-750), 1955 (not in Princeton Library), Schaeffer, Encomi-Alasia

(1952)—he sent it to me; also in an article by the late A. Alt (Z.d.D. Paläst. Ver. Band 70 H.1), Neue Berichte über Feldzüge nach Paläst—Thutm. III, Amenh. II, Sethos I.; in K. Kenyon, Excav. at Jericho, 1954 (Pal. Expl. Q., May-Oct. 1954. And as you see I will have plenty to do with my many distractions and the wish to finish the volume this spring will certainly create a time problem—and a strain.

Then there are also questions connected with my Oedipus book; I write it in between, and since it should be a small book, a few pages written here and there may make the ‘pregnancy’ period quite concurrent with the work on the page proofs. Where is the description of Akhnaton sepulcher in el-Amarna? Had Ay a tomb prepared for him in el-Amarna? Where is the description of his tomb in Thebes? Was Amenhotep’s (III) body found? No sign of a wound? Was no tomb for Tiy prepared? (beside the one in which Smenkhkare was found?) What was the usage of the Egyptians in respect to those who committed suicide? As you see there are many questions. Don’t rush to answer all of them. I enclose a check as a first installment. As to the translation of “Ages” into German we have to discuss the matter once more.

Let me know how is your health. In snowy days better remain indoors. Elisheva greets you warmly.

Cordially yours,
Im. Velikovsky





16. April 1957

Lieber Dr. Velikovsky:

Soeben bin ich durch folgende Zuschrift der Librairie Stock in Paris überrascht und beunruhigt worden:

Monsieur, A la demande du Dr. I. Velikovsky nous vous adressons aujourd'hui par avion les 157 premières pages dactylographiées de la traduction de EARTH IN UPHEAVAL. Nous serons en mesure de vous envoyer la suite et fin dans le courant du mois de Mai. Je souhaiterais néanmoins que vous puissiez nous retourner, avec vos observations et corrections les 157 premières pages, dès que possible. A l'avance nous vous remercions, et vous prions de croire, Monsieur, à l'assurance de nos sentiments les plus distingués. André BAY.

Von einem solchen Plan haben Sie mir weder schriftlich noch telephonisch jemals etwas mitgeteilt. Da ich das Französische nur sehr mangelhaft beherrsche, würde ich diese Arbeit nur sehr ungerne übernehmen, und nur dann, wenn Sie niemand anderen kennen, der es tun könnte. Ich bin daher geneigt, anzunehmen, dass es sich um ein Missverständnis handelt, dass Sie entweder meinen Namen an Stelle eines anderen geschrieben oder aber einen Brief an den deutschen Verleger mit einem an den französischen verwechselt haben.

Dass ich die Sache *jetzt* übernehme und "dès que possible" erledige, ist jedenfalls gänzlich ausgeschlossen, da mein Aufsatz mich für die nächsten 4 Wochen vollständig in Anspruch nimmt und keinen Aufschub duldet.

Ich bitte also um Weisung, was ich tun soll.

Mit herzlichen Grüßen an Sie und Ihre Frau,

Ihr

Walter Federn





Tuesday, July 9, 1957

Dear Dr. Federn:

I write to you from Oxford. After so many postponements—from a fall to a spring and from a spring to a fall—we finally took the boat (on June 28), landed at Southampton, and first went to Salisbury and Stonehenge, then to Oxford, where we are now four days. On the boat and here I worked on the French translation of “Earth”—after I have already spent much time on it in Princeton; and still I am not ready. We carry with us a valise with papers and books, and a portable typewriter; I thought to work here on “Oedipus”, but could not start because of the French “Earth”; and necessary this revision was in utmost.

I gave here a ring to Alan Gardiner; I wished to visit Sir Alan and so said to the female voice on the telephone; after a while she brought me the answer that Sir Alan a day before had an accident and his nose is in a cast, so that he cannot see people. At least I will not have to reprove myself for not trying to draw his attention to the parallels between his Admonitions and two or three chapters in Exodus.

As you know the main purpose (scientific) of this travel is to see Claude Schaeffer. The agreement is that we shall meet not far from Lucern and spend a week together. I cannot hope to make him a follower of my chronological scheme—but maybe something will come out of this—radiocarbon tests, or excavation at Avaris, or a new attention to finds in Ras-Shamra or Alasia.

I have received several days before our departure your letter with two pages of translation. I imagined that with your Vervallkommungsdrang you will have hard time with this translation—and so it was. I regret it because nobody could do the work so that I would not need to go over it, besides you; and the time of revising a translation is by far not small.

I shall write you again, and in the meantime have the most cordial wishes for your physical health and good mood from my wife and
your Im. Velikovsky





Hotel Vitznauerhof

VITZNAU Switzerland

August 5, 1957

Dear Dr. Federn:

I have spent now five days with prof. Claude Schaeffer. He is unusually charming; he is also very open minded and a change of six hundred years in ancient chronology does not frighten him. However, I found that his wife is a little different; and though she does not know anything in history, she expressed herself that the reconstruction would damage her husband's work, since he "rehabilitated" the Canaanites and making them 600 years younger would deprive them of the glory of being the real creators of the culture that goes under the Hebrew name. She did not say so much, but if not she, I believe he would be even more helpful. He carries all these days Ages vol. I with him; he asks me daily to spend several hours in discussing the problems; he is prepared to follow my trend [...] and he will read the proofs of Ages [vol. II] which I leave tomorrow with [him. Then he] returns to Paris, and from the to [London] (Orient. Congress, also a meeting w[ith ...] and then via Venezia and the Greek Islands [...] work in the Middle East. He is p[repared to] choose from his material samples [for radiocarbon] tests; however, at an occasion [th...] wrote to a Dutch Univ. for such [samples] the fees asked were prohibitive.

We even discussed the writing of a book (World wide destructions in [historical times] as evidenced by archaeology, geology and [history]; he is writing the first part ; but prese[tly we have] shelved the plan for a later day [...] discussion.

Personally we like each other [...and] he is full of praise of "Worlds" and [...] is very serious about "Ages". [But] he wishes first read vol. 2 before [coming] to conclusions.

My feeling is that he is not st[udent of] history (he admits that after Ramses III [he does] not know history) and possibly f[or this] reason he can easier give up e[stablished] notions; but certainly he is [very] broad-minded. I wish he wou[ld not be] influenced by his family. His

[wife is the] sister of Emil Forer, the Hittit[ologist].

Our trip was very successfu[l...]. From Gardiner I had a nice le[tter in which] he explained that after the accident [with his nose] in cast—and this made him in[accessible] to visitors. In London I saw my [literary] agent; in Paris, too, as well [the translator] of “Earth” (I still work on the l[atter] and tomorrow in Zurich I may [...] publisher Frau Dr. Oprecht and [...] discuss the idea she had of [a concise book] in which I should discuss all [my books] (“All Roads” or “Alle Wege”).

To return we hope on Sept. [...] to Europa Verlag (Oprecht), 5 R[...] may reach me. My wife and I [send you] very good wishes. Upon return [I will devote] myself to finishing “Ages” and [“Oedipus”].

How is everything with you? How do you feel? Is you article already printed?

Cordially,
Im. Velikovsky

[the gaps are due to our photocopy of this letter being cut off on the right hand side; the words inside the square brackets are tentative restorations.]





August 19, 1957

Dear Dr. Federn:

The first use of my new typewriters (electric) is this letter to you. I spoke this morning to you by phone. It is strange that the pages 121 to 157 did not reach you. I am going to write to Miss Kuhn and find out whetehr she had mailed them. I enclose here a letter of Gallant that I discussed with you on phone. It is certainly very important to follow through what Bittel or one of his colleagues has published on the rich finds on Boghazkoi in the last decade. Götterbock (correct spelling of the name?), I believe worked with him there. They found thousands of tablets. I cannot imagine taht there should not be some clear pieces of evidence for the new chronology.

Please write me anew your solution of the question of the problem of the succession of the dynasties 21 and 22; I shall retype and write to Gallant as your solution.

Then return me the letter after taking any notes you wish, and please clarify the probem of the tablets to which Gallant refers.

We hope to see you soon. I shall write you about a fitting date.

With warm regards from both of us,

cordially,
Im. Velikovsky





Haifa
October 6, 1957

Dear Dr. Federn:

I certainly owe you a letter: I have lost the track of my last writing to you, and it is quite possible that for the last time I wrote you from Vitznau. Prof. Schaeffer and I became friends and impressed both by the fact of identical conclusions arrived on different material—concerning the catastrophes, their times, and their number, we agreed to write a work: "World wide catastrophes in historical times." Yet he wished that under this title we should write two separate volumes; possibly in order not to identify himself completely with my other theories. I have offered the plan to Doubleday and my editor there answered that they are rather enthusiastic about the plan, but would we not agree on one volume? After Switzerland my wife and myself spent two and a half weeks in Italy (Milan, where my publisher Garzanti is, Venezia, Florence, Pisa, and Rome), and then we spent four days in Greece and met again Schaeffer; I told him of Doubleday's answer and asked him to think it over. He took me to the cemetery where Schliemann is entombed and put some flowers on his grave; he felt that much injustice was and still is made to Schliemann. He took with him the page proofs of "Ages" vol. 2 and presently he is on Cyprus. I will contact him soon. He is open-minded toward the revision; and he would agree to help me in every way, but a little brake is his wife, a very ambitious person, that would not like to jeopardize his career. Now over two weeks we are in Israel; impressions are many. I was asked to lecture before a large audience, but was unwell, and so the lecture was postponed. I have here quite a following; yet the official science is as everywhere else. So when I came to visit the excavations at Hazor in Galilee, the archaeologists hid themselves, although my visit was announced in advance by a follower of mine, who also accompanied us. Also the geologists in Jerusalem declined to meet me, but the philosophers asked me to talk to them.

I would like to know a little of what is happening with you. I intend to write to Doubleday and ask them to undertake some steps in order to have a German offer for "Ages". Presently List in Leipzig and Munich prepares a German version of "Earth in Upheaval" and has the option rights for "Ages". I asked Europa Verlag to revoke the license from

Kohlhammer for “Worlds”; they intend to offer it to Ullstein as a pocket edition. – My wife joins me in sending ou the warmest greetings. We intend to return in November, with God’s help [...].





January 28, 1958

Dear Dr. Federn:

Our daughter in Princeton wrote us a little while ago that you have inquired concerned with my prolonged absence and silence. I believe to have written you in the meantime. A short time after our arrival on an (unscheduled) visit in Israel, I became ill, and after four weeks of consultations and tests, I submitted myself to a surgery (end of October), and after 12 days in the hospital I enjoyed the unusual warm winter and sunny days at the home of our daughter. All showed me much love and attention. The first month after the surgery was unpardonably lost for work, though it may have been the best time for writing. The second month I spent on bringing my Oedipus into shape; and had with me a draft and most of the material. Presently, it is a short book of only one hundred pages, but adding from the material left in Princeton and supplying the book with pictures (Amenhotep III-Laios, Tiy-Jokaste, Ay-Creon, Akhnaton-Oedipus, Smenkhkare-Polyneikes, Tutenkhamun-Eteokles, etc.) and with more verses from Sophocles, Euripides and Aeschylus, I believe it has idea, proof, form and appearance.

Schaeffer wrote me from Cyprus that he was going the last two weeks there to dig a tomb with a permanent thought of my scheme. Later he wrote again from Paris and admitted that he would like to talk over with me some conditions he found in the tomb, though there were no Assyrian objects found in it, thus there was no chance to verify my expecting these (Assyrian) objects to be of a younger date than the Egyptian finds in the grave. It would be a vindication of A. S. Murray.

We hope to travel during March through Italy, Switzerland, France (Paris) and possibly Holland (Amsterdam) and to be early in April back home. Then I shall take up Ages vol. 2. Actually only yesterday I received a letter dated January 20 written by Sidgwick & Jackson Ltd., my British publisher of Ages. He writes inter alia> "We are inundated with orders for the book and the booksellers are getting very restive." Then I would like to publish "Stargazers and Gravediggers", because I feel that my status in the States requires this; if I do not fight back all my future books will suffer, my personal injury—daily— not counted. Simultaneously I would complete "Oedipus and Akhnaton" and deliver it to Doubleday, after you have chance to see it and make your comments. This by itself is a large program, but I have more to do—

namely work on "The Orbit", for which The Geophysical Year and the Sputniks will bring important confirmation; and to try to make a concise rendition of all my books in one volume ("All Roads"). Besides I work on an autobiography. Sounds almost hypomaniac; but the cause of this plethora is procrastination in the years past, and the slowness in work. Several of my readers supplied me with various details to my different books, and so also for "Ages" vol. 2. I do not remember whether I have already drawn your attention to: Frankfort, The Art and Architect. of Ancient Orient (1954), T. B. Webster on Homer and the Mycen. Tablets (Antiquity no. 113, 1955), Albright in the volume dedicated to H. Goldman.

There will be only a short time and the six hundred years ("dark ages") will disappear from Greek, then from other histories.

I have formally informed Doubleday (before my surgery) that the royalties for the German translation of Ages, when such a translation should appear, belong to you as long as you live. Upon my return to the States, I shall see to it that "Ages" should have a Swiss (German) publisher.

With good wishes from myself and my wife,

Cordially yours
Im. Velikovsky





May 13, 1958

Dear Dr. Federn:

After an excessively long absence—back in Princeton. I have now to concentrate on Oedipus and Ages 2. I am a little tired, but wish to hope that these tasks will not be beyond and above my power. When in New York—possibly tomorrow, shall call you by phone. How are you? Did it occur to you to come across something in literature that supports my reconstruction?

Elisheva greets you warmly.

In friendship
Im. Velikovsky



At the post office, Friday 19 Sept. 1958

Dear Dr. Federn:

I send here one third of the German translation of "Earth in Upheaval". I have looked only into the first page. I believe that the translator of "Worlds in Collision" was better or did a better job. I have offered on the first page a few changes in pencil (ink marks are of the publisher or translator). It is necessary to compare the text with the American edition as to exactness of text, names and figures; and then it is desirable to improve the style. I have here with me the rest of the translation and will send it to you when you are about to be through with this part. I imagine that the publisher waits my revision.

I am interested to know what suggestions you may give me concerning "Oedipus", and what parts need elaboration or improvements.

Cordially
Im. Velikovsky



Princeton
September 30 , 1958

Dear Dr. Federn:

Your letter of September 22, postcard of Sept. 24, and letter of September 25, all arrived on time. I made two attempts to contact you by phone (one the other week, and one yesterday) but there was no answer. Actually I could all put in a letter, but I thought that in your excitement you would like to hear me and know my reaction. My feeling is Janus-kind. I am very happy for you that you, after a long interval, go through the throes of bringing out a new idea, a discovery as you think; on the other hand, for my work, I think your going astray, may be less fortunate. It is quite possible that some experiences of Amenhotep III were in the legend attributed to his heir—Akhnaton. But from all what you rather enigmatically wrote—I cannot see any reasonable point of collating the legend of Oedipus with a generation earlier than where it belongs. At first and for years you resolutely negated a possibility that this legend had for its prototypes the later kings of the 18th Dynasty, and so you said no so long ago to Elisheva. Now you remove Oedipus and Jocasta to a generation too early. In my story anyone and everyone of the group (Akhnaton, Tiy, Ay, Smenkhkare, Tutenkhamen, etc.) has his image revived in the Greek legend. I do not see where are your strong arguments, and see only the missing identifications. You are free and even obliged to go following your thoughts, but in order to help me, please, be not so enigmatic, first, and then, follow my trend of thought, second. In other words, I wish to have some suggestions useful for my work. You say you have solved the riddle of the Sphinx upon reading my “Oedipus and Akhnaton”, finding the solution in “Cippi of Horus”. Where can I read this? The plagues of times earlier than the Exodus were personified in their agent—Hathor, or the Sphinx, and this famous structure at Gizeh was built long before the Exodus and the Middle Kingdom. But in the plagues of the Exodus the people of Egypt may have seen a revival of the activities of the same Hathor. I do not get you when after having studied my “Ages” I, you ascribe how Exodus to the time of Thutmoses IV (“is now definitely established”)—by whom? By you?

Of course I appreciate that some scholar found in a newly published inscription of Hatschepsut the name that could be possibly read Solomon. But what childish reason it is not to communicate me this very interesting item (already published), to me, but in this enigmatic way (“I do not dare to tell you where [published]).

All in all I am happy that you are enthusiastic about this idea of finding the origin of the legend of Oedipus in Egypt; so after all I was not on a wrong track; some of the literature you indicated I had had already in my hands. I write you this in advance of my call by phone. I intend to be tomorrow in New York. If you think it is worthless to work on the German version of "Earth in Upheaval", I shall inform so Doubleday from whom today came a letter urging me to return the translation. I am not sure that I have the right to insist on a new translation, but certainly I have the right to insist on a correct translation.

Today I shall show a few pages of the translation to Erich Kahler, an author who lives in Princeton, to hear his opinion, too. The demand to publish vol. 2 of "Ages" is very insistent, esp. in England. So please at every possible occasion of being in the libraries and seeing new literature, esp. on excavations, try to find additional arguments, of archeological nature, to my scheme. Prof. Schaeffer wrote me that I have to go through the records of later excavations in the lands of the Middle East; he gave also a list of some of these excavations and publications; he thought that these records would be adverse to my scheme; but, since I trust in the correctness of my scheme, I shall also expect to find with every new excavation some new difficulties for the established scheme and support for the reconstruction. I have written a long letter to Schaeffer, several weeks ago, but have not had yet a reply; probably he is already in the East, excavating.

By writing this I may our future telephone talk—should I reach you by phone (I shall try during the day, and before evening)—concise; but should I miss you again, just write me, and I shall call you on another day.

My energy returned to me in full, and I hope to produce soon Oedipus and Ages, with your help.

Warm regards from Elisheva.

Cordially yours

Im. Velikovsky





Princeton, N.J.
October 2, 1958

Dear Dr. Federn:

I have received your letter of Sept. 30 about which you have told my wife yesterday when she called you by phone when in New York, and also a postcard of October 1.

It took you eighteen years to accede that my "Ages in Chaos" is basically true. In May or June last when you came out to Princeton you have still with complete disregard for my proofs and sustained labors, flat denounced "Ages in Chaos" as impossible and basically wrong. I could have now my satisfaction; although you have helped me much in answering all my bibliographical questions and criticising my work that you have read in manuscript, to which innumerable letters carry witness, yet in so many of them you insisted that I am wrong with the entire scheme of reconstruction. Since you knew and studied my work so completely, I had to refer your rejection of my work to, first, the unprecedented scope of my realignment of the histories of ancient peoples, and, second, to your peculiar human attitude in which a neurotic moment, as in so many of us, was not lacking. To what should I ascribe your sudden reappraisal of my work and its basic acceptance? And why exactly my work on Oedipus and Akhnaton caused in you this metamorphosis?

Yet I am not without concern. It is to me not understandable how you place the Exodus and Ipuwer papyrus after the 11th dynasty, instead after the end of the entire Middle Kingdom (to which points also the devastating catastrophe that ended that Kingdom), and then decide on the basis of my Oedipus work that Thutmose IV was the pharaoh who drowned. In the days of Thutmose IV there was no Exodus and Habiru were not the Israelites—who they were you know from the chapter "Tell el-Amarna Letters" in "Ages" vol. 2, as one of the many arguments relating to the content of vol. 1 that have come up in the years since the publication of that volume.

Your scepticism and negative criticism were always very fruitful for me; I do not know whether your going over to my side will prove as fruitful: this because you, by dissenting [on] what [in] your mind are details, may cause me to fight not only against the conventional school but also against your divergencies. I do not see how Amenhotep III

instead of Amenhotep IV could be the prototype of Oedipus. Where are the swollen legs or feet? Where are children begotten with his mother? Where are two youthful kings in their teens that reigned only for a short period each, and of which the younger was entombed by an old relative, who stood behind the throne and the intrigue, and who lastly became the king himself, whereas the young brother pretendent, though of royal blood, was entombed in a clandestine hide-out and without the riches of Tutenkhamun's grave? How do you think to fit all this into a generation earlier?

Also concerning "Ages" your attempt, not explained in your letters, to remove it from the final hours of the Middle Kingdom—a timepoint so early that in over two thousand years nobody dared to place it there (only Isaac Newton, as I found, dare like me—in an age when it was no daring at all—to ascribe the expulsion of the Hyksos to the time of Saul),—to an even earlier timepoint—does not make me happy. But you are in error: as it is said before in this letter, the catastrophe of the Middle Kingdom's end was that of the days of the Exodus.

Where is found the "official" record about a pharaoh that was drowned in the Red Sea? And how is it that it was not known before, if it was published long ago, as I presume?

With "Earth in Upheaval" it is a pity that you could not take over the preparation of a new translation, against payment from the German publisher, about which Doubleday would have to negotiate. I will today write to Doubleday what you think of the translation; but please look once more into the translation and tell me whether your opinion is not changed, and is it not (the criticism) too severe? It would be good would you mail me several pages with pencil inscribed corrections of the meaning and style, so that I could prove to Doubleday that the offered translation is worthless.

It is possible that for this weekend Elisheva and I shall go away for a few days to Vermont to see the fall foliage—a thing we have promised to ourselves since our last visit there, I believe three years ago. Write me in the meantime to Princeton, since it is also uncertain that we shall go away this weekend. If it is not heated enough in your place, you may open the burning gas jet for an hour couple times a day in the kitchen, and your place will warm up.

Notwithstanding my remarks here, I am happy that you are enthusiastic about both my works, and with restraint imposed, you may and will find many details that would enrich my work: if I am right in my reconstruction, then more proofs, and without end, must show themselves; for that purpose a thorough reading of reports of

excavations is necessary, since so many archaeologists would pay more attention to stratigraphical evidence than to textual testimonies; Schaeffer is one of them.

With kind regards from Elisheva

Cordially yours

Im. Velikovsky

PS You mention a paper that you have prepared for JNES. It is clear that nothing based on my unpublished work (like Oedipus) should be printed without my consent. The idea of Oedipus legend having been originated in events that took place in Egypt should be first given in my book on the subject. I am interested to see your paper.





Sunday, Oct. 5. 58

Dear Dr. Federn:

Today Elisheva and I are about to leave for a short trip—to Vermont—for two days. It is possible that on our return passage through New York we shall give you a ring. But don't wait for it.

We shall be very glad to have you here. But could you advance your coming by one day and be with us on Saturday (and you may sleep here—we have a guest room)?

On Sunday I shall not be as free as on Saturday. Bring with you the German translation of Earth, but please look it again through, whether your opinion is not too severe? Also please mail already a few pages with corrections, so that I can build my own opinion. Publisher asked to return him the translation at the earliest.

With kind regards

Im. Velikovsky



October 8th (Wednesday)
1958

Dear Dr. Federn:

Yesterday we have returned from a two and a half day trip to Vermont. It was very beautiful. I made some color photography and occasionally shall show you the slides. Upon our return we have found a letter of October 3-4, and a postcard of October 4th. Today came a postcard of October 6th. You have not mentioned my offer to advance your coming from Sunday to Saturday; instead you write about a visit on Thanksgiving which is far away. We will have to meet before, and if you feel inadequate to make the travel, I shall possibly meet you in New York, even drive to your home. So let me know about this Saturday. There is one good train leaving New York at 9:45 in the morning, and if this is too early, another good train that leaves at 11:15. I could come out to the Junction to either of these two trains. (Still later is a train at 1:15)

You write in your last postcard that you expect impatiently an answer to your letter of Oct. 2nd. I presume it refers to the letter of Oct. 3-4. Let me say very frankly. You now repeat the experiences I had over 18 and 19 years ago. But I have had time and clarified the issues to my satisfaction. You have missed so many years to follow through with me, and suddenly becoming yourself a heretic revolt also against my substantiated deductions. You have borrowed from me the clue of 550 years (I usually think of 540); but you apply it not only to the 18th dynasty, but also to the entire ancient history of Egypt and connected countries. This is too simplified and dogmatic. I am as certain that Ramses III belongs to the Persian time (fourth century) as that I presently write a letter to Walter Federn. You will however notice that it was never my way of expression my conviction. You, in your great excitement, write on Sept. 25: "The Pharaoh of the Exodus is now definitely established as Thutmose IV" and on October 6th: "Ich glaube nich mehr dass Thutmosis IV der 'Pharaoh des Exodus' gewesen ist; dies war vielmehr Amenophis II..." The same with the Red Sea episode, that you have revoked on Oct. 4. It is not the change by the early Albright-like expression of certainty not given to debate that must be avoided.

For the 18th Dynasty the displacement was in the magnitude of 540 years, for the 19th Dynasty—700 years, for the 20th Dynasty—800 years. If you try to take Ramses III out of the fourth century, you will be going once more in a wrong direction, and I will have little help from

you in preparing my chapter on him for print—if it needs any revision at all.

I thought you knew why and how Oedipus and the Sphinx brought you to the problem of the Exodus and the synchronization in general. But you admit that the process of associations is not clear by now to you. In both cases—Oedipus and Ages, you do the same thing: agree with the basic idea but try to push the events one generation or one dynasty earlier.

I do not see your reasoning by admitting that Hyksos and Amalekites are the same, and still referring the Exodus of the Israelites to an earlier period than myself: yet the Israelites met and battled the Amalekites, who were the Hyksos.

The history of the war of Ramses II was followed by me and compared for 19 years event after event and month after month with the history of the war as described by the Scriptures and the Greek authors. Would you like to drop all this?

As to Joseph son of Jacob, I believe that I have long ago written you that I think to have found him mentioned in an Egyptian inscription dating from the 12th Dynasty. In the same register to Breasted's records I looked up and found the name of Potifar (Potiwer) and there was also mention store-keeper Yotew (or something like Yotww). Also the literary form of Joseph story reminds well other products of Egyptian literature of that time. Only looking years later again in the first volume of Records I found that the inscription was a little different from what I had in memory, and since my memory on certain occasions proved rather good in retaining documental texts, I had the suspicion that vol. I of Breasted's records had more than one edition, and that I have possibly looked into two different versions of the text, or perchance, into two different texts. Could you find out?

If you have a different idea about Joseph, you do not need to offer me your material and idea for my exploitation: it is yours and you may do with it as you think right. I however intend to add a little section on Joseph to Ages vol. 2.

It is absolutely clear that I have the greatest confidence in you and your scientific honesty which could not be surpassed. But I have asked you not to publish anything connected with my unpublished works especially not in advance without my consent the idea that the legend of Oedipus had its prototypes in Egypt because you have written yourself:

“Ich habe ein Bruchstück des officiellen ägyptischen Berichts über den Ungergant ‘Pharaohs’ im Roten Meer gefunden (dass es Thummoseis IV war, lässt sich nur mit Hilfe Ihres ‘Oedipus’ beweisen); ich habe eine kurze Mitteilung über diese Entdeckung bereits niedergeschrieben und werde sie in wenigen Tagen an das JNES senden.” I could only conclude that in the great exaltation that possessed you since you came

to certain new idea you overlooked that basing your identification on my 'Oedipus' you should show me your paper before offering it for publication. So no reason for you to feel offended.

Now you have promised me to send page by page or chapter by chapter my 'Oedipus' manuscript with your corrections and suggestions. I would very much like to see these comments. I would also like to know what is your solution of Sphinx's riddle; where is the official record of a Pharaoh who drowned; and where is the published paper in which the name of Solomon could possibly be read. I am certain that by searching and reading many important items will come your way for "Ages". The weather is good, Princeton is beautiful, I am in good spirits, and have a strong desire to progress with my works and have soon 'Oedipus' and 'Ages', then 'The Orbit' and the story of Saturn and Jupiter catastrophes finished too, and this besides a large number of other planned and partly prepared books. "Ages" is now being translated into Hebrew. The second volume of "Ages" is impatiently demanded by readers—so yesterday two letters in the mail, and one today. A man from Holland (one of yesterday's letters) writes: "The waiting for the announced second volume has all the hallmarks of a 'cliff-hanger' for me."

Warm regards from Elisheva, and our hope to see you soon.

Im. Velikovsky





Princeton, October 16th, 1958

Dear Dr. Federn:

I summarize in short what I said by phone on Tuesday. I am going on with my Oedipus and my Ages as I have conceived them long ago. I will not use any of your ideas as you offered me: never before I have borrowed ideas from anybody, you included, and it is thoughtful of you to make this proposition in your letter, but superfluous: I have still ideas unexploited for about a score of books. I do not accept also your interpretation of history after the period that I illuminated in vol. I of Ages; and when I heard in answer to my question that you place Ramses III in the seventh century, I know that you are on a wrong track. Neither do I go to change my Oedipus essay. Should we go on collaborating, your task would be limited as in the past to advising me on bibliographical material and calling my attention to errors or omissions. This proved to have been a very satisfactory help in the past. In telephone you have agreed to go on in this way. Your own theories revising my reconstructions or offering a different identification of the heroes of the Oedipus drama among the royal persons of the Akhnaton court, or Amenhotep III palace, you will be free to publish after my books on these subjects will see light. I hope that in this manner our work will prove itself of import for my books, since certainly they can be enriched by additional material.

I expect now to return, chapter by chapter, of the part of Oedipus manuscript that you have read. Later I will send you some more chapters.

Questions that I put before you:

1. Where is printed the paper about Hatschepsut's inscription in which the name Solomon could be read?
2. Where is printed Tutenkhamen's hymn referring to the dark halls and why this can signify blindness (philologically)?
3. What does it mean a fight of Amenhotep II or III or IV against the cult of the Sphinx?
4. Was the Spinx the image of Hathor, or also of some other deity, like Isis?
5. What was the ground to place Haremhab as a successor to Aye (by the historians)? Are they mentioned together in any inscription? I believe that nowhere they are mentioned together, nor did Haremhab refer to himself as to a successor of Aye.

6. I understand that the time of the Trojan War falls in the time of the Libyan (and Ethiopian) dynasty. Homer refers to some Egyptian kings. Does any of these names suggest the names of the Libyan pharaohs?
7. I like to collect all possible references to the catastrophes in the eighth and seventh centuries in Egyptian material, whether an inscription or in the archaeological (earthquake, fire) evidence, or later references, if only of legendary character.
8. Finally I would like to know what you call "official record" of the drawing of a pharaoh in the sea. The story as told in the text of the naos from el-Arish should be found, so it seems to me, also in a text of an annalist or some other reference of historical or legendary character.

At the end I would like to stress that I am happy for you that you know now the pangs of giving birth to an idea or making a discovery with great horizons opening before you. How much truth will be found in your ideas the future will show and possibly yourself will revise the new thoughts as other thoughts will come to you. But I think of the years 1940-1 when actually all the ideas of which three volumes appeared and many more have not yet been printed or written down in full, have been born in a feverish succession, with every morning a new thought coming to mind, and every visit to the library bringing substantiation and calling me to a new adventure.

I enclose here a check; the little extra amount is to cover the mailing expenses, or the fare to the library.

With kind regards and warm greetings
from both of us,

Im. Velikovsky





October 22, 1958

Dear Dr. Federn:

This is to acknowledge the arrival of the envelope with the mns. of Oedipus; I wished you have made more suggestions, besides mainly orthographical (it was typed from a mns. by various people). I have received also your letter of Oct. 20 and a postcard of 18th. I am not going to write to Hayes, specially as this is your and not his reading "solomon". In what capacity this person is spoken of by Hatshepsut? Yet if a photograph is needed to solve the question, you could have asked him (Hayes) without explaining your suggestion, or surmise.

Does the printed text of Breasted's Records change itself continuously (in the same printing)? I certainly read not Putoker but Ptwr. Have we seen the same sentence? The name register can easily solve the question.

You have always taken too little food; now by exhausting yourself with the feverish tempo of your discoveries and library hunting for proofs, beside the two jobs that you have, no wonder that you have ahd a dizzy spell or something of the kind. I advise you to increase your food intake and your rest period in day time and at night. The old mummies will not run away.

You may answer me as much as you have ready on my questions, and go answering with new information when it is ready. If your reading brought you to any important substantiation of the 540 years difference for the period covered in the first volume of Ages, please let me know.

With kind regards from both of us,

Im. Velikovsky





October 29, 1958

Dear Dr. Federn:

I have received a series of your writings (because they are more than letters) and before I make me ready to answer one there comes the next. First I wish to explain that I have not had the idea that you have lately dedicated yourself to your research and neglected to help me. I only made the mistake to read too quickly one of your letters and concluded that the notes on the rand [i.e., margin] of the pages of my Oedipus-Akhnaton typescript is all what you have to remark. Soon I realized that more wil come and today I received ten handwritten pages with your remarks. When I hear (or read) that in the same time you have written several articles and almost a book (about Joseph), then I have a great admiration for the dedication, effort, and achievement, the more that I know that a frail body carries this unfatigable mind.

I have read the sheet in the little envelope, after Elisheva read it. I do not intend to follow your ideas, or schemes, either in Oedipus or in Ages. But any fact that can be used to support my theory or can be so interpreted by me, is of course desirable. Of all what I read until now in your letters, I am most interested by the fact that the Sphinx temples were oracle places; then that shortly before Akhnaton the cult of a Sphinx in Thebes was very pronounced; and when I think that human sacrifices were brought to Egyptian deities, I image, especially to Hathor, I find that my Oedipus book can be with great profit enlarged in this direction, and the drama of the identification enhanced.

Now I wonder why are you certain that Amenhotep III was the king who destroyed the cult of Sphinx in Thebes. Was it not exactly Akhnaton? The latter was an iconoclast, and not the former. If, generally, as you yourself write, the main reason for you to identify Oedipus in Amenhotep III because this king was great and famous, and Akhnaton was not, then I believe, the circumstantial evidenc eis not strong. Laios was a great king too; and Akhnaton was not a “nobody” whose memory died away in his own time. Akhnaton was the “criminal”, not Am. III; he had a child with his mother; he was away in his childhood and certainly in his youth; and many other elements, not the least, the teenaged brothers who followed one another on the throne, and Aye’s role that coincides completely with that of Creon, and the tombs of Tutenkhamon and Smenkhkare, and the war or contest between them, and exile or arrest o Akhnaton, and references that sounds like a statement of his having become blind, and his

swollen legs, etc... against all this you bring, as much as I know, mainly argument ex silentio, and the only arguments that sound like anything, are the statements that an oracle demanded of Thutmose IV to send away his child (where is this printed? or is this your surmise?), and that Amenhotep III grew at the Mitanni court. Again, is this your supposition, or a known fact? Which oracle required that a son of an Egyptian king should be sent away?

With a revision of "Ages" as much as I can glimpse from your letter, you baffle me. If you accept in the main my reconstruction as presented in "Ages", vol. I, then I do not understand how you make of Amenhotep II (who fought with the Judea king Asa) a pharaoh of Exodus, or Exodus number 2. I also do not think that you have any foundation in fact by assuming that this Pharaohs pursued the Osarsiph of Manetho. I understood long ago (and had also a section on this in the original version of Ages, vol. 2) that Osarsiph is the priest and pretender for the throne, Osarkon, in the closing years of the Libyan dynasty.

As to Ptwr I have found in my notes a quotation from the records (Middle Kingdom) of Breasted with this name; presently I again displaced it; but I shall find it when I go through the papares under my hand; but as I said, it is not the same quote that I had in my memory from an earlier reading of Breasted. For your book on Joseph, you may consider that Ginzberg refers to Hebrew sources that made Joseph to act in Egypt under two consecutive pharaohs. Ginzberg's index volume, under pharaohs, two, in Joseph days (this is the meaning of the index' entry).

I am interested to know (unless one of the articles or books to which you refer answers this already) whether the Sphinx of Thebes was placed on the cliff (that overhangs the Nile valley and constitutes the rampart of the Valley of the Kings); then it would be like in Oedipus story; whether human sacrifices were brought to it; whether it is definitely known who destroyed it, and whether it was destroyed by the Egyptians (not by the Assyrians, or by Cambyses).

Further I would like to know whether there is any reason to suspect that Amenhotep III was a homosexual, like Laios of the Greek legend, and further, whether there is anybody who could be regarded as his young and favorite captive.

Then, I wonder whether the philosopher Amenhotep of that period could be identified as the blind sage of the Greek legend. He seems to have been a statesman more than a poor seer.

I have received several letters from my readers that would interest you. You will judge the impression that "Ages" makes six years after its publication. I may send them to you for reading and returning.

With cordial good wishes from both of us,

Yours,

Im. Velikovsky





November 2, 1958
mailed Nov. 3

Dear Dr. Federn:

I have received the rest (pp. 11-20) of your notes to my Oedipus. Thanks! In the meantime I went over the first part, and there are a few things that I would like to remark.

In an article "Thebes" in Enc. Brit., 14th ed., by F. Ll. Griffith it is said: "Its Egyptian name was Wesi (or Wis?), later Ne: 'the city' (sometimes Ne-Amun, hence No-Amon in Nahum iii,8). Amon, Amen Ra, or Amerasonther ('Ammon-Ra king of the gods') was its deity, with his consort Mut and their child Khons. Mont also was a local deity and Hathor presided over the western cliffs of Thebes. In very ancient times the city lay on the east bank, the necropolis on the west. The chief nucleus of the ancient Wesi was a town about the temple of Karnak: it probably reaches back to the prehistoric period... The temple of Karnak is no doubt of immemorial antiquity."

Here you find reference to Thebes' antiquity (though somewhere else I read that Thebes was founded by the Hyksos); to Ammon being the same as Amen or Amon; and to Hathor presiding over the western (therefore not the valley of the kings) cliffs of Thebes. "Presiding" in such a case would in my understanding signify a figure of Hathor on a cliff. I believe also of having read that the great Sphinx at Giza represents Hathor who destroyed the human kind.

The article "Sphinx" in the same Encyclopaedia refers to a sphinx mentioned by Hesiod and to a rather often reference to it in Greek literature and often representation in art; yet it is admitted that the origin is Egyptian. In my own view, as you can easily guess, Sphinx represents some cosmic appearance, whether in the days of the Deluge (then it should have been connected with Osiris, who as I understand, was Saturn), or at some other ancient time. What is the name of Sphinx in Egyptian?

At the present time this is all.

Cordially yours,

Im. Velikovskiy





November 11 , 1958

Dear Dr. Federn:

I spoke to you on phone last Wednesday (Nov. 5th). At that time I had a letter from you on Nov. 2nd. You have mentioned that another letter was on the way, if I understand you right, but none arrived till today.

You apparently need additional time and contemplation to come to where I stand since years. The Exodus 480 years before Solomon does not bring you to Thutmose IV or Amenhotep II, but to the end of the Middle Kingdom.

I cannot find that you have written to me about Amenhotep the sage, and Teresias; but it is no wonder that you independently have come to this identification, because you look for the same personages of the Greek legend in approximately the same time of the Egyptian past as I do: the time you prefer differs but by a decade or two from the time that I have found as the protoscene of the Oedipus legend. Yet I am not satisfied with the fact that in later times Amenhotep son of Hapu was involved against blindness, as you indicate; this may refer to his having been a healer, not to his having been blind, like the Greek sage. Is not any indication that he was blind, or is not any other person among the personages of Amenhotep II or IV courts or surrounding that would fit into the role of a blind seer?

I have read in the book of Dessenne that you recommended me; I found that Tiy was actually the first to portrait herself as a female sphinx; and that in the days of Amenhotep III the image of the sphinx was a very favourite motive; once more the sphinx is ofund on the tunic of Tutenkhamen; but no sphinx in sculputre or design was discovered from the period under Akhnaton. This of course points that he was the "destroyer" of the Sphinx; and I wonder why he did not destroy the Sphinx of Gizeh. But if Hathor was figured as a sphinx which I assume (cf. also Dessenne, p. 135) (I believe that more direct statements I have read, and even if in later times the pharaohs were figured as Sphinx, this may refer to their role comparable to that of Hathor of vigor and cruelty), then probably Akhnaton destroyed the sphinx of Thebes; and here, following your idea, the oracle of this sphinx may have given an unfavorable prognostication of Akhnaton's role or fate. I came across a reference to an Egyptian tale about "Prince predestiné" and I have to look up in G. Lefebvre, Romans et Contes, to see whether there is

anything related to the subject under my pen.

When you wrote about the “secret of the Sphinx”, you did not intend to say that you have a different interpretation of the riddle of the Sphinx, the riddle about the two, three, and four legs?

Schaeffer suggested me to read the reports of the excavations of Ras-Shamra, by himself, Jericho, by Kenyon, Hazor, by Yadin, Tell Fara, by De Vaux, Tell Atehana (N. Syria) by Woolley, Enkomi-Alasia, by himself, Tarsus, by Goldman, Troy by Blegen, Kultepe by Osguç, Beys tan Tepe, by Lloyds. Should you look in some of them for references about difficulties in synchronism, I could go through some others, at least to start that way.

Since I let Ages 2 to be set, there appeared the third volume on Carchemish, and the third volume on Lachish, and a new volume on Ramses III (Medinet Habu), and new volumes on Boghazkoi, and the neo-Babylonian chronicles (British Museum, Wiseman), and much more, not of all of which I am presently aware.

In JEA, vol. 42 (Dec. 56), p. 97, there is reference to the temple of Hathor at Der-el-Medineh in Western Thebes, “Hathor-who-is-in-the-midest-of-Thebes, the Mistress of the West.” Could it have been the Sphinx of Thebes to which you have referred? Judging by Albright’s remarks concerning Frankfort, he must have become rather sceptical about the conventional chronology (Albright in the volume dedicated to H. Goldman); I think it would be good to go through everything Frankfort wrote in the last year of his life.

If from the article or the hair styles I shall be able to deduce that Amenhotep III was a homosexual, another important link with the Greek legend will be established. Was homosexuality known at the royal palace in earlier times in Egypt?

As you see my letter is a forth and back discussion of themes from both books, and it is not well construed` but this is the way people talk between themselves.

With warm regards from both of us,

Yours,

Im. Velikovsky

I am enclosing several letters from my readers.





November 16, 1958

Dear Dr. Federn:

It is good to know that there was no more serious illness than cold and that you are on your way to health again; would have I not called you by phone I would be by now very concerned, still not having had a letter from you since Nov. 2. In the meantime, I assume there is one in the mail with the letters that I have mailed you for reading.

There is a great discrepancy in the number of reigning years as accorded to Ramses II and Necho II. What are the historical inscriptions? What is the latest Ramses II's reigning year on a document like stela, and whether this is the only one such date or there are more like sixty-four, sixty-two, or sixty? And again, on the basis of what Necho is accorded a shorter reign? Greek sources, or also Egyptian sources?

Is there any hint that Ramses II sent an expedition around Africa, besides building the canal between the Mediterranean and the Red Seas?

What is the name under which Amasis II (who disposed [of] Apries) is known from Egyptian documents? How is it explained that from his reign, long and important, so little is left in inscriptions?

It appears (am I right?) that so-called Psammetich II left many inscriptions (on temples?); and since in my identification Apries is an alter ego of Merneptah, and he was followed on the throne by Amasis, such as a Psammetich II must be either a son-coregent of Merneptah, or his place is somewhere else, no after Apries. What would you suggest? Amasis has a son by this name, and he ruled only a few months before overthrown by Cambyses, but could build these temples when his father was still on the throne. How Psammetich II names himself, son of whom?

It would be very fortunate if I could find among the Libyan chieftains of the sixth century the names mentioned by Merneptah, and of fourth century—names mentioned by Ramses III.

By the way, Erman expresses himself about the buildings of the Ptolemaic age "and if we did not read the inscriptions, we could never guess that the temples of Esneh, of Edfu, of Denderah, and of Philae, belong to the times of the Lagides, the Caesars, and the Antonines."

Someday I shall show you my correspondence with Schaeffer; as much as we go together in the recognition of the great historical catastrophes in historical times, we do not see eye to eye the historical sequence. As in the case of Drioton, he took very seriously Ages I, and is thrown from his feet by Ages II. That Thutmose III or Solomon must

be moved by centuries, this is less disturbing than that Ramses II and Necho is the same and that consequently Hattusil and Nebuchadnezzar is the same, and the Hittite Empire was but the Chaldean kingdom. It is interesting that Gordon, like myself, in an article came to the conclusion that the Chaldeans lived mainly near the Black Sea, and he even transfers there Abraham's Ur.

Here I shall stop: I intend to write some fifteen letters, mostly procrastinated answers.

Enclosed is a check.

Regards from Elisheva. She received the first prize in sculpture in the current New Jersey State arts competition.

Cordially yours,

Im. Velikovsky

PS Presently the mail came and with it your letter. I am still baffled by your chronology. If Solomon was contemporary of Hatshepsut, as I put it, and if Hyksos ruled only a few decades, if at all, as you put it, then what do you do with the 480 years from the Exodus, after the 11th dynasty, as you choose it, till the time of Hatshepsut.

Im. V.





November 20, 1958

Dear Dr. Federn:

I have received your letter of yesterday. You should take care of yourself and not overwork and fall from feet. There are no scientific problems that require an immediate answer since no manuscript or proof is so far as to go to print; so if there are more questions than a time divided between work and rest can cope with, you can always postpone answering the questions for days or weeks. On the days when you feel tired, you should not work but rest completely.

Presently I have to find a solution for the difficulty that the long reign of Ramses II and the shorter reign of Necho II present to myself. Because of the perfect correspondence in the length of the war and all its stages that were carried by Ramses II in Palestine and in Syria up to the Euphrates and by Necho II in the same places and in the same sequence (see Ages 2), I cannot but regard them as one and the same person; also the identical roles of Psammetic and Seti the Great (with Assyrians against Hatti-Chaldeans; also Beth-Shan Scythopolis and the Seti there, and Tell Nebi-Mend - Riblah and its role at that time, etc., etc.; and the canal to the Red Sea built by Ramses II and ascribed to Necho. Thus I must find the meaning of the too long a reign ascribed to Ramses II. At the beginning of his campaign—it was his second year; from the length of years of the kings of Jerusalem, or from the year of his peace treaty, we must conclude that at 586 or 587 (the destruction of Jerusalem) he was a little over twenty years on the throne. He could not reign additional 45 years, because this would be in the middle of Amasis' reign; besides already the refugees in the days of Gedaliah came to Egypt of Merneptah (Hophra). I wonder whether there is also a stela of Ramses II that would refer to anytime between his 30th and his 67th year? Could it be that 67th year is a reference to the reigning years of the dynasty, from the time that Assurbanipal placed Necho I on the throne? Or could it be that Necho was a brother of Ramses II and it is his grave with the mummy that had a shorter leg on one side? Still this solution is not good, because, as I said, Merneptah must have been on the throne about 560 at the latest, if Amasis reigned for 25 years (did he?) and died in 525. How long did Merneptah reign?

The important problem for my Oedipus work is the name (royal) of Amenhotep III. Is Nebmare his name? You remember what I quoted at to the peculiarity of this his name on the lintel scene in Huya's tomb. In el-Amarna letters he is named Nimmuria. I have no scruples that the figure on the lintel is that of Akhnaton on both pictures, left and right.

Where can be read the sayings of Amenhotep the sage?

Do you know of any new articles about Sothis calculations that I need to mention in my Ages, vol. 2?

Yesterday I have received a postcard from Schaeffer: after digging in Cypus, he is not working at Ras Shamra, hopes to be in December back in Paris. he will write me at more detail in answer to my 20 pages letter of the first week of September when he is through with digging.

Let me know about your plans of coming. One train leaves New York at 11:15 and arrives at the Junction at 12:10.

In the meantime take care of yourself.

Cordially,

Im. Velikovsky

I come to think that 67th year of reign may mean 67th year of Ramses' life, if he, as it was not unusual in some other instances, counted his years of reign from his birth, being born in a divine conception. Ramses IV could wish himself the same long reign, because it was long even if it was 40 years; or Ramses IV, more than 200 years later, could be mistaken by assuming that 67 years referred to actual reign.

I.V.





November 24, 1958

Dear Dr. Federn:

It is Monday morning. It was good to talk to you by phone on Saturday. Take a better care of yourself and have regular rest periods.

I believe that my Oedipus story will soon have a series of additional chapters and the case will be well demonstrated. I have asked you in our conversation whether there can be construed a case for the suicide of Tiy (or the self-mutilation of Akhnaton, although more probably he became blind, not that he blinded himself). A question is also whether there is any relation between the names and their meanings of the Greek heroes and their correspondent personages of Akhnaton's court. What means Tiy and Jocaste, Epicaste? Ay and Creon (ruler)? Smenkhkare, Tutenkhamen, Beketaten and Polyneices, Eteocles, Antigone? Nefertete and Eurigeneia, Ismene and Meritate, or the third daughter of Akhnaton (wife of Tutenkhamen)? Is there any hint in the Greek names to the Egyptian originals?

If Eurigeneia was Nefertete in her Greek reincarnation, it would be interesting to know a little more about this Greek wife of Oedipus. No tragic circumstances, no protest on her part to his relation with Jocaste, at least when the secret came to be known?

Whether Amenhotep son of Hapu outlived Amenhotep III? He had no tomb prepared for him in El-Amarna. Was there not some seer that was blind?

The expression "beloved by Akhnaton" applied to himself by Smenkhkare reminds me the scene in Oedipus in Colonus where Polyneices begs of his father to take his side and make him his favorite, the past notwithstanding, in his war against his brother, a youth in his teens, acc. to Sophocles. The fact that both graves of these two princes. Sm. and Th-t-a., were closed by the same seal, and that many objects prepared for Sm. were found in the grave of his younger brother, also speak for the interpretation I gave the story.

For your visit on Saturday I suggest the train that leaves the Penns. Station at 11:15 a.m.; I would meet you at 12:10 at Princeton Junction; should there be a change on your part (rain?), you may call be by reversing the charge (Walnut 4.4275). You may take with you something to sleep in should you decide to remain the night here. Otherwise you will have a train from Princeton Junction at 5:47 (still to check), or 6:01 (slow), 7:26 and 9:22 (at Penn. ST. at 10:38). It is possible that I shall be in New York on Wednesday and I may try to find you on the phone.

PS. This is added Tuesday at noon. I have just received your postcard and be assured that your visit on Saturday is very welcome. If I do not hear from you (it is rather uncertain that I call you by phone on Wednesday), I shall expect you on Saturday at the Junction (for the train leaving NY at 11:15). Until then everything good to you.

Cordially,

Im. Velikovsky





December 3, 1958

Dear Dr. Federn:

Of Virchow I would be interested in his opposition to Pasteur, and some expressions of it in action or word.

Of the next moon shooting attempt I expect that if the rocket should go sufficiently high up it will be curved from the direct path, namely because it would be electrified by passing through the charged layer around the earth and then turned sideways in the magnetic fields of the earth and of the sun. I believe the next attempt will come tomorrow.

I do not add questions since you have quite a few on your list.

Enclosed the rest of your fare expanse that I had not with me at the station. Once a month, I hope, we could arrange your visits at Princeton. Any day of the week is equally good.

Cordially,

Im. Velikovsky



December 9, 1958

Dear Dr. Federn:

I have not heard from you since you have visited us, and I assume that you have been busy, not ill. I figure out that by now you must be through with the bibliographical work on Virchow, and after a little rest you will be able to take up historical work for yourself and for me. But first take a rest if you are exhausted. If you like to come here for resting (the house is now well heated) sleeping overnight, you are welcome.

In addition to problems that you got from me earlier, I believe it is necessary to compose a list of all important discoveries (like new texts) relating to the period I cover in Ages I and II; this would not include stratigraphical evidence, which I mentioned in connection with the reports of excavations suggested by Schaeffer (he wrote me a postcard that he will be back in Paris in December); neither it would include new interpretations of old findings. Since my work is built mainly on literary evidence of old texts, a new stela of Seti, or newly published Neo-Babylonian chronicles, and the like, are of prime importance.

In Pendlebury-volume II it is stated that latest objects from Egypt—in Crete were of the 18th Dynasty, and that before its end, Crete must have been destroyed (by invasion, or by catastrophe?); it follows that no objects of the 19th Dynasty were discovered there; but, from my point of view, I would suspect that objects of Egypt under the Libyans could have been still found there (in Crete); the catastrophe that put an end to the Cretan civilization must have taken place in the eighth century, or even as late as -687 (Hezekiah); in the later case, even objects of Egypt under the Ethiopians must have reached Crete. Now the simple thing is to look up in Sir Arthur Evans, whether objects of Libyan and Ethiopian Dynasties have been found in Crete.

Schaeffer's letters you will be able to read (and my answers to him) at your next visit in Princeton. My wife thinks that you should deny yourself of Quaker Oats, because once a quantity of it became spoiled by some "visitors" from Venus (their descendants). She greets you warmly.

Cordially,

Im. Velikovsky





December 16, 1958

Dear Dr. Federn:

I have received your letter and, as I expected, it contained very desirable item: the sentence from Woolley about Carchemish. I hope that in other excavation reports similar instances will show up, and then I will write to Schaeffer a little triumphantly.

You do not need to feel that I am impatient: little or much you can do for "the new chronology," I am in debt to you for the many bibliographical information and advices you have me magnanimously through the years. Please do not force yourself to go to the library in cold weather or when you feel tired; besides at home, too, you can much do for me by answering so much of the questions as you can with the material under hand. You did not need to rewrite a letter that you once started with your own version of the Theban drama.

I took out the book of E. Bethe, "Thebanische Heldenlieder," and will keep it for three or four weeks, so that you, should you wish, would be able to look into it. There is a version that besides Euryganeia, Oedipus took also a third wife, Astymedusa (should be here a hint to Akhnaton's marriage to his third daughter?)

I looked up Cambridge Volume I; the data there cause the author to put Hammurabi into the 22nd century; by now this king is brought down to the beginning of the seventeenth century, almost 5 hundred closer to our time.

At our next meeting I am prepared to discuss with you your version of reconstruction, with the hope of showing you where the difficulty is.

Returning to the paragraph before last, I admit and did so all the time, that I need an Assyriologist for rechecking my data. When I spoke once with Albright, he before anything else, said, you cannot be right: have you considered my article on the King lists? Now it appears that the king lists of Assyro-Babylonia are not unquestionable documents, nor their interpretation is unquestionable. There is an Assurballit among the El-Amarna correspondents; and there is an Assurballit in the king lists in about 14th century. But there were more kings by that name, and the very last, a son of Assurballit, in the seventh century had this name.

I copied from Erman about the darkness for the “Frevler” in the schoolboy’s ostracon; was this ostracon found in the grave of Thutenkhamon, or Aye? Why had I the feeling that this hymn was from the grave of one of them?

You have found the man who reduced the age of Ramses III from the 13th to the 12th century. But who placed him in the 13th century (or for that matter, Ramses II or Seti)? If the entire chronology goes back to the historiographs (often they were cometographs) of the seventeenth century, it is very desirable to establish this fact, and as my intention is, to put it at the opening of the second volume of Ages.

In the meantime I contemplate not only the ancient past but also the doings in the sky above. As I have written to you, the rocket to the moon would change its direction, so it did, at the last trial as at the first.

If you have not in your plans to spend a day or two with your relatives, between Christmas and the New Year, you may wish to be at our home. Choose you a date, not necessary on weekend. On Dec. 30 (Tuesday) we go to New York. Either we can bring you there, or pick you up; otherwise you can select any date you like. For instance Dec. 27 (Saturday), 28, 29. Let us know. I enclose a ticket for the railway (good any direction, any date).

Cordially yours,

Im. Velikovsky





December 18, 1958

Dear Dr. Federn:

Today's mail brought your letter, started in November and finished on December 14th. Believe me, I have and not seldom much greater procrastinations; and it is probably not by chance that you started your letter on Nov. 5th with a reference to Akhnaton's neurotic procrastination, though at that time your letter was not retarded at all.

As usual I have read your letter more than once and I found many interesting references in it; but I have also to make a series of randnotes [marginal notes] to it.

To p. 1. The idea of imprisonment of Amenhotep III (your idea) or expulsion (also yours) as that of coregency with Akhnaton (often proposed by several historians) cannot be true, and the letters received by Akhnaton upon his accession to the throne (el-Amarna collection) prove it without a shadow of a doubt. I stressed it, and Gardiner did the like in respect to coregency, also referring to the letters of Dushratta and others. The coregency idea was necessary to explain the provenience of Bekat-aten (Gardiner in JEA, 1957).

That the legend was brought to Greece via Anatolia, I would question; in the first place, there was a direct contact between Mycenae (of the ninth-eighth century [new chronology]) and Egypt; then, I imaged and hinted, even said in writing, that Nikmed (Nikdem) of Ras-Shamra-Ugarit, who was expelled together with the Ionians from the Phoenician shore, was Cadmus of the Greek tradition that arrived from the Phoenician shore; you will remember that according to Ages Vol. I, he was expelled in the days of Ahab and Akhnaton; the destruction of Ugarit is mentioned in a letter of Abimilki of Tyre, I trust my memory. Ugarit was in the domain of influence of Egypt of Amenhotep III and IV. It could have been that this man of letters who adapted the cuneiform to Hebrew, adapted Greek to Hebrew alphabet (Cadmus); he also could have brought the story of what happened in his days (when he was still in Phoenicia and what came to his knowledge after he left that place) at the court of Thebes and Akhet-Aten, to his new homeland; there he also founded the city to be an "Abglanz" of the Egyptian Thebes.

The Persian custom of incest with mother must have been unknown to Greeks centuries before Cyrus came closer to the Greek sphere; and

unknown, such incest must have horrified the Greek poets, when they heard of it, related to Greece, though having happened in Egypt.

I certainly intend to describe the luxury of the late 18th Dynasty; yet I have not yet read about the marble stalls for animals or palace bathing rooms (I have from library Pendlebury II and III, but did not come across these items).

Page 2. Megalomaniac, etc. as other features of Akhnaton, require a few pages of psychiatric treatment; I hope to do it.

“Whose body was found in Akhenaton’s tomb and coffin, nobody will ever be able to decide” etc. is wrong; it was not Akhnaton (even Gardiner in his confused theory claims that Akhnaton was only first put in that coffin (of his mother, not his), and that later Smenkhkare was put there, or somebody else; it is certainly impossible that Akhnaton has died at 23 or 24. The body is that of Smenkhkare.

“Figure of Alexander” in Luxor-Temple. Was there one?

Page 3. Ammon, or Amen was Zeus. Zeus was the supreme deity of all peoples of the world at a certain age (from Deluge, when Jupiter-Isis caused Saturn-Osiris to explode, as a nova, and cause the Deluge, or from the African Rift and Sodom catastrophe, when Jupiter delivered its thunderbolt to our planet). Marduk was Jupiter; Shiva was too, though this was left to me to establish; and interestingly the Oasis of Amon is called Oasis of Shiva in Greek sources. At a later date Venus took over the name of Isis; but also Horus, originally Jupiter, became Venus, sometimes the son of Isis. This carry-over is seen also in the Canaanite religion, where Baal consecutively represented Saturn, Jupiter, Venus, and even Mars, in the great Ages of their dominion. All this is the theme of additional volumes of Worlds, and partly of “Sinai and Olympus.”

Also p.3. That Thebes was founded by the Hyksos is not my invention to equal Apop with Agog who was said to have founded Thebes in Egypt. The same is said of the Hyksos; I should have given the source in a footnote to Worlds, middle of p. 151.

When I shall come again at the source in my notes, I will let you know.

“No doubt” indicating “doubt” is certainly true in many instances; one of them is Albright, who uses such expressions often, only to retract them later, writing once more “definitely established.”

P.4 I am of course very pleased that Sphinx and Hathor have something in common, if not identical they are; and even if only in Greek tradition (why should a Greek invent things about Egyptian gods?). Then possibly the statue of the Sphinx that was in Western Thebes, was the statue of Hathor, and there was the oracle or that figure and cult were thought to be responsible for the Oracle at Gizeh. However, it is probable also that there was connection between Ammon (Horus) of Thebes and the shrine of the Sphinx, if only because of the latter being under the protection of the priests of Ammon in Karnak; and the oracle was unfavorable to infant Akhnaton (why should he have spent his childhood and youth in Mesopotamia, Mitanni, or Syria-Palestine, if not for some “Bann”?)

The identity of Sechet, Tefnut, and Hathor, I found presented in Naville, *La Destruction des Hommes par les Dieux* (Tr. Soc. Bibl. Arch., vol. IV, 1876). Then if Hathor killed the human race in its majority, and if she presided over the cliffs of Thebes, and if she had the form of Sphinx, then we have the origin of the episode of Oedipus at the gates of Thebes, before the cruel maiden Sphinx. Psychologically of course the relation must be thought with Akhnaton’s father (Sphinx symbolizing the king or the royal power), whom he killed thus in body and/or in image; or it symbolizes the mother-queen, who committed suicide, like Jokaste by hanging, and as the maiden-monster, by throwing herself into a precipice. After this excursus, the question, which probably you have once already answered: Was there in Thebes a figure of a Sphinx, if not of a Hathor? And how was Hathor usually presented?

P.5 To the myth of Hathor Tefnut leaving Nubia, I would add the remark (scholium) of Pisander “dass die Sphinx [of Oedipus legend] aus Aithiopien gekommen sei” (E. Bethe, *Theb. Heldenlieder*, Footnote to p. 21). The legend as given by Junker I have not yet seen.

p.7 Everything referring to stratigraphical archaeology interests me vividly, especially in new diggings, or newly reported—when these reports have the expected by me difficulties.

The Troy of Priam (the sixth) was destroyed by earthquake or a series of earthquakes in the eighth century—the time of the tyrants and the epigoni—in Egypt the time of the Libyan conquest.

I am glad to have your reference to Blegen’s article and the difficulties he, too, sees in the existence of the Dark Ages. The eighth century and the beginning of the seventh were dark only because the natural phenomena caused such havoc.

p. 8 “Well established 14 years of the reign of Necho”. What is the source or foundation of that? Ramses II, he Necho, must have reigned about thirty years, in order to “accommodate” my reconstruction. If Ramses reigned 67 years alone, and he “began to count his regal years only after the death of Seti”, and “the long co-regency fell entirely into the reign of Seti”, then how old must have been Ramses II at his death; or how many years of co-regency are counted? Possibly Ramses II counted his years even after the first year of the dynasty, or more correctly he counted on two scales, on some documents by his own regnal years }like the campaigns of the years 2 and 5), and on others by some other calculation. There were calendar reforms in the seventh century all over the world. The era of Nabonassar started in -747; other reforms, in less developed—astronomically—countries, came later; and 687 was the year of another disturbance in the terrestrial rotation and revolution.

I am prepared to see how you solve the period between the end of the ninth century and the fourth.

Atlantis at Crete I would dismiss even without reading; yet the catastrophe was ubiquitous, and therefore so many authors upon finding some memory or relic of catastrophe, jump to the conclusion that Atlantis is found. Atlantis is under water; Crete is not; however, as I wrote in *Worlds*, the Carian marines and their literary relics are the most probable source to read about Atlantis, as soon as more texts in Linear A are found, and the texts read.

Your skepticism as to Hissarlik being the site of Troy, is new to me. I have recently read about somebody who thought that the Hittite conquest of Babylon (under Mursilis) is the source of the Trojan epic. ON how many feet such hypothesis stands? The Sphinx did not ask about who is it that stands on one foot. But even one foot is here one too many. By the way Schliemann was not the first to identify Hissarlik as the site of Priam’s city. Actually the echo must be looked for in Egypt under the Libyans, in Assyria in the days not too far from the time Samaria was captured by Sargon II, probably a little earlier. If Akhnaton was contemporary of Ahab, the Eighteenth Dynasty must have expired about the year 800. This must have been the time of the Seven against Thebes; then followed the Epigoni, only a few years before the Trojan War, according to the tradition. For Homer the Theban story was a legend of bygone years; but the memory was still vivid in the days of the migrations after the Trojan War (Odysseus). It is a pity that the Libyan pharos were not internationally minded; but the chance is still there that somewhere in Sudan some mention of the Trojan conflict will be found some day.

Schaeffer places the Peoples of the Sea in the 12th c. and as an aftereffect of the Trojan War, and of natural disaster, their migrations. Here is a confusion. Therefore any additional point from excavations, to prove the revised chronology, is very desirable.

I will not be surprised if Ramses II or III were placed in the thirteenth century, before the beginning of the era of archaeology. A few days ago, just before closing of the Princeton University Library, at midnight, I had a book of Lepsius on Chronology, and an earlier of Leemans, but had no time to go carefully through them.

Two days ago I have written you and extended our invitation to come. We could acquire and present you with sleeping shirt or pajamas (what do you prefer), so that you could sleep here occasionally overnight without carrying the things forth and back.

Cordially,

Im. Velikovsky





December 29, 1958

Dear Dr. Federn:

We have enjoyed your visit with us. The day thereafter I started in earnest to work on my Oedipus-Akhnaton story.

In Danelius' paper I read: "Ben Anath was the name of a Syrian sea-captain signally rewarded by Ramses II }J. Garstan, Joshua, Judges, 1931, p. 63)." I wonder whether here would not be the rewarding of the "Phoenician" captain who made the circum-African travel as told by Herodotus (for Pharaoh-Necos). What can you tell me about this sea-captain and Ramses?

I wonder what is the text of the formulae of protection and accompanying curses on the shrine 'catafalque' or coffin of Tutenkhamen? When I discuss the ancient curses of the house of Oedipus, I would like to expand and tell something of curses in the Bible (time of Izebel) and the modern belief in them. Here the case of Lord Carnarvon and his wife, both of whom died of insect bites, and the belief that some curse protected the tomb, could serve as an illustration of our generation's belief in curses. Do you know when and how succumbed Lady Carnarvon?

Every case of the chasm after 1100 in the histories or stratigraphic chronology interests me. Please let me have any case that you will come across.

Besides the list of excavated places mentioned by Schaeffer there were several more excavations published. Anything you can put your hand upon may be of interest; on my part, I shall try to go back through as many volumes as I can; thus there will be a double check.

Presently I have to leave for a trip to New York, so I make this letter short.

Cordially,

Im. Velikovsky





January 7, 59

Dear Dr. Federn:

I have received yesterday your letter of January 1-3. I wonder how easily you became doubtful of your apostasy. I have not yet seen the article of Parker on Sothis; but whatever he writes there, anyone who read carefully my article (chapter) on Sothis, need not give a hoot, as the Americans say, to a Sothic basis of chronology. Actually, Dr. Eva Danelius urges me to to print that chapter in a periodical, and I considered to offer it to JEA, after excluding from it any reference to my dating of the Ramseses, and including later literature, like this article of Parker (1952). Look please though this chapter (Astronomy and Archaeology), and give me any suggestion you think right, before I offer it to JEA.

Then what with the innumerable proofs that you wrote me to have found? Do you despair so easily? Your sudden conversion, and then unwarranted scruple, may have psychoanalytic reasons, besides "scientific conscience."

Where was located the Sphinx of Thebes? Is anything left of it? How is it known that there was one? Were human sacrifices (Amenhotep II, Thutmose IV, Amenhotep III sacrificing prisoners) brought to it? Or was it only to Amon?

Please do not spend efforts on finding when Lady Carnarvon died. I believe that she like her husband died of an insect bite, and this makes the story a little eery.

Is it correct that a new basrelief with Haremhab being appointed to be a (vice) king was discovered or described? In such a case whether there is a name of the king who appoints Haremhab? (By the way, Haremhab, being Harmais who fled to the Greek mainland or archipelago, could also be a carrier of the Akhnaton and Tutenkhamen stories there).

I expect to hear more from you about the origin of Egyptian chronological scheme with Ramses II in the 13th and Ramses III in the 13th or 12th c.

Since according to Doerpfeld, and in harmony with my reconstruction, the Geometric ware was contemporary with Mycenaean

ware, the question is: Whether geometric ware was found in el-Amarna or in Thebes, even if it was ascribed to a later dynasty?

Whether by any chance later discovery revealed the name of Thutmose III's queen, and whether her name was Telkemina, or Tekemina?

If occasionally you come across a reference to "Illuminations of Bel" (70 tablets), I would like to know where they were published and translated?

Whether in any inscription of Esarhaddon (or Sennaherib) there is a reference to Seti or to Haremhab?

I know that several objects made for Smenkhkare were found in Tutankhamen's grave. But from one of your letters I could think that a large part, or even majority, of objects found in Tutankhamen's grave were made originally for Smenkhkare. Is it so?

This is all of the present, and it is plenty.

With kind regards, yours,

Im. Velikovsky

Regards from Elisheva





January 20, 59

Dear Dr. Federn:

I believe to have an additional argument for the identity of Tiresias: You have written me that the young Amenhotep son of Hapu left a portrait on which he looks like a young woman. The Greek legend has Tiresias as transformed to a woman for having killed a female snake, and then blinded when he gave an answer unpleasant to Hera.

During the last three weeks several questions came to my mind, and here are some of them, which I remember:

1. Nuzu was contemporaneous with el-Amarna period in Egypt. According to my reconstruction I would expect that some relics referring to Shalmanassar III would be found there (in Nuzu). If found, they must have been related by archaeologists to a later time. But were such relics found?

2. The raids of Assurbanipal in Egypt must have taken place in the beginning of the 19th Dynasty (and at the end of the Ethiopian regime there). The question: Whether there is any association in the days of Seti and before, to Nineve, Assyria, Shalmanassar, or something of the kind?

3. I still do not know what does it mean: "Cippi of Horus"? And where anything about this can be read?

4. "Agamemnon's grave" was denied to have been the grave of that king because it was ascribed to an earlier age, I believe the fourteenth century. This probably because of some relation with the Amarna or Thebes o Amenhotep III and Akhnaton. The Trojan War having taken place in the early days of the Libyan Dynasty (the Epigoni) the tomb at Mycenae still could be that of Agamemnon. However, I have not yet read the account of that digging.

I do not add questions because there are many from before. I have not written to you thinking that I would be able to refer to your letter, but it will be probably today or tomorrow that it will arrive. So I do not postpone anymore.

You should not feel depressed. It seems that a very interesting time

is nearby. I progress with Oedipus book. As soon as I have rewritten the opening chapter of Ages II (Ramses III), I have the feeling that you will subscribe also to this part of my reconstruction. It is also a pleasure to go hunting through the reports of various excavations and to find their difficulties, always a boon for the new chronology.

I think that the monotonous nourishment that you subject yourself to, may enfeeble your nervous system: it may mean the omission of important vitamins or other substances in your daily diet. Do you know what a blender is?

Warm regards from Elisheva. Next time she will show you how to prepare some nourishing foods or drinks.

Cordially yours,

Im. Velikovsky





January 19, 64

Dear Dr. Federn:

I believe that an examination of the Stele of the Banished (I have seen only a copy in H. Brugsch, *Reise nach dem Grössen Oase*) may result in some interesting discoveries, "As for any person they shall report before thee saying, 'A slayer of living people,'" a very awkward expression which most certainly means: "If you are told that anybody of the assassins is among the living .." and the sequel "Thou shall destroy him, thou shall slay him" should be properly translated as something like "You have certainly destroyed everyone of the assassins."

Also the sentence (Brugsch, p. 87) "Schenke mir eine schöne Lebensdauer...werde mir aller Lohn zu Teil" most probably is on the subject mentioned by Q. Curtius: "That he should continue invincible till he joined the assembly of gods," or Diodorus, "If you will make me lord of the whole world... that the Lord would certainly bestow upon him what he had desired" and "that his wonderful successes and prosperous achievements were evidences of his divine birth" and similarly in Plutarch (whether it was given to him to become lord and master of all mankind"). In Breasted "Grant that I may spend a happy life as a follower of thy ka. There is purity and health wherever thou tarriest." Breasted differs from Brugsch, though it seems he used the latter's transcript of the stele. Is the stele now in Paris? Could I arrange that a photo or another reproduction should be prepared for your and Wilson's reading?

You will remember that years ago we discussed the time of the year mentioned in the text of the stele and in authors describing Alexander's visit to the oasis. I read somewhere that Alexander came to Egypt in November (new CAH? or somewhere else). The thing we have not observed is that the stele speaks of three or four events and gives three dates. The first date refers either to Alexander's arrival in Egypt or to the date of the erection of the stele (im Jahre 23, im Monat Epiphi, am 29 Tage." The second date refers to his visit in Thebes...

[the rest of the letter is unavailable at this time—the Editors]



22. Juin 1964

Lieber Dr. Velikovsky,

Der Begleitbrief zu der "Liste von Berührungspunkten" fällt mir so schwer (denn ich bin bezüglich "Ages in Chaos" entsetzlich pessimistisch geworden, und will Sie doch nicht Kränken oder gar beleidigen.) dass ich damit noch immer nicht fertig bin, und so muss ich sie Ihnen ohne einen solchen schicken.

Über die angeblichen Keilschriftfunde im Theben wende ich mich Bemühen, Näheres herauszufinden.

"W. im C." , p. 88, l. 3-6, lässt sich nicht verteidigen und war eine bedauerliche Entgleisung. Der Kontest (den ich Ihnen abschreiben werde) beweist, dass nur der Urgott, Welt-Schöpfer und erste König, Atum (Tum) gemeint sein kann.

Mit herzlichen Grüßen an Sie beide,

Walter Federn



Friday, June 26, 64

Dear Dr. Federn:

Finally I have received the detailed list of arguments for placing the 22nd Dynasty to immediately after the 18th. I will use it for my work—the arguments that I put together and you detailed and the arguments that you have added but before this I will offer this evidence to Albright, Wilson and Säve-Söderberg. The latter wrote a letter to a correspondent of mine, on June 2, who mailed him xerox copies of E. Ralph (C14). All of them have the same counterargument—the cultural development—and here, I think, I stand on a firm ground. To Wilson I wrote on June 10, full four or five months late, and have not heard yet anything in reply. Possibly he is away, more probably he was offended by my slow reaction, and possibly he is involved by Bull. Atom. Sc. in that affair, since the Bull. is printed in Chicago on the campus of the University.

I visited Albright last Sunday at his home in Baltimore. We spent together 3½ hours, first hour on RaC and he was amazed at the fact that the trees show the average age of the rings; second hour together with his wife—in reminiscences (they lived in Palestine) and they wished to know about me personal details; the last 1½ hours on the ‘ethical problem’—whether it is ethical for orientalists (who may disagree with me in general) to let the physicists to use false arguments from the domain of oriental studies—and not protest.

Albright found that in W. in C. there was no reason to give the king Toum the name Taoui, and that there was no reason to refer to fleeing slaves. The latter is in some way an eclecticism from Ipuwer, Exodus, etc. Taoui is the name of the residence mentioned in the text. As to *Ages in Chaos*, more detailed dealing with the naos of Ismailia, Albright finds that I wrote Hy-Taoui where it should have been Ity-Taoui. Yet the calligraphic transcript in Goyon, especially in the text (less clear in the footnote), p. lets hardly any doubt that the calligrapher was uncertain (fn.) and in error (text), if Albright is right and it should have been Ity, what does it mean Ity-Taoui?

As to the names of the gods (“battles of king Toum in this locality”), I believe as before that the kings, blood and flesh, used the divine names, is not this usage still in evidence in names, theophoric, of later dynasties (like Sethi)? Could you supply me with evidence or argument for my understanding of the king-gods of the Naos? Are all the names in cartouches, or only the name of king Toum, and not Geb or Shu?

We agreed that I will write to Albright which I intend to do today (I can and will

write again later), and he will answer me on the issue of Pi-ha-khiroth, and generally on the 'ethical' question. Should the answer be satisfactory, I shall be able to use it (in the meantime, I have a statement of M. Hadas on the issue in answer to a vice-president of Sloan foundation, who sent to Hadas a Bull. Atom. Sc.)

It will surprise and please you to know that Albright and I wound up as good and warm friends; he also repeatedly referred to my "brilliant mind" and once used the word "genius"—all of which coming from a man known as a "deprecator." Also his wife enjoyed our meeting greatly.

Am. Beh. Sc. is going to reprint the article of Bul At. Sc. with parallel notes which I have composed at the request of Dr. DeGrazia. I may send a set to you for perusal.

As to the general pessimistic view that you took as to Ages II, let us first realize that vol. 2 (The Dark Ages), and vol. 4 (The Peoples of the Sea) are strong chapters, and I do not yet know of any difficulty confronting me (as to "to Sais, the king of Egypt") would be in Hebrew "L'so, l'melech mitzraim," even if So could stand for Sais. As the sentence is, it is a violation to translate as Albright did, since in Hebrew there is no second Lamed and Sais cannot be a king.

Albright did not know yet of Platon's discovery. He told me that he would read my Peoples of the Sea (about 20-21 Dyn.) and wished I leave it already, but I chose to postpone, though I had a copy with me.

Now we have to do much progress before your work for the M.D.'s translations will make you busy. Anything that would increase my list of 600 year discrepancy, or 'Dark Ages' is welcome. The literature of the last two years may contain a number of such statements.

[5 lines of financial matters omitted — partly illegible]

Who knows, possibly the cylindrical seals from the palace of Cadmos in Thebes will offer some revelation from the true construction of history.

Cordially,

Im. Velikovsky

This moment I have a call from Dr. E. Ralph of C14 Lab in Phila. I asked her to write to Dr. Iskander and to obtain more samples from the tomb of TTA.

P.S. When I received finally some time ago a report of sales from Europa Verlag, the sales of "Ages" were very disappointing (in Switzerland something, in Jerusalem hardly one thousand copies) and the advance not yet covered by sales. Despite this, with my agreement, Doubleday gave them the rights for Oedipus.





September 15, 64

Dear Dr. Federn:

Occasionally I shell write you a list of questions and also remind you of some of the inquiries that were left unfinished. Today I thought that you may like to read the enclosed (return occasionally). I wish I know more about the Oedipus legend engraved or inscribed on the wall of some tomb in el-Amarna or near-by.

Cordially,

Immanuel Velikovsky



October 11, 64

Dear Dr. Federn:

I enclose a section dealing with the supporting evidence for Vol. I of Ages in Chaos. Would you kindly read it, correct where necessary, and return to me.

My first lecture at the New School was a good start; tghere were circa 200 registered students, another hundred of (one evening) ticket holders - and more, probably faculty, altogether ca. 400 persons. I was inspired that evening, the lecture is on tape, and Doubleday intends to print the entire course; only I have to succeed five more times.

I have questions to you in matters of Egyptology, but postpone to do it till the next time.

Cordially yours,

Im. Velikovsky



December 11, 64

Dear Dr. Federn:

Yesterday I have mailed to my editor at Doubleday 132 pages of Peoples of the Sea (the narrative part). In the remaining part I intend to include: a. Chronology and Astronomy (Sothic Calendar); b. Chronology and Seismology (Schaeffer, Jericho); and c. Chronology and Radiocarbon Dating. Possibly I shall also include a chapter on Scarabs. The chapter on confirmations that you have commented upon, may also find its place, either in the front material or as a supplement. Actually it belongs into vol. I, second edition. I have spoken with my editor about printing the first three books (WiC, AiC, EiU) in second editions, however with no changes in the texts, only additions in the form of new prefaces, supplements, or an index where it is lacking (EiU) - and he is for the idea. This will result also in new sales promotion and advertizing.

Sometime ago I have mentioned on the telephone the idea of a listener at my course who suggested that children of Seth in the Balaam chapter signifies follower of the god Seth. It is written Shin and Tav. Does it correspond to the Egyptian writing of the god Seth?

I became panicky at the sign of the many books started and approaching change of decade in June. I will fight as a Roland to get the things out of drafts into manuscripts and then into books. I have left too much for the finale of my mile run.

Cordially yours,

Immanuel Velikovsky



(5 Dez. 65)

Dear Dr. Velikovsky,

In response to what you told me yesterday on the telephone, I am preparing a statement in support of you about the two passages in "Oedipus and Akhnaton" that have come under attack: In my opinion the one on p. 178 is perfectly correct, while the one on p. 17 is indeed misleading, but can be construed as a matter of unidiomatic English, with regard to the words "accepted" and "repeatedly" rather than a misrepresentation of facts.

But it will take me about a week to write it.

With best regards to your wife,

Always yours,

Walter Federn



THE VELIKOVSKY LECTURES

A - C

| | |
|---|--|
| Alabama, University of | January 30, 1974 |
| Amateur Astronomers Association of Princeton | October 15, 1964 |
| Amateur Astronomers Association of Princeton | April 22, 1974 |
| Amateur Astronomers, Inc., at Union Junior College | October 15, 1965 |
| <u>AAAS - "Velikovsky's Challenge to Science"</u> | <u>February 25, 1974</u> |
| AIAA - American Institute of Aeronautics and Astronautics | May 26, 1965 |
| AIAA - Princeton section | September 28, 1966 |
| AIAA - Connecticut section, Hartford, (jointly with ASME) | October 12, 1970 |
| American University | May 10, 1965 |
| Auburn College, NY | April 27, 1964 |
| Auburn University, Alabama | April 28-29, 1975 |
| Bell Laboratories | May 17, 1971 |
| B'nai Brith Hiller Foundation | November 18, 1966 |
| Brandeis University | November 19, 1966 |
| British Columbia, University of | March 12, 1970 |

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|--|-------------------------------------|
| Brown University | March 15, 1965 |
| Buffalo State College | March 20, 1972 |
| Carnegie Institute of Technol. & University of Pittsburgh colloquium | March 4, 1965 |
| Century 21 | October 10-15, 1973 |
| Chicago, University of | May 16, 1967 |
| <u>Columbia University, "On Repressed Racial Memories"</u> | <u>May 19, 1965</u> |
| Converse College | February 7, 1968 |
| Cuyahoga Community College, Cleveland | April 1, 2, 1968 |





THE VELIKOVSKY LECTURES

1950

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THE VELIKOVSKY LECTURES

D - K

| | |
|---|-----------------------------------|
| Dartmouth University | February 19, 1967 |
| Drew University | May 1, 1966 |
| Drexel University | 1971 |
| Duke University, Department of Physics | May 6, 1965 |
| Duke University, Political science graduate seminar | May 7, 1965 |
| Duquesne University, History Forum | Oct. 27-Nov. 2, 1974 |
| Earlham College | May 12, 1964 |
| Eastern Baptist College "From Book to Book and Land to Land"  | May 5, 1966 |
| Furman University | December 7, 1973 |
| Georgia, University of | 1970 |
| Glassboro St. College | May 17, 1965 |
| Guilford College, N.C. | 1968 |
| Habonim | February 12, 1954 |
| Harvard University, Society of Harvard Engineers and Scientists | February 17, 1972 |
| The Haverford School | December 1963 |

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|--|-------------------------------------|
| The Hill School | 1967 |
| IBM San José Research Center, Expanding Awareness Program | October 15-17, 1973 |
| Iowa State University | 1973 |
| <u>ISA - The Instrument Society of America, Philadelphia</u> | <u>January 1971</u> |
| The Jewish Center of Princeton | February 19, 1969 |
| The Jewish Club, Inc., New York | November 3, 1951 |
| The Jewish Cultural Society, Philadelphia | November 12, 1960 |
| Johns Hopkins University, Seminar | 1969 |
| Kansas State University | May 18, 1967 |
| Kent State University February 16, 1965 | February 16, 1965 |
| Keuka College | April 16, 1964 |





THE VELIKOVSKY LECTURES

L - O

| | |
|---|--------------------------------|
| Lethbridge University | May 9-10, 1974 |
| Lewis & Clark College | August 16-18, 1972 |
| Lockheed | March 4, 1974 |
| Massachusetts, University of | May 6, 1975 |
| Massada Award, Israel Bonds | November 12, 1974 |
| McMaster University | March 22, 1972 |
| McMaster University | June 17-18, 1974 |
| Moravian College | 1971 |
| Nassau Community College | September 26, 1973 |
| Nassau Inn | November 4, 197 |
| Nassau Inn | December 5, 1975 |
| NASA - Ames Research Center | August 14, 1972 |
| NASA - Langley Research Center | December 10, 1973 |
| New Jersey State Planetarium, Trenton | January 1975 |
| The New School for Social Research, lecture series | September-December, 1964 |
| New World, University of, Valais, Switzerland | Summer, 1971 |

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|----------------------------------|----------------------|
| New York Institute of Technology | 1965 |
| New York University | March 1, 1968 |
| North Texas State University | October 23, 1968 |
| North Carolina, University of | December 1, 1973 |
| Notre Dame University | November 1-3, 1974 |
| Oakland University | 1969 |
| Oberlin College | February 17-18, 1965 |
| Ocean County College | September 10, 1969 |





THE VELIKOVSKY LECTURES

P - R

| | |
|---|-------------------|
| Parsons School of Design | April 22, 1970 |
| Pennsylvania, University of | January 28, 1968 |
| Philadelphia, Community College of | January 29, 1970 |
| Princeton Theological Seminary | November 23, 1965 |
| Princeton University, Graduate College Forum | October 14, 1953 |
| Princeton University, Psychology Class | February 10, 1955 |
| Princeton University, Geology Dept. | February 19, 1960 |
| Princeton University, Graduate College Forum | April 12, 1961 |
| Princeton Univ., Graduate College Forum and Geology Dept. | 1962 |
| Princeton University, Graduate College Forum | February 13, 1964 |
| Princeton University, Woodrow Wilson Society Lecture | March 16, 1964 |
| Princeton University, Cosmos & Chronos, with Harry Hess | January 18, 1965 |
| Princeton University, Cosmos & Chronos, with Lloyd Motz | March 2, 1965 |
| Princeton University, with Walter Kaufmann | November 9, 1965 |
| Princeton University, Graduate College Forum | October 27, 1965 |
| Princeton University, Connor's class, | 1966 |

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|---|----------------------------------|
| Princeton University, Graduate Student Organization | December 4, 1967 |
| Princeton University, Graduate College Forum | December 6, 1967 |
| Princeton University | March 11, 1969 |
| Princeton University, Geology Dept., C. & Ch. | October 21, 1969 |
| Princeton University, Graduate College Forum, | November 18, 1970 |
| Princeton University, Anthropology class | December 6, 1971 |
| Princeton University, Graduate College Forum | October 10, 1972 |
| Princeton University | April 1979 |
| Psychologists' Group | April 12, 1978 |
| Queen's College | May 3-4, 1965 |
| Rice University, Seminar | October 27-29, 1968 |
| Rider College | May 3, 1968 |
| Rider College | 1974 |
| RCA, Radio Corporation of America, Colloquium | November 15, 1966 |
| Rittenhouse Astronomical Society | April 7, 1967 |
| Riverside Synagogue | December 7, 1951 |
| Congregation Rodef Shalom | 1972 |
| Royal Astronomical Society, Edmonton | 1973 |
| Rutgers University | 1973 |





THE VELIKOVSKY LECTURES

S - Z

| | |
|---|---------------------|
| Selkirk College | 1974 |
| St. Olaf College | May 4, 1967 |
| St. Vincent College | May 13-14, 1964 |
| Swarthmore College | April, 1966 |
| Temple Israel | November 30, 1965 |
| Temple University, Philadelphia | November 30, 1965 |
| Toronto, University of | October 18-20, 1971 |
| Trent University | October 1971 |
| Union Carbide | May 1964 |
| Union Junior College | November 14, 1963 |
| Unitarian Church of Southern New Jersey | October 1, 1964 |
| Utica College | April 6, 1971 |
| Veterans Administration Hospital, Brockton, Mass. | 1966 |
| Virginia Intermont College | January 31, 1968 |
| University of Victoria | March 6-8, 1970 |
| University of Washington, Seattle | 1969 |


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|----------------------------------|----------------|
| University of Wisconsin | May 9, 1967 |
| Washington University, St. Louis | June 2-3, 1967 |
| Westinghouse | September 1966 |
| William Penn Charter School | April 8, 1968 |
| Yale University | April 27, 1968 |
| Young Israel Institute | May 27, 1951 |
| Youngstown University | April 1973 |





THE VELIKOVSKY LECTURES

1966

| Date | Description |
|------------------------------------|--|
| April, 1966 | Swarthmore College |
| May 1, 1966 | Drew University |
| <u>May 5, 1966</u> | <u>Eastern Baptist College</u>  |
| September 1966 | Westinghouse |
| September 28, 1966 | AIAA - Princeton section |
| November 15, 1966 | RCA, Radio Corporation of America, Colloquium |
| November 18, 1966 | B'nai Brith Hiller Foundation |
| November 19, 1966 | Brandeis University |
| 1966 | Princeton University, Connor's class, |
| 1966 | Veterans Administration Hospital, Brockton, Mass. |



“Velikovsky’s Challenge to Science”
*A Symposium held by
the American Association for the Advancement of Science
on February 25, 1974 in San Francisco*

[Transcripts of the Morning and Evening Sessions](#), transcribed and edited by Lynn E. Rose.

“[My Challenge to Conventional Views in Science](#),” Velikovsky’s keynote address.

“[Afterword](#),” a concise reply by Velikovsky to his critics, originally intended for the planned symposium publication.



My Challenge to Conventional Views in Science

“Books written about the solar system before the advent of the space age could as well have been written in Latin or Greek, so dated do they appear to a contemporary reader.”

Zdenek Kopal - *The Solar System* (Oxford University Press, 1973)

In my published books, notwithstanding often repeated allegations, no physical law is ever abrogated or “temporarily suspended”; what I offered in them is primarily a reconstruction of events from the historical past. Thus I did not set out to confront the existing views with a theory or hypothesis and to develop it into a competing system. My work is first a reconstruction, not a theory; it is built upon studying the human testimony as preserved in the heritage of all ancient civilizations—all of them in texts bequeathed beginning with the time man learned to write, tell in various forms the very same narrative that the trained eye of a psychoanalyst could not but recognize as so many variants of the same theme. In hymns, in prayers, in historical texts, in philosophical discourses, in records of astronomical observations, but also in legend and religious myth, the ancients desperately tried to convey to their descendants, ourselves included, the record of events that took place in circumstances that left a strong imprint on the witnesses. There were physical upheavals on a global scale in historical times; the grandiosity of the events inspired awe. From the Far East to the Far West—the Japanese, Chinese and Hindu civilizations; the Iranian, Sumerian, Assyrian, Babylonian, Hittite-Chaldean, Israelite and Egyptian records; the Etruscan, Attic and Roman theogonies and philosophies; Scandinavian and Icelandic epics; Mayan, Toltec and Olmec art and legends—all, with no exception, were dominated by the knowledge of events and circumstances that only the most brazen attitude of science could so completely disregard.

The scientific community starts its annals with Newton, paying some homage to Copernicus, Kepler and Galileo, unaware that the great ones of the sixteenth and seventeenth centuries searched through classical authors of antiquity for their great discoveries. Did not Copernicus strike out the name of Aristarchus of Samos from the introduction to *De Revolutionibus* before he signed imprimatur on his work? Did not Tycho Brahe find the compromising theory of the Sun revolving around the Earth—but Mercury and Venus circling around the Sun—in Heracleides of Pontus, yet announce it as his own? Did not Galileo read of the equal velocity of heavy and light falling bodies in Lucretius; ¹ did not Newton read in Plutarch of the Moon

removed from the Earth by fifty-six terrestrial radii and impelled by gravitation to circle around the Earth,² the basic postulate of Newton's *Principia*, and did not Halley read in Pliny about comets returning on their orbits?³ Then why does modern science disregard the persistent reports of events witnessed and recorded in many languages in the writings of the ancients and also transmitted from generation to generation by communities unable to write, by American Indians, by the people of Lapland, the Voguls of Siberia, the aborigines of tropical Africa, the Tahitians in the South Pacific?

Why is theomachy the central theme of all cosmogonical myths? Should not a thinking man pause and wonder why the ancients in both hemispheres worshipped planetary gods; why temples were erected to them, and some are still standing; why sacrifices, even human sacrifices, were brought to them? Why was Saturn or Cronos or Brahma the supreme deity to be replaced by Jupiter of the Romans, Zeus of the Greeks, Ormuzd of the Iranians, Marduk of the Babylonians, Shiva of the Hindus, Ammon of the Egyptians? Why did the planet Venus—Ishtar, Athene, Kukulcan of the Mayas or Quetzalcohuatl of the Toltecs—become the feared deity, as I saw it omnipresent in Yucatan, where I savored a few days this February, writing this paper? Why is this Morning Star shown in sculpture as a feathered serpent on the grandiose monuments of Uxmal and Chichen Itza, where temples were built, one upon the other, if not to commemorate the ages, the last of which was dominated by Huitzilopochtli, Ares of the Greeks, who protected the people of Troy, while Athene clashed with him protecting the Achaean host?

Why was Mars of the Romans chosen as the protector of Rome, the greatest empire after the Empire of Heaven (Livy), while Athene gave her name to the capital of Attica, as Tanis to Tunisia? Why were human sacrifices brought in this country by the Pawnee Indians only a few scores of years ago, every fifty-two years connected with the Venus calendar? Why did the Ancient Assyrians mark on tens of thousands of clay tablets, free from any mythological theme, astronomical observations, but all data from before -687 are in contradiction to known values such as the duration of the daily rotation of the Earth, the time of the vernal equinox—that by the way was repeatedly transferred, as was also the beginning of the year—the ratio of the longest and shortest days of the year, the length of the month and of the year and the motion of the planets? The legends and myths clearly point to an astral origin of all ancient religions.

The problem that occupied the minds of the Classicists, Meso-american scholars, Orientalists, and students of social anthropology and mythology, was not solved in any one of these disciplines separately. Like the early memory of a single man, so the early memory of the human race belongs into the domain of the student of psychology. Only a philosophically and historically, but also analytically trained mind can see in the mythological subjects their true content—a mind that learned in long years of exercise to understand the dreams and phantasies of his fellow man.

Thus I entered a field that should be at the basis of the natural sciences, not only of the human soul and of racial memories, and soon I observed that the divisions in science are but artificial. I had to cross barriers. How could I do otherwise? Upon the realization that we are unaware of the most fateful events in human history, I had before me the task of explaining this well-known phenomenon of repression, the realization of which could also become crucial to the survival of the victim of amnesia playing with thermonuclear weapons. But before that I had the task of confronting the humanistic heritage with the message of stones and bones—do geology and paleontology carry the same testimony? I went again from shelf to shelf, once more around the Earth, and the record from the bottom of the sea and from the top of the mountains, from the deserts, jungles, tundras, lakes, rivers and waterfalls, told the same story—documented in every latitude and in every longitude. This evidence is presented in *Earth in Upheaval*, which I kept free from any bit of testimony that can be classified as human heritage. The scenes of devastation, mass extinction of many species in circumstances that are by far in excess of what can be considered as local catastrophe, the simultaneous change of climate all over the globe thirty-four and twenty-seven centuries ago, the drop of the level of the ocean and many other phenomena observed, could not be accounted for but by paroxysms in which the entire Earth was involved.

A psychological situation provoked the change in the attitude of the scholarly world with the beginning of the Victorian age. The founders of the sciences of geology—Buckland, Sedgwick, and Murchinson (who gave the classification of formations used today); of vertebrate paleontology—Cuvier; and of ichthyology—Louis Agassiz—never doubted that what they observed was the result of repeated cataclysms in which the entire globe partook. Actually, Charles Darwin, observing the destruction of fauna in South America, was convinced that nothing less than the shaking of the entire frame of the Earth could account for what he saw. But the introduction of the principle of uniformitarianism by Charles Lyell, a lawyer who never had field experience, and the acceptance of it on faith by Charles Darwin, are a psychological phenomenon that I observed again and again. Exactly those who, like Darwin, witnessed the omnipresent shambles of an overwhelming fury of devastation on a continental scale, became the staunchest defenders of the principle of uniformitarianism, that became not just a law, but a principle that grew to a statute of faith in the natural sciences, as if the reasoning that what we do not observe in our time could not have happened in the past can in any measure claim to be philosophically or scientifically true.

Obviously, a motive is at play that makes appear as scientific principle what is but wishful thinking. For over a century after Copernicus man did not wish to believe that he lives on an Earth that travels, and Francis Bacon and William Shakespeare were not persuaded by that firebrand, Giordano Bruno, of the truth of the Copernican doctrine. Even much less man wishes to face the fact that he travels on a rock in space on a path that proved to be accident-prone. The victory of Darwin's evolution by natural selection over a six-day creation less than six thousand years ago made it appear that evolution, the only instrument of which is *competition*, is the ultimate

truth. But by competition for survival or for means of existence, never could such different forms as man and an insect with many legs evolve from the same unicellular form, not even in the six billion years that replaced the biblical six thousand. Mutations were necessary, and today we know that by cosmic and x-rays, by thermal and chemical means—conditions brought about in the catastrophes of the past—massive mutations can be achieved.

The pre-1950 astronomy followed the same pseudo-scientific statute of faith, elevated to a fundamental principle, and made believe that the Earth and other planets travel the same paths for the same six billion years, always repeating the same serene circling. Against this violation of the principle of empiricism in science stood my work. In it I rejected the postulate that the ancients, the Greek philosophers Pythagoras, Heraclitus, Democritus and Plato included (O. Neugebauer in *The Exact Sciences in Antiquity* wonders why Plato is considered anywhere a philosopher of any rank⁴) were childish in their claims of repeated world conflagrations, and that the ancients were almost imbeciles in their beliefs. The ancients, the canard goes, believed in the Earth placed on the back of a tortoise. Thus it is preferred to start science three hundred years ago, and my work was pronounced (by those who did not read it) as an act of destruction of the entire edifice of science erected by the giants of science since Copernicus.

I offered a series of claims that naturally followed from the reconstruction. In science they are usually called predictions, but I prefer to term them advance claims. Thus I claimed that Venus, due to its recent birth and dramatic though short history, must be very hot under the clouds, nearly incandescent, and gives off heat—it has not reached thermal balance; that it must have every massive atmosphere; that the atmosphere consisted largely of hydrocarbons but that if oxygen is present petroleum fires must be burning—thus explaining also the present massive carbon dioxide content of the atmosphere; that sulfur and iron (ferruginous pigment) must be present too; and that if the same catalytic process that took place on the Earth when it was enveloped by clouds of Venus' origin takes place in Venus' own clouds, they must consist mainly of organic material infused with sulfur and iron molecules. Further, I considered that Venus was disturbed in its rotation.

Venus was found over 750°K. hot—many metals are incandescent at this temperature—while the consensus of opinion among astronomers was 17°C., 3° above the mean annual temperature on Earth. Venus was found rotating slowly and retrogradely. The atmosphere was found very massive, 95 terrestrial pressures near the ground surface, and not reckoning with this possibility, the first Venera probes were crushed. The content of the clouds is still unsolved, but in a paper in the Winter, 1973-74 issue of *Pensée*, a journal dedicated to the reconsideration of my views, I elucidated that the spectral features in the ultraviolet, near infrared, infrared and deep infrared can be accounted for by organic matter, and so can the volatility and the index of refraction. Nitrogen gas, expected by all specialists to comprise as much as 90% of the atmosphere, was not found. The enigma of the very rich content of carbon dioxide below the clouds is solved if the combustion of hydrocarbons took and still

takes place. I expect that the Venus Mariner X probe of this month will bring us nearer to properly evaluating the content of Venus' clouds. But the preliminary report already says that "the manner in which that planet was born and matured differed basically from that of Earth." An editorial in the *New York Times*, commenting on the bands and streaks first discovered by Mariner X, spoke of an "uncanny similarity" to the bands "in the atmosphere of Jupiter." It added that "it is a problem that poses a formidable challenge to astronomers."

There are problems requiring study that were not discussed in *Worlds in Collision* because the origin of Venus belongs to the volumes dealing with the earlier catastrophes. How did Venus, in Latin, "the Newcomer," escape from Jupiter four hundred times more massive?—and Lyttleton's work gives some idea; or how could Venus be so much heavier per unit of volume than Jupiter?—either it was expelled from inner parts of the giant planet, or gases like hydrogen entered into chemical compounds of higher molecular weight. In *Worlds in Collision* I suggested that electrical discharges in the atmosphere of ammonia and methane in which Jupiter is rich, would produce hydrocarbons of heavy molecular weight—an experiment successfully performed ten years later by A. T. Wilson. Further, I envisaged fusion of elements—like oxygen to sulphur—in interplanetary discharges.

Orbiter and Surveyor probes of the Moon were followed by Apollo probes; and on the historic night of July 21, 1969, when Man stepped on the Moon, I made a series of claims in an article written at the invitation of the *New York Times*, and spelled out earlier as well in memos to the Space Science Board of the National Academy of Sciences. Strong magnetic remanence, I claimed, would be discovered in lunar rocks and lavas, though the Moon itself hardly possesses any magnetic field whatsoever. A steep thermal gradient would be found already a few feet under the surface. Thermoluminescence would disclose that the Moon was heated considerably only thousands of years ago. Hydrocarbons, preferably of aromatic structure, would be found in small quantities, but carbides, into which hydrocarbons would transform when heated, in substantial quantities; expressed radioactivity would be detected in lunar soil and rocks; and several more claims. Already following Apollo XI and XII the score was complete. But each of the discoveries—steep thermal gradient, strong remanent magnetism, recent heating of the lunar surface, carbides and traces of aromatic hydrocarbons, and rich radioactivity of the rocks and dust—evoked exclamations of surprise and at best some far fetched, *ad hoc* hypotheses. Magnetic anomalies, especially where interplanetary bolts fell, and huge enclaves of neon and argon 40 in lunar rocks, were also claimed by me in advance of the findings.

The Mars probes disclosed, as I had claimed in *Worlds in Collision*, a dead planet that went through enormous cataclysmic events, not unlike the Moon. The "canali" proved to be not the product of intelligent work, but rifts caused by twisting of strata. Like on the Moon, enormous craters resulted from bubbling, but some formations, especially surrounded with "rays," resulted, in my view, from interplanetary discharges.

When last December [1973] I was invited to address the scientists of the Langley Space Research Center that prepares the June 1976 Viking probes to Mars, I was told of the program and shown the module. I found that my 1945 copyrighted view, printed also in *Worlds in Collision*, of the possible abundant presence of argon and neon in the atmosphere of Mars, then a very far-fetched idea, is now incorporated in the program of the 1976 Viking probes. Today, in one of the alternative atmosphere models (the other has nitrogen richly presented - the same alternative I discussed in *Worlds in Collision*), NASA anticipates as much as 33.3% argon in the atmosphere, but, in my opinion, too little—666 parts per million—neon. Actually, in 1969 I saw my assumption indirectly confirmed when after I expressed my expectation of rich inclusions of argon and neon in lunar rocks, such enigmatic inclusions were found. I based my expectation on the realization that in the eighth century before the present era Mars and the Moon repeatedly came into near-contacts.

I would speculate that the red color of Mars, due mainly to the ferruginous material acquired from Venus when the latter displaced it from its orbit (in the theomachy described in great detail in the *Iliad*), may partly be due also to an electrical effect in a neon-rich Martian atmosphere. I recommended in my lecture and consultation at Langley Space

Research Center several tests not found in their program as it stands now:

1. To study the electrical nature of the sandstorms, occasionally reaching the velocity of one hundred to two hundred miles per hour, in the rarefied atmosphere of the planet.
2. To search for strong remanent magnetism of rocks and lavas, not just to photograph soil particles attractable to a magnet. As just explained, iron particles will be found in abundance. In future probes anomalous remanent magnetism will be discovered near places where electrical bolts emerged or fell.
3. To search for expressed radioactivity of the rocks and regolith, especially near large circular formations that resulted from interplanetary discharges.
4. To investigate the thermal gradient, presumably rather steep, even if only at the depth of two or three feet.
5. To perform a thermoluminescence experiment on glass-like particles in the Martian soil which will disclose a very recent heating of the Martian surface; if it were not for the expected radioactivity on Mars, the proper result would be twenty-seven centuries for the last heating.

The logic that led me to these conclusions and suggestions was the same that made me make similar advance claims concerning the Moon before the lunar landings.

I understand that the program will be dominated by an effort to find out whether there is or there was life on Mars; organic materials will be searched for and I count with the possibility that traces of hydrocarbons may be found in the Martian soil, but almost all hydrocarbons must have turned into carbide rocks by heating; cultures of possible micro-organisms will be investigated for changes in color and for the production of gases.

In *Worlds in Collision* I compiled descriptions from many sources of a widely spread pestilence that accompanied Mars' close approaches; it is not excluded that Mars is richly populated by micro-organisms pathogenic to man. I suggested an inclusion of a microscope in the equipment of Viking and, if possible, of an electron microscope for the study of viruses. I do not discount the probability that the seasonal changes in the color of the Martian surface may be due to seasonal microbial or other low vegetative activity.

It is preferable to postpone the second Viking probe, now planned as identical with the first and following it by one month, in order to rework the program and to include the instruments needed for the test I enumerated.

When earlier, a year and a half ago, in August [1972], I was invited to lecture and consult at Ames Space Research Center (Division of Exobiology), I suggested also that microbial life able to catalyze can possibly be found in Venus' clouds, lower forms of insect life on Jupiter, and primitive plant life on Saturn, besides what I said now of Mars. So much for cosmology and also the evolution of life.

If I was completely at odds with the cosmogony that had the solar system without history since creation, I was also carrying my heresy into a most sacred field, the holy of holies of science—celestial mechanics. I had a chapter on the subject at the end of *Worlds in Collision*, but I kept those galleys from inclusion in the book and instead I included only one or two paragraphs—and the only italicized words in the book are found in them—namely: ‘The accepted celestial mechanics, notwithstanding the many calculations that have been carried out to many decimal places, or verified by celestial motions, stands only ;/ the sun, the source of light, warmth, and other radiation produced by fusion and fission of atoms, *is as a whole an electrically neutral body*, and also if the planets, in their usual orbits, are neutral bodies.’ I showed how the events I reconstructed could have occurred in the frame of the classical celestial mechanics, but coming from the field of studying the working of the brain—I was the first to claim that electrical disturbances lie at the basis of epileptic seizures—I was greatly surprised to find that astronomy, the queen of sciences, lives still in the pre-Faraday age, not even in the time of kerosene lamps, but of candles and oil. It was, of course, known since Gilbert that the Earth is a magnet, and G. E. Hale discovered that solar spots are magnetic and that the Sun possesses a general magnetic field. But this did not keep Einstein, a few years later, from accounting for the Mercurial precession by a new principle instead of first eliminating the effect of the newly discovered solar magnetic field on Mercury's movement.

I claimed the existence of a magnetosphere above the terrestrial ionosphere - it was discovered by Van Allen in 1958; I claimed that this magnetosphere reaches as far as the lunar orbit—it was discovered by Ness in 1964; I claimed that the interplanetary space is magnetic and the field centers on the Sun and rotates with it—it was discovered in 1960 by simultaneous observation of Pioneer V and Explorer X, one travelling around the Sun and the other around the Earth; I claimed that Jupiter sends out radio noises,⁵ and actually offered in writing in June 1954 to Albert Einstein to stake our protracted debate as to whether, besides inertia and gravitation, electromagnetic interactions participate in celestial mechanics: Does or does not Jupiter send out radio noises?—and Einstein wrote his note of disbelief on the margin of my letter. But on the 8th of April, 1955, nine days before his death, I brought to him the news that Jupiter noises were discovered by chance; those who detected them for long weeks disbelieved their find and the Jovian origin of the noises.

Lately I lecture frequently for physical and engineering societies and faculties, and I challenge those in the audience who believe that a magnetic body can move through a magnetic field without being affected by it to lift their hands. Can Jupiter with its immense magnetosphere move in the magnetic field centered on the Sun, if only of a few gammas, without being affected by it? Can the satellites of Jupiter plow through the magnetosphere of the giant planet without being affected by it? On no occasion I saw a hand raised.

Only a few weeks ago, preliminary reports in *Science* on the Pioneer X December flyby recorded a series of unusual electromagnetic phenomena involving Jupiter and its satellites. At about the same time we read of radio noises for the first time detected from a comet, as Kohoutek was approaching its perihelion. (Incidentally, contrary to the unanimous opinion expressed by astronomical authorities, with which I disagreed, Kohoutek did not develop into the greatest celestial spectacle of the century.) The role of electromagnetic interaction between a comet and the Sun was another subject of my detailed discussion, oral and written, with Einstein.

With the discovery of quasars, magnetic binaries, black holes and colliding galaxies sending out agonized radio signals, the electromagnetic nature of the universe is no more in question. Space is not empty either. I feel like calling René Descartes from the Land of Shades to present his appeal, because as late as 1949, a year before the publication of *Worlds in Collision*, the verdict was, according to the philosopher Butterfield, that “The clean and comparatively empty Newtonian skies ultimately carried the day against a Cartesian universe packed with matter and agitated with whirlpools, for the existence of which scientific observation provided no evidence.”

But ten years later we read: “Gone forever is any earthbound notion of space as a serene thoroughfare . . . a fantastic amount of cosmic traffic (hot gaseous clouds, deadly rays, bands of electricity) rushes by at high speed, circles, crisscrosses, and collides.”

How could I produce this score of correct prognostications? Professor V. Eshleman

of the Jet Propulsion Laboratory, obviously astounded, wrote on September II, 1970, to a news-writer— “I am completely mystified as to how Velikovsky reaches his conclusions. It is almost as though he does it through will power alone. . . .” But could I, by will power alone, initiate Jupiter’s noises?

There is no mystery. My advance claims are a “natural fallout from a single central idea,” in the words of one student of the affair. Reading of my work is a prerequisite for understanding the way I reach my conclusions.

Yet not a few upheld the scientific method by absolving themselves from reading the book they discuss and occasionally suppress. These days one planetarium astronomer authoritatively pronounced my score of correct predictions as compatible with the law of averages and added that I would have been unfortunate if my score were any less. Seven years earlier the same planetarium astronomer was the mastermind in the refusal of the Franklin Institute in Philadelphia to permit the oldest astronomical association of America, the Ritten-house Society, to convene at their traditional meeting place in the Institute when they invited me to address their members—a story that had many reverberations.

The behavior of the scientific community was and partly still is a psychological phenomenon. The spectacle of the scientific establishment going through all the paces of self degradation has nothing with which to compare in the past, though every time a new leaf in science was turned over there was a minor storm, and it is not without precedent that most authoritative voices in science usually served to discourage the trail blazers—think of Lord Kelvin, unsurpassed authority of later Victorian days, who rejected Clerk Maxwell’s electromagnetic theory, demeaned Guglieimo Marconi’s radiotelegraphy, and till his death in 1907 proclaimed Wilhelm Konrad Roentgen for a charlatan.

But it is without precedent that the entire scientific community should be aroused to very base actions of compelling, by organized boycott, the publisher of a book checked and rechecked before the printing to discontinue its publication, to destroy the entire stock, and to punish the editor of twenty-five years service by dismissal. This community offered a united front of academic and scientific societies, of faculties, of scientific and semi-scientific press against a solitary figure whose only iniquity was to present views carefully arrived at in more than a decade of work, supplied with all references to enable the reader to check multitudinous sources, with never a jest or a harsh word against those with whom the non-conformist disagreed, with no new terms introduced, in lucid language, though foreign to me, never given to misunderstanding.

Now, after twenty-four years, and more than seventy-two printings in the English language alone, forty of which were in hard cover, my *Worlds in Collision*, as well as *Earth in Upheaval*, do not require any revisions, whereas all books on terrestrial and celestial sciences of 1950 need complete rewriting. The opposition and the indecent forms it took are a psychological phenomenon and cannot be explained by a mere

desire to protect the vested interests. The forms the suppression assumed are so multiple and sometimes ingenious, but mostly crassly rough and often dishonest, that only having been trained in recognizing various forms of resistance with which analytical patients react when unwelcome truth is about to reveal itself, could I understand the unique spectacle which I observe now for a full generation.

If a sociologist endeavors to divide the guilt between the establishment and the non-conformist, and claims neutrality, then he did not learn to discern objectivity from neutrality. And if a professor of astronomy puts passages in my book which are not there and then makes the class of tuition-paying students roar by attacking those passages, this roar may still sound in his ears when there will be no merriment in it. In these antics, an experienced psychoanalyst recognizes a state of anxiety. “We are shaking in our shoes—but with laughter” wrote an early critic, Cecilia Payne-Gaposchkin of Harvard. Actually the astronomers of that university must have felt *threatened by the book* and even an entire generation later, acting as if in peril, a Nobel prize winner wrote to a high school girl to close *Worlds in Collision* and not to open it again in her lifetime, only to admit three years later to the editor of *Pensée* that he never himself read the book. Those who act almost suicidally should keep their fingers on the pulse of time.

In the behavior of the scientific establishment the desperate resistance that bedevils human society found its expression. As members of the human race, we are afraid to face our past. But as Santayana wrote, those who do not remember the past are condemned to repeat it and—this time, I am afraid, in a man-made thermonuclear holocaust.

My work today is no longer heretical. Most of it is incorporated in textbooks and it does not matter whether credit is properly assigned. My work is not concluded—I only opened new vistas. The young and the imaginative flock in an ever increasing stream. Numerous colleges and universities in this country hold courses or seminars on my work, include my books among the required readings and have theses on my ideas written for graduate degrees. Those who stopped thinking since graduating will claim authority, soon to find that they are left without a following. I may have even caused retardation in the development of science by making some opponents cling to their unacceptable views only because such views may contradict Velikovsky - like sticking to the completely unsupportable hypothesis of greenhouse effect as the cause of Venus' heat, even in violation of the Second Law of Thermodynamics.

This spring, besides this Symposium on my work, two more international symposia dedicated to the subject will take place without my having any part in initiating them. Those who prefer name calling to argument, wit to deliberation, or those who point a triumphant finger at some detail that they misinterpret, yet claim that my entire work ought to collapse, and boast of their own exclusiveness as a caste of specialists—as if I claimed omniscience and infallibility and as if I wrote a sacred book that falls due to some possible error—are not first in their art. I shall quote Giordano Bruno, and one of the organizers of this symposium, Professor Owen Gingerich, Harvard's historian

of science, is well familiar with Bruno's description of how his contemporaries used to conduct a dispute:

“With a sneer, a smile, a certain discrete malice, that which they have not succeeded in proving by argument—nor indeed can it be understood by themselves—nevertheless by these tricks of courteous disdain they pretend to have proven, endeavouring not only to conceal their own patently obvious ignorance but to cast it on to the back of their adversary. For they dispute not in order to find or even to seek Truth, but for victory, and to appear the more learned and strenuous upholders of a contrary opinion. Such persons should be avoided by all who have not a good breastplate of patience.”

After all, it really does not matter so much what Velikovsky's role is in the scientific revolution that goes now across all fields from astronomy with emphasis on charges, plasmas and fields, to zoology with its study of violence in man. But this symposium in the frame of the AAAS is, I hope, a retarded recognition that by name-calling instead of testing, by jest instead of reading and meditating, nothing is achieved. None of my critics can erase the magnetosphere, nobody can stop the noises of Jupiter, nobody can cool off Venus, and nobody can change a single sentence in my books.

References

1. Lucretius, *On the Nature of Things*, translated by C. Bailey (Oxford, 1924; earlier ed., 1910) Bk. II, lines 23ff.: “For all things that fall through the water and thin air, these things must need quicken their fall in proportion to their weights, just because the body of water and the thin nature of air cannot check each thing equally, but give place more quickly when overcome by heavier bodies. But, on the other hand, the empty void cannot on any side, at any time, support anything, but rather, as its own nature desires, it continues to give place; wherefore all things must needs be borne on through the calm void, moving at equal rate with unequal weights.”
2. Plutarch, *Of the face appearing in the orb of the Moon*, translated by W. Goodwin, (Boston, 1898) 246f. “They who place the moon lowest say that her distance from us contains six and fifty of the earth's semi-diameters, that is, that she is six and fifty times as far from us as we are from the centre of the earth; which is forty thousand stadia, according to those that make their computation moderately. Therefore the sun is above forty millions and three hundred thousand stadia distant from the moon; so far is she from the sun by reason of gravity, and so near does she approach to the earth. So that if substances are to be distinguished by places, the portion and region of the earth challenges to itself the moon, which by reason of neighborhood and proximity, has the right to be reputed and reckoned amongs the terrestrial natures of bodies.” Cf. Isaac Newton, *Mathematical Principles of Natural*

Philosophy, translated by A. Motte, 1729, revised by F. Cajori, Berkeley, 1946. Book III: *The System of the World*. Proposition IV, Theorem IV, p. 407: The mean distance of the moon from the earth in syzygies in semi-diameters of the earth is, acc. to Ptolemy and most astronomers, 59; acc. to Vendelin and Huggins, 60... and to Tycho, 56½...”

3. Pliny, *Natural History*, II. 23. “Some person may suppose that these stars [comets] are permanent and that they move through their proper orbits, but that they are only visible when they recede from the sun...”
4. O. Neugebauer, *The Exact Sciences in Antiquity* (Princeton University Press, 1952), p. 146.
5. I. Velikovsky, [“On the Advance Claim of Jupiter’s Radionoisies,”](#) *Kronos* III.:1 (Aug., 1977), pp. 27-30.





**The earliest available photograph
of Immanuel Velikovsky,
probably ca. 1920**



**At the Instrument
Society of America
1971**



**At the Instrument
Society of America,
ca. 1971**



**Photo by Fima Noveck
ca. 1974**



July 8, 1946

Dr. Immanuel Velikovsky
526 West 113 Str.
New York City

Sehr geehrter Herr Velikovsky:

Ich habe das ganze Buch betreffend den Planeten Venus durchgelesen. Es ist viel Interessantes in dem Buch, was beweist, dass in der Tat Katastrophen stattgefunden haben, die auf extra-terrestreale Ursachen zurückgeführt werden müssen. Dagegen ist es für jeden vernünftigen Physiker evident, dass diese Katastrophen nichts zu tun haben können mit dem Planeten Venus, und dass auch die Rotationsrichtung der Erde gegenüber der Ecliptic keine erhebliche Änderung hat erfahren können, ohne dass die ganze Erdkruste völlig vernichtet worden wäre. Ihre diesbezüglichen Argumente sind so schwach gegenüber den mechanisch-astronomischen, dass sie von keinem Fachmann ernstgenommen werden können. Das Beste wäre nach meiner Meinung, wenn Sie Ihre Bücher, die wirklich wertvolles Material bringen, in diesem Sinne revidieren würden. Wenn Sie sich dazu nicht entschliessen können, wird das Wertvolle an Ihren Überlegungen nur unwirksam gemacht und es dürfte sich schwerlich ein vernünftiger Verleger finden, der das Risiko einer so schweren Blamage auf sich nehmen würde.

Ich teile Ihnen dies schriftlich mit und sende Ihnen gleichzeitig Ihre Manuscripte zurück, weil ich an den in Aussicht genommenen Tagen nicht frei sein werde.

Mit freundlichen Grüssen, auch an Ihre Frl. Tochter

Ihr

Albert Einstein

Translation:

July 8, 1946

Dear Mr. Velikovsky:

I have read the whole book about the planet Venus. There is much of interest in the book which proves that in fact catastrophes have taken place which must be attributed

to extraterrestrial causes. However it is evident to every sensible physicist that these catastrophes can have nothing to do with the planet Venus and that also the direction of the inclination of the terrestrial axis towards the ecliptic could not have undergone a considerable change without the total destruction of the entire earth's crust. Your arguments in this regard are so weak as opposed to the mechanical-astronomical ones, that no expert will be able to take them seriously. It were best in my opinion if you would in this way revise your books, which contain truly valuable material. If you cannot decide on this, then what is valuable in your deliberations will become ineffective, and it may be difficult finding a sensible publisher who would take the risk of such a heavy fiasco upon himself.

I tell you this in writing and return to you your manuscript, since I will not be free on the considered days.

With friendly greetings, also to your daughter,

Your

Albert Einstein





July 16, 1946

Dear Professor Einstein:

I thought carefully of what you wrote in your letter of July 8, for which I thank you very much. I thank you also wholeheartedly for the time you gave me on July 5, and for reading a part of my Ms "Worlds in Collision."

I was perfectly aware that my historical cosmology is in conflict with the accepted physical laws, and because of that I asked you to read it. You stress two instances. The reversal of rotation (not revolution) is attested not only in traditions but also in geo-physics: the magnetization of rocks "indicate that the polarity of the Earth has been completely reversed within recent geological times." . . .

In the last part of my cosmology I try to solve the problem of the conflicting geological and historical data versus the accepted laws.

Best regards to Miss H. Dukas who received us with friendliness at your home.

Very truly yours,

Immanuel Velikovsky



den 5. Januar 1951

Dr. Immanuel Velikovsky
558 West 113th Str.
New York 25, N. Y.

Sehr geehrter Herr Velikovsky:

Ihr danke Ihnen sehr für die Zusendung Ihres Buches und auch für den alten Band unserer damaligen Publikation. Ich glaube Sie haben das Zeug dazu, auch das kleine Einmaleins mit historisch-philologischen Methoden gründlich zu widerlegen. Des Beifalls der Lainen, welche einen geheimen Grimm gegen die Rechnerei haben, können Sie sicher sein.

Freundlich grüsst Sie

Ihr

Albert Einstein



August 26, 1952

Dear Professor Einstein:

When, by chance, we met last week at the lake, I became aware that you are angry with me personally for my "Worlds in Collision." From you I have not expected this reaction.

I have written a culture-historical book. A physicist cannot prescribe to an historian what he is allowed to find in the past, even if he finds contradiction between the alleged historical facts and our understanding of natural laws. There are facts a physicist observes daily which are in conflict with the laws he formulated; one such case is the keeping together of positive elements in the nucleus of an atom; he accepts the fact though it contradicts the law, and he looks for some explanation.

Two facts appeared to the scientists as fallacious in my book: 1. No forces in the celestial sphere but a head long collision could retard the earth in its rotation or incline its axis into a different astronomical position, and in such a collision our earth would have perished; 2. No planet could have come to its orbit as recently as a few thousand years ago, and therefore Venus could not have traveled on a cometary orbit in historical times.

These two assertions are true only if gravitation and inertia are responsible for planetary motions, a notion subscribed by every "vernünftigen Physiker." Here, though no physicist or astronomer, I am provoked to disagree.

The sun has a general magnetic field, the solar spots are magnets, the solar prominences return on an oblique line to the place on the solar surface from where they erupted, the cometary tails are repelled by the sun in a manner and with velocities which the pressure of light cannot explain; the earth is a magnet; the ionosphere, the polar light, the ground currents, the terrestrial magnetism react to solar disturbances; cosmic rays are charges that travel in magnetic lines of force; meteorites come down in a magnetic state; the position of the moon influences the radio reception (Stetson); the position of the planets influences the radio reception (Nelson of RCA); the fixed stars are strong magnets (Babcock). In the face of all this is it true or wrong to insist that only gravitation and inertia act in the celestial sphere? And if

the electromagnetic fields are not invented by me for the solar system ad hoc in order to explain the phenomena and their interpretation as found in “Worlds in Collision,” then may I ask: Who is in conflict with observed facts, the astronomers that have all their calculations concerning the planetary motions perfect on the assumption that there are no electromagnetic fields in the solar system, or the author of “Worlds in Collision” ?

Venus could come to a circular orbit and the Earth could be retarded in its rotation or have its axis inclined, under the influence of electromagnetic fields. Such fields exist; at close distances they would act strongly. I believe, therefore, that not only the historical phenomena that I describe in my first book could have happened, but also that celestial mechanics that has all its motions explained without taking into account the electromagnetic fields in the solar system, is in conflict with facts.

I have read a book of a prominent astronomer of this city who says that nothing could take place in the celestial sphere which conflicts with the words of Jesus of Nazareth as preserved in the Gospels. Thus he has two world conceptions that live side by side in his mind—one of mathematics, the other of faith. But the rest of astronomers are like him: they acknowledge the magnetic and electrical properties of the sun and its spots, or of the fixed stars, of meteorites, of cosmic rays, occasionally also of cometary tails, and they do not deny that the Earth is a magnet, and that the sun, the moon, and the planets influence in some way the ionosphere; but as soon as it comes to the celestial motions, they still keep to pre-Faraday Laplace and Lagrange, and actually postulate sterile electricity and impotent magnetism, which do not act at distances, and which do no more than produce a Zeeman effect.

In my debate with Prof. J. Q. Stewart of Princeton Observatory in Harper’s Magazine, he presented the common view by asserting that electromagnetic forces have no part in the planetary relations. I, on the other hand, have written that the general solar magnetic field discovered by Hale (1912) was often denied to exist (Menzel). “Has not a basic mistake in observation or interpretation been committed?” Now this April, the same Menzel announces that the sun must have a very strong magnetic field, and that there was a difficulty of finding it because of the angle of observation.

For over two years I have been a target of abuse and calumny. When did it happen that a spurious book caused such a fury in the minds of the contemporary scientists?

I have taken too much of your time. I wish you everything best.

Cordially,

Immanuel Velikovsky





A. Einstein
112 Mercer Street
Princeton
New Jersey, U.S.A

den 27. August 1952

Herrn
Dr. Immanuel Velikovsky
4 Hartley Avenue
Princeton, N.J. Sehr geehrter Herr Velikowsky:

Der Grund für die energische Ablehnung der von Ihnen vertretenen Meinungen liegt nicht in der *Annahme*, dass bei der Bewegung der Himmelskörper nur Gravitation und Tragheit massgebend seien. Der Grund für die Ablehnung liegt vielmehr in der *Tatsache*, dass die zeitlichen Änderungen der Sternörter im Planetensystem sich auf Grund dieser Annahme mit einer unvorstellbar grossen Genauigkeit haben berechnen lassen.

Gegen solches präzises Wissen kommen Spekulationen von der Art, wie sie von Ihnen vorgebracht worden sind, für einen Sachkundigen nicht in Betracht. Deshalb muss Ihr Buch dem Fachmann als ein Versuch erscheinen, das Laien-Publikum irre zu führen. Ich muss bekennen, dass ich selber zuerst auch diesen Eindruck hatte. Erst nachtraglich wurde mir klar, dass absichtliche Irreführung Ihnen ganz ferne lag.

Freundlich grüsst Sie

Ihr

Albert Einstein

Translation:

27th August, 1952

Dear Dr. Velikovsky:

The reason for the energetic rejection of the opinions presented by you lies not in the *assumption* that in the motion of the heavenly bodies only gravitation and inertia are the determining factors. The reason for the rejection lies rather in the *fact* that on the basis of this assumption it was possible to calculate the temporal changes of star

locations in the planetary system with an unimaginably great precision.

Against such precise knowledge, speculations of the kind as were advanced by you do not come into consideration by an expert. Therefore your book must appear to an expert as an attempt to mislead the public. I must admit that I myself had at first this impression, too. Only afterwards it became clear to me that intentional misleading was entirely foreign to you.

With friendly greetings,

Yours,

Albert Einstein





September 10, 1952

Dear Professor Einstein:

By your answer to my letter you have truly obliged me to think the problem all over again. I have tarried to answer because I did not wish to appear just obstinate; but the problem is permanently on my mind. I have to ask patience, which a “Fachman” is generally reluctant to accord to an outsider. Without this patience we shall build barriers between sciences, in this case—astronomy and history. I would certainly listen carefully to what you may say on history or psycho- analysis.

You say that the *fact* of the exact correspondence of the planetary motions with the theory proves this theory as correct: in the celestial motions only two agents participate—gravitation and inertia. Let us first assume that your statement of exact correspondence between theory and phenomena is rigidly correct. Still the mere fact of a force acting at an inverse square rate would not exclude electricity and magnetism, also acting at the inverse square rate, from participation in celestial motions. But the statement is not rigidly correct, either. Let me illustrate.

Here is the year 1845. Leverrier in France and Adams in England, out of perturbations of Uranus calculated, to the exactness of one degree of arc, the presence of a yet unseen planet. Both of them assumed that a planet of a size not larger than that of Uranus travels on an orbit at a distance dictated by Bode’s law. Neptune is actually of the size of Uranus, but the mean distance between their orbits is not ca. 1,750,000,000 miles, as Bode’s law required, but only ca. 1,000,000,000 miles; thus the error is equal to ascribing to Neptune a triple mass. The discovery of Pluto did not solve the conflict between the theory and the fact and caused also conflicting estimates of Pluto’s mass. Thus the finding of the planetary stations in relation to a chart of fixed stars is not enough; if the theory is true the distances must also be correct. And still the discovery of Neptune is regarded as the strongest proof of the Newtonian theory of celestial motions.

Now in the same 1845, the year of this triumph, Leverrier calculated also the anomaly of Mercury, and by this caused to think that the Newtonian law of gravitation may be not precisely true. Leverrier first thought of some planet moving inside the Mercurial orbit or of a possible unequal distribution of the mass in the sun. You have used the fact of the anomaly to prove that the space is curving in the presence of a mass.

About the same time—in 1913—G. E. Hale published his paper on “The general magnetic field of the sun” (Contr. M. Wilson Obs., #71), in which he estimated the general magnetic field of the sun as of 50 Gauss intensity. At this intensity “under certain conditions electromagnetic forces are much stronger than gravitation.”

(Alfven) The last named author in his “cosmical Electro-dynamics” (Oxford, 1950, p.

2) shows that a hydrogen atom at the distance of the earth from the sun and moving with the earth's orbital velocity, if ionized, is acted upon by the solar magnetic field ten thousand times stronger than by the solar gravitational field.

Now the visible streamers of the sun that conveyed to Hale the idea that the sun is a magnet reach a long way toward Mercury, almost half the way. Was the electromagnetic state of the sun ever considered as the cause of the anomaly? The effect of the e.-m. action must have been reckoned, and possibly excluded, but not disregarded. . . .

The *fact* that the theory accurately coincided with the observed planetary positions was the main argument for the Ptolemaic system and against the heliocentric system. For more than two generations, until 1600, it was not the Roman Church who opposed the Copernican theory; the scientists opposed it and used as their main argument their ability to predict planetary positions, conjunctions and eclipses. They have actually predicted eclipses that we still have to experience in the future. How could they achieve this degree of accuracy with the sun revolving on one of the orbs around the earth? By a continuous adjustment of their observations to their theories and their theories to observations. Similarly it is today. And when the facts prove to be different from what they were supposed to be—that the sun is charged, or that the cometary tails are electrically glowing, or that planetary positions of Saturn or Jupiter markedly influence our ionosphere,—then these facts are left outside of the theory and it covers less and less of the phenomena. No wonder that it agrees with the residual facts in such an arrangement.

Sometimes it seems to me that the hidden psychological cause of the emotional attitude of the scientists to “Worlds in Collision” is in its reminding a few repressed physical facts. In that book I have not invented new physical laws or new cosmical forces, as cranks usually do; I have also not contradicted any physical law; I came into conflict with a mechanistic theory that completely coincides with a *selected* group of observations; my book is as strange as the fact that the Earth is a magnet, the cause of which is indeterminate and the consequences of which are not estimated in the Earth-Moon relations.

When over a year ago, Professor Stewart, your neighbor, was invited together with myself by the Presbyterian Society of this town to participate in a debate about my book, and the time became short, I asked my opponent: “But you have excluded the existing electromagnetic conditions in the solar system from the celestial mechanics,” his answer was: “We do not need them: our calculations are perfect without them.” Later, when our debate was renewed on the pages of Harper's Magazine, I observed: “If the balance sheet of a bank is correct to the last cent, but two large deposits (electricity and magnetism) are omitted, the entire balance may be questioned.” . . .





January 6, 1954

Dear Professor Einstein:

I have carefully put into writing my lecture before the Forum of the Graduate Students here (October 14, 1953). Doing so I was guided by the desire to place it before you for reading.

In the written form I have considerably shortened the archaeological and geological parts of my address; but I have elaborated on the astronomical part of it to a greater length than I did orally. Before submitting this paper to you I have asked Professor Lloyd Motz of the Astronomy Department of Columbia University to check its factual statements.

I am aware of the great demand on your time made by various authors; therefore have my sincerest thanks for agreeing to read this paper.

Cordially yours,

Immanuel Velikovsky



May 21, 1954

Dear Professor Einstein:

It may be that I said more than I was aright to say when yesterday evening I expressed myself that Einstein is humanly obliged not to be indifferent to the wrong that was and is still done by an organized group of scientists. But because of your position of a recognized leader among scientists and fighter for human rights, I feel obligated to you not to keep you uninformed.

These are two problems, entirely independent: Am I right in my theory? I am striving to prove it. Have I the right to express in writing the conclusions to which I came in an honest endeavor? Though the answer is elementary, this right was so mistreated that, following an attack this month, after some hesitation, I decided to ask more than just a few minutes of your most precious time.

With sincere regard,

Immanuel Velikovsky



22.V.54.

Dear Mr. Velikovsky!

Remarks on the part of your manuscript “poles displaced.”

The first impression is that the generations of scholars have a “bad memory.” Scientists generally have little historical sense, so that each single generation knows little of the struggles and inner difficulties of the former generation. Thus it happens that many ideas at different times are repeatedly conceived anew, without the initiator knowing that these subjects had been considered already before. In this sense I find your patience in examining the literature quite enlightening and valuable; it deserves the attentive consideration of researchers who according to their natural mentality live so much in the present that they are inclined to think of every idea that occurs to them, or their group, as new. *The* idea of a possible displacement of the poles as an explanation of the change of climate in any one point of the earth’s crust is a beautiful example. Even the idea of the possibility of a sliding of the rigid crust in relation to the plastic, or fluid deeper strata of the earth, was already considered by Lord Kelvin (and was in fact rejected).

The interpretation of the vote mentioned on pp. 159-160¹ as an attempt at a dogmatic fixation of the “truth” is not obvious to me. It is simply interesting for the participants of a congress to see how opinions concerning an interesting question are divided among those present. I don’t think that the underlying idea was that the outcome of the voting would somehow insure the objective correctness of the outcome of the vote.

From p. 182 on starts a wild robbers’ story (up to p. 189) which seems to rely more on a strong temperament than on organized considerations. Referring to p. 191: Blacket’s idea is untenable from a theoretical point of view. The remark about the strength of magnetization seems to be unjustified (p. 192); it could for example depend essentially upon the speed of cooling as well as on particle shape and size. The direction of the magnetic field during solidification must however quite certainly determine the direction of magnetization. Bottom 192 etc.: wild fantasy! from here on marginal remarks with pencil in the manuscript.

The proof of “sudden” changes (p. 223 to the end) is quite convincing

and meritorious. If you had done nothing else but to gather and present in a clear way this mass of evidence, you would have already a considerable merit. Unfortunately, this valuable accomplishment is impaired by the addition of a physical-astronomical theory to which every expert will react with a smile or with anger—according to his temperament; he notices that you know these things only from hearsay—and do not understand them in the real sense, also things that are elementary to him. He can easily come to the opinion that you yourself don't believe it, and that you want only to mislead the public. I myself had originally thought that it could be so. This can *explain* Shapley's behavior, but in no case *excuse* it. This is the intolerance and arrogance together with brutality which one often finds in successful people, but especially in successful Americans. The offence against truthfulness, to which you rightly called my attention, is generally human, and in my eyes, less important. One must however give him credit that in the political arena he conducted himself courageously and independently, and just about carried his hide to the marketplace.

Therefore it is more or less justified if we spread the mantle of Jewish neighborly love over him, difficult as it may be.

To the point, I can say in short: catastrophes *yes*, Venus *no*. Now I ask you: what do you mean when you request of me to do my duty in this case? It is not clear to me. Be quite frank and open towards me, this can only be good in every respect.

With cordial greetings to both of you,

Your

A. Einstein.

References

1. pp. 117-118 of the book





June 16, 1954

Dear Professor Einstein:

During the three weeks since I received your kind letter, I have composed in my mind many answers to you, and made a few drafts. I realized soon that I would be unable to compress all the problems into one letter and I decided to try to achieve with this writing only one step - to bring you closer to the insight that the global catastrophes of the past were caused not by a terrestrial but by an extra-terrestrial cause. Before discussing this, I would like to say that I am very conscious of the fact that you give me of the most precious in your possession - your time; and I would not have asked to pay attention to these matters if I did not believe that my material may, perchance, serve you too, whatever your conclusions should be. My delay in replying you is certainly not an act of lack of attention; just the opposite - not a quick reply, but a well thought through is a real courtesy.

You agree that (1) there were global catastrophes, and (2) that at least one of them occurred in the not too remote past. These conclusions will make you, too, to a heretic in the eyes of geologists and evolutionists.

Eight years ago, in 1946, under the impression of those chapters of *Worlds in Collision* that you have read then in manuscript, you have acceded in a letter that "in der Tat Katastrophen stattgefunden haben, die auf extra-terrestrale Ursachen zurückgeführt werden müssen."¹

Now, without re-examining the material that made you think so, you would like to retreat from this position. On the other hand, in 1946 you have brought two arguments against my theory, namely:

(1) "Dass diese Katastrophen nichts zu tun haben mit dem Planeten Venus."²

(2) "Dass auch die Rotationstichtung der Erde gegenüber der Ecliptic keine erhebliche Aenderung hat erfahren können, ohne dass die ganze Erdkruste völlig vernichtet worden wäre."³

It appears to me that today you keep no longer the second objection in that definite form; you presently assume that the terrestrial crust, rather catastrophically, moved over the interior of the earth; the experiences

that the human kind must have had in such a plunge, would satisfactorily explain the phenomenon of the retreating sun (the cause of a great wrath in the days of Joshua and of Velikovsky as well), the change of cardinal points, of latitudes, of seasons and climate, and the inability of the ancient water- and sun-clocks to show correctly the time of today. It would, however, not explain the change in the number of days in the year, of which all ancient calendars (Maya, Inca, Hindu, China, Persia, Egypt, Babylonia, Assyria, Palestine, Greece, Rome) concur (“Worlds in Collision,” pp. 312-359: these pages would certainly impress you).

*Against a terrestrial cause of
global catastrophes:*

The surmise that an asymmetrical growth of polar ice caused in the past a sudden shifting of the terrestrial crust

(1) disregards all references in the folklore to the celestial phenomena accompanying the catastrophe: meteorites and “bursting of the sky,” also darkness.

(2) disregards the geological find of unusual concentration of meteoric iron and nickel in the ocean bed (I attach a section of my new manuscript, “The floor of the seas,” with a description of the work of M. Pettersson of Goeteborg Oceanic Institute).

(3) disregards the magnitude of the force necessary to move the terrestrial crust over the equatorial bulge. Ice covers of the polar regions are placed in the least favorable position to disrupt the balance. The seasonal migration of ice and snow from one hemisphere to the other never induced the slightest displacement of the poles. And finally, the most important counter-argument concerns the mass and the form of the terrestrial crust:

(4) “The data secured from observations . . . of the transmission of seismic waves indicate that the earth is either solid throughout with the rigidity of steel, or that it is solid to a distance approximately 2000 miles below sea-level, with the solid portions having a rigidity greater than that of steel . . . This seems to indicate a contradiction between isostasy and geophysical data.” (W. Bowie, “Isostasy,” in *Physics of the Earth*, II, 104).

The theory of isostasy was conceived in 1851 when J. H. Pratt found that the Himalayas do not deflect the plumb line as expected considering the mass of the mountains. It was assumed that the crust is thin and lighter than the magma and that every mountain has a mirror

image protuberance immersed into the magma, thus the excess of the mass of the mountains is counterbalanced by a defect in the mass (difference between the lighter granite of the crust and the heavier magma). This, however, would signify that in order to move the crust over the very dense magma (twice the weight of granite) the isostatic protuberances (besides the equatorial bulge) will present obstacles that cannot be overcome by an asymmetric position of polar ice. If, moreover, the crust is 2000 miles thick, its mass represents a very substantial part of the globe.

What are the arguments against an extraterrestrial cause of the global catastrophes?

Arguments against extra-terrestrial agents are:

1. Ancient solar eclipses would not have taken place in appropriate times. Answer: As shown in my answer to Stewart, there is not a single case known where they actually did. By the way: the same argument, if true, would be good against the motion of the terrestrial crust in historical times.
2. Earth's axis of rotation would wobble: It does.
3. Things would have flown away if unattached: This depends on the time element.
4. Waves of translation and hurricanes would be generated: they were. A section from the first file of my geological work is attached, and explains, partly, the "wilde Raubergeschichte,"⁴ in the (second) file you just read.

Argument against a massive comet: The observed comets are of small mass. In answer:

1. Even Jupiter, as all other planets, was once in the category of comets, according to the planetismal and tidal theories.
2. The origin of the terrestrial planets (Mercury, Venus, Earth, Mars) from the large planets (to explain the difference in the specific weights) is an old legitimate story.

Arguments against the mechanism of disturbance: A gravitational pull by a passing body could not disturb the rotational velocity of the earth or the inclination of its axis. Answer: In *Worlds in Collision* I brought historical material leaving astronomers to choose:

1. Either the earth was disturbed in rotation,
2. *or* the axis of rotation changed its inclination to the plane of the ecliptic.

Once more, I left for astronomers to choose: The earth was disturbed by entering

1. into a thick cloud of dust,
2. or into a magnet field.

In *Worlds in Collision* I left open the problem which of these mechanisms was in action (p. 386). You are indignant at the idea that magnetic fields had anything to do with the disturbances. You oppose such explanation

1. because magnetic actions are excluded from the celestial mechanics.
Answer: At usual distances. But at close approaches the magnetic fields could be felt.

2. because in a cloud of iron particles there is no reason for all of them to have the same magnetic orientation. Answer: The same question is asked concerning the polarized light of fixed stars that supposedly passes through clouds of gases or dust particles. Also: would the earth, which is a magnet, and possibly has an iron core, moving through a large charged cloud of dust preserve the direction of its axis or not?

The real cause of indignation against my theory of global catastrophes is the implication that celestial bodies may be charged. It was argued that only an astronomer can imagine the degree of coincidence between the calculations based on the gravitational theory and the observed planetary motions. But this very degree of coincidence is disturbing in the face of many facts known about the sun (behavior of protuberances), the planets (influence of radio-transmission), the comets (self-illuminating; behavior of tails), the fixed stars (strong magnets), the meteorites (magnets). Even for the cases of observed anomalies magnetic or electric charges were not considered, as if they were a tabu in celestial mechanics. Of the many unexplained phenomena presented in my address before the Forum of the Graduate College, you have explained only the apparent spherical form of the sun (and was it correct to disregard the very low atmospheric pressure on the sun in calculating its expected shape?), but not why the sun rotates quicker on the equator, nor many other similar violations of mechanical laws.

Of course, I am a heretic, for I question the neutral state of celestial bodies. There are various tests that could be made. For instance, does Jupiter send radio-noises or not? This can easily be found, if you should wish.

If planets are charged, gravitation is a short range force, a terrible statement to make. Cavendish experiment with varying distances between the attracting bodies would easily disprove such notion. But if I am not wrong, the Cavendish experiment is not performed in a Faraday cage. It should be easy to find out the constant in a cage. But not easy for me. Especially since Shapley in a relentless effort made me “out of bounds” for scientists.

You, too, would not have had any suspicion about my motives in my book on folklore and ancient literature, were it not for the campaign initiated by Shapley. The few pages on astronomy in my book were edited by Lloyd Motz, professor of astronomy at Columbia University. Too early you have thrown the mantle of Jewish compassion over Shapley: you have seen only the beginning of the file of the documents concerning the “Stargazers and Gravediggers” and their leader. His being a liberal is not an excuse but an aggravating circumstance. My appeal to you to investigate this material was prompted by a new attack, a few days before I last saw you. Then I immersed myself in my work and calmed down.

Cordially,

Immanuel Velikovsky

References

1. “that in fact catastrophes have taken place which must attributed to extraterrestrial causes.”
2. “That these catastrophes can have nothing to do with the planet Venus.”
3. “That also the direction of the inclination of the terrestrial crust towards the ecliptic could not have undergone a considerable change without the total destruction of the entire earth’s crust.”
4. “wild robbers’ story”





September 17, 1954

Dear Professor Einstein:

May I renew our discussion? At our last long conversation on July 21, you have acceded that the cause of the global catastrophes of the past could have been extra-terrestrial.

You have found the behavior of Lexell's comet almost unbelievable.

The next step in my strategy is to show that the comets do not revolve as neutral bodies around a neutral sun. I quote from H. Spencer Jones:

"The presence of bright lines in the spectra [of comets] can only be due to a self-luminous body. . . . the electrical phenomena obtained by discharge through a Gessler's vacuum tube enable the assertion to be made with a high degree of probability that the comet's self-luminosity is due not to an actual combustion, but to an electrical phenomenon."

More facts point to a charged state of the comets. The envelope (coma) of a comet contracts with the approach to the sun and expands with recession, though in the heat of the sun the reverse could be expected.

"There is good evidence that all particles in the comet influence the motion of each other. The configuration of the streamers in the tails . . . strongly indicates a mutual repulsion." (N. Bobrovnikoff, "Comets" in *Astrophysics*, ed. Hynek, 1951, p. 328).

As to the sun: "Certainly the formation of coronals over centers of attraction and sunspots can be caused by the extended electrical fields of these areas of the sun; just so, coronals can be formed by the electrical fields about the end of a moving prominence." (E. Pettit, "The Sun and Solar Radiation," *ibid.*, p. 296).

When prominences on the sun were observed to run one into another, "both prominences participating in the action recoiled violently . . . Strong electrical fields of the same sign might explain the phenomenon." (*Ibid.*, p. 297).

As to the spherical shape of the sun, the measurements were carried to one hundredth part of a second of an arc, and no departure from spherical shape was observed *ibid.*, p. 260); the admitted error of observation could not exceed a tenth of a second.

Should we now assume that a comet moves in perihelion without experiencing an

electromagnetic effect between itself and the sun?

Cordially yours,

Immanuel Velikovsky





January 11, 1955

[sent January 18]

Dear Professor Einstein:

Am I right or wrong in the following: A comet grazing the sun can experience an el.-magn. effect without violating Kepler's 3rd law, because:

1. A static potential difference between the sun and a body on an orbit would also produce an inverse square relation which can be hidden in the gravitational effect.
2. The magnetic component of the effect would produce acceleration. And actually an unaccounted for acceleration is observed in comets passing close to the sun; this effect was studied on Comet Encke. (J. Zenneck, 'Gravitation's in *Encyclop. d. Mathem. Wiss.* vol. V, part I, p. 44).
3. Even assuming a comet as a neutral body partly consisting of ionized gases, and a solar protuberance as a collection of ions of one sign on a neutral sun, we would have in a grazing comet a conductor passing through an electrical field.

By the way, Kepler himself regarded the motion of the planets and comets on ellipses as originating wholly in the sun, and for a time thought of magnetic action (electricity was not yet known; but Gilbert's book on magnetism already appeared in 1600). Kepler wrote:

" [Sol] trahendo et repellendo retinet, retinendo circumducit" (*Opera omnia*, VI, 345).

Actually Kepler's idea of a magnetic field reaching from a primary to a satellite can be checked as follows:

If the lunar daily librations in latitude follow the rotation of the polar magnetic field of the earth around the geographical pole, then the magnetic field of the earth reaches sensitively to the moon. Among lunar daily librations are some unaccounted for. According to H.T. Stetson of M.I.T., a magnetic needle slightly follows the sun.

As to Lexell's comet: It was removed by Jupiter from a parabolic orbit to an ellipse of 5½ (five and a half) year period, and at the next passage it was sent away on a hyperbolic orbit. This I mentioned; you have thought it impossible, even after reading this in Newcomb's astronomy.

You have asked me: what do the specialists say about the shape of the sun. I quote Donald Menzel of Harvard Solar Observatory (*Our Sun*, 1950, p. 39): “but the measures are as likely as not to indicate a *polar* diameter greater than the equatorial, which we are indeed loath to believe.”

With all good wishes,

cordially,

Im. Velikovsky





February 2, 1955

Dear Prof. Einstein:

All I wanted in my last letter to you was to gain the concession that a comet, going through the corona of the sun or through an outburst of ionized gases, sustains an electromagnetic effect. The consequences of opening the gate to such an effect into the heavenly mechanics force the astronomer to disregard physical experiences, in order not to violate in the least the system of 1666. But in fact the comets do not follow precisely Kepler's third law: those that pass near the sun (like Encke's comet) show acceleration unexplained by gravitational mechanics.

My knowledge is not great, yet gravitation with static electricity I do not identify, as you understood me and then refuted me with the fall of a body which must discharge itself upon touching the ground. In the following I present my thoughts about the nature of gravitation and discuss also in short—more in the form of questions—the four systems of the world, of which the first is the Newtonian, and the second actually does not violate the Newtonian.

Do you remember how I asked you: If the good Lord would give you the task to conceive a plan for a new universe, where gravitation of the inverse-square variety takes no part, would you be able to comply? To Newton He could not have made such a proposition, since Newton had only a very vague idea of electricity. However, the sentence with which he concludes the "Principia" is very interesting. I let this sentence follow as a supplement.

Enclosure 1

The end paragraph of the PRINCIPIA by Newton

But hitherto I have not been able to discover the cause of those properties of gravity from phenomena, and I frame no hypotheses . . .

And now we might add something concerning a certain subtle spirit which pervades and lies hid in all gross bodies; by the force and action of which spirit the particles of bodies attract one another at near distances, and cohere, if contiguous; and electric bodies operate to greater distances, as well repelling as attracting the neighboring corpuscles; and light is emitted, reflected, refracted, inflected, and heats bodies; and all sensation is excited, and the members of animal bodies move at the command of the will, namely, by the vibrations of this spirit, mutually propagated along the solid filaments of the nerves, from the outward organs of sense to the brain, and from the brain into the muscles. But these are things that cannot be explained in few words,

nor are we furnished with that sufficiency of experiments which is required to an accurate determination and demonstration of the laws by which this electric and elastic spirit operates.

[end of the *Mathematical Principles*; transl. by F. Cajori]

Plan 1

Newton's plan in which the heavenly bodies in their movements are influenced only by gravitation (and in a very small measure by light pressure). For this plan speak:

- a) The simplicity of the law of gravitation. (The simplicity would be more complete if the same system would also be in action as the dominating force in the atom, and if gravitation, like all other energies in nature, were given to transformations).
- b) The exactness with which the positions of the planets are predicted. (The exactness of Ptolemaic astronomy in predicting eclipses and conjunctions was superior to that of Copernicus; and still the geocentric system is false).
- c) The discovery of Neptune and Pluto (Neptune's position, but not its distance from the Sun was calculated in advance; Pluto's mass is by far not sufficient to explain the disturbances it causes).

Some of the circumstances which cannot be explained, or only with great effort, are:

1. The Sun, Jupiter and Saturn rotate quicker on their equators; the rings of Saturn rotate quicker than the planet. The inner satellite of Mars revolves quicker than Mars rotates; the sun possesses only 2% of the "angular momentum" of the solar system.
2. The Sun's protuberances *gain* in speed with the distance from the Sun. They fall back as if attracted to the place from which they erupted, falling back (as if on a rubber band) to the sun without acceleration.
3. The Sun's equatorial diameter is equal to, and in the consensus of other observers is 0.038 seconds of the arc smaller than the polar diameter (and to this says Menzel: "We are loathe . . .").
4. The tides caused by the Sun in the Earth's atmosphere are 16 to 20 times greater than those caused by the Moon.
5. The Moon and [some] other satellites always show their planets the same face.
6. The comets' tails are turned away from the sun and move in perihelion with a speed approaching the speed of light; no attempt at quantitative calculation has been made in this direction.

Plan 2

The heavenly bodies are held in their orbits mainly by gravitation; however they are not neutral.

Since static electricity also acts according to the inverse square law, its presence is masked by gravitation. From this follows: The masses of the heavenly bodies are not exactly calculated.

This plan can explain satisfactorily most of the difficulties of Plan 1. For this Plan 2 speak also, among others, the following facts:

1. The Sun too has a general magnetic field the strength of which is estimated very differently—the difficulty lies in the angle of observation. The corona has a form which resembles the lines of force of a magnetic field and extends far out.
2. In several stars a strong magnetic field (7000 gauss) has been detected. These stars must also be electrically charged because electrical currents would hardly occur on hot stars. The movement of two members of a double star system which rotate around each other in a few hours must probably be affected by more than just gravitation alone.
3. The earth is a magnet. The earth is enveloped in electrical layers of the ionosphere. Chapman postulates a strong electrical layer high (12,000 to 16,000 miles) over and around the earth.
4. The planets Mercury, Venus, Mars, Jupiter, Saturn, clearly influence our ionosphere and radio-reception; Jupiter and Saturn also have a connection to the origin of the sunspots.
5. The polar lights consist of electrical charges which come from the sun and which, after eruptions on the sun, or after the passage of a big sunspot, influence radio transmission and ground currents, and cause magnetic storms.
6. Meteorites are magnetized without exception. Also, upon entering the atmosphere they are regularly diverted toward the east and sometimes even seem to be hurled out after they have already penetrated into the atmosphere.
7. The fact that comets glow in cold space (lines of emission), and also the contraction of their heads when closer to the sun, speaks for an electrical effect.
8. A rise and fall in the strength of mutual disturbances between Jupiter and Saturn in the years 1898-99 as opposed to that of the years 1916-17 (18 % difference: J. Zenneck, “Gravitation” in *Encycl. der Math. Wiss.*, vol. V, first part, p. 44), speaks

also for this and the following plans.

As to the argument that the photoelectric effect of the sun would neutralize the charges on the planets, I would like to ask: Would not the photoelectric effect cause charges on neutral planets? And why is not our ionosphere neutralized by the photoelectric effect?

The other argument against this plan is in the assumption that the sun cannot be charged because it would repel the surplus ions. I would answer: According to spectral analysis, the atoms on the sun have been left without many, often without any orbiting electrons. Could not the electrons which have left the protons in their closest proximity where the attraction is tremendous, also have left the sun entirely? Actually the sun hurls out charged particles (polar lights, also cosmic rays) as if it were charged and would like to reach a neutral state. (However the sun, charged as it is, changes its charge imperceptibly: were it not so, then the system would constantly change its paths.)

Another reply: In the atom the same problem exists: how can charges of the same sign hold together in the nucleus?

Now a third reply: The stars, which are strong magnets, must also be electrically charged, because no electrical currents can exist at such temperatures. Why do the surplus protons or electrons stay there? And if there, then probably also on the sun.

And finally: Should we not, instead of considering the sun as neutral, rather consider the whole solar system neutral, with a surplus of charge of one sign on the sun and of another sign on the planets?

Plan 3

Gravitation would be a force which quickly diminishes with distance. Static electricity would be the dominating force between the heavenly bodies.

This would mean that the force which we know from our experience on earth as gravitation does not effectively reach the moon.

Against such an explanation speaks the fact that the Cavendish experiment under different conditions and distances between mutually attracting masses always showed the same results. However, as far as I can judge, this experiment was not performed in a Faraday cage; at the same time we know that the atmosphere has an electric potential and that the potential difference strongly increases with distance from the ground, but probably could be almost identical in different laboratories.

This plan of static electricity as the dominating force between the heavenly bodies would explain most of the phenomena which are unexplainable in plans 1 and 2, but

against it speak the following facts:

1. In the case the planets are all of the same charge (positive or negative), they would repel each other. But would they not behave like two parallel conductors which attract each other when their currents flow in the same direction?
2. If, for instance, the sun is positive and the earth negative, then the moon would again be positive, and the sun would repel the moon.

Plan 4

In this plan, too, gravitation would be a force which diminishes rapidly with distance. Planets, satellites, and comets are charged bodies which move in the magnetic field of the sun, and which themselves create magnetic fields.

This plan would explain:

- a. The retrograde movement of various satellites and comets;
- b. the distribution of angular momentum;
- c. the behavior of cometary tails; also the fact that comets are attracted to the sun from great distances, but were never seen falling into the sun, even though they are unstable in their orbits;
- d. the position of the moon and other satellites which continuously turn the same face to their planets;
- e. the energy of cosmic rays;

also the fact that the sun is hotter in the corona than in the photosphere; and several other facts.

Since magnetic force decreases quickly with distance, the heavenly bodies must be differently charged in order to obey Kepler's laws. The planets which are further away from the sun must have a correspondingly stronger charge. This would be analogous to the arrangement of electrons in the atom. It would also explain the disturbances caused by Pluto, the mass of which is by far not sufficient to explain such perturbations.

Against this (4) plan speak the enormity of electric and magnetic forces necessary to make this plan effective.

The sun moves in relation to the stars; it rotates; the charged planets revolve around the sun, and create a Rowland magnetic field. How does the magnetic field between

the sun and the planets behave, and how quickly does it decrease? (The calculations which I received from several young physicists differ greatly and go all the way from $1/r$ to $1/r^4$).

But above all, are the physical experiences of laboratories always applicable to the sky? There, a very great and hot mass of gases moves in the coldness of space; how would the magnetic field behave under such conditions?

It is apparent that plans 2 and 4 are less against facts and observations than do plans 1 and 3. In order to decide between plan 2 and 4 the Cavendish measurements between impeccably neutral bodies must be repeated. But how impeccably? The electrical repulsion between two protons is 10^{40} times stronger than their gravitational attraction.

With cordial greetings,

Yours

Immanuel Velikovsky





March 7, 1955

Dear Professor Einstein:

I thank you again for the discussion of the first 8 pages of my letter. Here are the quotations from John Herschel and W. Pickering I have mentioned in our last conversation:

“There is beyond any question some profound secret and mystery of nature concerned in the phenomenon of their tails”; “enormous sweep which it [the tail] makes round the sun in perihelion, in the manner of a straight and rigid rod, is in defiance of the law of gravitation, nay, even of the recorded laws of motion.”

J. Herschel, *Outlines of Astronomy*, p. 406

“What has puzzled astronomers since the time of Newton, is the fact that while all other bodies in the sidereal universe, as far as we are aware, obey the law of gravitation, comets’ tails are clearly subject to some strong repulsive force, which drives the matter composing them away from the sun with enormously high velocities.”

— W.H. Pickering, article “Comets” in *Encyclopedia Americana*.

Cordially yours,

Immanuel Velikovsky



17.III.55

Lieber Herr und liebe Frau Velikowsky!

Sie haben mich bei Gelegenheit dieses unseligen Geburtstags aufs neue beschenkt mit Früchten einer geradezu eruptiven Produktivität. Ich freue mich auf die Lektüre des historischen Werkes, das ja die Hühneraugen meiner Gilde nicht in Gefahr bringt. Wie es mit den Hühneraugen der andern Fakultät steht, weiss ich noch nicht. Ich denke an das rührende Gebet: Heiliger St. Florian, verschon's mein Haus, zünd'ändere an!

Den ersten Band der Memoiren zu "Worlds in Collision" habe ich bereits aufmerksam gelesen und mit einigen leicht zu radeirenden Randbemerkungen versehen. Ich bewundere Ihr dramatisches Talent und auch die Kunst und Geradheit von Thakeray, der brüllenden astronomischen Löwen dazu gebracht hat, eingermassen den königlichen Schwanz einzuziehen unter nicht völliger Respektierung der Wahrheit. Ich würde glücklich sein, wenn auch Sie die ganze Episode von der drolligen Seite geniessen konnten.

Unvorstellbare Korrespondenz-Schulden und ungelesene zugesändte Manuskripte zwingen mich zu Kurze. Vielen Dank Euch beiden und Freundliche wünche.

Ihr

A. Einstein

Translation:

17.III.55

Dear Mr. and dear Mrs Velikovsky!

At the occasion of this unpropitious birthday you have presented me once more with the fruits of an almost eruptive productivity. I look forward with pleasure to reading the historical book that does not bring into danger the toes of my guild. How it stands with the toes of the other faculty, I do not know as yet. I think of the touching prayer: "Holy St. Florian, spare my house, put fire to others!"

I have already carefully read the first volume of the memoirs to "Worlds in Collision," and have supplied it with a few marginal notes in pencil that can be easily erased. I admire your dramatic talent and also the art and straightforwardness of

Thackrey who has compelled the roaring astronomical lion to pull in a little his royal tail without showing enough respect for the truth. I would be happy if you, too, could enjoy the whole episode from its funny side.

Unimaginable letter debts and unread manuscripts that were sent in force me to be brief. Thanks to both of you and friendly wishes,

Your,

A. Einstein





Foreword

Mr. Schorr is a student of the ancient East Mediterranean and Near East, and a doctoral candidate (MA, ABD) in preclassical Aegean archaeology. Since 1969 he has proofread and performed research on the later volumes in the *Ages in Chaos* series, with special emphasis on the present tome. In 1974 (under a nom de plume) he wrote an article in the journal *Pensée*, showing instances of archaeological discoveries from Greece, Anatolia and North Syria which lend support to Velikovsky's revision of ancient history (I. Isaacson, "Applying the Revised Chronology", *Pensée*, IVR IX [1974], pp. 5ff). The following supplement is an updated portion of that article.



The Entrance to the Citadel

Both literary accounts and archaeological discoveries indicate that the ancient city of Mycenae in the Peloponnese of Greece was the political and cultural center of the Late Bronze Age (or “Late Helladic [LH]”) Greece. For this reason one calls that period, its culture and its material remains “Mycenaean.” Since Mycenae is the type-site for LH Greece, its history and its relics will be of chief concern in this essay.

According to tradition, the city’s founder was the legendary hero Perseus, and the later Greeks attributed its fortifications of tremendous stones to mythical giants, the one-eyed Cyclopes. It was for Eurystheus, a later king of Mycenae, that Heracles performed his twelve labors. One of the city’s last heroic kings was Agamemnon, commander of the pan-Hellenic expedition against Troy. Upon his return from that long war, his queen and her paramour murdered him in the palace, for which crime his children, Orestes and Electra, took their terrible revenge. ⁽¹⁾

First excavated by Heinrich Schliemann in the 1870’s, in one of the earliest systematic campaigns at a Late Helladic (LH) center, Mycenae is one of the most thoroughly excavated and studied places in the world. For over a century now, German, Greek and British prehistorians have revealed a wealth of archaeological information, as well as costly and beautiful artifacts. Work still continues there on a yearly basis.

Since the absolute dates for Mycenae and the entire East Mediterranean Late Bronze Age come directly from Egypt, ⁽²⁾ if Immanuel Velikovsky’s revised chronology is valid, one should expect, that numerous 500 to 700-year problems trouble those who deal with Mycenae and the Mycenaean Age—which is the topic of the present essay.

In the present volume, Velikovsky treated the [Lion Gate of Mycenae \(Fig. 1, A\)](#), and brought out how, and why, late nineteenth-century art historians and excavators, who studied the stone carving and the gateway it surmounts, originally ascribed them to the eighth century B.C.; he also showed how adherents to Egyptian chronology pushed the date back by half a millennium to ca. 1250 B.C. The debate over those 500 years, long ago resolved in favor of the Egyptian time scale, still presents problems for modern archaeologists. Thus, John Boardman, who does accept a thirteenth-century attribution for the gate, recently concluded that “more than five hundred years were to pass before Greek sculptors could [again] command an idiom which would satisfy these aspirations in sculpture and architecture.” ⁽³⁾

The Lion Gate was the main entrance-way of Mycenae. Between the Gate and the building known as the Granary (Fig. 1, C), A. J. B. Wace dug a test trench in 1920. The location was ideal for two reasons. First, being near the gate and along the main street into the city, the spot collected all tangible evidence of those who passed along the route.⁽⁴⁾ Second, the area was a perfect sedimentation trap, enclosed by three walls, with the fourth side open to the steeply sloping ground of the citadel, so that it also collected the material that constantly rolled or washed down from above. Since that trench provides the best stratigraphical section of the site, and “is the main basis for trying to date the fall of Mycenae,”⁽⁵⁾ the findings are of particular interest to us. Wace differentiated thirteen layers, which had collected between the fortification wall, the gate, and the Granary, all constructed in the middle of the Late Helladic (LH) III B period (ca. 1250 B.C.).⁽⁶⁾ The bottom ten layers belonged exclusively to the period of construction until late in the pottery phase known as LH III C (set at 1250 - 1100/1050 B.C.), at most 150-200 years.⁽⁷⁾ On the average, then, each of those layers represented ca. 15-20 years.

The eleventh layer from the bottom, in addition to “eleventh-century” LH III C pottery, contained a significant number of fragments of Orientalizing ware (i.e., seventh to sixth century B.C.). That layer, which, by the accepted scheme, must represent the passage of ca. 500 years, was only about 1/6 the total thickness of the ten layers beneath it, which represent only 150 to 200 years. It was, in fact, thinner than one of the earlier layers representing ca. 15-20 years.

It is very important to note that the eleventh layer contained no pottery dated to 1050-700 B.C. If people continued to inhabit, enter, and leave Mycenae between the eleventh century and the seventh, one would expect some evidence of that fact to appear in that trench near the gate, yet none does. Even if the site was abandoned for centuries, one would still expect a layer of “wash,” consisting of ashes and dissolved mud brick from ruined structures on the citadel to lie above the eleventh-century pottery and below that of the seventh,⁽⁸⁾ but there was none. Neither was there a seventh-century layer distinguishable from the eleventh-century one, as if centuries of debris and/or wash had been removed before the seventh-century pottery was deposited. One thin layer contained pottery of two styles customarily separated by hundreds of years, yet the trench showed no evidence that those centuries actually transpired.⁽⁹⁾

In the 1920's, Wace considered the eleventh layer, its seventh-century pottery, to be “the last true Mycenaean stratum,” (i.e., it followed immediately after the tenth layer, and began to form in the twelfth century).⁽¹⁰⁾ Some thirty years later, however, disturbed by the 400-year-later material, he changed his mind, and reduced the age of the entire layer, proposing that its LH III C contents were deposited centuries after they were made.⁽¹¹⁾ That solution, however, still runs into the same problem as before—unless removed (for no apparent reason), the evidence of centuries' duration, either as pottery or as wash, should still appear somewhere in the section—if not

within the eleventh layer, then beneath it and the tenth. Other scholars⁽¹²⁾ do not accept Wace's redating, but follow his original assessment, that, despite the seventh-century material, the eleventh layer belongs mainly to the twelfth century.

If Mycenaean pottery had not received its absolute dates from Egypt, then, on the basis of that and other stratigraphical sections from Prosymna, Tiryns, Pylos, Athens, Sparta (Therapne), Kythera, Crete (Vrokastro), Chios, Troy, Italy (Taranto), etc.,⁽¹³⁾ and also, as we shall presently see, on the basis of style, one might say—as numerous scholars once did—that LH III B-C pottery (1350-1100/1050 B.C. by Egyptian reckoning) immediately preceded the seventh-sixth century Orientalizing ware.

References

1.

Pausanias I:16. 3-5.

2.

A. Furumark, *The Chronology of Mycenaean Pottery* (Stockholm, 1941), especially pp. 110-115. More recently, see V. Hankey and P. Warren, "The Absolute Chronology of the Aegean Late Bronze Age," *Bulletin of the Institute of Classical Studies* (Univ. of London) (henceforth BICS), 21 (1974), pp. 142-152.

3.

J. Boardman, *Greek Art* (New York, 1964), p. 22.

4.

A. J. Evans (*The Palace of Minos* [London, 1935], IV, pp. 63-64 n. 1) was perhaps correct in viewing that narrow alley-way as a dumping ground, but it was better stratified than he believed.

5.

A. D. Lacy, *Greek Pottery in the Bronze Age* (London, 1967), p. 221.

6.

A. J. B. Wace, "The Lion Gate and Grave Circle Area," *Annual of the British School at Athens* (henceforth BSA), 25 (1921-23), p. 18; G. Mylonas, *Mycenae and the Mycenaean Age* (Princeton, 1966), pp. 21, 33.

7.

Lacy, (1967), pp. 221-2. Although Furumark (1941, p. 115) assigned the end of the LH III C to ca. 1100, A. M. Snodgrass (*The Dark Age of Greece* [Edinburgh, 1971], pp. 134-5) had it end at 1125 B.C. in W. Attika, 1050 B.C.

in the Argolid, and still later in the hinter regions. Realizing that he chose his Argolid dating in order to have continuous occupation there until the next pottery style (Protogeometric) arrived, he acknowledged that the duration might be too long, and that there might be a break (*ibid.*, pp. 57-124). V. Desborough (*The Last Mycenaeans and Their Successors* [Oxford, 1964], p. 75; *The Greek Dark Ages* [London, 1972], pp. 69, 79), did not grant Argolid LH III C the extra 50 years which Snodgrass postulated, though he later conceded that Wace's eleventh layer *possibly* extended into the early eleventh century ("Late Burials from Mycenae," BSA, 68 [1973], p. 100). For our purposes, current scholarly disagreements on chronology are of interest, but compared to the 500-700-year problems treated in this volume, 50-year differences seem rather inconsequential.

8.

Cf. the very thick layer of wash from higher up the citadel overlying the cult center ([Fig. 1, K](#)) (A. H. S. Megaw, "Archaeology in Greece, 1964-65," *Archaeological Reports 1964-65*, p. 11; W. D. Taylour, "A Note on the Recent Excavations at Mycenae, etc.," BSA 68 [1973], p. 260), where the slope was much more precipitous. More to the point, the first Grave Circle ([Fig. 1, D](#)), which lies much closer to the Granary, also had a layer of washed debris above it (Wace, 1921-23, p. 126).

9.

Wace, *ibid.*, pp. 34-36, and fig. 4, p. 19.

10.

Ibid., p. 34.

11.

Wace, "The Last Days of Mycenae," in *The Aegean and Near East* (ed. S. Weinberg) (Locust Valley, NY, 1956), pp. 129-130.

12.

E.g., Desborough, 1973, pp. 99-100.

13.

Prosymna: see n. below; *Tiryns*: for the debate over the twelfth- or seventh-century date of the "temple," see below, section [Tiryns](#). For more recent discoveries of late eighth-century pottery immediately above, or mixed with, Late Helladic IIIB/C wares on the citadel, in the lower town, on the plain, and in a wall chamber, see W. Rudolph, "Tiryns 1968" in *Tiryns V* (ed. U. Jantzen) (Mainz, 1971), p. 93; U. Jantzen *et al.*, "Tiryns-Synoro-Iria 1965-1968," *Archäologischer Anzeiger* (henceforth *Arch. Anz.*), 83 (1968), p. 371; W. Rudolph, "Tiryns: Unterburg 1968 etc." in *Tiryns VIII* (ed. U. Jantzen) (Mainz, 1975), pp. 97, 99, 114; H. Doehl, "Tiryns Stadt: Sondage 1968" also

in *Tiryns VIII*, pp. 152, 154. *Athens*: for eighth-century pottery mixed with LH III C in a well, see O. Broneer, "A Mycenaean Fountain on the Athenian Acropolis," *Hesperia*, 8 (1939), pp. 402-403, 427-428; *Therapne*: see n. below; *Kythera*: for the lack of material between LH III B2 and the eighth century, see J. N. Coldstream, in *Kythera* (ed. Coldstream and G. Huxley) (Park Ridge, N. J., 1973), pp. 305-306; *Vrokastro*: for late eighth-century ware immediately above, mixed with, and *below* Late Minoan III pottery, see E. H. Hall, *Excavations in Eastern Crete, Vrokastro* (Philadelphia, 1914), pp. 89-90, 108-109; *Chios*: for the abandonment of Emborio from LH III C till the late eighth century, see Snodgrass, (1971), p. 90; *Troy*: for an early eighth-century sherd *beneath* LH III C structures with no evidence of later disturbance, see C. Blegen *et al.*, *Troy IV.1* (Princeton, 1956), pp. 231-233. For late eighth- and early seventh-century ware immediately above, mixed with, and *beneath* apparently uncontaminated LH III C layers, see *ibid.*, pp. 158, 181, 253, 265. For a fuller discussion, see below, section "[Troy](#)"; *Scoglio del Tonno* (near Taranto): for seventh-century ware mixed with LH III C, see T. J. Dunbabin, *The Western Greeks* (Oxford, 1948), p. 28, and *idem*, "Minos and Daidalos in Sicily," *Papers of the British School at Rome*, 16 (N. S. 3) (1948), p. 10 and n. 77; other cases also exist.





The Grave Circles

Immediately south of the Lion Gate and the Granary, Schliemann discovered a circle (Fig. 1, D), which contained six royal graves.¹ In the 1950's I. Papadimitriou and G. Mylonas discovered a second circle outside of, and to the west of the Lion Gate. That circle (Circle B), containing twenty-four more princely graves, is, for the most part, contemporaneous with Schliemann's (now called Circle A), beginning a bit before it and discontinued while Circle A was still in use. The two circles have furnished some of the richest and most exciting finds to come from Mycenae, or, in fact, from any prehistoric European site. Since the graves' contents are mainly contemporaneous with the early Eighteenth Dynasty of Egypt, archaeologists have assigned them to the seventeenth-sixteenth (or early fifteenth) centuries B.C.²

Seeking the origin of such grave circles, N. G. L. Hammond recently maintained that they came to Mycenae from Albania. Comparing the Mycenaean examples to Albanian grave mounds, he saw "close analogies in the details of the burial customs, the structure of the mortuary chambers, and the contents of the graves."³ Regarding the construction technique, "the similarities indeed are remarkably close."⁴ The weapons from the Albanian graves also display "astonishing similarities" to those from the Mycenaean Grave Circles.⁵ After considering several factors, Hammond concluded that "the answer can only be that the tumulus-burials of Albania . . . are the antecedents" of the Mycenaean burials.⁶

There is a very serious drawback, however. F. Prendi, the excavator of the Albanian graves, at first claimed that, typologically, those burials belong no earlier than the eleventh century B.C.; he has continued to assign them 500-600 years later than does Hammond.⁷ A. M. Snodgrass agreed that "at first sight Hammond's dating . . . seems a natural one," because the earliest Albanian pottery and weapons do resemble material of, and immediately preceding the early Mycenaean Period.⁸ Further analysis, however, ran Snodgrass "up against the fundamental difficulty of chronology."⁹ Since Albania was extremely conservative throughout antiquity, he felt that there could have been a centuries-long "time-lag" between the creation of goods in Greece and their transmission to Albania, or, alternatively, that they could have arrived in Albania at the time of their manufacture in Greece, and remained in vogue in the north for centuries, without evolving as they had to the south.¹⁰

Perplexed by the latest items from the Albanian grave mounds, some of which seemed to belong to the twelfth century, as Hammond claimed, while others seemed

to be 600 years later, Snodgrass still decided to follow Prendi rather than Hammond. He thus assigned the Albanian graves not to the sixteenth-eleventh centuries, but to ca. 1100-600 B.C.¹¹ More recently, Emily Vermeule, a noted Bronze Age archaeologist and art historian, and J. V. Luce gave credence to Hammond's case.¹² If, however, Prendi and Snodgrass are correct in assigning the earliest Albanian material to ca. 1100 B.C., then, despite "close analogies," "remarkably close," indeed "astonishing" similarities (Hammond), those graves obviously cannot be the "antecedents" and models for graves which are 500 years *older* at Mycenae.¹³

Over a number of the interments in the two Grave Circles of Mycenae stood twenty-two stone stelae, some plain, others decoratively carved. If they really belong to the seventeenth to sixteenth centuries B.C., several authorities see a 500-year discontinuity before the custom of placing tombstones over graves resumed its vogue in Greece.¹⁴ More important than the 500-year problem is the subject matter on some of the sculpted stelae. The scenes of hunting and battle depicted, as well as the general carving technique, remind one very much of Syro-Anatolian relief sculptures—especially those six to seven centuries later in date.¹⁵ The ninth century "neo-Hittite" relief of a stag hunt from Malatya in North Syria is strikingly close in iconography to the "sixteenth-century" stele above one of the graves at Mycenae (Figs. 2A and 2B).¹⁶



Figure 2A: Hittite stag hunt carving



Figure 2B: Mycenaean stele with same motif

The burials inside the two Grave Circles consist of stone-lined shafts. In addition to the bodies of the Mycenaean rulers and their families, the graves contained much wealth in the form of gold masks, inlaid daggers and swords, gold and silver cups and goblets, gold jewelry and foil, etc. Almost immediately after the discovery of such objects in the first Grave Circle, dating controversies arose.

One of the graves produced a gold ring depicting warriors in a chariot hunting a stag with peculiar antlers, which one scholar compared to the ninth century Malatya relief. (Fig. 2B), showing the same subject.¹⁷ An authority on Greek art, P. Gardner, judged the golden breastplates, diadems, sword handles, buckles and patterned gold discs

from the various graves to be products of the Geometric Age (so-named for the geometrical patterns on its pottery).¹⁸ He made that assessment before the chronological sequence for pre-historic Greece received its dates from Egypt, which placed the Shaft Grave period some 500 years before the Geometric Age. He also described animal representations on the gold objects as “identical” in style to the seventh/sixth century examples.¹⁹ Other late nineteenth-century authors noted still more similarities between the Shaft Grave artifacts and those of the seventh-sixth centuries B.C.²⁰ Because of those similarities Gardner felt that the Shaft Graves were not far removed in date from the seventh century, but because much of the art was obviously more primitive, he decided to allow some time for development, thus assigning the graves to the twelfth-tenth centuries B.C.,²¹ which is almost precisely where they would fall under the revised dates for the early Eighteenth Dynasty of Egypt.

H.R. Hall of the British Museum was so struck by the resemblance of the artifacts from Grave Circle A to “later” material, that he proclaimed that, “if we are not to throw aside all that we have learnt of the development of early Greek art,” at least some of the objects belong to ca. 900 B.C. or later.²² He proposed, therefore, that the Greeks re-opened graves dating to the early Eighteenth Dynasty after ca. 600 years, but instead of looting or re-using them, they piously deposited later material, His theory for those graves is universally rejected²³—although, as we shall presently see, it has resurfaced for other graves at Mycenae. The burials and artifacts of Grave Circle A only span about three generations. If they really belong to the sixteenth (or early fifteenth) century, however, as most authorities now assume,²⁴ then their resemblance to later graves and objects seems all the more remarkable, since hundreds of years were to elapse before similar graves and artifacts supposedly re-appeared.

It is true that Gardner, Hall and others formed their opinions seventy-five to a hundred years ago, before anyone suspected that a centuries-long Dark Age followed the Mycenaean Period, separating it by an unbridgeable “gap of emptiness”²⁵ from the later objects which they considered to be similar or identical, and sometimes contemporaneous. Their observations on style are, nevertheless, still valid today.

What they had “learned of the development of early Greek art”²⁶ had to be unlearned and re-learned. Even after nearly eighty years of re-education since Hall made that remark, the Shaft Grave contents, like the stelae and the circles themselves, still present “extraordinarily difficult” problems for, and “remain puzzling” to scholars today.²⁷

References

Schliemann found five of the graves. P. Stamatakes later found the sixth.

2.

Mylonas (1966, p. 236) set the dates at ca. 1650-1510 B.C., while E. Vermeule *The Art of the Shaft Graves at Mycenae* [Norman, OK, 1975], pp. 8, 49) lowered the final date to ca. 1450 B.C.

3.

N. G. L. Hammond, *A History of Macedonia I* (Oxford, 1972), p. 275.

4.

Hammond, "Tumulus Burial in Albania, the Grave Circles of Mycenae, and the Indo-Europeans," *BSA*, 62 (1967), p. 90.

5.

Hammond, *Epirus* (Oxford, 1967), p. 343.

6.

Hammond, (1967), p. 91. See also his "The Dating of Some Burials in Tumuli in South Albania," *BSA*, 66 (1971), pp. 229-241 and "Grave Circles in Albania and Macedonia" in *Bronze Age Migrations in the Aegean* (ed. R. Crossland and A. Birchall) (London, 1973), pp. 189-195.

7.

For the opinion of Prendi and other excavators of those tombs, see Hammond, (1971), pp. 231, 240-241 and his references to the publications in Albanian.

8.

Snodgrass, (1971), p. 259.

9.

Ibid., p. 257.

10.

Ibid., pp. 173, 259.

11.

Ibid., pp. 173, 257-261.

12.

Vermeule, (1975), pp. 13-14 n. 22, 26 n. 35, 49; J. V. Luce, *Homer and the Heroic Age* (London, 1975), pp. 31-32.

13.

Of course, if the Eighteenth Dynasty were moved down by over 500 years, and along with it the contemporary Mycenaean Grave Circles, that problem vanishes.

14.

There were later Mycenaean tombstones (E. Vermeule, *Greece in the Bronze Age* [Chicago, 1972] , pp. 302, 304, fig. 47) and some scholars (e.g., G. Richter, *The Archaic Gravestones of Attica* [London, 1961] , pp. 1-2 and M. Andronikos, *Totenkult* [*Archaeologia Homerica III W*] [Philadelphia, 1943], pp. 10-11), K. Friis Johansen (*The Attic Grave-Reliefs of the Classical Period* [Copenhagen, 1951] , pp. 65-66), and D. C. Kurtz and J. Boardman (*Greek Burial Customs* [London, 1971] p. 38) reject such continuity, having a revival in the eleventh or tenth century. Actually, by the revised chronology those few stones now placed between the sixteenth/fifteenth century examples and the eleventh/tenth century ones, follow both.

15.

A.H. Sayce, “The Inscriptions Found at Hissarlik” in H. Schliemann, *Ilios” the City and Country of the Trojans* (New York, 1881), p. 700; Vermeule (1975, pp. 16-18) *cites* sculpture of the “Hittite Empire” which Egyptian chronology places centuries earlier than “Neo-Hittite” work, but which scholars originally dated on internal grounds to the ninth-sixth centuries B.C. (as they once did Mycenaean culture)—an attribution supported by Velikovsky’s revision (I. Velikovsky, *Ramses II and his Time* [Garden City, NY, 1978] pp. 140-179).

16.

For other, though less striking, analogies, compare fig. 2 B from Mycenae to M. Vieyra, *Hittite Art 2300-750 B.C.* (London, 1955), pls. 48, 67, 77. As Velikovsky has shown (1978, pp. 165-168), scholars have dated the Malatya sculptures anywhere from the fourteenth century to the eighth because of the conflict between Egyptian and Assyrian criteria, but I follow Vieyra’s ninth-century date (*ibid*, p. 76) for the stag hunt.

Early ninth-century sculptures of the Assyrian King Assurnasirpal also show affinities to the Shaft Grave reliefs, but are of much finer execution (see R.D. Barnett and M. Falkner, *The Sculptures of Assur-Nasir-Apli II*, etc. [London, 1962] , pl. 16, and E. Budge, *Assyrian Sculptures in the British Museum: Reign of Ashur-Nasir-Pal, 885-860 B.C.* [London, 1914] , pls. 12, 42.)

17.

“Notes on Art and Archaeology,” *The Academy*, vol. 42, No. 1069 (29 Oct., 1892), p. 393, remarks by Heuzy. See C. Smith’s cogent commentary in “Egypt and Mycenaean Antiquities,” *The Classical Review* 6 (1892) pp. 463-464. The Malatya relief, while similar in subject matter to the ring, more closely resembles the stele (Figs. 2A, 2B).

18.

P. Gardner in a book review of Schliemann's Mycenae in *Quarterly Review*, 145 (Jan. -Apr., 1878) p. 78.

19.

Ibid., p. 80

20.

E.g. C. Schuchhardt, *Schliemann's Excavations* (tr. E. Sellers) (New York, 1891), pp. 180, 318.

21.

P. Gardner, "Stephani on the Tombs at Mycenae," *Journal of Hellenic Studies* (henceforth JHS), I (1880), pp. 97, 101, 106.

22.

Hall, *The Oldest Civilization of Greece* (Philadelphia, 1901), pp. 16, 229.

23.

Hall himself later rejected that theory (*Aegean Archaeology*, [London, 1915], pp. 23-24). I hope to chronicle his dramatic turnabout at a later date.

Accepting ninth-seventh-century dates for items from Enkomi on Cyprus, and convinced of their contemporaneity with some Shaft Grave artifacts, he sought to downdate the latter by over 500 years. Blasted by Arthur Evans for his heresy, Hall accepted the Egyptian-based dates for the Shaft Graves and *all* their contents, and added over 500 years to the dates of the Enkomi material.

24.

For their duration, see Hankey-Warren, (1974), p. 150; Vermeule, (1975) p. 8. For the dates, see p. 49.

25.

R. Carpenter, *Discontinuity in Greek Civilization* (Cambridge, England, 1966), p. 35. Shortly after Carpenter expressed that opinion, Desborough and Snodgrass each wrote extensive volumes on the Dark Age (1972). Both listed and sought to explain the material remains of the period. Both ran into numerous problems, of which we shall list some for Mycenae. Continued excavation reveals more material for the period; but, rather than forming a continuum, the latest Mycenaean artifacts do not flow into the earliest post-Mycenaean ones, with the former looking like and often mixed with 500-year later remains, the latter looking like and often mixed with 500-year earlier remains. That nobody realized the existence of such a Dark Age before Egyptian chronology transferred its dates to Mycenaean culture, see Snodgrass, *ibid*, pp. 1-21. In the final words of his lengthy tome, meant to illuminate the period, Snodgrass (p. 436) confessed that it "seems to me to deserve the title of a dark age."

Hall, (1901), p. 16.

27.

Vermeule, (1975), pp. 1, 51.





Shaft Grave Art: Modern Problems

The Shaft Grave rulers, to judge by their more robust size than that of their followers, by their weapons and by their favorite scenes of art, were hunters and warriors who began consolidating the rather barbaric villages of Greece into a formidable empire. They brought their people from a comparatively backward Middle Helladic existence into the Late Helladic period, aptly named “the Mycenaean Age.” Their houses, tombs and pottery were at first rather poor, since they preferred to lavish their wealth on precious weapons, bowls, ornaments, etc., which they took with them to their graves. At the start of the Eighteenth Dynasty of Egypt they imported and copied objects and ideas from many regions, but Especially drew from the more sophisticated Minoans of Crete. By the time of the last interments in the Shaft Graves, during Pharaoh Thutmose III’s reign, the Mycenaean had not only embraced Minoan artistic trends, but had taken over former Minoan colonies throughout the Aegean, and had conquered Crete itself. By the end of the Eighteenth Dynasty and during the Nineteenth, the Greek rulers resided in palaces within fortified city-states, built sumptuous tombs, developed an intricate economic system supporting herders and farmers, merchants, soldiers, poets, scribes and skilled artisans, who produced beautiful poetry, jewelry, sealstones, ivory carvings, etc., which displayed artistic uniformity throughout Greece and her colonies. The Greeks had taken over the East Mediterranean trade routes, importing luxury items from every direction and exporting their own goods throughout the Aegean and Near East.¹

One can trace all those developments during the span of the Grave Circles—from their inception towards the end of the Middle Helladic period till the special treatment accorded to Circle A during the Late Helladic III B period. We can relate those events to Egyptian history because of the culture contact—both direct and indirect (e.g., via Crete)—between Greece and Egypt throughout the Mycenaean Age. To illustrate that link during the Shaft Grave period, one need only look to the vases and metal objects flora the two grave circles and from contemporary and only slightly later find-spots throughout the East Mediterranean.

Crete, which had enjoyed direct contact with Egypt for centuries before the Shaft Grave Period, sent many of the objects and provided much of the artistic inspiration found among the contents of the Grave Circles.² Both Crete and Greece entered the Late Bronze Age at about the same time, which one can firmly link to the beginning of the New Kingdom in Egypt. For example, several swords, daggers and vessels from the Shaft Graves display designs and scenes composed of inlaid gold, silver and niello (a black metallic compound), reminiscent of early New Kingdom Egypt, with

some of the hunting scenes of definite Egyptian origin, though possibly acquired via Minoan intermediaries. In Egypt itself an ornamental axe head from the earliest years of the Eighteenth Dynasty depicts an Aegean griffin, and its companion piece, a dagger, shows animals at a “flying gallop” inspired by Aegean art, with the iconography of both weapons very closely related to the inlaid weapons of the Shaft Graves. Frescoes in the tombs of the Theban nobles who served Hatshepsut and Thutmose III portray foreign emissaries whose physiognomy, pigmentation, hair style and dress exactly resemble Aegean portraits of themselves. Those and later frescoes, along with Thutmose III’s bas relief from Karnak, depict metal vessels which correspond in material, shape and decoration to the cups, goblets, pitchers, jars, conical pouring vessels, animal-headed containers and figurines which excavators have found in the rich graves of Mycenaean Greece, the mansions on Santorini, and the palaces and villas of Crete. The archaeologists of Egypt and the Levant have also discovered a number of actual Aegean exports of (and slightly later than) the Shaft Grave Period in contexts which are clearly contemporaneous with Thutmose III.³

Since such firm links between the early Eighteenth Dynasty and the Shaft Graves establish a synchronism, Aegean archaeologists, who lacked a reliable dating system of their own, turned to their colleagues, the Egyptologists, who had employed the pharaonic lists of Manetho and astronomical computations to determine absolute dates for the New Kingdom. Transferring the results of their calculations to the Aegean, they assigned the Grave Circles to the seventeenth-sixteenth/early fifteenth centuries B.C., and strapped Aegean archaeologists with a plethora of problems arising from such early dates. Velikovsky has already shown the highly dubious nature of the assumptions which the Egyptologists made in order to construct their dating system,⁴ and set forth his case for subtracting over 500 years from the standard chronology of the Eighteenth Dynasty in accordance with Egyptian and Near Eastern circumstances.⁵

At the Aegean end, an author has recently made the same observation as struck Schliemann and Eduard Meyer in the 1880’s while many of the vessels shown in the Eighteenth Dynasty frescoes correspond to Shaft Grave artifacts, some resemble Protogeometric and Geometric ware over 500 years later.⁶

Again like their nineteenth century precursors, modern scholars still compare some of the Shaft Grave artifacts to those of the Greek Archaic Period (seventh to sixth century). Schiering and Vermeule, for example, noted the similarities between the “second millennium” gold and electrum masks from the Mycenaean Grave Circles and a seventh-century bronze mask from Crete and sixth-century gold masks from Bulgaria, each feeling that, despite the huge gap in time, an otherwise undetected continuity linked the Mycenaean and the much later examples.⁷

Many of the artifacts from the Grave Circles, including the stele and ring already mentioned, depict stags—a favorite subject of Mycenaean two-dimensional art.⁸ In

one of the richest graves of Circle A, Schliemann also found a three-dimensional silver stag having a hollow, barrel-shaped body and a spout on the back, probably used as a drinking vessel. Possibly an import from Anatolia, and certainly deriving inspiration from that region, where the stag had long been “a charged symbol,” it seems to be a metallic copy of a ceramic model.⁹ Excavations in Greece have, so far, produced only one other comparable grave offering in the form of a three-dimensional ceramic stag with a hollow, barrel-shaped body, probably used to hold liquid. Though different in material and in style from the Mycenaean example, it still reminded its discoverer of that find.¹⁰ It comes from the Kerameikos cemetery of Athens, and is dated over 500 years after the Shaft Grave stag, at ca. 925 B.C.—a date which poses its own problems for those seeking to connect the Athenian model to similarly-made ceramic figurines of the Mycenaean Age, supposedly centuries earlier, with an apparent gap dividing them.¹¹

Baltic amber first appeared in Greece in the Shaft Graves, and became characteristic of the Aegean during the early Mycenaean Age (sixteenth to fifteenth centuries), then lost its popularity for a long time,¹² returning near the end of the thirteenth century.¹³ Five hundred years after the Shaft Grave period in the eleventh or tenth century, it again became “not uncommon”, again disappeared for centuries, and again regained its popularity during the eighth century,¹⁴ as it had in the late thirteenth. Roughly half a millennium separates the corresponding phases of its popularity and scarcity.

In addition to amber. Northern burial rites, cultural traits and taste in art also found their expression in the Shaft Graves, with some scholars even speculating that the rulers of Mycenae may have been newly-arrived immigrants from the North.¹⁵ Roughly half a millennium later, ca. 1100 B.C., northern influence again spread into Greece.¹⁶ In the tenth to ninth centuries, the tribes of Central Europe, especially Austro-Hungary, had a life—style and customs very similar to that of the Shaft Grave princes of Mycenae, and there are those scholars who look for such conditions in contemporary Greece, but fail to find them, since they assign the Shaft Graves 600 years earlier.¹⁷

Between the Danube and Mycenae lay the burials of Albania which Hammond considered the antecedents of the Shaft Graves, while Prendi and Snodgrass dated them 500 years later. At about the same latitude, to the east, in Macedonia was another cemetery site at Vergina. Like Mycenae, its earliest tombs were stone-lined shafts, roofed with wood, containing very primitive pottery, and enclosed by circles of stones. Once again Hammond assigned the first tombs earlier than the Grave Circles of Mycenae.¹⁸ Responding to that assessment, Snodgrass¹⁹ again noted that it was 500 years earlier than the excavator (M. Andronikos), Desborough, he himself, as well as most scholars had dated them on the basis of tenth century artifacts inside the tombs.²⁰ There are, however, still other similarities to the Shaft Graves, beyond those mentioned by Hammond, which pose problems for those convinced of

Vergina's late date.

As at Mycenae, the people of Vergina were both wealthy and warlike, burying with them their weapons, amber trinkets, gold jewelry, long dress pins, spiral ornaments, spiral hair coils of bronze and gold wire, and many objects strongly influenced by the north²¹—all familiar features from the Shaft Graves. Contrasted with tenth-century Greece, however, their burials are without parallel²² their warlike society is “the first clear example of one,”²³ their wealth is “amazing,” while “the most remarkable fact” is that the strong northern element did not “penetrate the rest of Greece at this period.”²⁴ What is unique, “first,” “amazing,” and “most remarkable” for the tenth century fits well the Shaft Grave Period, currently placed 500 years earlier.

There was a number of special coils of gold wire in the Shaft Graves of Mycenae, as well as contemporary examples in gold or bronze at Kirrha and Eleusis, used for hair—rings, finger-rings, etc.²⁵ Not only at Vergina but elsewhere in Greece coils of bronze or gold wire, often indistinguishable from the Mycenaean examples, again became popular in the eleventh to tenth centuries, with the gold examples most noteworthy for their contrast to the general impoverishment and the particular scarcity of gold now seen for that period.²⁶

Other gold ornaments from the Shaft Graves, which P. Gardner originally assigned to the Geometric Age, still cause problems for modern excavators who cannot bring them down that late. When publishing the early finds from the Kerameikos cemetery of Athens, K. Kübler characterized four ninth-century gold bands as having a “closely related” (*nahverwandten*) and “completely similar forerunners” (*völlig gleiche Vorläufer*) in the gold work of Mycenae over 600 years earlier.²⁷ Quite recently he published a beautifully decorated T-shaped band, probably used as a garter belt, not earlier than the tenth century B.C., and probably belonging to the eighth. He noted “comparable and unmistakable similarities” (*vergleichbar und unverkennbar Ahnen*) to a number of the golden garter belts from both grave circles, citing his example as still further proof of a “direct connection” (*unmittelbarer Zusammenhang*) between the metalwork of the Shaft Grave Period and that of the early first millennium.²⁸ With such finds separated by several centuries, it is easy to see similarities, but difficult to see any link, direct or indirect.

Several of the ornamental gold discs from Circle A showed “the frequent use of the compass” to form the embossed and engraved rosettes and concentric circle designs.²⁹ Compass-drawn, concentric circles and semi-circles comprise “one of the most common features” of eleventh-century Protogeometric pottery. Desborough, who has made the most thorough study of that type of pottery, considered the sudden appearance of such precise motifs to be the result of a 500-year later “new Athenian invention,”³⁰ since compass-drawn patterns of any kind are difficult, if not impossible, to detect during the intervening half millennium.³¹

In Grave Circle A Schliemann discovered long dress pins, some with globular heads. In 1956 P. Jacobsthal, an authority on Greek art, wrote a book detailing the history of dress pins in Greece, which he felt did not begin prior to the late twelfth century B.C., when women started to use long pins with globular pins to fasten thick clothing at their shoulders. Aware of the pins from Mycenae, two of which closely resembled the earliest ones of his series, he declined to include them in his survey. In a footnote he acknowledged the existence of Schliemann's finds and observed that two of them do "look like forerunners of the sub-Mycenaean pin-type. This must be coincidence: they are separated by an interval of 400 years, and this cannot be bridged."³² Other scholars of about that time also agreed that the history of Greek pins ought to begin in the late twelfth century, not with the Shaft Grave examples.³³ N. Sandars, who specialized in metallurgy, felt that the assumption that 400 years passed without any examples to connect the pins of Mycenae to the very similar ones which started Jacobsthal's series was "rather too sweeping."³⁴ Still there was an embarrassing gap.

During the course of that discussion, archaeologists found and published Grave Circle B at Mycenae and a cemetery only about seven miles away at Argos, both of which added new substance to the controversy, and made the gap even more embarrassing. Circle B produced still more "seventeenth-sixteenth-century" long pins with globular heads (some of rock crystal) clearly worn at the shoulders of women.³⁵ The excavator of Argos found similar long dress pins worn at the shoulders, but datable to the late twelfth century. He felt that since they were so similar in style and usage, and so close geographically, there had to be a connection between the pins of Mycenae and Argos.³⁶ Desborough, granting that the shape and function were similar, and that Mycenae is very close to Argos and provides a "local predecessor" for the pins there, still felt that the time gap was too enormous for there to have been a conscious revival, and no evidence of survival. Despite the affinities of the Shaft Grave pins to those beginning in the late twelfth century, and becoming "a common feature of the period, the later pins constituted a "radical change" from everything during the intervening 400 years. Desborough attached some importance to the later pins, since they" had a bearing on the vital matter of the origins of the whole sub-Mycenaean culture towards the end of the twelfth century,³⁷ which, not only in regard to pins, bore numerous similarities to the culture of the seventeenth-sixteenth centuries,³⁸ but constituted "a radical change" from nearly everything which the present chronological scheme places between the two periods.

E. Bielefeld, unlike Desborough, did not want to connect the Shaft Grave pins to the later examples but, faced with the same centuries—long gap, suggested that there might have been a change in dress after the Shaft Grave period, possibly due to Minoan influence (or warmer weather), but at the end of the Mycenaean Age women again dressed as they had 400 years earlier. With no evidence that similar pins existed in Greece to span the gap, he suggested that the pins and dress might have survived in the East, only to return after 400 years, or, alternatively, that the pins and dress did

survive in Greece itself, among the lower classes who did not embrace Minoan fashions, but that their remains have so far eluded excavators.³⁹

Snodgrass, long concerned with metal work and the Dark Ages, noted that the later pins “appear somewhat abruptly,” possibly due to a colder climate. He, too, saw the “clear . . . antecedents” from the Shaft Graves, and felt some sympathy for the hypothesis of revival, but, like Desborough, was far less concerned with the short distance between the graves of Mycenae and Argos than the huge gap in time. Like Bielefeld he preferred to see the pins survive somewhere to bridge the gap, rather than view the similarities as merely coincidental. Since Greece, despite so much excavation, has not produced the intermediate examples, he looked to more likely (and colder) areas to the north and northwest, but conceded that those regions show no evidence of spanning the gap either. He concluded that “the origins of the straight pin in Greece need to be reconsidered.”⁴⁰ Bielefeld confessed a similar perplexity when he stated that the whole topic involves difficulties which at present are not fully resolved.⁴¹

Under the present chronology, either the Shaft Grave pins were some sort of aberrant phenomenon, which only incidentally resembled pins 400 years later, similar in function and style, and as close as ca. seven miles away, or else pins existed somewhere, as yet undetermined (to the North, the Northwest, the East, or in Greece itself—though even those who believe in survival do not agree where it took place, since the evidence is lacking or inconclusive for all areas), which span the centuries, centuries which Jacobsthal and others, who reject the notion of survival, considered unbridgeable.

We return to the vessels and daggers with inlaid designs and scenes of gold, silver and niello, which link the Shaft Graves to the early Eighteenth Dynasty. The inlay technique first appeared in Greece among the Shaft Grave artifacts, and continued through the early Mycenaean Age, and possibly until the destruction of the Late Helladic palaces towards the end of the LH period.⁴² When describing the inlaid metal decoration of Achilles’ shield in the *Iliad*, Homer gives such extensive details of the design and of its manufacture that late nineteenth and early twentieth-century scholars like C. Tsountas and K Friis Johansen felt that the technique lasted until the poet’s time.⁴³ Now that experts generally date Homer to the eighth century B.C., while excavators have found no inlaid metal after the LH III B period, which Egyptian chronology assigns to the thirteenth century, scholars are forced to ask “how was it remembered?” during the intervening half millennium.⁴⁴ Some⁴⁵ postulate that individual pieces may have survived as heirlooms or been rediscovered centuries later, which would explain the description of the finished product but not of the manufacturing technique.⁴⁶ That is, in any case, purely hypothetical, since no inlaid objects have been discovered in contexts later than LH III B. Others doubt that possibility and prefer to believe that the tradition of oral poetry kept the memory of the objects and the technique alive⁴⁷—a theory frequently employed to explain

Homer's extensive knowledge of the culture which scholars now date half a millennium before his time. One of the Shaft Grave swords bore a geometric meander design on its hilt, which a recent writer considered "wholly untypical of Helladic workmanship at that time," and more akin to the decorative scheme which started to become popular some 500 years later.⁴⁸ A number of the swords had their handles attached by bronze rivets plated with silver or gold, as did other weapons during the early Mycenaean period. On present evidence, silver-plated rivets lasted from ca. 1550-1400 then returned ca. 700 B.C. on Cyprus, which has provoked yet another debate among Homericists. Homer sings of gold-studded and "silver-studded swords" in his epics, with several classicists conjecturing that Homer chronicled weapons which had gone out of use centuries before his time, but which the metrical formulae of oral poetry kept fresh in the Greeks' memory.⁴⁹ Since the Cypriote swords with silver studs are contemporaneous with the rise of the epics, V. Karageorghis felt it more likely that Homer sang of the weapons of his own day.⁵⁰ Between the two groups of swords there is at present a gap of 700 years, with each group of classicists championing examples on one side or the other of that lacuna⁵¹—a very familiar situation, as we shall see again and again in the present essay.

The earliest locally-made vases from the Shaft Graves are pretty homely compared to the roetal work, the exotic imports and the much finer Mycenaean pottery which soon followed. Still, pottery is the major element which Aegean archaeologists employ to establish relative sequences and absolute dates for the pre-classical period,⁵² so that the Shaft Grave vases deserve some consideration. They include goblets and storage vessels, the latter of which are of special interest. Although the "Submycenaean" pots of ca. 1125 B.C. supposedly followed immediately after the last phase of Mycenaean pottery (LH III C) in Western Attica, and Protogeometric pots of ca. 1050-900 B.C. supposedly followed LH III C at Mycenae and elsewhere in Greece,⁵³ there is "a striking difference" in the repertory of shapes between LH III C and sub-Mycenaean,⁵⁴ and both LH III C and sub-Mycenaean vases seem unlikely progenitors of protogeometric ware.⁵⁵ Those pots of ca. 1125-900 B.C., which archaeologists now place centuries after the, Shaft Grave period (despite some problems with that placement) show some marked similarities to the Shaft Grave pots, supposedly 400-600 years earlier.⁵⁶

Numerous scholars have long noted resemblances of the earliest "Iron Age" pottery of Greece, with its distinctive shapes and geometrical designs, to the Middle Helladic (MH) ware at the tide of, and immediately preceding the Shaft Grave Period, with the earliest writers, like Conze, Gardner, and Schliemann himself,⁵⁷ making them contemporaneous. Since the Shaft Graves showed a close link to the early Eighteenth Dynasty, however, Egyptian chronology discredited that notion, and separated the two sets of pottery by some 500 years. Despite that long interval, since the Middle Bronze Age ware of the Peloponnese and Boeotia still resembled the familiar Iron Age pottery from the Kerameikos cemetery of Athens, S. Wide proudly announced

his discovery in 1894 of the long-sought “missing link” (*das fehlende Glied*) bridging the two groups at the site of Aphidna, less than fifteen miles northeast of Athens.⁵⁸ While his find did help geographically, chronologically it was still 500 years too old to connect with the Athenian Iron Age ware. Wide and J. Böhlau therefore proposed that while the upper classes used LH pottery, the humble folk continued to make and use their older style throughout those same 500 years, until the disappearance of the aristocracy and its cultural remains, at which point the native ware again came to the forefront.⁵⁹ Their idea that the older geometrical pottery coexisted with LH ware appealed to a number of contemporary scholars, even as late as 1935, since it explained the similarity of styles otherwise dated 500 years apart.⁶⁰

More recently scholars have rejected the notion that geometrical MH pottery survived alongside LH ware in the Mycenaean world. Many, however, still see the earliest Iron Age pottery of Greece as “a clear break”⁶¹ and a “separate entity” from the latest Mycenaean ware, which it supposedly succeeded directly, and as marking “a new era in the art of the Greek lands.”⁶² They still note closer similarities to MH ware 500 years earlier than to the intervening LH pottery a matter which “raises a host of problems.” Some regard the origin of the new Iron Age ware as “obscure”, somehow “by-passing the Mycenaean phases” to link up with the 500-year-old MH tradition, possibly in some remote region to the north.⁶³ Desborough, who has made the most thorough study of the earliest Iron Age geometrical ware, rejected a derivation from such a source, although he, like others, was equally dissatisfied with a direct development from the latest Mycenaean ware.⁶⁴

However one tries to solve the 500-year ceramic problem, the fact remains today, as in Schliemann’s time, that some of the earliest Iron Age ware of Greece, with its distinctive fabric, its wheel made and handmade forms, and its incised and painted decoration, resembles the pottery which culminated in the Shaft Grave vases from Mycenae;⁶⁵ and at the site of Asine, less than twenty miles southeast of Mycenae, the excavators termed that resemblance “astounding.”⁶⁶

References

1.

Vermeule, (1972), pp. 82-279.

2.

Vermeule, (1975), passim, esp, pp. 27ff.

3.

Ibid., pp. 18-22; Vermeule, (1972), pp. 109, 148-151; Hankey-Warren, (1974),

pp. 145-147 (with references to fundamental work by Evans, Kantor, Furumark and Vercoutter).

4.

I. Velikovsky, *Peoples of the Sea* (Garden City, N.Y., 1977) pp. 205-244.

5.

I. Velikovsky, *Ages in Chaos I* (Garden City, N.Y., 1952) passim.

6.

E. Meyer, *Geschichte des Alterthums I* (Stuttgart, 1884), p. 245; H. Schliemann, *Tiryns* (New York, 1885), p. 89; T. Burton-Brown, *Third Millennium Diffusion* (Oxford, 1970), p. 184.

7.

W. Schiering, "Masken am Hals Kretisch-mykenischer und früh-geometrischer Tongefässe," *Jahrbuch des deutschen archäologischen Instituts* (henceforth *JdI*), 79 (1964), p. 16 and figs. 17,18; E. Vermeule, (1972), p. 108.

8.

Vermeule, (1975), pp. 15, 17, 23-26, 45.

9.

Ibid., pp. 15-16.

10.

K. Kübler, *Kerameikos IV* (Berlin, 1943), p. 20, n. 19.

11.

R. Higgins (*Greek Terracottas* [London, 1967], p. 21) and Snodgrass ([1971], p. 401) both noted the similarity to Mycenaean works at least 200 years earlier, the former suggesting that the technique survived in Crete and Cyprus to return to Greece later. R.V. Nicholls ("Greek Votive Statuettes and Religious Continuity, ca. 1200-700 BC" in *Auckland Classical Essays Presented to E.M. Blaiklock* /ed. B. Harris/ [New Zealand, 1970], p. 13) believed in continuity in Greece itself, though he could only cite two examples which *might* belong to those two hundred years (Cf. Desborough, (1972), pp. 282-283).

12.

Vermeule, (1972), pp. 89, 114, 127-128, 131, 147, 227, 257.

13.

C.W. Beck *et al.*, "Analysis and Provenience of Minoan and Mycenaean Amber, II Tiryns," *Greek, Roman and Byzantine Studies* (Henceforth *GRBS*),

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- 14.
- Snodgrass, (1971), pp. 248, 290, n. 34.
- 15.
- Vermeule, (1975), pp. 22-26, 28, 49; Luce, (1975) p. 32.
- 16.
- Snodgrass, (1971), pp. 319-320.
- 17.
- Ibid.*, p. 392 (cp. Vermeule, (1971); pp. 108-110); A. Mahr et al.. *The Mecklenburg Collection*, etc. (New York, 1934), pp. 9-11.
- 18.
- Hammond, (1972), p. 266.
- 19.
- Snodgrass, review of Hammond's A History of Macedonia, JHS, 94 (1974), pp. 230-231.
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- M. Andronikos, "An Early Iron Age Cemetery at Vergina, near Beroea," *Balkan Studies*, 2 (1961), p. 89: ca. 1050-1000 B.C. (later revised to ca. 1,000 B.C.); Desborough, (1972), pp. 219-220:early tenth century; Snodgrass, (1971), p. 133: late tenth century.
- 21.
- Snodgrass, *ibid.*, pp. 253-254; Desborough, *ibid.* pp. 219-220.
- 22.
- Snodgrass, *ibid.*, pp. 161-162; Desborough, *ibid.*, p. 220.
- 23.
- Desborough, *loc. cit.*
- 24.
- Snodgrass, (1971), pp. 253, 257.
- 25.
- H. Schliemann, *Mycenae* (New York, 1880) p. 353 No. 529 (from a plundered Shaft Grave south of Circle A); E. Bielefeld, *Schmuck (Archaeologia Homerica I C)*,(Gottingen, 1968), p. 37, to which add G. Mylonas, "The Cemeteries of Eleusis and Mycenae", *Proceedings of the American*

Philosophical Society 99 (1955), p. 59.

26.

Bielefeld, *ibid.*, pp. 47-48; R. Higgins, *Greek and Roman Jewelry* (London, 1961), pp 72, 91, 93; Desborough, (1972). pp. 304-305.

27.

K. Kübler, *Kerameikos V. 1.1* (Berlin, 1954), pp. 185-186.

28.

K. Kübler, *Kerameikos VI. 2. 2* (Berlin, 1970) pp. 403-404.

29.

F. Matz, *The Art of Crete and Early Greece* (tr. by A.E. Keep) (New York, 1962), pp. 174, 218 fig. 48; cf. Schliemann, (1980), pp. 167 No. 241, 319 No. 481 (rosettes), 172 No. 252 (circles).

30.

Desborough, (1972), pp. 41-43, 145 (referring to the combination of the compass with a multiple brush).

31.

Snodgrass, (1971), pp. 47, 99, n. 26.

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P. Jacobsthal, *Greek Pins* (Oxford, 1956) p. 1 and n. 1.

33.

H. Lorimer, *Homer and the Monuments* (London, 1950), p. 358; Higgins, (1961), p. 92.

34.

N. Sandars, "A Minoan Cemetery on Upper Gypsades: The Bronzes," *BSA*, 53-54 (1958-9), p. 235, n. 28.

35.

G. Mylonas, *Ancient Mycenae* (Princeton, 1957) pp. 144-145, 158.

36.

J. Deshayes, *Argos: les fouilles de la Deiras* (Paris, 1966), p. 205; see also B. C. Dietrich, "Some Evidence of Religious Continuity in the Greek Dark Age," *BICS*, 17 (1970), p. 20

37.

V. Desborough, review of Deshayes' *Argos etc.* in *Gnomon*, 41 (1969), p.

217; cf. *idem*, (1972), pp. 108, 295-299.

38.

Snodgrass, (1971), pp. 383-385: cf. remark on p. 29.

39.

Bielefeld, (1968), pp. 38-39.

40.

Snodgrass, (1971), pp. 226-228, 309-310 (climate).

41.

Bielefeld, (1968), p. 39.

42.

Venneule, (1972), pp. 98-100, 128, 133, 151, 225; Luce, (1975), pp. 61-63, 70-71, The inlaid silver cup found in the debris of the LH III B palace at Pylos, and often cited as LH III B in date of manufacture (e.g. Luce, p. 62), could have been an heirloom (Blegen-Rawson, (1956) pp. 57-58, 62); nevertheless, it shows that such objects were still in use (possibly made) until the destructions marking the transition from LH III B to C.

43.

C. Tsountas & J. I. Manatt, *The Mycenaean Age* (New York, 1897), p. 324; K. Friis Johansen, *Les Vases Sicyoniens* (Rome, 1966 [reprint of 1923 edition]), pp. 159-160.

44.

Luce, (1975), p. 63.

45.

D.E. Strong, *Greek and Roman Gold and Silver Plate* (Glasgow, 1966) pp. xxv, 53; D.H.F. Gray, "Metal-working in Homer", *JHS*, 74 (1954), p. 4; see Vermeule, (1972) p. 100.

46.

Gray (*ibid.*, pp. 3-4, 12-14) felt that Homer's description of the process was very erroneous and implied a long break. On one point, "*kyanos*" might designate niello rather than glass paste. Any misconceptions which Homer had about fabrication techniques—which were probably known only to a small guild of artisans—need have no chronological implications (cf. n. below), but if there was a temporal lapse, it need not have been several centuries in duration. The period between the probable manufacture date and time of deposition of the Pylos cup would be more than adequate, and, in fact, a generation or so would suffice.

- Luce, (1975), p. 63; T.B.L. Webster, *From Mycenae to Homer* (New York, 1964), pp. 28-29, 213-214; G.S. Kirk, *The Language and Background of Homer* (Cambridge, 1964) p. 176; K. Fittschen, *Der Schild des Achilleus* (*Archaeologia Homerica* II. n. 1) (Göttingen, 1973), pp. 5-6, 17.
- 48.
- Burton-Brown, (1970), p. 184.
- 49.
- Gray, (1954) p. 14; Luce, (1975), pp. 61-62, 101-102; Webster, (1964), p. 92; Kirk, (1964), pp. 176-183; Lorimer, (1950), pp. 273-274; D. Page, *History and the Homeric Iliad* (Los Angeles, 1959), p. 278, n. 63; G.S. Kirk, *Homer and the Oral Tradition* (New York, 1976), pp. 20, 22, 42-43 (where he takes an even firmer stand than in his earlier work.)
- 50.
- V. Karageorghis, "Homerica from Salamis (Cyprus)" in *Europa: Studien. . . Ernst Grumach* (Berlin, 1967), pp. 167-168; idem, *Salamis in Cyprus* (London, 1969), p. 70
- 51.
- A. Snodgrass, "An Historical Homeric Society ?," *JHS* 94 (1974) p. 123. Luce (1975, p. 102) suggested that Homer's poetry may have inspired the swords of Cyprus rather than *vice versa*, although one might wonder how familiar Homer was both to and with seventh-century Cyprus. Karageorghis (*Europa*, p. 168, and letter to roe of Oct. 26, 1978) acknowledged the seven-hundred-year-gap in the evidence to date, but postulated that there were silver-studded swords during those centuries (as yet undiscovered) to bridge the lacuna (cf. scholars' similar beliefs on chariots, below "[A Chariot Vase](#)," ns. 2, 7). In that regard, it is of interest to note that, so far, no one has discovered a silver-studded sword on Cyprus earlier than ca. 700 B.C., and, of still greater interest, that, by the present chronology, there is a surprising gap from ca. 1400-1200 B.C., when the Cypriots had no swords whatever (H. W. Catling, *Cypriote Bronzework in the Mycenaean World* [Oxford, 1964] pp. 110,113; L. Aström et al.. *The Late Cypriote Bronze Age: Other Arts and Crafts* [*Swedish Cyprus Expedition (henceforth SCE)* IV. 1D] [Lund, 1972], pp. 560, 762).
- 52.
- E.G., for the Mycenaean Period see Vermeule, (1972), p. 139; for the Dark Age see Snodgrass, (1971), pp. 24-28, and Desborough, (1972), p. 292.
- 53.
- Snodgrass, *ibid.*, pp. 134-135.
- 54.

Ibid. p. 35. As he notes (loc. cit.), the repertory of pots called “Submycenaean” has both grown and shrunk due to new discoveries and reclassification (cf. Desborough, (1972), p. 33). Some shapes clearly derive from the lates LH series, while others, currently seen as their contemporaries, do not, and seem to be 500-year throwbacks.

55.

V. Desborough, *Protogeometric Pottery* (Oxford, 1952), p. 126.

56.

Compare the shape (not handles) of *ibid.*, pl. 19 A 1452-1453 to Mylonas, (1957), pls. 43a, 64 a-b; the shape of *ibid.*, pl. 35 IV.1 to Mylonas, p. 81b; the handled kalathos (*ibid.*, pl. 8 No. 577.20) resembles an enlarged “Vapheio cup” (P.S. 224) for which, note the gigantic cups carried by Aegeans in Egyptian frescoes; Amphora 590 (G. Karo, *Die Schachtgräber von Mykenai* [Munich, 1933], pl. 171) shows points of resemblance to C.G. Styrenius, *Submycenaean Studies* (Lund, 1967) pls. 49, 63, to C.W. Blegen *et al.*. *The Palace of Nestor III* (Princeton, 1973) pl. 298.14, and to K. Kübler & W. Kraiker. *Kerameikos I* (Berlin, 1939), pl. 55 No. 589; the amphoriskoi from Circle B (e.g. Mylonas, *Ho Taphikos Kyklos B ton Mykenon* [Athens, 1973], pl. 128B) show similarities to Styrenius, pl. 11 and Desborough (1952, p. 126.), pl. 31 (bottom center). The resemblances are generic, and I would not claim that the pots were made in the same place, at the same time, by the same men. They, along with many other artifacts and customs show similarities more easily explained by a closer link than scholars now see. The admitted differences are often slighter than those between contemporaneous Submycenaean pots from the same area with their “considerable variation” in shape and decoration (Desborough, (1972), p. 33) and between contemporaneous groups of ninth-century pots made in different areas (Snodgrass, (1971), figs. 42-44, 120-122).

57.

R.M. Cook, *Greek Painted Pottery* (London, 1972) p. 303; Gardner, (1978), p. 78; Schliemann, (1885), p. 89.

58.

S. Wide, “Aphidna in Nordattika,” *Athenische Mittheilungen* (henceforth *Ath. Mitt.*), 21 (1896) p. 407.

59.

Ibid., pp. 400-403, 407-409. For Böhlau’s contribution, see *ibid.*, p. 402, n. 1 and Cook, (1972), p. 305.

60.

E.g. C.C. Edgar, “Excavations in Melos 1899: The Pottery,” *BSA*, 5 (1898-

99), pp. 15-16; *idem.*, “The Pottery” in *Excavations at Phylakopi in Melos* (JHS supplement 4) (London, 1904), pp. 97, 100, 103-106; H.B. Walters, *History of Ancient Pottery I* (New York, 1905), pp. 278-279; W. Dörpfeld, “Das Alter des Heiligtums von Olympia,” *Ath. Mitt.*, 31 (1906), pp. 205-218 (a view caustically attacked that same year by A. Furtwängler [Das Alter des Heraion und das Alter des Heiligtums von Olympia,” reprinted in *Kleine Schriften I* (Munich, 1911) pp. 455-457], who had, as we shall see [below “[Other LH III Figural Pottery](#),” n. 9], proposed that Mycenaean ware lasted an extra 500 years, coexisting with the *later* geometrical ware); W. Dorpfeld, *Alt Olympia I* (Berlin, 1935), pp. 11-14.

61.

R.S. Folsom, *Handbook of Greek Pottery* (London, 1967), p. 21.

62.

Cook, (1972), pp. 4-6; cf. M Robertson, *A History of Greek Art I* (New York, 1975), p. 15.

63.

P. Demargne, *The Birth of Greek Art* (tr. by S. Gilbert and J. Emmons) (New York, 1964), p. 287; cf. V. Milojcic, “Die dorische Wanderung im Lichte der vorgeschichtlichen Funde,” *Arch. Anz.*, 1948-1949, p. 34; C.G. Starr, *The Origins of Greek Civilization* (New York, 1961), pp. 45, 93 and n. 1, 140. For the retention of MH ware in Albania and Macedonia supposedly 500 years after their disappearance in the south, see “The Grave Circles,” ns. 2-11 and ns. 18-20 above; for Thessaly see W.A. Heurtley and T.C. Skeat, “The Tholos Tombs of Marmariane,” *BSA*, 31 (1930-1), pl. 1, figs 4-7.

64.

Desborough, (1952), p. 126; cf. Hall, (1901), p. 39; Demargne, (1964) p. 287, and Milojcic, (19648-49), p. 34, against direct evolution from LH pottery.

65.

Snodgrass, (1971) pp. 94-97, 384. In addition to those already cited above (ns. 57-64) cf. Lacy, (1967), p. 171 on tea cups; Broneer, (1939), pp. 418-419; E. Vermeule, “The Mycenaean in Achaia,” *American Journal of Archaeology* (henceforth *AJA*), 64 (1960), p. 5 for MH vessels “skipping periods and occurring again after a lapse of time”; Skeat, Verdellis and others subscribed to that hypothesis to explain the ribbed pedestal on ninth-eighth-century vessels from Thessaly as derived from MH goblets, including those from Circle B at Mycenae, but J. N. Coldstream, *Greek Geometric Pottery* [London, 1968], p. 161 and n. 3) felt that the 600-700-year gap in the evidence invalidated that suggestion (see, however, n. 63 above on Thessaly).

66.

O. Frödin and A. W. Persson, *Asine: Results of the Swedish Excavations 1922-*





Later Use of the Grave Circles

Not very long after the Shaft Grave burials, a Mycenaean ruler disturbed one of the interments in Circle B, enlarging its shaft to form an entrance to a new “built tomb,” with a stately chamber and saddle-shaped roof constructed of stone blocks. Enough ceramic material remained in the tomb, after its subsequent robbery, to indicate an LH II date for its fabrication and use. Since the LH II pottery phase corresponds to the reign of Pharaoh Thutmose III, G. Mylonas, the tomb’s excavator, assigned it to the fifteenth century B.C. The tomb type is foreign to Greece, with the example from Circle B constituting its sole appearance in the country. Archaeologists have discovered the type at roughly the same period on Crete (also one example) and Cyprus and especially in Syria, where it originally developed. Mylonas saw “striking parallels” to the tombs of Syria and Trachonas on Cyprus;¹ but, as he had noted earlier, there was a problem with Trachonas since, despite its close proximity to Syria, its example is 500 years younger than those of Syria.² There are tombs of the “right” date on Cyprus, notably at Enkomi, but the 500-year problem still exists and has grown with time.

Excavations have found similar Iron Age built tombs in large numbers on Cyprus, in Asia Minor, Urartu, Palestine and at Carthage, none dating earlier than ca. 950 B.C., and most belonging to the ninth-seventh centuries. Noting the same “striking parallels” between the examples of 1550-1200 B.C. and those from 950-600 B.C., numerous archaeologists have tried to connect the two groups. A 250-year gap separates them, however, with the earliest Iron Age tombs resembling not the latest Bronze Age examples, but the earliest ones, ca. 600 years earlier, with developmental stages running parallel after a 600-year interval. Furthermore, although excavators assume that Syro-Phoenicia was the place of origin for both groups, especially since the Iron Age examples encircle that region and appear at Levantine colonies, there are, in fact, no such tombs known from Syro-Phoenicia during the second period.³

The built tomb of Circle B marks the last burial inside the Grave Circles. The Mycenaean rulers turned from simple, stone-lined shafts (and the one Syrian built tomb), sunk into the softer rock of the relatively flat land west of their citadel, to the neighboring hilly slopes to the west and southwest. There they excavated long, unroofed corridors into the hillsides, then hollowed out gigantic circular tombs which they lined with stone, capping them with corbelled, stone-built domes, resembling huge beehives, over which they heaped a tremendous mounds of earth. They also began to protect their citadel with thick walls of stone.

In the LH III B period, which began towards the end of the Eighteenth Dynasty and

extended through the subsequent reigns of the Ramesside pharaohs,⁴ both Grave Circles, abandoned for centuries, experienced renewed activity. Circle B, the farthest from the citadel, and possibly silted over with wash and forgotten during the centuries of disuse, suffered an ignoble fate when the workmen excavating the last of the great beehive tombs (the so-called Tomb of Clytemnaestra, to which we shall return), sliced through the eastern portion of the Grave Circle, and heaped the earthen mound to cover that tomb over the rest of Circle B.⁵

Circle A, on the other hand, enjoyed a completely different lot during the same period.⁶ Like Circle B, the beehive tombs, and all the other graves of rich and poor residents or Mycenae, Circle A originally lay west of, and outside the settlement proper, both during the period of its burials in MH-LH I, and at the time of the first extensive fortification of the city in LH III A. When the “thirteenth-century” Mycenaeans decided to enlarge their city, by building another, longer wall in the area of the “prehistoric cemetery” to the west, they faced the problem of what to do with Circle A. We already saw some evidence of the disrespect for their dead predecessors which the Mycenaeans displayed at Circle B, when the owner of the built tomb violated the earlier Shaft Grave he expropriated, only to have his own tomb pillaged after his death, and again when the excavators of the beehive tomb destroyed part of Circle B and heaped dirt over the rest of it. In fact, they were notorious for their lack of piety towards the deceased, building structures over earlier tombs, robbing the dead, and casting aside their bones.⁷

Unlike Circle B and so many other graves in the vicinity, the Mycenaeans treated Circle A, which lay directly in the path of their urban expansion, with a reverence singular for that age. They extended their fortification wall farther than mere concern for defense or for urban planning dictated, enclosing Circle A within the city proper. They made sacrifices and dedicated idols inside the circle.⁸ Although space inside the citadel was at a premium, and the inhabitants crowded buildings around that area, many of them over older graves, some of which they plundered,⁹ they spared Circle A. In fact, they decided to raise its level as a whole, to correspond to the higher grade of the city’s interior—a massive engineering feat, requiring the construction of a giant retaining wall to the west over five meters high, adding tons of earth above the graves until they formed a higher, even surface, then raising the old grave stelae to the new level to designate the individual burials below. At the new surface they constructed a new enclosure wall of two concentric rings of stone slabs filled with earth and capped by horizontal stone slabs.¹⁰

Considering the lack of respect for other, neighboring, tombs, the building all around but not above Circle A, the vast labor that went into deflecting the city fortification around the circle, and into creating the circle as it now appears, as well as the contemporary sacrifices and dedication of idols, some scholars have considered Circle A as a sacred burial precinct,¹¹ unique for thirteenth-century Greece. The next evidence of such a practice in Greece—again involving older graves sunk into the

earth and lined with stone walls or stone slabs encircled by a later wall to form a sacred precinct—took place in Attica at Athens” and at Eleusis roughly 500 years later.¹² Scholars regarded the latter two cases as the beginnings of hero shrines in Greece, stating that “respect for older burials is something quite new at this time [the eighth century]” and “foreign” to all earlier periods.¹³ The similar instance from Circle A stands in isolation 500 years earlier. It is of further interest for the cult at Circle A itself, that, as with nearly every other example of real or presumed thirteenth-century cults throughout the Aegean, there is a sharp break soon after its initiation;¹⁴ yet, again, as in most other cults, people, apparently stirred by the same feelings as their predecessors, re-established worship and dedications at Circle A some 500 years later,¹⁵ as if there suddenly arose “the revival of some kind of consciousness in a people who had previously lacked it” during the intervening half millennium.¹⁶

From the above account we see that the late nineteenth-century savants, who were forced to “throw aside all that we have learnt of the development of early Greek art” (Hall), when Egyptian chronology made the Shaft Graves of Circle A and all their contents no later than ca. 1450 B.C.,¹⁷ were not alone in their problems. Even a century after Schliemann’s fabulous discovery, and despite all the finds since then, including Circle B, still the stelae, grave construction, and many of the contents of the Shaft Graves of both circles, the built tomb of Circle B, and the cult at Circle A prove vexing to contemporary archaeologists.” With the beginning of the Eighteenth Egyptian Dynasty redated by over 500 years, the Shaft Graves would belong to the eleventh-tenth centuries, the built tomb would fall into the late tenth century, and the special honor accorded to the dead of Circle A would date to the eighth century—all linked in time with similar items and traits of a supposedly later era. Under such a revision they no longer stand isolated from 400-600-year-later, but still comparable artifacts and customs of the eleventh-eighth (and later) centuries, with which some late nineteenth- and early twentieth-century scholars synchronized them, and with which even current scholars still compare, and seek (despite difficulties) to relate them.

References

1.

Mylonas, *Mycenae and the Mycenaean Age*, p. 107

2.

Idem, (1957), p. 164; cf. Velikovsky, p. 183.

3.

E. Sjöqvist, “Enkomi” in E. Gjerstad *et al.* SCE I (Stockholm, 1934) pp. 570-573; A. Westholm, “Amathus” SCE II (Stockholm, 1935) p. 140;

A. Westholm, "Built Tombs in Cyprus" *Opuscula Archaeologica* (henceforth pp. Arch.) II (1941), pp. 30, 32-53, 57; E. Gjerstad, SCE, IV.2 (Stockholm, 1948), p. 239; Karageorghis, (1967b), p. 123; C. Picard, "Installations cultuelles retrouvées au Tophet de Salambo," *Rivista degli Studi Orientali*. 42 (1967), pp. 189-199; G.C. and C. Pickard. *The Life and Death of Carthage* (tr. by D. Collon) (London, 1968), pp. 47, 52; D. Ussishkin, "The Necropolis from the Time of the Kingdom of Judah at Silwan, Jerusalem," *The Biblical Archaeologist*, 33 (1970), pp. 45-46; For a fuller discussion, see Isaacson, (1974), pp. 14-15.

4.

Hankey-Warren, (1974), pp. 147-148, 150.

5.

Ibid., p. 145, 152, n. 2; Mylonas, (1966), p. 98. The earthen mound of the beehive tomb, which also covered the Grave Circle, explains why no one knew of the circle, intersected by that tomb, after the discovery of the latter ca. 1807, or when workmen constructed the present road, a cistern and an aqueduct over the western side of the circle in modern times, until its chance discovery in the 1950s (Mylonas, (1957), pp. 130, 143-144). If wash already covered the circle before LH III B, the apparent disrespect of that period might have the same explanation as more recent encroachments—ignorance of its existence.

6.

Mylonas and others have the activity at Circle A precede that at B by ca. 30 years, while Wace and others had the activity at Circle A follow that at B by ca. 50 years or more (Mylonas, (1966), pp. 119-120). Still, all agree on an LH III B date for both.

7.

Ibid., pp. 106-107, 109; Vermule, (1972), pp. 88, 299-230.

8.

Mylonas, *ibid.*, pp. 24, 28-31, 90, 94-96; idem, "The Cult of the Dead in Helladic Times," in G. Mylonas (ed.) *Studies Presented to P.M. Robinson I* (St. Louis, 1951), pp. 96-99; Wace, (1921-23), pp. 104-105.

9.

Mylonas, (1966), p. 96; Wace, *Mycenae: An Archaeological History and Guide* (Princeton, 1949), pp. 51, 61, figs. 18, 69, plan 3; Vermeule, (1972), p. 84.

10.

Mylonas, *ibid.*, 90-96; Vermeule, *ibid.*, p. 84.

11.

Mylonas, following Wace, originally (1951, pp. 96-99) regarded it as such. He later changed his mind, since Circle B not only did not receive similar honor, but was violated at about the same time; and because Circle A, which did not have a doorway, showed no evidence of doors to bar the uninitiated and animals (1966, pp. 178-179), As to his first reservation, Circle B might not have suffered deliberate abuse if it was not visible at the time (see n. 5 above); or, even if so, if the two circles represented two different groups, one might have been in esteem, the other in disfavor centuries later. As to the lack of doors, the Mycenaeans had other devices for blocking passages, such as skins, curtains, stone slabs, clay slabs, etc. (cf. Blegen-Rawson, (1956), pp. 38, 111, 152, 161); they could have even used a fence or a rope cordon. Of far greater concern for the safety of the fortress as a whole is the fact that two entrances into the citadel from the Northeast ([Fig. 1 P, Q](#)) near the vital water supply, had no doors to bar them (Mylonas, (1966), pp. 18-19, 32. Mylonas (loc. cit.) postulated that troops could protect them, and also envisioned an honor guard for Circle B (*Mycenae: A Guide to Its Ruins and Its History* [Athens, 1972], p. 57, fig. 25). The same could apply to Circle A. Whether sacred or not. Circle A was obviously very special to the people of Mycenae.

12.

Athens: H.A. Thompson, "Activity in the Athenian Agora: 1966-1967," *Hesperia*, 37 (1968), p. 60; Eleusis: Mylonas, (1955), p. 60; idem, *Eleusis and the Eleusian Mysteries* (Princeton, 1961), pp. 62-63.

13.

J. N. Coldstream, "Hero-cults in the Age of Homer," *JHS*, 96 (1976), p. 11; Cf. Kurtz-Boardman, (1971), pp. 298-302.

14.

Some modern writers like Desborough (1972, pp. 278-287), Dietrich (1970, pp. 16-25) and N. D. Papachadzi ("Religion in the Archaic Period" in *The Archaic Period* [ed. G. Christopoulos and J. Bastias; tr. P. Sherrard] [London, 1975], pp. 25-26), bothered by the present lack of archaeological material to fill 500-year voids at numerous centers of religious activity—the one matter for which everyone believes in continuity throughout that half millennium—postulate that there was no break. Other recent authors, like Snodgrass (1971, pp. 130-131, 192-194, 275-279, 394-401, 408-409, 422; *Archaeology and the Rise of the Greek State* [Cambridge, 1977], pp. 25-32), Coldstream ([1976], pp. 8-17; *Knossos: The Sanctuary of Demeter* [London, 1973], p. 181), O. Dickinson ("Archaeological Facts and Greek Traditions," *Bulletin of the Archaeological Society of the University of Birmingham*, 17.2 [1973-4], p. 40), and R.A. Tomlinson (*Greek Sanctuaries* [London, 1976], pp. 15, 20-21, 28, 64, 71, 78-80, 90, 124) are as perplexed as their colleagues, but do see a 500-year lacuna in the evidence (and cf. F. Grace, "Observations on Seventh-Century Sculpture," *AJA* 46 (1942) p. 341).

Coldstream, (1976), pp. 9-10.

16.

Snodgrass, (1971), p. 194.

17.

See above "The Grave Circles," ns. 2, 22.





The Warrior Vase

In one of the buildings closest to Circle A ([Fig. 1, F](#)), Schliemann discovered the fragments of a large, decorative ceramic bowl, used for mixing water and wine. Because of its friezes of soldiers, he dubbed it “the Warrior Vase.” It is probably the best known piece of Late Helladic pottery (Figs. 3, 5A).



Figure 3: The Warrior Vase



Figure 4: Krater signed by Aristonothos

For quite some time after its discovery, scholars dated the bowl to the seventh century B.C. They regarded its peculiar bull’s head handles as definitely derived from those found on eighth-century vases.⁽¹⁾ They likewise considered the registers of spearmen as a development from the eighth-century processional friezes on funerary jars found near the Dipylon Gate at the Kerameikos cemetery of Athens. They unhesitatingly attributed the soldiers on the bowl to the Protoattic Period (i.e., early seventh century B.C.) on the basis of style, comparing them to the warriors on another mixing bowl (Fig. 4) painted by a known seventh-century artist; some even ascribed both bowls to the same man.⁽²⁾ They felt that still other technical and stylistic features of the bowl and its decoration indicated a date between 700 and 650 B.C. for the Warrior Vase.⁽³⁾ That same vase is now firmly assigned to the early LH III C period, which Egyptian chronology fixes at ca. 1200 B.C.,⁽⁴⁾ leaving as problems the peculiar handles and the figural style. Over seventy years ago, D. Mackenzie replied to those who derived its bull’s head handles from eighth-century prototypes, that the Warrior Vase itself proved that such a device “had a much earlier history.”⁽⁵⁾ Still, they stood in isolation from the much later handles, originally thought to be their prototype. The more recent

discoveries of two other LH III C handles of the same type⁽⁶⁾ has provided companion pieces, but has not alleviated the problem.



Figure 5A: Bull's head handles from the Warrior Vase

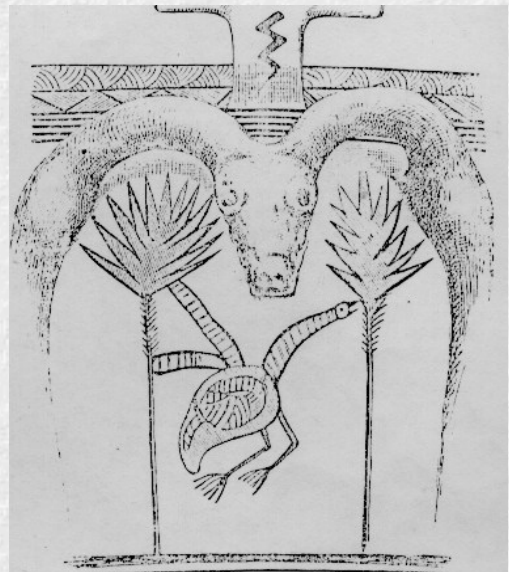


Fig 5B Bull's head handles on a seventh-century vase

Irrespective of the absolute dates for LH III C pottery, scholars had always considered bull's head handles as a later development from double-loop handles, now artistically rendered as horns surmounting a bovine face. In 1966 N. R. Oakeshott treated the topic in great detail. If the LH III C vases belonged to ca. 700 B.C., as early scholars believed, there would be no problem in deriving the developed handles from the double loops on vases from the Protogeometric Period (i. e., no earlier than ca. 1050 B.C.) onward; but since scholars now assign LH III C to ca. 1200 B.C., and since Oakeshott "searched in vain" for double loops earlier than that date, she concluded that the original idea, first seen in the three LH III C examples, was to fashion a fully-articulated bull's head attachment, both as a decorative and a functional device. She spoke of "a continuous tradition" from LH III C onward, but, reversing the previous consensus, she assumed that the Iron Age examples descended from those on the Warrior Vase, only later degenerating into mere double loops of clay.⁽⁷⁾

Oakeshott branded the early Iron Age handles "very debased," part of a "'holding operation,' almost a tactical retreat."⁽⁸⁾ Her evidence for a "continuous tradition" is solid from perhaps 1050 B.C. (at the earliest) on, but there is a lacuna of at least 150 years between the developed LH III C bull's head handles and the earliest known "debased" double loops, which they supposedly engendered. Additionally, of all the numerous Iron Age handles from the Protogeometric Period onward, only the most developed forms of ca. 700 B.C. again began to look like articulated bull's heads, and were "very similar" to those of the Warrior Vase.⁽⁹⁾ A vase from Cyprus displays not only "very similar" handles, but also a similar bird to those depicted on the Warrior Vase; the decoration of the Cypriote bird and the friezes of filling ornaments above

the handle are also “very similar” to other LH III C pots.⁽¹⁰⁾ Late nineteenth- and early twentieth-century scholars assigned the same dates to the Warrior Vase and the Cypriote pot. After Egyptian chronology set the former into the early twelfth century, while independent Cypriote chronology has fixed the latter in the early seventh, “the gap between the Cypriote products and the Warrior Vase, to which they are typologically closest, has widened” by half a millennium.⁽¹¹⁾

Confronted by a lacuna of 500 years between the “typologically closest,” “very similar” examples of bull’s head handles, Oakeshott suggested “that a continuous tradition culminated in this area [Cyprus] in a revival.”⁽¹²⁾ We shall soon see that numerous scholars note a revival of LH III C pottery styles in Cyprus and throughout the East Mediterranean after a 500-year gap; still, Oakeshott, faced with a gap of at least 150 years, which unsettles the idea of “a continuous tradition” and observing the closest similarities between fully-developed bull’s head handles of the seventh century (which went through ca. 350 years of continuous evolution from double loops) and 500-year-older handles (which were just as fully developed, but seem to have come about suddenly, and without any ascertainable forerunners) was in a quandary. She concluded that “this is a feature of great interest that others must elucidate.”⁽¹³⁾ A chronological revision of 500 years not only elucidates the feature, but also eliminates the problems.

The turn-of-the-century scholars, who assigned the painted figures on the Warrior Vase to the seventh century, did so at a time, when there was a general consensus that the latest Mycenaean pictorial pottery lasted that late. After Egyptian chronology pushed the end of Mycenaean civilization some 400 years earlier than they believed (and the Warrior Vase 100 years still earlier), two problems arose, which remain today. The first is that, during the intervening centuries, there seems to have been what J. N. Coldstream has termed “the darkness of taboo on figured representation in Greek art.” Because he felt that eighth-century painters who “revived” the figural style did so as a result of experimentation and “with no earlier models to guide them,” and because he also considered that artistic revival to be the eighth century’s “most striking innovation of all,”⁽¹⁴⁾ one must explain how the style of ca. 700 B.C., which was a natural development from an only-slightly-earlier “invention,” came to resemble so closely the figural style of ca. 1200 B.C. after such a long break in the artistic tradition. The second problem is, why there should have been a centuries-long period when figures disappeared from art—a phenomenon which one recent observer considered both “strange” and “curious.”⁽¹⁵⁾

Despite those problems, modern scholars, like Vermeule⁽¹⁶⁾ still see analogies between the friezes of men on the Warrior Vase and those on eighth-century pottery. Unlike earlier commentators, who also saw that similarity, but who had the former develop from the latter, modern specialists must see the Warrior Vase as ca. 450 years earlier than, and devoid of historical connection with eighth-century figural pottery. O. W. von Vacano, like his predecessors impressed by the close similarity of

the soldiers on that bowl to seventh-century figures, recently spoke of “an obvious link” between them.⁽¹⁷⁾ If, however, 500 years really do separate the Warrior Vase from the later pottery, with nothing similar to fill the gap, there is, as everyone has noticed, an “obvious” similarity, but there can be no “link,” obvious or otherwise.



The spearmen of the Warrior Vase not only resemble the men depicted on seventh-century Protoattic Pottery from Greece, but, as L. Woolley justly noted, they also look “remarkably” similar to soldiers painted on terracotta roof tiles from Phrygia in Asia Minor, currently dated sometime between the late eighth century and the sixth (fig. 6)⁽¹⁸⁾ Regarding Greek art, “one might almost say that the decorators of Protoattic pottery took up the animal [and human] designs where their predecessors of late Mycenaean times had left off. The similarity is very striking.”⁽¹⁹⁾ With 400 years separating the end of one from the beginning of the other, without anything comparable between the two, “the similarity is very striking” indeed!

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1. F. Dümmler, “Bemerkungen zum ältesten Kunsthandwerk auf griechischem Boden,” *Ath. Mitt.* 13 (1888), p. 291; E. Pottier, “Observations sur la ceramique mycenienne,” *Revue Archeologique* 28 (1896) pp. 20-21; idem, “Documents ceramiques du Musee du Louvre,” *Bulletin du correspondance hellenique* (henceforth BCH), 31 (1907) p. 248, n. 1.
2. Pottier, *ibid.* (1896), pp. 19-23; (1907), pp. 245-248; Walters, (1905), vol. I, pp. 297-298.
3. Pottier, *ibid.* (1896), although not all of his considerations are valid for dating purposes.
4. S. Marinatos and M. Hirmer, *Crete and Mycenae* (New York, 1960) pls. 232-33 and captions; Lacy, (1967), p. 224.
5. D. Mackenzie, “Cretan Palaces and the Aegean Civilization III,” *BSA*, 13 (1906-07), p. 433.
6. O. Broneer, (1939), pp. 353-54; M. R. Popham and L. H. Sackett, *Excavations at Lefkandi, Euboea 1964-66* (London, 1968), p. 20, figs 38-39 (from another “Warrior Vase.”)

7. N. R. Oakeshott, "Horned-head Vase Handles," *JHS*, 86 (1966), pp. 114-115, 121.
8. *Ibid.*, p. 121.
9. *Ibid.*, p. 114.
10. For similarly decorated LH III birds, concentric arcs, and zigzags, see A. Furumark, *Mycenaean Pottery* (Stockholm, 1941) motifs 7.48-52 (esp. 49), 44.10, and 61.17-18; M. Ohnefalsch-Richter, in his *Kypros, the Bible and Homer* [tr. S. Hermann] [London, 1893], pp. 36-37, 63-64) long ago recognized those and other similarities to LH III C decoration.
11. Oakeshott, (1966), pp. 115-116.
12. *Ibid.*, p. 114.
13. *Ibid.*, p. 132.
14. J. N. Coldstream, (1968), pp. 357, 28 and 350 respectively.
15. B. C. Dietrich, (1970), p. 22.
16. E. Vermeule, (1972) p. 209 (endorsing the view of others).
17. O. W. von Vacano, *The Etruscans in the Ancient World* (transl. by S. Ogilvie) (Bloomington, 1965) p. 81; cf. p. 88.
18. L. Woolley, *Mesopotamia and the Middle East* (London, 1961) pp. 166-168. Whereas he dated the tiles to the late eighth century, E. Akurgal, (*Phrygische Kunst* [Ankara, 1955] p. 64, pls. 45-47; *Die Kunst Anatoliens* [Berlin, 1961] p. 100, pl. VII C) assigns them to the sixth, an assessment with which M. Mellink (letter of Oct. 31, 1978) concurs. Whatever their true date, and irrespective of which region influenced the other, the Phrygian spearmen more closely resemble the art of seventh-century Greece than that of either the eighth or the sixth.
19. Broneer, (1939), p. 361.





A Chariot Vase

Somewhere in the vicinity of the Warrior Vase was another LH III C mixing bowl, sporting a procession of chariot-borne troops. Only two tiny fragments of that vase are presently known—both retrieved from the heap of debris left behind by Schliemann's workmen. Each sherd depicts part of an open-work chariot transporting two soldiers. Although friezes of people in chariots were fairly common in Mycenaean art, on those two sherds both the spearmen and the drivers wear their shields in a manner “unique in chariot iconography” of the Mycenaean Age, but found again in eighth-seventh-century chariot scenes.⁽¹⁾ Regarding the chariots themselves, we have already alluded to their first appearance in Greece on the Shaft Grave ring and tombstones, where they are cumbersome box-like devices. Between that time and their appearance as swift, light-weight, manoeuvrable vehicles on a mixing bowl, the so-called Chariot Vase of Mycenae ca. 400 years later, they had passed through a total of three developmental stages.

In eighth-century representations, supposedly another 400 or more years after the Late Helladic III Chariot Vase, chariots, showing no further modifications, look like “direct descendants” of the twelfth-century type. One would hardly object if the model was incapable of improvement, and thus remained unchanged for another 400 years, but there is no evidence of its existence during those intervening centuries;⁽²⁾ and alongside the chariot which seems not to have changed for 400 years, other models make their first known appearance.⁽³⁾

The lack of evidence for chariots between the twelfth and eighth centuries, coupled with the impoverished picture of the Greeks, which modern scholars note during that “Dark Age,” led Snodgrass to conclude that chariots disappeared from Greece for 400 years, then returned to their old form.⁽⁴⁾ Despite that admitted lack of evidence for continuity, H. Catling preferred to follow those who believed that chariots did persist in their old form throughout the Dark Age, rather “than to add chariots to the long list of war-gear that failed to survive the Mycenaean period, and did not reappear in Greece until the eighth century or later.”⁽⁵⁾ Nevertheless, Snodgrass, who has specialized in, and been instrumental in compiling that “long list of war-gear,” and who has also grappled with the problem of the Dark Age, which scholars place between the end of the Mycenaean Period and the eighth century, still believed that chariots disappeared for centuries, not to return until the eighth century.⁽⁶⁾ The debate—at times rather heated—still continues.⁽⁷⁾ Integrally related to that controversy is yet another one concerning Homer's references to chariots and chariot warfare, which some date to the thirteenth century, others to the eighth—which “raises a serious problem” for philologists as well.⁽⁸⁾

References

1. M. A. Littauer, "The Military Use of the Chariot in the Aegean in the Late Bronze Age," *AJA*, 76 (1972), pp. 145-146 and "The Entrance to the Citadel," n. 11.
2. H. W. Catling, "A Mycenaean Puzzle from Lefkandi in Euboea, *American Journal of Archaeology* 72 (1968), p. 48.
3. P. Greenhalgh, *Early Greek Warfare* (Cambridge, 1973), pp. 19, 29-39.
4. Snodgrass, *Early Greek Armour and Weapons* (Edinburgh, 1964), pp. 159-163.
5. Catling (1968), p. 48.
6. Snodgrass, *The Dark Age of Greece* (Edinburgh, 1971), p. 433; idem, "An Historical Homeric Society?" *Journal of Hellenic Studies* 94 (1974), p. 123, n. 40; idem, review of Greenhalgh's *Early Greek Warfare* in *Journal of Hellenic Studies* 94 (1974), p. 225.
7. Greenhalgh (1973, pp. 19, 29-39), J. V. Luce, (*Homer and the Homeric Age* [London, 1975] pp. 39-40) and O. Dickinson ("Archaeological Facts and Greek Traditions," *Bulletin of the Archaeological Society of the University of Birmingham* 12.2 [1973-74], pp. 39-40) all concur with Catling, postulating that at least the aristocrats still used chariots during the Dark Age. Snodgrass (see n. 6) still held his original position that probably no one could afford such a luxury during the Dark Age, and the lack of evidence probably signalled a lack of real chariots—a conclusion with which G. Kirk ("The Homeric Poems as History," *The Cambridge Ancient History*, Third ed., Vol. II, pt. 2 [Cambridge, 1975], p. 840) agreed. Greenhalgh, *Early Greek Warfare* [Cambridge, 1973], p. 19) noted that the absence of evidence seems entirely due to the lack of any figural representations in contemporary Greek art. That observation is certainly true for Greece and the Aegean—a source of consternation for art historians, as we shall soon see. Cyprus, however, was both part of the Greek world and in close contact with the Orient where the vehicle presumably persisted; it has produced some actual chariot remains (V. Karageorghis, *Salamis in Cyprus* [London, 1969] pp. 68-69, 78); its Mycenaean and Archaic pottery, and its terracotta models frequently depict chariots; its art continued to have figural representations at a time when Greece did not; its armies continued to employ war chariots long after the Greeks had ceased to use them; and all commentators, including Snodgrass (1964, p. 163), believe that chariots persisted in Cyprus throughout the Dark Age, with the seventh-century examples even resembling the Mycenaean model (Karageorghis, p. 69). Despite all that, both for actual remains and for representations of chariots, Cyprus has that same embarrassing gap from the twelfth century till the eighth/seventh (Karageorghis, "A propos des quelques representations de chars sur des vases chypriotes de l'Age du Fer," *BCH* 90 [1966], p. 101; idem and J. des Gagniers, *La Ceramique Chypriote de style figure* [Rome, 1974], pp. 15-17).
8. G. S. Kirk, *ibid.*, p. 839. For discussions favoring Mycenaean times, see Snodgrass, (1964, 1971); Kirk, (1975); Greenhalgh, (1973, p. 17); R. Hope

Simpson and J. F. Lazenby, *The Catalogue of the Ships in Homer's Iliad* (Oxford, 1970), pp. 4-5. For discussions favoring the eighth century, See J. K. Anderson, "Homeric, British and Cyrenaic Chariots," *American Journal of Archaeology* 69 (1965), pp. 349-352; idem, "Greek Chariot-borne and Mounted Infantry," *American Journal of Archaeology* 79 (1975), pp. 175, 184 and "Shaft Grave Art: Modern Problems," n. 63; G. Ahlberg, *Prothesis and Ekphora in Greek Geometric Art* (Lund, 1971), p. 210; idem, *Fighting on Land and Sea in Greek Geometric Art* (Lund, 1971), pp. 70 and n. 34, 109-110. For discussions that waver between Mycenaean times and the eighth century, see Kirk, *The Language and Background of Homer* (Cambridge, 1964), p. 176 and J. Wiesner, *Fahren und Reiten (Archaeologia Homerica, I F)* (Göttingen, 1968), pp. 92-110, esp. 93.





Other LH III Figural Pottery

Throughout the area of Schliemann's excavation-south of Grave Circle A, as well as in Wace's trench beside the Lion Gate, there appeared vast quantities of ornamental LH III B-C pottery fragments. One system of decorating the LH III C pottery from that area (in fact, throughout the Mycenaean empire) is the "Close Style," a term which art historians use to describe compact designs arranged in friezes of water fowl, rosettes, triangles, loops, semi-circles and other motifs, which fill all the exposed surface area of the pots. Lacy recently found it "interesting to notice that the same phenomenon occurred again four hundred years later in the profusion of ornaments" that covered the so-called Dipylon pottery of the eighth century.¹ It is even more interesting that the individual motifs on the Close Style vases, as in the case of the Warrior Vase, find their most striking parallels to designs on the seventh-century "Orientalizing" pottery of Greece, Crete, Rhodes, Cyprus, Sicily, Italy and the Eastern Aegean. That interest heightens when we recall that at a number of excavations throughout that same area (including Wace's trench by the Lion Gate) eighth-seventh century pottery immediately overlay, was mixed with, or even lay *beneath* LH III B-C ware.²

In the late nineteenth and early twentieth century, a number of Aegean specialists believed that Mycenaean civilization immediately preceded the seventh century B.C., but because of the discovery of Late Helladic (soon followed by Minoan) remains was so fresh, they had little other than the better-known works of the first millennium with which to compare them. Egyptologists noted that the earliest Mycenaean artifacts in Grave Circle A corresponded to the early Eighteenth Dynasty; Flinders Petrie found a large quantity of LH III A - early LH III B pottery in Pharaoh Akhnaten's short-lived capital of Akhetaten in Egypt; and excavators outside Egypt began finding Eighteenth and Nineteenth Dynasty objects beside Mycenaean ware throughout the Levant and the Aegean. At Mycenae itself archaeologists discovered a number of Eighteenth Dynasty Egyptian objects, including some which bear the cartouches of Pharaoh Amenhotep II, Amenhotep III and his wife, Queen Tiy.³

Aegean archaeologists, confronted with Egyptian evidence, had to reassess their dates for Mycenaean culture. "Vehement disputes" erupted between those accepting Egyptian reckoning, and those challenging it as 500-700 years too early,⁴ some of which early controversies Velikovsky has chronicled above for [Olympia](#), [Tiryns](#), [Enkomi](#) and [Mycenae](#). Those who rejected the Egyptian scheme usually branded the New Kingdom exports to the Aegean as centuries-old heirlooms.⁵ That explanation

was weak for a number of reasons it assumed that the Mycenaeans only collected 500-700-year-old Egyptian artifacts to the complete exclusion of Egyptian items produced in their own day; it did not explain depictions of Mycenaean objects in Eighteenth-Dynasty murals; and it completely failed to explain the presence of LH pottery in *bona fide* Eighteenth Dynasty contexts in Egypt itself. None of those championing the heirloom theory even dared to consider that the very basis for dating the New Kingdom of Egypt might be incorrect. Cecil Torr was one Aegean specialist who did question the Egyptian chronological scheme,⁶ but Egyptologists countered with strong and at times unfair retorts,⁷ and Torr gained no appreciable following.

Most other Aegean prehistorians, realizing that the Late Helladic Period had to be as early as the Eighteenth-Nineteenth Dynasties of Egypt, and accepting the absolute dates furnished by the Egyptologists, pushed the beginning of the Mycenaean Age into the mid-second millennium B.C. Many, who felt that the inception of the period had to be that old, still wanted the end of the era to last long into the first millennium, and thereby connect directly with the similar products of the eighth-sixth centuries B. C. Beloch, and even Petrie who, through his discoveries and his writings was largely responsible for pushing back LH I-LH III A/ early LH III B to the sixteenth-fourteenth centuries, still had the remainder of the Mycenaean Age last into the eighth century.⁸

The LH III BC figural pottery, more than any other Mycenaean product, seemed to flow directly into the seventh-century ware of the Greek world. Since archaeologists agreed that Protogeometric and Geometric pottery also preceded the seventh century, many envisioned an overlap of LH III and Geometric styles, just as Böhlau, Wide and their followers had proposed a 500-year-earlier overlap of MH and LH styles. Furtwängler, one of the great pioneers in the study of pottery decoration was among that school's foremost proponents.⁹ When further excavation revealed still more New Kingdom Egyptian material alongside the youngest Mycenaean vases, and showed that there was hardly enough LH III BC pottery to last from ca. 1350-700 B.C., art historians had to abandon the notion that LH III co-existed with geometric ware as late as the eighth-seventh century in Greece itself.

Since the latest Mycenaean vases still resembled so closely 8th-7th century ones, and with Greece no longer a possible area of continuity, they postulated that somewhere in the far-flung Mycenaean empire, outside of the mainland, LH III pottery continued that late. They looked to islands like Sicily, Aegina, Melos, Crete, Rhodes, Cyprus and the east coast of Turkey as places where the tradition could have survived no matter what occurred in Greece proper.¹⁰ Little by little, exploration of those areas revealed the same pattern as in Greece itself, with LH III C dying out by the late eleventh century, if not earlier still.¹¹

According to Greek tradition, most of those places, like the Greek mainland itself, fell prey to Dorian invaders, whom early archaeologists - as well as some modern ones -

have blamed for the obliteration of Mycenaean culture. Of all the places on the fringe of the Mycenaean world to which scholars looked for centuries-long retention of Mycenaean life and art, Cyprus afforded a unique setting for the continuation of Mycenaean figural art, as both early and modern excavators have hypothesized.¹² It never fell victim to the Dorians;¹³ it imported tremendous quantities of LH III pottery, and during the LH III C period it received numerous Mycenaean colonists, including skilled artisans steeped in the art of their homeland;¹⁴ it was far enough away from the Aegean centers to escape the turmoil which they encountered, and near enough Phoenicia to share in its presumed prosperity; its people were extremely conservative, reflecting many features of Mycenaean culture well into the eighth-seventh centuries;¹⁵ its late eighth-seventh century pottery shows some close similarities to LH III C shapes and especially decoration;¹⁶ and throughout the period between the end of LH III in Greece and the eighth century, Cyprus enjoyed a “special relationship” with the Aegean world, importing and exporting finished products (including pottery), and influencing the pottery shapes and decoration of Greece.¹⁷

Despite all those positive factors, Cyprus, for some reason not fully understood, followed the same pattern as the rest of the Mycenaean world at the transition from the Late Bronze Age to the Early Iron Age. It, too, suffered its own long period of destructions, abandonments, cultural desolation, archaeological obscurity, and historical darkness.¹⁸ P. Dikaios once claimed that its Iron Age ware, which scholars originally felt would continue the LH III tradition for centuries, in fact, made its appearance suddenly on the island, showing little connection with, and no evolution from the Late Bronze Age ware, which it supposedly superseded immediately. Even those who reject his opinion do not view it as a continuation of figural LH III.¹⁹ Dikaios and others (including his critics) noted some instances where Cypriote Iron Age ware, like its counterpart in Greece, seems to have bypassed Late Bronze Age ceramics, resembling instead 500-year-older Middle Bronze Age pottery.²⁰

Since countless authorities have long noted, and still note, that the late eighth-seventh century pottery of Greece, Sicily, Aegina, Melos, Crete, Rhodes, Cyprus and eastern Anatolia seems a direct continuation of LH III BC shapes and decoration;²¹ since they have not found artistic continuity in any of those areas; and since they see too many close resemblances for the similarities to be merely “fortuitous,”²² they view the phenomenon as a “renaissance.”²³ Even so, with ca. 400 years separating the last LH III C figural ware from the earliest return to that bygone style, they need a mechanism to explain the revival. Since no corner of the Greek world kept the style alive during those centuries, some have conjectured that the Mycenaean ceramic and decorative traditions passed beyond the Greek world to Phoenicia, which provided the required continuity, and finally sent the Greek products, along with some Levantine accretions, in a “backwash” to their place of origin hundreds of years later.

That theory is extremely popular²⁴ and explains why art historians refer to seventh-century Aegean ware with its Levantine and renascent Mycenaean elements as “Orientalizing.”

The Levant did receive quite a bit of LH III pottery, and made its own imitation of LH III C shapes and decoration (the so-called Philistine ware);²⁵ it did send Oriental products (including the alphabet) to Greece in the ninth-seventh centuries; and it did inspire, some of the decoration found on seventh-century Greek pottery. Between the Mycenaean Age and the ninth century, when Greece was undergoing a Dark Age, literary sources give a much brighter picture for Phoenicia. A Twenty-first Dynasty document from Egypt, which the accepted scheme places in the eleventh century,²⁶ indicates a very strong position for contemporary Lebanon; the Bible portrays tenth-century Phoenicia as an independent land, from which Kings David and Solomon purchased lumber and hired seafarers, stone masons, carpenters and a master craftsman.²⁷ Phoenicia therefore seemed an ideal place to foster LH III pottery until the seventh century.

The facts are that the Levant did not export painted pottery to seventh-century Greece; LH III shapes and decoration made only a very small impact on the Levantine ceramic industry as a whole } and even in Philistia, LH III C-type pottery did not last as long as it did in Greece itself—none of which helps the survival theory for the Levant any more than at all the other places suggested over the last century. Bothered by those facts some scholars, who still favor the theory, propose that Near Eastern metalwork, ivory carvings and decorated fabrics kept the designs (if not the pot shapes) alive over those centuries.²⁸ For continuity of decorative ivories and metalware the situation in the Levant presents as big an obstacle as in Greece (and as big a source of consternation), since there is no evidence of either product from ca. 1200 to 900 B.C.²⁹ The only Levantine medium for continuity that is left is patterned fabric, which several people now see as the most likely source for LH III motifs’ survival. While there certainly was ornamental cloth, and it could have preserved *some* LH III decoration, it lends itself more readily to geometrical patterns than to the curvilinear, naturalistic ornaments and figures of LH III C and seventh-century ware. Still, if one must limit oneself to only one medium for 400 years of continuous patterning, and disregards its nonappearance in other media, Greece is as probable a candidate as Phoenicia;³⁰ in any instance, the case is completely unproveable, since all the cloth has vanished, and one can only speculate about its possible ornamentation. Yet another problem with Phoenicia, as the source of, retaining, then returning LH III decoration, is that some “Mycenaean” elements begin to appear in eighth-century Greece, before there are any signs of Oriental influence on Greek art; additionally many of the curvilinear motifs and naturalistic figures (especially human) found on seventh-century “Orientalizing” ware, and most reminiscent of the LH III C style, did not come from the Levant, but followed the same course as did the 500-year-earlier decorations, evolving directly from the stiffer forms of native Greek ornament which immediately preceded them.³¹ Despite the popularity of the notion of

a Phoenician link to explain the close similarities of two sets of Aegean vases now dated half a millennium apart, there is still no evidence that the Levant fared any better than did Cyprus or Greece in continuing the LH III artistic tradition until the seventh century.

As an alternative to the still-popular hypothesis of survival, other scholars have postulated a native revival, whereby the Greeks of the late eighth-seventh centuries found 500-year-old vases, liked what they saw, and imitated some of the shapes and much of the ornamentation.³² Such rediscoveries certainly fit the numerous cases where the later Greeks seem to have returned to cities, houses, wells, palaces, tombs and cult places supposedly abandoned for nearly half a millennium.³³ Still, one had to explain why only then, and at no time during the previous 500 years did the Greeks decide to return to those palaces and copy the bygone art. There is a popular notion, to which we shall return that the later Greeks, hearing Homer's epics, gained a new pride in their heritage, and consciously sought out the relics of the Trojan War heroes.³⁴ Taking that antiquarian devotion one step further, some observers have proposed that the later Greeks recognized the LH III BC ware in those places as belonging to the "Age of Heroes," and copied it to strengthen their ties of identity with their forebears.³⁵ K. de Vries has challenged that view on the reasonable that the eighth-seventh-century Greeks would not have been knowledgeable enough to identify the particular type of pottery used in the Heroic Age after so long a gap.³⁶

C.G. Starr recently called the similarities of late eighth-seventh-century wares to LH III BC pottery "particularly puzzling and intriguing."³⁷ There have been several attempts to explain that phenomenon in terms of a fifth-century revival or survival, but none stands up to careful scrutiny. Some 75 years ago C.C. Edgar, who recognized that seventh-century ware resembled LH III C, just as eleventh-century Protogeometric resembled sixteenth-century Middle Bronze ware, felt that somehow the two revivals, after "obscure" 500-year gaps, followed the same pattern, and probably had the same explanation, whatever it happened to be.³⁸ Wide, Böhlau, Dörpfeld, Furtwängler and others, who favored survivals rather than revivals, sought to explain the similarities by synchronizing the Geometrical and Mycenaean styles, but they also ran afoul of 500 years.³⁹ While I would *not* equate Middle Helladic with Protogeometric or LH III C with Orientalizing ware, since each group does have very distinctive shapes and designs which the other lacks, I would point out that, under a dating system which has eliminated 500 years, the early idea of co-existing styles would explain close similarities, which, under the current chronological framework, merely puzzle and intrigue.

References

1. Lacy, (1967), p. 223.
2. Cf. above "The Entrance to the Citadel," ns. 8-13.

3. J.D.S. Pendlebury, *Aegyptiaca* (Cambridge, 1930), pp. 53-57. More recently, see Hankey-Warren, (1974).
4. Demargne, (1964), p. 8.
5. E.g. A.S. Murray, *Excavations in Cyprus* (London, 1900), pp. 21-24; D.G. Hogarth. *Excavations at Ephesus* (London, 1908). p. 242.
6. C. Torr, *Memphis and Mycenae* (Cambridge, 1896).
7. E.g., H. Hall, (1901), pp. 56-59 (to which see Torr's response in his review of Hall's book in *The Classical Review* 16 (1902), pp. 182-187 (esp. p. 187).
8. References in Tsountas-Manatt, (1897), p. 321, n. 1.
9. A Furtwängler, "Die Bronzefunde aus Olympia and deren Kunstgeschichtliche Bedeutung," *Berlin Abhandlungen* 4 (1879), pp. 45-47 (reprinted in *Kleine Schriften I* (Munich, 1911), pp. 373-375; F.Dümmeler, "Zu den Vasen aus Kameiros," *JdI*, 6 (1891), pp. 270-271; Murray, (1900), p. 23; Hall, (1901), p. 36, n. 1; cf. Demargne (1964, p. 271) and Cook (1972, pp. 310, 312-313) for modern comments.
10. Cook, loc. cit.; Hall, (1901), pp. 36, 45, 62-63, III, 132, 137, 221-222, 229, 246, 255 n. 1, 259-260, 264-265, 274, 279, 283; A. Evans, "A Mycenaean Treasure from Aegina," *JHS*, 13 (1892-3) pp. 224, 226.
11. Snodgrass, (1971), pp. 134-135.
12. H. Walters, "On Some Antiquities of the Mycenaean Age Recently Acquired By the British Museum," *JHS*, 17 (1897), pp. 63-64, 77; Hall, (1901), pp. 36, 63, III, 132, 137, 221, 229, 264-265; More recently, cf. P. Amandry, "Plaques d'or de Delphes," *Ath. Mitt*, 77 (1962), p. 54, and C. Berard, *Eretria III* (Bern, 1970), pp. 42-43; cf. ns. 15-16 below.
13. Hall, (1901), p. 221; V. Karageorghis, *Cyprus* (London, 1970), p. 67.
14. Karageorghis, *ibid.*, pp. 61-64; H. Catling, "Cyprus in the Late Bronze Age," *CAH3 II. 2* (Cambridge, 1975), pp. 198-201, 207-213; Snodgrass, (1971), pp. 29, 314, 365.
15. H Karageorghis, *ibid.*, p. 67; idem, "Notes on Some Mycenaean Survivals in Cyprus During the First Millennium B.C.," *Kadmos*, I (1962), pp. 72-77; idem, (1967a), pp. 167-170 and (1969), p. 14; A.R. Burn, *Minoans, Philistines and Greeks, etc* (London, 1968), p. 230.
16. Gjerstad, (1948), pp. 298-299; P. Dikaios, "Fifteen Iron Age Vases," *Report of the Department of Antiquities. Cyprus* [henceforth RDAC], 1937-9 (pub'd, 1951), pp. 134, 137-138; idem, *A Guide to the Cyprus Museum* (Nicosia, 1961), p. 63; Karageorghis, (1962), p. 76; idem, *Treasures in the Cyprus Museum* (Nicosia, 1962), pp. 4, 16-17; idem, "Some Cypriote Painters of Bulls in the Archaic Period," *JdI*, 80 (1965), pp. I, 10-12, 14.
17. Snodgrass, (1971), pp. 94 (source of the quote), 444 (list of references); Desborough, (1972), pp. 49-57, 145.
18. Desborough, *ibid.*, pp. 49-57 (pace the disclaimer on p. 57); Catling, (1968), pp. 53, 221, 301; idem, (1975), pp. 193-196, 209-213; Karageorghis, (1969), p. 23; idem, (1970), pp. 66, 151.
19. Dikaios, "An Iron Age Painted Amphora in the Cyprus Museum," *BSA*, 37 (1936-7), p. 58 n. 3. Others (e.g. Gjerstad, (1948), pp. 282-287) disagree with that assessment. Again, as with Submycenaean (see above "Shaft Grave Art:

Modern Problems,” n. 54), some Late Cypriote (LC) III pottery and other artifacts obviously follow LC II, and some obviously precede the Cypro-Geometric period, but I would question the continuity within, and the homogeneity of LC III (cf. J. Du Plat Taylor, “Late Cypriot III in the Light of Recent Excavations, etc.,” *Palestine Exploration Fund Quarterly* [henceforth PEFQ], 88 [1956], p.30)

The Iron Age Cypriots did paint representations on some of their pottery, but those were not as common as, and did not directly continue the LH III C figures. There were gaps—some huge—during which many familiar forms disappeared entirely, or else bore little or no similarity to the earlier style; the closest resemblances to LH III B-C motifs belong not to the earliest “post-Mycenaean” ware of Cyprus but to the eighth-seventh centuries, as if a renaissance only then took place (Snodgrass, (1971), p. 94; Desborough, (1972), p. 51; Karageorghis-des Gagniers, (1966), pp. 4-6, 15, 47, 62, 94-95, 101, 107-112; cf. n. 16 above).

20. P. Dikaios, “Principal Acquisitions of the Cyprus Museum, 1937-1939, RDAC, 1937-39 (pub’d, 1951), p. 200, idem, (1961), pp. 203-204; Gjerstad, (1948), pp. 216, 283 (for which, cf. SCE vol. II [Stockholm, 1935], p. 276), 293-294; J.F. Daniel, “Two Late Cypriote III Tombs from Kourion,” *AJA*, 41 (1937) pp. 71, 73-74 (to which see Catling’s objection, (1964), pp. 52-53).
21. In addition to the citations of ns. 9, 16 above, see inter alia Cook, (1972), pp. 41, 44; Edgar, (1904), p. 106; Starr, (1961), p. 244; Broneer, (1939), p. 361; Berard, (1970), pp. 42-43; Friis Johansen, (1966), pp. 5, 9, 19, 34, 48-50, 55-56, 63-64, 131; J. P. Droop, “Dipylon Vases from the Kynosarges Site,” *BSA*, 12 (1905-6), pp. 84-85, 90-91; D. Burr, “A Geometric House and a Proto-Attic Votive Deposit,” *Hesperia*, 2 (1933), p. 632; J. Pendlebury, *The Archaeology of Crete* (London, 1939) p. 335; R. Young, *Late Geometric Graves and a Seventh Century Well in the Agora* (Athens, 1939), pp. 49, 177, 186-187, 217; W. Taylour, *Mycenaean Pottery Italy and Adjacent Areas* (Cambridge, 1958), pp. 113, 116, 120, 136, 142, 157; E. Vermeule “The Fall of the Mycenaean Empire,” *Archaeology* 13 (1960), p. 74; J. Boardman, *The Cretan Collection in Oxford* (Oxford, 1961) pp. 57-58, 144 (confusion and debates over dating), 151; E. Brann, *The Athenian Agora VIII; Late Geometric and Protoattic Pottery* (Princeton, 1962), pp. 15, 19, 43, 48, 51; E. Langlotz, *Ancient Greek Sculpture of South Italy and Sicily* (tr. A. Hicks) (New York, 1965), p. 15; G. K. Galinsky *Aeneas, Sicily and Rome* (Princeton, 1969), pp. 82-84, 89; J.L. Benson, *Horse, Bird & Man* (Amherst, 1970), (Amherst, 1970), pp. 5-6 and passim J. N. Coldstream, “The Cesnola Painter: A Change of Address,” *BICS*, 13 (1971), p. II; etc. etc.
22. Vermeule, (1960), p. 74.
23. Demargne, (1964), p. 271.
24. J. Droop, “The Pottery from Arcadia, Crete,” *Liverpool Annals of Archaeology and Anthropology*, 12 (1925), p. 11 (whence the term “backwash”); M. Hartley, “Early Greek Vases from Crete,” *BSA*, 29 (1930-1), pp. 62, 64, 86-37; D. Levi, “Early Hellenic Pottery of Crete,” *Hesperia* 14 (1945), pp. 1, 9-10; Cook, (1972), p. 41; R. Higgins, *Minoan and Mycenaean Art* (New York, 1967), p. 190.

25. Snodgrass, (1971), pp. 107-109; F. Stubbings, *Mycenaean Pottery from the Levant* (Cambridge, 1951); V. Hankey, "Mycenaean Pottery in the Middle East," *BSA*, 62 (1967), pp. 104-147; idem, "Mycenaean Trade with the South-Eastern Mediterranean," *Melanges de L'Universite Saint Joseph*, 46.2 (1970), pp. 11-30.
26. Velikovsky, (1977, pp. 129-138 and 1978, pp. 80-81) has redated that document and the entire dynasty to the Persian Period.
27. II Sam. 5:11; I Kings 5:15-32, 7:13-46; II Chron. 2:1-15.
28. Benson, (1970), p. 5; Cook, (1972), p. 41; Robertson, (1975), pp. 23-24.
29. For *ivories*, see below "Ivory Carvings," ns. 6-7; For *metalware*, many authorities have long noted that ninth-seventh-century Phoenician decorated bowls "continue the tradition" of similar bowls from Ugarit of Eighteenth Dynasty date (e.g., H. Frankfort, *The Art and Architecture of the Ancient Orient* [Baltimore, 1963], pp. 150, 195; Strong, (1966), p. 53; S. Moscati, *The World of the Phoenicians* [tr. A. Hamilton] [London, 1968], pp. 67-68), and closely resemble Nineteenth-Dynasty metalware from Tell Basta in Egypt (e.g., W.K. Simpson, "The Vessels with engraved designs and the Repoussé Bowl from the Tell Basta Treasure," *Journal of Near Eastern Studies* [henceforth *JNES*], 24 [1965], p. 28).

As in the case of Greek figural art (cf. "Shaft Grave Art: Modern Problems," ns. 57-66 and ns. 1-28 above). Orientalists treating decorated metalware have split into two camps. Those who have championed survival attribute extraordinary conservatism to Phoenician artisans who, without leaving a trace, somehow continued to produce metalware in the ninth-sixth centuries, which differed little, if at all, from Eighteenth-Nineteenth Dynasty antecedents (e.g., Murray, (1900), pp. 27-29; Hall, (1901), pp. 137, 251-252; C. Schaeffer, *Ugaritica II* [Paris, 1949], p. 47). Those advocating revival proposed a conscious copying of 500-year-old forms (e.g., J.L. Myres, *Handbook of the Cesnola Collection of Antiquities from Cyprus* [New York, 1914], p. 275; cf. Hall, "Oriental Art of the Saite Period" in *CAH1 - III* [Cambridge, 1925] [ed. J.B. Bury et al.], p. 327; Dikaios, (1951), p. 137; Strong, (1966), p. 53; for a fuller discussion, cf. Isaacson, (1974), p. 15).

Some of the metal bowls from uncertain contexts have provoked heated debates between those who, seeing Minoan Mycenaean and Egyptian New Kingdom analogies, have assigned them to the Late Bronze Age (e.g., Myres, *Ibid*, pp. 457-460; Fr. von Bissing, "Eine Bronzeschale mykenischer Zeit," *JdI*, 13 [1898], p. 37; idem, "Ägyptisch oder Phoinikisch?," *JdI*, 25 [1910], pp. 193-199; idem, "Untersuchungen fiber die 'phoinikischen' Metal schen," *JdI*, 38-39 [1923-1924], p. 190), and those who, acknowledging the 500-year-older elements, still insisted on ninth-sixth-century dates for those same items (e.g. Murray, *ibid.*, pp. 27-29; Hall, *ibid.*, [1901], pp. 137, 251-252, [1925], p. 327; F. Studniczka, "Der Rennwagen in Syrisch-phoinikischen Gebiet," *JdI*, 22 (1907), p. 75; H. Schäfer, *Ägyptische Goldschmiedearbeiten* [Berlin, 1910], p. 66; E. Gjerstad, "Decorated Metal Bowls from Cyprus," *Op. Arch.*, 4 (1946), pp. 2-17). For similar problems with Aegean bronzes, cf. below "A Terracotta Figurine and a Terracotta Head," n. 16.

30. For decorated Phoenician textiles as the chief medium of continuous transmission, cf, inter al., H. Payne, *Necrocorinthia* (Oxford, 1931), p. 54; Benson, (1970), pp. 55, 111-113, 122-123; Cook, (1972), p. 41. From the extremely rare specimens of later Greek cloth that have survived, one sees that, at least by the classical period, the Greeks could and did transfer curvilinear and naturalistic designs to cloth from paintings on smooth surfaces, where such motifs are far quicker and easier to create (cf. G. Richter, *A Handbook of Greek Art* [New York, 1969], pp. 380-383).

It is somewhat hazardous to reconstruct the actual designs of textiles from their depictions in paintings, since the latter may show a style less rigid than, and possibly completely different from those on the cloth itself. (H. Kantor, "The Aegean and the Orient in the Second Millennium B.C.?" *AJA*, 51 (1947), pp. 43-44); nevertheless, to judge by Mycenaean Age frescoes, Aegean textile workers had already begun to adorn cloth with representational designs including floral motifs, monsters and animals, which seem to have vanished from Dark Age pottery, only to "return" in the seventh century (cf. E. Evans, (1935), vol. II [1928], fig. 456, pls. 25-27, and vol. III [1930], figs. 25-26—if correctly restored and interpreted; Vermeule, (1971), p. 193 and pi. 28A-B; S. Marinatos, *Excavations at Thera VII* [Athens, 1976], p. 36 and pi. 65).

While it is true that Homer mentioned "colorful" Phoenician cloth (II. VI; 289-295), he does not describe its design, which might merely have been woven stripes; he does, however, describe the representational adornments of battle scenes and flowers which Helen and Andromache created on cloth (II. III; 125-128; XXII:441). If the "taboo" on figural pottery did not extend to textiles, Greek artisans could have kept the styles alive as easily as the Phoenicians allegedly did.

31. Benson, (1970), passim; Snodgrass, (1971), pp. 54, 417-418; Cook, (1972), pp. 41-43. But cf. J. Carter, "The Beginning of Narrative Art in the Geometric Period," *BSA*, 67 (1972) pp. 25-58, who seeks to push back the earliest Oriental influence.

32. Benson, *ibid.*, passim; Brann, (1962), p. 19.

33. Cf. above "The Entrance to the Citadel," n. 13 and "Later Use of the Grave Circles," n. 14; below "The Palace," ns. 6-8 and "The Design of the Palace," n. 31.

34. Cf. n. below.

35. Benson, (1970) passim; Karageorghis, (1962), pp. 72, 76-77.

36. K. de Vries, review of Benson's *Horse, Bird & Man*, *AJA*, 76 (1972), pp. 99-100.

37. Starr, (1961, p. 244.)

38. Edgar, (1904, p. 106.)

39. Cf. "Shaft Grave Art: Modern Problems," n. 60 and n. 9 above.





Bronze Tripods

Somewhere in the area of Grave Circle A and the house which contained the Warrior Vase, Schliemann discovered fragments of a bronze cooking cauldron supported by three legs. Unfortunately, he did not record its exact provenience (which would have helped to fix its precise date),¹ but it is of more interest for its relative position in the history of Aegean metallurgy than its specific location inside the citadel of Mycenae.

Both its shape and its area of discovery help to define its chronological limits within the Mycenaean period. Stylistically the tripod cauldron could be as early as the LH III A period, which corresponds to the reigns of Pharaohs Amenhotep III and Akhenaten; both stylistically and stratigraphically it seems to be no later than the LH III C period, so that, in broad terms, archaeologists have assigned its date of fabrication and its subsequent burial sometime within the fourteenth-twelfth centuries.² Snodgrass recently called its shape “particularly important,” and noted its “close resemblance” to the bronze tripods of the eighth century from³ Olympia. Many archaeologists have long observed that close resemblance, and since it is essentially a utilitarian object, they believed that there must have been a continuous production of similar bronze tripods between the two ages.⁴

Today one sees that at the end of the Mycenaean Age there apparently occurred “a precipitous decline in the technique and employment of Bronze.” Presumably, the Mycenaeans no longer had access to their sources of copper and/or tin ore to form new bronze, did not have enough old bronze artifacts and scrap to melt down to create new objects, and also lost the technology to cast the metal in complex molds.⁵ Therefore, despite the close similarities of eighth-century bronze tripod cauldrons to Mycenaean specimens, all the excavation of the last century reveals no evidence for the continuous manufacture of bronze tripods of that distinct form, or, indeed, of any form during the Dark Age.⁶ Catling, a specialist in the Aegean bronzework of the Mycenaean Age, felt that the close resemblance of eighth-century tripod cauldrons from Olympia and elsewhere in Greece to the Late Helladic examples, as well as the close resemblance of a highly developed eighth-century cuirass from Argos to an example from fourteenth-century Dendra (both places less than ten miles from Mycenae and from each other) implied continuous production for at least those two classes of bronze objects, despite the present gap of centuries in the evidence.⁷ Snodgrass, also a specialist in metal work, and on the Dark Age as well, took the same position vis-à-vis Catling, with regard to tripods and body armor as he did with chariots, feeling that, despite the close similarities, a 400-600-year gap in the evidence indicated the the eighth-century items did not evolve directly from their

The tripod cauldrons were very effective for heating meals over a cooking fire, but they had their disadvantages. Because of their massive size and weight, their boiling contents and their own heat over the flame, one could not remove them from the fire beneath them, but instead had to ladle what one could of the boiling liquid from their interior. In the LH III C period the Cypriots developed an improved model, consisting of a hollow tripod stand upon which one placed a separate cauldron, which one could remove from the fire, allow to cool, bring to the table, and from which one could pour the contents. Those tripods present similar chronological problems to the one-piece Mycenaean tripod cauldrons which they came to replace. Because there are numerous LH III C examples and a few precisely similar ones in contexts as late as the eighth century, Benson, endorsing earlier opinion, recently called the new tripods “one of the most often cited examples of continuity between the Late Bronze Age and the Geometric Period in the Aegean.”⁹

Catling, who studied the numerous tripods, including the Dark Age stands, who noted the close similarity of an example from an eighth-century Athenian context to those of LH III C date, and who did believe, despite the complete lack of evidence, in the continuity of chariots, body armor, and tripod cauldrons during the Dark Age, which separates similar examples, nevertheless dated all the tripod stands to the LH III C period. Rejecting continuity of manufacture after that time, he postulated that all the tripod stands in later contexts were prized antiques.¹⁰

It is of no little interest that the bronze tripod stands of the LH III C period, replacing one-piece tripod cauldrons, then supposedly vanishing (except for rare heirlooms and much later clay models),¹¹ followed the same course as, and physically resemble other Eastern tripod stands of the seventh century, which came to replace the eighth-century Greek tripod cauldrons,¹² as if history repeated itself with one 500-year throwback evolving from and supplanting another 500-year throwback. It is of still greater interest that a bronze bull’s head attachment, presumably from a cauldron of LH III C date, looks very similar to animal-head attachments found on eighth-seventh-century Eastern cauldrons imported to Greece. Catling and others, noting that resemblance, believed that there must be some kind of connection, but felt perplexed that so many centuries, which offered nothing remotely similar, separated the Mycenaean Age example from its much later counterparts.¹³ Furthermore, one of the most ornately decorated Cypriote tripod stands, presumably also of LH III C date, showed Levantine motifs which seemed to derive from somewhat earlier ivory carvings, but the one Levantine ivory carving, which Catling considered stylistically closest to that stand, probably belongs to the eighth century, while one of the closest Cypro-Levantine metalwork analogies dates to the seventh century B.C.¹⁴

As in other cases that we have already seen, and still others as well, the archaeologists’ impasse has also had a direct effect on Homeric scholarship, since

Homer mentions bronze corselets and tripods in his epics. One group of scholars heralds those references as accurate memories of the Mycenaean Age, preserved through the centuries, while the other regards them as a reflection of the eighth-century world in which Homer and his audience lived.¹⁵ Regarding two sources of literary controversy Homer refers to tripods as prizes at chariot races.

One particular passage, referring to an aborted chariot race for a tripod at or near Olympia shortly before the Trojan War (*Iliad* XI: 698-702) sparked one of the first chronological debates in Homeric scholarship. Writers of the Roman period argued whether or not the hard made a poetic allusion to the famous Olympic Games of his own day,¹⁶ a problem which still troubles modern authors,¹⁷ especially since some archaeologists feel that the eighth-century tripods found at Olympia, which so closely resemble the centuries-older Mycenaean examples, were, in fact, as Homer recounted, prizes for the winners of the early Olympic Games.¹⁸

The controversy, then as now, compounds itself because of two conflicting chronological schemes' The Greeks of the classical period attributed the foundation of the Olympic chariot races to a pre-Trojan War hero such as Pelops, Heracles or Atreus,¹⁹ at a time when they had come to believe, via Egyptian reckoning, that the Trojan War fell sometime during the fourteenth-twelfth centuries B.C. At the end of the fifth century the Greeks, using native accounts, calculated that the first recorded Olympic Games took place in 776 B.C.²⁰ A dispute then arose between those who assigned the foundation of the Olympics to the thirteenth century, and those who opted for the early eighth.²¹ As happened with contemporary and analogous debates over the foundation dates of Rome and Carthage—either the era of the Trojan War heroes or the ninth/eighth century²²—the ancients decided to resolve the arguments by accepting both traditions—all three were founded in the Heroic Age, abandoned for nearly half a millennium, then refounded at the later date. Pausanias, who over 1800 years ago related that compromise for the Olympics,²³ did not end the debate, and, in fact, created yet another 500-year problem for Olympia, which sparked the heated quarrel between Furtwängler and Dörpfeld, which Velikovsky has recorded above [Olympia](#).²⁴

Rather than resolving ancient literary debates over Olympia, chariots and tripods, modern philologists and archaeologists have run into the same problems (and still more) as their predecessors, and for the same reason—Egyptian chronology placed Mycenaean objects and institutions half a millennium before similar objects and institutions again appear.

References

1. S. Benton, "The Evolution of the Tripod-Lebes," *BSA*, 35 (1934-35), p. 76, n.

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2. loc. cit.; Catling, (1968), pp. 169-170.
3. Snodgrass, (1971), pp. 281-283.
4. A. Evans, (1935), vol. II (1928), pp. 629, 637; W. Lamb, *Greek and Roman Bronzes* (New York, 1929). p. 44; Benton, (1934-35), pp. 76-77; Catling, (1968), pp. 169-170; idem, in Popham-Sackett, (1968), p. 29.
5. D.G. Mitten, and S.F. Doeringer, *Master Bronzes from the Classical World* (Los Angeles, 1968), p. 19; cf. Snodgrass, (1971). pp. 237-238, 284, and Desborough, (1972, pp. 314-318.)
6. Snodgrass, *ibid*, pp. 281-285, 399.
7. Catling in Popham-Sackett, (1968), p. 29.
8. *Tripods*; Snodgrass, (1971), pp. 281-285; *cuirass*; *ibid.*, pp. 271, 345 and idem, *Arms and Armour of the Greeks* (Ithaca. New York, 1967), pp. 30, 41; idem,(1974). p. 123. To bolster his case for the discontinuity of bronze tripods during the Dark Age, Snodgrass not only pointed to their absence but also to clay models manufactured during the eleventh-eighth centuries, as evidence that the Greeks of that era, between the two periods of similar bronze examples, experienced a bronze shortage, so that they turned to clay substitutes. Actually, clay tripods had a very long history in the Aegean before the advent of the Mycenaean Age, when bronze replaced clay. By a chronological revision, the “Dark Age” clay examples did not come after the Mycenaean Period and before the revived widespread use of bronze tripods in the eighth century; instead, they served as the original models before, and the poorer people’s utensils during the time of Mycenaean metal examples, whose similarity to eighth-century bronze tripods is due to their rough contemporaneity.
9. J.L. Benson, “Bronze Tripods from Koran,” GRBS, 3 (1960), p. 7 and cf. p. 16; cf. Hall, (1914), pp. 132-135; Lamb, (1929), p. 44; J. Charbonneau, *Greek Bronzes* (tr. K. Watson) (New- York, 1962), p. 54; Aström, (1972), p. 563.
10. Catling, (1968), pp. 194, 216-217, 223; cf. Snodgrass, (1971) pp. 119, 251, 271, 285, 325.
11. For heirlooms, see Catling, (1964), pp. 194, 216-217, 223; Snodgrass (1971), pp. 119, 251, 271, 285, 325. Regarding clay “substitutes,” Catling (*ibid.*, pp. 215-217), noted that they did not exist during the time of the twelfth-century bronze stands; “more surprisingly,” rather than immediately replacing the bronzes at the end of the twelfth century, the clay models only started to appear in the late tenth century, but were still “remarkably close to their metal originals.” (p. 215), whose production had supposedly ceased long beforehand the clay “substitutes” ceased being made at the end of the eighth century, once bronze stands began to reappear in Greece. By a chronological revision, the latest “heirlooms” and all the clay “copies” *preceded* the bronze stands of LH III C date, whose resemblance to seventh-century bronze stands is due to their contemporaneity (cf. n. 8 above).
12. Snodgrass, (1971), pp. 321, 345; For the resemblance, cf. Boardman, (1961), pp. 132-134.
13. Catling, (1968), pp. 154-155; E. Sjöqvist, review of Catling’s *Cypriot*

- Bronzework in the Mycenaean World*, Gnomon, 39 (1965), p. 400.
14. Catling, *ibid.*, pp. 197, 222. The ivory carving from Assyria comes from a deposit whose limits are 824-703 B.C. (R. Barnett, *A Catalogue of the Nimrud ivories* [London, 1957], p. 49).
 15. *Corselet*: Mycenaean or eighth century: Snodgrass, (1974), p. 123; idem, (1964), pp. 171-177; probably Mycenaean: Dickinson, (1973-4), p. 37; F. Stubbings, "Arms and Armour" in Wace and Stubbings, *A Companion to Homer* (London, 1962), pp. 506-510, 522n; probably eighth-century: P. Courbin, "Une tombe géométrique d'Argos," BCH, 81 (1957), p. 356. *Tripods*: probably Mycenaean: F. Stubbings, "Crafts and industries" in Wace-Stubbings (*ibid.*), p. 535 (although see p. 419); probably eighth-century: Snodgrass, (1971), p. 436; Dickinson, (1973-4), p. 43.
 16. Strabo VIII.3, 30; Pausanias V.8.2.
 17. W.R. Ridington, *The Minoan-Mycenaean Background of Greek Athletics* (Philadelphia, 1935), pp. 17-19, 23, 34, 50, 87; H. Schöbel, *The Ancient Olympic Games* (Princeton, 1966), pp. 19-21, 73, 75, 92, 137, 145.
 18. J. Sandys, *The Odes of Pindar* (New York, 1924), p. xxv; Benton, (1934-35), pp. 114-115; Ahlberg, (1971a, p. 198 and n. 1.)
 19. The east pediment of the early fifth century temple of Zeus at Olympia showed Pelops' chariot race, which many considered the first Olympic Game. Pindar (Olympians X: 55-59), at about the same date, attributed the Games to Heracles. For Atreus, see Velleius Paterculus I:8.1-2. For the Bronze Age in general, see Pausanias V:7.6-8.4, 10.6-7.
 20. J. Forsdyke, *Greece before Homer* (London, 1956), p. 62; G. Mylonas, "Priam's Troy and the Date of its Fall," *Hesperia* 33 (1964), pp. 353, n. 3. The ceremonial date of 1184/3 B.C. was the estimate of Eratosthenes of Alexandria who, writing in the late third century B.C., relied very heavily on the works of Ctesias (late fifth century) and Manetho (early third century). Modern authorities (e.g., Forsdyke, *ibid.*, p. 68; A.R. Burn, *Persia and the Greeks* [London, 1962], pp. 11-13) completely mistrust Ctesias' work. Without any direct knowledge, he purported to recount Assyrian history, pushing it back much too far. Even the fall of the neo-Assyrian empire in 612 B.C. (only about 200 years before Ctesias' own time), he dated some 265 years too early—actually to the period of its foundation (Forsdyke, pp. 68-74). Manetho's "history" of Egypt is roughly twice as long as modern scholars view it (A. Gardiner, *Egypt of the Pharaohs* [New York, 1972], pp. 61-62). Although even such respected Egyptologists as Hall, Breasted and Gardiner have noted gross errors in the number, order, dynasties, names and real years of Manetho's list of pharaohs, as well as irreconcilable discrepancies between different versions of the list, they still base much of the present chronological scheme for Egypt on his account (Velikovsky, (1977), pp. 208-209 and ns. 3-5). Velikovsky (*ibid.*, pp. 205-244) has convincingly challenged Manetho's scheme and the modern one which it helped to create, and in the *Ages in Chaos* volumes has proposed his revision for the entire structure of later Egyptian history. Despite the faith that the ancients placed in those three late classical sources, even modern scholars, who adhere to the present

chronological system, dismiss their calculations as worthless (in addition to those already cited, cf. Dickinson, (1973-4), pp. 34-35). As we shall see below, these three writers all drew on the still earlier texts of Herodotus, Hellanicus and Hecataeus, who also relied directly on fallacious Egyptian accounts to fix dates for events in Greek prehistory - generally four to five centuries too old.

21. See Velleius Paterculus 1:8.1-2.
22. For Rome, see Dionysius of Halicarnassus 1. 72.1-74.2; For references to Carthage, see G.C. and C. Picard, (1968), pp. 30-33; Davis, *Carthage and Her Remains* (London, 1861), pp. 1-2. Of special interest, Appian (Roman History VIII:1,132), accepting both traditions, had Carthage's foundation both before the Trojan War *and* in the ninth century.
23. Pausanias, V:4.5, 8.5. For recent discussions, see n. 17 above and D.I. Lazarides, "Greek Athletics" in *The Archaic Period* (1975, pp. 489-493.)
24. He assigned the earliest temple of Hera at Olympia to the reign of a king whose grandfather fought at Troy (*Ibid.*, V:3.6, 16.1). Contemporary archaeologists, who have studied the actual remains (A. Mallwitz, *Olympia und seine Bauten* [Munich, 1972], pp. 85-88; H-V. Hernnan, *Olympia: Heiligtum und Wettkampfstätte* [Munich, 1972], pp. 93-94; S. Kunze, "Zur Geschichte und zu den Denkmälern Olympias" in *100 Jahre deutsche Ausgrabung in Olympia* [Munich, 1972], p. 11), date the foundation to the mid-seventh century, which is ca. 500 years later than Dörpfeld, trusting Pausanias, maintained. In addition to Velikovsky's treatment above, see H.E. Searls and W.B. Dinsmoor, "The Date of the Olympia Heraeum," *AJA*, 49 (1945), p. 62. Ancient debates between those advocating the Late Helladic Period and those championing the ninth-seventh centuries for various events were by no means rare. There are far more instances today, where the ancients unanimously attributed something to the Mycenaean Age, but modern archaeologists and historians can date it no earlier than the ninth-seventh centuries (e.g., Phrygians in Anatolia; Etruscans in Italy; Phoenicians in the Aegean; Phoenician colonization of the West Mediterranean; the Mycenaean [or Trojan] colonization of Sicily, South Italy, Cyrene, Chios, Thera [cf. n. below], Ionia [cf. below "The Design of the Palace," n. 11], and other regions, the unification of Attica, Athens' institution of the archonship and its participation in the league of Calauria [cf. below "The Design of the Palace," ns. 13, 18]; the arrival of the alphabet [cf. n. below]; the first temples to Hera not only at Olympia, but also at Prosymna [cf. n below], Perachora and Foce del Sele in Italy; the temple to Artemis in Brauron; the Isthmian, Pythian, Nemean and Olympic Games; the sculpture of Daedalus; the prominence of Argos; etc. etc.).





A Terracotta Figurine and a Terracotta Head

Somewhere at Mycenae, and most probably in the same general region as the Grave Circle and the buildings to the south of it ([Fig. 1, D-J](#)), Schliemann discovered a fragmentary clay figurine which, along with a similar example that he found at the site of Tiryns, seems to represent someone kneading dough to form loaves of bread. He did not record the exact provenience (and the associated material) of either example, which would help to fix their date; both are fragmentary, unpainted and crude, which makes stylistic dating equally difficult; and there are many analogous breadmaker figurines from the Peloponnese (including examples from Tiryns and Prosymna, which lies between Mycenae and Tiryns), that belong to the archaic period (i.e., seventh-sixth centuries). Despite all these considerations, archaeologists nevertheless felt that Schliemann's two finds were LH III in date, because of their discovery at citadels whose main period of occupation was the Mycenaean Age. Still, there were no similar LH III examples with which one could associate them.

C. Blegen published another breadmaker terracotta of unknown provenience, but definitely LH III A-B in modelling and decoration. Since his figurine did “at first glance” look “like a comparable piece” to Schliemann's finds, it could have helped to bolster the date which archaeologists had long believed, but could not prove for the examples from Mycenae and Tiryns, linking all three to form a tight little LH III group. Blegen realized that people did live in, and leave remains (including figurines) at both Mycenae and Tiryns during the archaic period. He therefore felt that Schliemann's finds, which resembled the later examples and came from contexts that might as easily have been late as early, could have belonged to the archaic period. He finally decided to assign those two breadmakers to a time 500 years later than other archaeologists had assumed, but did connect them with the large group of seventh-sixth-century figurines, instead of leaving them cut off by centuries from the archaic group.

Blegen's example was certainly of LH III style, so he could not lower its date. Displacing the other two terracottas, the new one assumed their former, isolated position. It became the sole Mycenaean “antecedent” of the later group, “separated from them by a long interval” of 500-600 years, during which similar figurines seem not to have been made.¹ In fact, by the present chronological scheme, for nearly two of those intervening centuries, the Greeks seem to have made no figurines of any kind.² Blegen was not alone in his dilemma, however. For despite the break in continuity, many authorities note the remarkable similarity of eighth-sixth century terracottas to those of the LH III period—a matter which has elicited wonder and

sparked debates involving 400-600 years over individual figurines.³

In 1896 C. Tsountas, excavating among the houses south of Grave Circle A, discovered a brightly painted, nearly-life-size terracotta head of a female (possibly a sphinx), which art historians have assigned to the thirteenth century B.C. The monumental proportions of the head, contrasted with the more ubiquitous, tiny figures, led V. Müller to speculate whether the large-scale sculpture, which one finds from the seventh century onward in Greece, had a centuries-old tradition behind it, and with that question as his point of reference, he observed something in 1934 which is equally valid today: “The relationship of the Minoan-Mycenaean culture of the second millennium and the classical civilization of the first is one of the most pressing problems of present-day archaeology.”⁴

Art historians have long noted the close similarity of the first monumental Greek statues of the seventh-sixth centuries to the Eighteenth and Nineteenth Dynasty sculpture in Egypt. The Mycenaeans who visited Egypt at that time and copied other contemporary arts of their hosts, seem not to have imitated their sculpture. Apparently their descendants of the Archaic Period, returning to Egypt after centuries of allegedly broken contact, and seeing for the first time those same colossal works (by now quite ancient), did decide to copy them.⁵ Müller observed that the Mycenaeans could and did create larger-scale sculpture, albeit non-Egyptian in inspiration, and cited literary statements that the later Greeks preserved early sculptures for centuries. He therefore considered it reasonable that native Greek sculpture, such as the terracotta head from Mycenae, might, like the contemporary Egyptian works, have been on constant display during the centuries of the Dark Age when, according to present evidence, the Greeks produced no other sculptures; he felt that the Mycenaean pieces could also have supplied an even more accessible, and just as natural a source of inspiration as Egypt did to seventh-century artists. He wanted to believe that, but in the end decided that the old statues “had no influence whatsoever on the new Greek types. Mycenaean civilization died . . . classical art made a new beginning.”⁶ A few years later F. Grace V. Müller, “The Beginnings of Monumental Sculpture in Greece,” also noted the nearly-life-size Mycenaean creations as possible models for monumental archaic sculpture. Unlike Müller, he doubted that the Greeks frequented cult centers throughout the Dark Age, rather than merely returning to them 500 years later, and felt it improbable that once they did return, there were still any Mycenaean sculptures on view. Like Müller, however, he felt that seventh-century Greeks, looking to Egypt and the Levant, rather than to older native works, “created their sculpture anew.”⁷

More recent authorities have also noted the Mycenaeans’ skill at producing monumental stone sculpture, such as the Lion Gate, the Shaft Grave stelae, the façades of the beehive tombs, and in modelling large-scale creations of clay, such as the terracotta head.⁸ Like Müller, they too ran into the problem of the huge gap separating the monumental thirteenth-century sculptures from those of the seventh

century. E. Vermeule parodied the frequently-expressed sentiment that “the thrust toward monumental sculpture is somehow innate in [Mycenaean] Greece but will lie dormant” for over 500 years.⁹ Still, the Dark Age of no similar sculpture forced such conclusions upon the art historians.

Not only the monumental size of the terracotta head looked to the seventh century. The shape of the face “seems to foreshadow,” and “anticipates in an uncanny way the so-called ‘Dedalic’ style which was to emerge some six centuries later.”¹⁰ As if its own 600-year problems with size and morphology were not enough, that head has created still others. W. Schiering published a small terracotta face of unknown provenience, but noting its similar clay composition to Tsountas’ discovery, he noted that it, too, probably came from the region around Mycenae. Observing the face’s stylistic affinities to those on large-scale terracotta statues from the island of Kea, which are now dated to the sixteenth century, to the thirteenth-century head from Mycenae, and to a small head from the town of Asine, less than twenty miles southeast of Mycenae, now dated to the thirteenth or twelfth century, Schiering sandwiched the face between the latter two sculptures.¹¹

Like the Mycenaean head, the Kean statues and the Asine head have their own 500-600-year problems—the former with stratigraphy,¹² the latter with style.¹³ Now the terracotta face, like its three companion pieces, has its own 600-year problem as well. Though its style does resemble the other problematical sculptures, its size fits well a series of seventh-century heads, but more importantly, its mode of manufacture also points to that same period. Distinct from all other Mycenaean terracottas presently known, the face was fashioned in a mold, something which scholars have traditionally considered an important invention of the early seventh century. If that face really belongs to the late thirteenth century, then the earliest-known Greek mold must go back that far, though its impact seems negligible; then it must have disappeared for ca. 500 years only to re-emerge in the seventh century,¹⁴ at which time it “completely transformed” the Greek terracotta industry.¹⁵ Realizing the problem, Schiering counselled that, in order to follow the history of terracotta heads, one had to take “a long step” (*einen weiten Schritt*) from the end of the Mycenaean Age to their return ca. 700 B.C.¹⁶

As we have seen, and shall continue to see, one must constantly take that “long step” whenever tracing the development of so many strikingly similar artifacts of two cultural phases supposedly separated by half a millennium. With specific regard to representational art, we already noted the “taboo” on figures on painted pottery of the Dark Age,¹⁷ and have just seen a similar “taboo” on stone and clay sculpture—both large and small. There is also a contemporary, centuries-long lack of two-dimensional representations on carved gems and ivory plaques, and three-dimensional ivory and bronze statuettes, which separates the figures found in each of these media during the eighth to sixth centuries from the strikingly similar figures in each of those media

during the LH III period.¹⁸ The complete departure from all representational art in sculpture, glyptic and painting, immediately following a long period when such figures flourished, and immediately preceding the return of such similar specimens again seems “strange” and “curious”. For bronze, ivory and semiprecious stones, one can postulate a shortage of raw material, or the loss of the skill to adorn them, or the lack of funds to commission the work; however, at a time when there was no dearth of clay and paint, and when artisans did continue to fashion ceramic objects and to adorn them, it is far more difficult to explain why the Greeks interrupted the flow of figural art for so long, only to revive it centuries later in forms so reminiscent of the Mycenaean Age.¹⁹

Specifically, terracotta figurines were “ubiquitous” during the LH III period, and became common again in the eighth-seventh centuries. Experts often have difficulties distinguishing examples of the two groups, and debates arise, as we have seen. At both periods the terracottas comprise one of the most conspicuous manifestations of Greek religion, which itself constitutes one of the few legacies of prehistoric Greece whose continuity throughout the Dark Age no one seriously questions. The fact that the later examples so closely resemble the earlier ones and that terracottas “disappear almost without a trace” between the two eras,²⁰ not only poses problems regarding art and religion, but is, once again, reminiscent of conditions 500 years earlier.²¹

References

1. C. Blegen, “A Mycenaean Breadmaker,” *Annuario della Scuola Archeologica di Atene*, N. S. 8-10 (1946-48), p. 16. For a closer date for that figurine, see Furumark, (1941), p. 88; Higgins, (1967), p. 14; and Vermeule, (1972), p. 222 (phi-shaped figurines). For numerous archaic breadmakers, see A. Frickenhaus, “Die Hera von Tiryns” in *Tiryns I* (Athens, 1912), p. 83.
2. Higgins, *ibid.*, p. 17; Richter, (1969), p. 229 (cf. above “Shaft Grave Art: Modern Problems,” n. 11).
3. For remarkable similarities, see C.H. Morgan II, “The Terracotta Figurines from the North Slope of the Acropolis,” *Hesperia* 4 (1935), pp. 194-195; Young, (1939), p.194; C.H. Whitman, *Homer and the Heroic Tradition* (Cambridge, Mass, 1958), p. 52; Benson,(1970), p. 123; Boardman, (1964), pp. 61, 104. For some 400-600-year debates arising from those similarities, see Higgins,(1967), pp. 24 and 141 (references), and Nicholls, (1970), pp. 14-15. For related problems, cf. ns. 10-20 and “The Religious Center of Mycenae,” 26-34 below.
4. *Metropolitan Museum Studies* 5 (1934), p. 158.
5. E.g., G. Richter, *Kouroi* (London, 1960), pp. 2-3, 28; idem, *Korai* (London, 1968), pp. 4, 23, and cf. Pl. I; idem, (1969), pp. 56-57; Vermeule, (1972), p. 214; Robertson,(1975), pp. 39-41; E. Guralnick, “The Proportions of Kouroi,” *AJA*, 82 (1978), pp. 461-472.
6. Müller, (1934), pp. 164-165.

7. F. Grace, "Observations on Seventh-Century Sculpture," *AJA* 46 (1942) p. 341.
8. Boardman, (1964), p. 22; Mylonas, (1966), p. 188; J. Barron, *Greek Sculpture* (New York, 1970), pp. 8-9.
9. Vermeule, (1975, p. 6) actually refers to the Shaft Grave Stelae, but the point is valid for LH III sculpture.
10. Higgins, (1967), pp. 93-94.
11. Schiering, (1964), pp. 1-2.
12. J.L. Caskey, the excavator of the temple at Kea, felt that it enjoyed uninterrupted attendance from its foundation late in the Middle Bronze Age until the Hellenistic period, with the room which contained the idols constituting the most revered part of the temple. He discovered the idols amid a fifteenth-century destruction layer, immediately above which was a continuous sequence of material which began only in the tenth century. Caskey assumed, on the basis of pottery finds from the "intervening" 500 years from *other* parts of the building, that tenth-century Keans had removed 500 years of floors from the room with the idols, which is the logical, and, indeed, the only reasonable conclusion, if there really were five "intervening" centuries (Caskey, "Excavations in Keos, 1963," *Hesperia* 33 [1964], pp. 317, 326-333. Similarly, see the supposedly continuous use of a religious sanctuary on Crete, where eleventh-century devotees performed the same rites and left identical offerings to those of the sixteenth century, which lay immediately below, with no intervening material to mark the half millennium which supposedly transpired [Evans, (1928), pp. 123, 128, 134; Coldstream and Higgins in Coldstream, (1976), p. 181. Both those cases fit the pattern we have seen, and will see for the resemblance of buildings, tombs, pots, jewelry, etc. of the early Mycenaean Age to the early Iron Age, as well as the pattern for "continuity" of religious cults with a 500-year lacuna in evidence [most often between ca. 1200 and 700 B.C.]).
13. As others have noted, the Asine head bears a striking resemblance to a series of terracotta sculptures from post-Minoan Crete. Alexiou sought to connect a tenth or ninth-century Cretan head to the example from Asine, claiming that the latter example showed Cretan influence, while Schiering, cited an eighth-century Cretan terracotta as proof of the revival of the Asine type of head (1964, p. 15). Nicholls (1970, pp. 5-6), who admitted the possibility of Cretan influence on the Asine head, asserted that it was "Impossible chronologically" for the presently-known sequence of Cretan terracottas to have exerted any influence on the example from Asine, however non-Mycenaean and Cretanizing it appeared, since all the Cretan heads so far discovered are *later* than the Asine head.
14. Schiering, *ibid.*, pp. 7, 14.
15. Higgins, (1967), p. 17. The Minoans, who used molds to form "eggshell" pottery during the Middle Bronze Age, seem to have continued their use into the Shaft Grave period for animal-shaped vessels, after which time they seem to have abandoned their use for centuries (*ibid.*, p. 12). In Greece itself, except for Schiering's example, which Egyptian chronology dates to ca. 1200 B.C., there is no other evidence for mold-made terracottas for another 500 years.

16. Schiering, (1964), p. 6; cf. Boardman's 500-year later date for a head which Evans classified as Minoan (Boardman, (1961), p. 103.
17. Cf. above "The Warrior Vase," n. 14.
18. *Carved gems*; ns. 4-5 above; *ivory plaques*: see below "Ivory Carvings," ns. 6-7; *ivory statuettes*; see below "The Religious Center of Mycenae," n. 24; *bronzes*; for a gap in Greece during the Dark Age, followed by an eighth-century renewal, see Charbonneaux,(1962), pp. 19, 79-80; Lamb, (1929), pp. 29-30, 44; S. Casson, "Bronzework of the Geometric Period and Its Relation to Later Art," JHS, 42 (1922), pp. 207, 219; Mitten-Doering, (1968), p. 19; Snodgrass, (1971), pp. 417-418. Despite that gap, some Mycenaean Age bronzes are strikingly similar to those 500-600 years later - something especially evident in the case of the youthful horned god from Enkomi on Cyprus, now dated to the twelfth century, but extremely similar to seventh-sixth century bronze statuettes in form and facial features (see R. Dussaud, "Kinyras, Etude sur les anciens cultes chypriotes," *Syria* 27 [1950], pp. 74-75; Karageorghis, (1962b), p. 16; idem, (1970), p. 142; K. Hadjioannou, "On the Identification of the Horned God of Enkomi-Alasia" in C. Schaeffer, *Alasia I* [Paris, 1971], pp. 33-42). Similarly, although there is no evidence of continuity in Crete, some eighth-seventh century bronzes so closely resemble Late Minoan ones, that experts often cannot decide to which epoch individual pieces belong, which has led to consternation equivocation and scholarly debates (Cf. Boardman,(1961); pp. 5-9, 13, 47-48, 118-119); (cf. above "Other LH III Figural Pottery," n. 29, for Near Eastern bronzes.)
19. Cf. above "The Warrior Vase," n. 15 and "Bronze Tripods," n. 5; For loss of skills *except for* modelling and decorating clay, cf. Snodgrass, (1971), pp. 399-401.
20. Snodgrass, *ibid.*, p. 192, and cf. p. 399; cf. n. 2 above.
21. *Ibid.*, p. 200, n. 34.





The Religious Center of Mycenae

Starting in 1968, British and Greek archaeologists resumed excavations at and around a large structure southeast of Circle A ([Fig. 1, K](#)) which Tsountas and Wace had partly cleared long before. In the process they discovered an LH III B religious complex of altars and sanctuaries unlike any previously known in the Mycenaean world.¹ Until quite recently, scholars felt that the Mycenaean Greeks practiced their religion only at rustic shrines, or else in parts of the urban palaces where their kings served as priests. Those seeking to date the various institutions and objects which Homer described, decided that his references to an independent priesthood and to stone-built, roofed, freestanding urban temples, which he ascribed to the Mycenaean Age, were, in fact, anachronisms 500 years out of place.² The recent discoveries of Late Bronze Age temples inside the cult center of Mycenae, at Kition on Cyprus, Ayia Irini on the island of Kea (which began in the Middle Bronze Age), and most recently in the lower citadel at Tiryns, now vindicate Homer.³

Those discoveries also add urban temples and an independent clergy to a staggering list of Homeric references which one can ascribe as easily to the thirteenth-twelfth centuries as to the eighth-seventh, but not to the period between.⁴ Archaeologists face the additional problem that the ground plan of temples starting in the eighth century seems to be a throwback to the groundplan of Mycenaean palaces and temples,⁵ after a 400-500 year period which shows an abrupt abandonment of, and “an essential discontinuity” with Mycenaean architecture⁶—a Dark Age whose architectural forms also seem to be a 500-year throwback to pre-Mycenaean structures.⁷ With regard to Homer’s epics, for over a century now, archaeologists have “divided themselves into two parties as if engaged in a tug of war,” either championing his references as accurate, 500-years-old Mycenaean reminiscences retained in the poems, or else viewing them as a reflection of eighth-century reality.⁸

Literary critics have, as we noted for tripods, engaged in the same tug of war for over 2000 years now.⁹ Contemporary philologists, employing linguistic criteria in an attempt to determine the precise date of Homer’s allusions, and thereby resolve the debates of their colleagues, find themselves as perplexed as the other disputants, since they cannot neatly separate the manifestations of eighth-century Greek from those which they judge to be 500 years older, and find numerous cases of “Mycenaean” language describing late material and late language describing Mycenaean material.¹⁰

The philologists, trying to aid the archaeologists to establish dates, readily confess

their consternation that “‘older’ and ‘younger’ elements (whether archaeological, linguistic, or social) interlock,”¹¹ and that those same components, which “differ in age by more than half a millennium . . . are inextricably blended”—a fact which they term “most bewildering,”¹² and for dating purposes, even “fatal.”¹³ Since the linguists’ attempts to separate the elements into distinct strata has met with failure,¹⁴ they send the problem back to the archaeologists. As Snodgrass remarked, the whole matter is “a sorely vexed question, but it cannot be shirked. It remains as true today [1971] as it has been for some years past, that there are only two positively and widely identifiable historical ‘strata’ in the world described in the Homeric poems,” the LH III period and the eighth century.¹⁵ For temples specifically, and for each of a number of other items, he saw “a pattern. . . emerging,” wherein they belonged either to the thirteenth-twelfth centuries or the eighth-seventh, but not between.”¹⁶

The dating controversy still rages over temples and an astonishing number of other matters,¹⁷ with the recent discoveries of Mycenaean temples encouraging those who prefer to see all of Homer’s references as genuine Mycenaean memories rather than eighth-century anachronisms.¹⁸ But two gnawing questions arise: how did the LH III and eighth-century elements become so “inextricably blended” in the poems, if the epics grew through accretion; and why are those the only two periods in evidence? The second question goes to the very heart of the notion that oral poetry sustained Mycenaean memories through 500 years of illiteracy. If the epics in their original form were so sacrosanct that no poet, who transmitted them, altered them for centuries, why did an eighth-century bard feel that he could insert language, customs and objects of his own day in such a pervasive manner? On the other hand, if it is true that no oral poet memorizes another bard’s songs verbatim, or even sings his own tale twice the same way,¹⁹ then one should expect that those transmitting enormous, unwritten secular sagas for 500 years would gradually omit or alter many of the Mycenaean details, which would only have confused or had no meaning to themselves or their audience during the Dark Age; one would further expect that the bards between the LH III period and the eighth century would have added contemporary language and references to make their epics more relevant and comprehensible to their own day and their own listeners:²⁰ yet they seem to have done neither of those things. Consequently, for Homer’s temples, as for other matters, the “tug of war” across a 500-year chasm continues, and the entire situation remains “most bewildering.”

Among the discoveries inside the cult center were two fairly large ivory figurines, representing a couchant lion and a very delicately modeled male head. Ivory carving in the round was very rare in Mycenaean times, and those two pieces struck the excavators “unique” among them. Since they come from a building of LH III 3 date, they can be no later than the thirteenth century B.C.²¹ The lion foreshadows a similarly-posed, *lake* seventh-century sculpture from the island of Corfu,²² and the face reminds one very much of archaic statuary of the seventh-sixth centuries,

although, as we noted above, most critics agree that seventh-century sculptors began their art afresh, with no discernible ties to the bygone works of their ancestors.²³ As for the material itself, ivory statuettes vanished towards the end of LH III only to reappear in Greece ca. 750 B.C.²⁴ There is, moreover, an important deposit of ivory figurines from Ephesus in Asia Minor, dating to the late seventh-early sixth century, including lions, one of which bears some resemblance to the specimen from Mycenae, and a statuette of a priestess (?), which shows close similarities to the ivory head from Mycenae in the shape and piercing of the head, the facial features, and the modeling of the hair. The peculiar rendering of the eyes on the ivory face from Mycenae also foreshadows the similar, though slightly more realistic, eyes of an early seventh-century ivory sphinx from Perachora, less than twenty-five miles northeast of Mycenae.²⁵ Between the two “unique” LH III B ivories and comparable works of the late eighth-sixth centuries lies the centuries-long Dark Age.

Other cult objects include quite a few terracotta figurines whose lower bodies were formed on a potter’s wheel as hollow tubes, in a typical Mycenaean process.²⁶ They range in date from LH III A - late LH III B, i.e., the fourteenth-thirteenth centuries B. C. One of the thirteenth-century idols had a “curious” trait: the lips formed an “archaic smile”²⁷—a feature which derives its name from its prevalence on seventh-sixth-century Greek sculpture, but is essentially unknown in Greece before that era.²⁸ After the manufacture of fourteenth-thirteenth-century Greek cylindrical idols of Mycenae, and the recently-discovered twelfth-century ones from a shrine at Tiryns,²⁹ there apparently follows a centuries-long break in their production throughout the Peloponnese, until ca. 700 B.C., when “wheel-made work in the old technique” suddenly makes a “strange revival;” terracotta figurines in general then started to become “universal throughout Greece once more,” as they had been during LH III, before their virtual disappearance during the Dark Age.³⁰

In every case where the idols from the cult center still possessed their arms, they were “invariably raised,”³¹ as were those on the more schematized specimens from the shrine at Tiryns,³² and, in fact, most of the numerous handmade and wheel-made figurines of the LH III B-C period. That pose presumably designates a worshipper in the posture of supplication, or a deity in the set of epiphany or benediction. The type suddenly became extinct at the end of the Mycenaean Age. With the return of the Peloponnesian wheel-made figurines and female idols ca. 700 B.C., there is “a remarkable associated phenomenon, the reappearance of the goddess with raised arms,” which, like other features of contemporary terra cottas, made a “strange revival.”³³ They then “kept reappearing spontaneously in widely separated parts of the country without any direct continuity that can be traced among the votive statuettes themselves. Something much more than an archaeological zeal on the part of the faithful needs to be invoked to explain this!”³⁴

References

1. W. Taylour, "Mycenae, 1968," *Antiquity* 43 (1969), pp. 91-97; idem, "New Light on Mycenaean Religion," *Antiquity* 44 (1970), pp. 270-280; G. Mylonas, "The Cult Center of Mycenae," (English summary), *Pragmateiai tes Akademies Athenon*, 33 (1972), pp. 36-40.
2. R. Carpenter, *Folk Tale, Fiction and Saga in the Homeric Epics* (Los Angeles, 1946), p. 85; Lorimer, (1950), pp. 433-440; J. Myres, "Homer and the Monuments: A Review," *Antiquity* 25 (1951), p. 73; M.I. Finley, *The World of Odysseus* (New York, 1954), p. 39; T.B.L. Webster in Wace-Stubbings, (1962), p. 454; Dickinson,(1973-4), p. 40; cf. Kirk,(1964), p. 179.
3. Hope Simpson-Lazenby,(1970), p. 2; Mylonas,(1972), p. 40; Snodgrass, (1974), p. 12. For Tiryns, see M.E. Caskey, "Newsletter from Greece," *AJA*, 81 (1977), p. 511, and *AJA*, 82 (1978), p. 339.
4. Snodgrass, *loc. cit.*; idem,(1971), p. 26. cf. n. 25 below.
5. Tsountas-Manatt,(1897), p. 322; W.B. Dinsmoor, *The Architecture of Ancient Greece* (New York, 1950), p. 21; M.L. Bowen, "Some Observations on the Origin of Triglyphs," *BSA*, 45 (1950), p. 123; W. McDonald, *Progress into the Past* (New York, 1967), pp. 423-424; Richter,(1969), p. 22; B. Schweitzer, *Greek Geometric Art* (tr. P. & C. Usborne) (New York, 1971 [pub'd posthumously]), pp. 223-224; Robertson,(1975), pp. 60-61; Cf. Snodgrass, (1971), pp. 409, 424.
6. Snodgrass, *ibid.*, p. 369; cf. H. Drerup, *Griechische Baukunst in geometrischer Zeit (Archaeologia Homerica II,0)* (Göttingen, 1969) p. 77.
7. Snodgrass, *ibid.*, pp. 369, 383-384; Drerup, *ibid.*, p. 82; Dinsmoor, (1950), p. 58; Starr,(1961), pp. 247-248; D.M. Robinson, "Haus" in Pauly-Wissowa's *Real-Encyclopädie*, Supp. 7 (1940), 235.
8. M. P. Nilsson, *Homer and Mycenae* (London, 1933), p. 121.
9. Cf. above "The Bronze Age," ns. 17-21.
10. Nilsson, (1933), pp. 120, 159, 211; Gray,(1954), p. 15; idem, "Homer and the Archaeologists" in *Fifty Years of Classical Scholarship* (ed. M. Platnauer) (Oxford, 1954), p. 29; Webster, (1964), pp. 212, 226; J. Davison, "The Homeric Question" in Wace-Stubbings,(1962), p. 257; G.F. Else, "Homer and the Homeric Problem" in *Lectures in Memory of L.T. Semple I* (ed. D. Bradeen et. al.) (Princeton, 1967), p. 331; E.A. Havelock, "Prologue to Greek Literacy" in *Lectures in Memory of L.T. Semple II* (ed. C.G. Boulter et. al.) (Princeton, 1973), p. 335; Kirk, (1976), pp. 37-38, 42-43; for the problem of dating the language, cf. Whitman,(1958), p. 61.
11. Davison, *ibid.*, p. 257.
12. Nilsson, (1933), p. 159.
13. Else,(1967), p. 331.
14. Havelock,(1973), p. 335.
15. Snodgrass,(1971), p. 389.
16. Idem,(1974), p. 123.
17. *Loc. cit.*; Kirk,(1964), pp. 176, 178; Nilsson, (1933), pp. 121, 159, 211; Gray,

(1954), p. 15; Vermeule, (1972), p. 309. In addition to the few items we already noted (silver-studded swords, chariots, tripods, corselets, temples) the list also includes references to Sicily, Egypt, Amazons, political geography, lamps, the brooch of Odysseus, helmets, greaves (leg guards), bows and arrows, thrusting spears, twin throwing spears, shields and shield devices, horse burials, hunting, fishing, farming, hording, overseas trade, ivory-inlaid furniture, even the principal characters in the poems and Homer himself - in fact nearly everything imaginable, where one side could favor the Mycenaean Age, the other the eighth/seventh century, and no one can make a good case for the intervening centuries.

18. Hope Simpson-Lazenby, (1970), p. 2.
19. J.A. Notopoulos, "Homer, Hesiod and the Achaean Heritage of Oral Poetry," *Hesperia*, 29 (1960), p. 187; A. Andrewes, *The Greeks* (London, 1967), p. 40.
20. Cf. Dickinson, (1973-4), pp. 36-37, 43-44.
21. Taylour, (1969), p. 96, cf. p. 97 n. 14; (1970), p. 275.
22. Cp. Taylour, *ibid.*, (1970), pl. 41 a-b to Barron, (1970), p. 16.
23. Taylour, *loc. cit.* pl. 41 c-d; cf. above "A Terracotta Figurine and a Terracotta Head," ns. 6-7.
24. Snodgrass, (1971), p. 345.
25. Cp. Taylour, (1970), pl. 41 to Hogarth, (1908), pls. 21.3, 25.12 (lion) and 21.6, 22 (priestess), and to T.J. Dunbabin et. al., *Perachora II* (Oxford, 1962), pi. 171 (sphinx).
26. Taylour, (1969), p. 92 and cf. Nicholls, (1970), p. 3.
27. Taylour, *loc. cit.*
28. It appears much earlier in Egypt; the 18th and 19th Dynasty examples, by the revised chronology, inspired the Greek ones directly. It also appears on the Enkomi bronze mentioned above. (see "A Terracotta Figurine and a Terracotta Head," n. 16)
29. Caskey, (1977), p. 511 and fig. 7; (1978), pp. 339-340 and figs 2-4.
30. Nicholls, (1970), pp. 17-18. There were a very few Dark Age wheel-made figurines from Athens and Euboea, but despite their acknowledged similarity to Mycenaean specimens, they, too, seem to return to Greece after a centuries-long break—a fact which causes contention among experts (cf. above "Shaft Grave Art: Modern Problems," n. 11, to which add Dietrich, (1970), pp. 21-22). Since the Greeks continued to fashion ceramic objects, including wheel-made pottery, and no one seriously doubts that their religious beliefs and practices remained essentially unchanged, the Greeks' failure to fashion wheel-made or even handmade figurines between the peak periods of production in LH III and the eighth-seventh centuries lacks a convincing explanation.
31. Taylour, (1970), p. 277 and cf. pl. 42.
32. Cf. n. 29 above.
33. Nicholls, (1970), pp. 17-18.
34. *Ibid.*, p. 20; cf. Snodgrass, (1971), pp. 192, 399, and Dietrich, (1970), pp. 21-22. On Crete and Cyprus, the type did persist during the "Dark Age" (Desborough, (1972), p. 285; V. Karageorghis, "The Goddess with Uplifted Arms in Cyprus," *Scripta Minora* [Lund], 1977-1978 [2], pp. 5-44)—a fact

which Nicholls (*ibid.*, p. 13) termed “inescapable.” Nevertheless, as in the case of the wheel-made figurines from those islands (cf. above “Shaft Grave Art: Modern Problems,” n. 11), he did not believe that the type returned from there after the 500-year gap in Greece itself. Closer to Mycenae, the sole intermediary example known is a crude bronze figurine from the island of Naxos, which falls sometime during the late eleventh-tenth century (Snodgrass, *ibid.*, pp. 200, n. 34, 399). By the revised chronology, the Naxian statuette, as well as the early Cretan and Cypriote specimens—none of which comes from Greece proper—precede the Mycenaean examples which they supposedly follow.

“The only simple explanation” for the revival which Nicholls offered (*ibid.*, p. 20) is that the later figurines copied wooden models, which spanned the Dark Age, but unfortunately failed to survive. The “perishables theory” is a favorite one among historians who note very similar non-perishable remains on either side of the Dark Age (e.g., figurines, statues, architectural forms, writing, decorative motifs, etc., etc.) and try to bridge the intervening centuries. By this very nature it is a hypothesis which is incapable of proof or refutation, and fails to explain why the Greeks, who still modeled, painted and incised clay, did not continue to make imperishable figurines during that period. Even if the gap was real, which is the main issue of the present essay a still simpler explanation would be that art imitated life, i.e, that people from Mycenaean times onward prayed with both hands uplifted, and that sculptors showed that pose at those times when they did produce figural art in permanent materials.





Dark Age Burials

The cult center, along with much of the citadel, perished in a conflagration which swept through Mycenae towards the end of LH III B, i. e, the late thirteenth century, according to the accepted discovery. Digging through the debris of the temple compound, the excavators also found three graves of the eleventh-tenth centuries. All three were simple pits, though two of them had their sides lined and their roofs covered with stone slabs to form “cists.”¹ Cist tombs were the most common type of grave at Mycenae, and throughout Greece, during the Middle Helladic period, ca. 500 years earlier. The sudden, widespread adoption of that type of burial and the rites that accompany it ca. 1125 B.C. have struck several prehistorians as both an “innovation,” when contrasted to Late Helladic burials, and, at the same time, “a resurgent phenomenon” when compared to the vogue 500 years earlier—a return to ancestral tomb types and burial rites after the destruction of Mycenaean civilization. That kind of grave became “the most characteristic form in both eras,” and the graves of both periods are so closely similar that often excavators cannot decide to which age some cists belong, unless they contain the distinctive grave goods of one period or the other²—goods which, as we noted above, also, at times, look extremely similar, despite the 500 years separating them.³

The tomb type did survive into the Mycenaean Period, but was not nearly as common then as before and after, and seems not to span the entire time between its two major peaks before ca, 1550 and after ca. 1125.⁴ Because it is difficult to trace such continuity between the two ages, because the graves made “an almost universal takeover,” supplanting the Mycenaean tomb types, and they constitute” one of the distinguishing features” of post-Mycenaean culture, which was “radically different from the old Mycenaean civilization” that it supplanted, those who reject a 500-year continuity or some strange revival after 500 years, postulate the influx of new people from the north, who retained burial customs whose popularity in Greece had been on the wane for half a millennium. Still, as we shall observe presently, the evidence for the hypothetical immigrants is highly questionable. Many archaeologists reject the notion, and even its adherents cannot show a spread of the new tombs from the north to the south, but they find it easier to face “the present geographical gap in the evidence” than the chronological gap.⁵

The presence of the graves in the cult center, presumably destroyed long before, requires two assumptions: first, that the inhabitants of Mycenae decided to forsake their traditional cemetery grounds where for centuries they had interred their dead in the relatively soft ground away from their dwellings, outside and to the west of the citadel wall; and, second, that they chose, instead, to bury their dead inside the city

itself, which required the more laborious task of digging the graves into a thick mantle of eroded debris and a cement-like mass of calcinated stones and fire-hardened brick within the former temple complex. Desborough, who published the graves, considered it “extremely unlikely that people living outside the walls” would enter the citadel for the sole purpose of burying their dead therein,⁶ but the fact remains that there is no clear evidence that people inhabited the citadel at that time.⁷

The condition of the two cist tombs is also revealing. One of them showed the effects of a subsequent fire so intense that, in addition to the ashes it left over the grave, it bleached the stone cover slabs and the stone walls of the grave, and even burned the bones of the skeleton it contained.⁸ Such a great burning over that spot is difficult to explain if the grave is later than the cult center,⁹ but it would be much easier to see as the result of the tremendous fire that destroyed the citadel towards the end of LH III B—if the tenth-century grave was, in fact, *earlier* than the LH III B¹⁰ cult center. Desborough termed the second cist “sub-mural,”¹¹ because an LH III C wall rested over the eleventh-century grave—again easy to explain if the grave was older than the LH III C structure; if it was not, however, then one must conjecture that “the buriers decided—for some reason unknown—to destroy part of a wall” of the Mycenaean structure, and for some reason even more difficult to comprehend, they then decided to rebuild the wall of a structure long-since destroyed and abandoned and of no use to them, on top of the grave.”¹²

The burial circumstances inside the temple complex reminded Desborough of the situation encountered by C. Tsountas at another spot inside the western extension of the citadel walls. To the northeast of the Lion Gate Tsountas excavated some LH III houses and discovered six cist tombs datable sometime within the eleventh-ninth centuries. The tombs lay *under* a deposit over six feet thick of LH III pottery and other remains, which by the accepted chronology should be older than the graves. To explain why LH III material lay over the graves, rather than the graves lying above it or cutting through it, Desborough speculated that even after tremendous fires supposedly flattened the city in the late thirteenth and mid-twelfth centuries, a few houses survived the conflagrations, remained intact for centuries until people entered their ground floors, not to inhabit them, but only to bury their dead, and that only sometimes thereafter the upper stories, still filled with LH III goods, which had somehow withstood earthquakes, fires and the ravages of time, then collapsed onto the graves.¹³

There is another way to view the “late” graves under the LH III buildings in the western citadel, which fits the special circumstances at the site, if one applies the revised chronology. The town of Mycenae was originally much smaller in size, and rested entirely on a hard limestone promontory. The inhabitants, in order to remove the deceased from the dwellings of the living, to perform burials with some ease, and to follow religious precepts, buried their dead outside of the first city wall, in the softer ground, and to the west—the region of sunset and death. When the rulers

decided to enlarge the citadel in the LH III B period, they extended the fortification wall into the ancestral cemetery to the south and west. They enclosed the shaft graves of Circle A and accorded them special reverence, but built their structures over numerous other graves of the MH-LH II period (seventeenth-fifteenth centuries),¹⁴ which, for the most part, were cist tombs—like “the 500-year-later” ones. In fact, the excavators of the temple complex found a Middle Helladic cist tomb inside the religious center and not far from the eleventh-tenth-century ones they discovered;¹⁵ but because of the 500 years currently placed between them, they assumed the former cist was covered by the later structures, while the other cists cut into them (despite problems with fire and the overlying wall). If the LH III B period belongs not to ca. 1350-1200 B.C., but some 500 years later, the discovery of the typologically identical, but supposedly 500-year-older cists beneath the LH III B buildings in the same area.

Despite the 500-600 year problems we have already noted at the cult center regarding temples, Homer, ivories, idols, tomb types and stratigraphy, the excavators found one type of object there which, more than any other factor, has served to fix the absolute dates for Mycenae’s period of greatness. Inside the temple was a faience plaque bearing the throne name of Pharaoh Amenhotep III. Quite a few identical plaques have turned up in Mycenae,¹⁶ and the pattern of Eighteenth-Nineteenth Dynasty objects together with Mycenaean material throughout the Aegean, the Levant and Egypt itself, establishes a synchronism. Egyptologists assign that king’s reign to the early fourteenth century B.C., hence the dates for, and all the chronological problems with the Mycenaean Period, Velikovsky¹⁷ places the same man in the ninth century. The direct effect of such redating for Mycenae is obvious.

References

1. Desborough, (1973), p. 91
2. Snodgrass (1971), pp. 153, 184, 384 respectively, and cf. pp. 183, 363; cf. Andrewes, (1967), p. 35; N. Verdellis, “Neue geometrische Gräber in Tiryns,” *Ath, Mitt.*, 78 (1963), p. 56; Styrenius, (1967), p. 161; C. Thomas, “Found: The Dorians,” *Expedition*, 20 (1978), p. 22.
3. Cf. pp. 7-13 above.
4. Snodgrass, (1971), pp. 177-184, did try to bridge the period, but the examples are extremely few for so long a time, do not remain at any one locale throughout the period, and do leave some blanks, hence Desborough (1972, pp. 108, 266, 269) and Dietrich (1970, p. 20) remained unconvinced.
5. Desborough, *ibid.*, p. 269. For the dispute over northern immigrants, see ns. below.
6. Desborough, (1973), p. 101.
7. Excavations have revealed no evidence of structures of the eleventh-ninth century over the cult center (*ibid.*, p. 91), or, for that matter, anywhere in the citadel. There are some potsherds from that period inside the city (loc. cit. p.

100; idem, (1972, p. 365), but as Desborough himself noted (1973, p. 100), they are negligible in quantity. He cited Mylonas' undocumented statement (*ibid.*, p. 101 and "Shaft Grave Art: Modern Problems," n. 34) that there were dwellings of that date higher up on the citadel. In fact, Wace (1949, pp. 23-24, 84-85, carefully studied the area in question, and said that it was abandoned at that time, a conclusion with which Mylonas, on a later page of the same book that spoke of habitation, agreed, thereby effectively negating his earlier remark (1957, pp. 17, 63), More recently, Mylonas again noted that there was no evidence of Dark Age dwellings on the summit (*Mycenae's Last Century of Greatness* [London, 1968], pp. 30-31, 38.)

8. Desborough, (1973), p. 92; Megaw, (1964-65), p. 10.
9. It would take a lot of fuel to generate a blaze hot enough to scorch the stones and the skeleton in the grave, but there were no structures on the spot from LH III C times till the Hellenistic Period—supposedly some eight centuries later. Furthermore, since the area has constantly filled with debris from higher up the slope from the time of the LH III B destruction, there should have been a very thick protective mantle of earth and rubbish between the tenth-century grave and any flammable Hellenistic structures centuries later (cf. Desborough, 1973, p. 91; Megaw, *ibid.*, p. 10; Taylour, (1973), p. 260; K.A. Wardle, "A Group of Late Helladic III B Pottery, etc.," BSA, 68 (1973), pp. 302-303).
10. Wardle, *Ibid.*, p. 303.
11. Desborough, (1973), p. 100.
12. *Ibid.*, p. 91.
13. *Ibid.*, pp. 98-99.
14. Cf. above "Later Use of the Grave Circles," ns. 7-9.
15. J.P. Michaud, "Chronique des Fouilles en 1973," BCH, 98 (1974), p. 604.
16. Taylour, (1969), pp. 95-96.
17. Velikovsky, (1952), pp. 229-33





The Northeast Extension

The city walls of the mid-LH III B period reached as far as wall O ([Fig. 1](#)) to the northeast. When the Mycenaeans realized that the citadel lacked an adequate supply of water to withstand a prolonged siege, they remedied the problem by extending the fortifications to the northeast ([Fig. 1, P, Q, R](#)), and transported water via a subterranean conduit from a natural spring to a cistern which they secretly excavated just outside the new walls, and to which they carved out an elaborate descending stepped passage with a hidden entrance just inside the wall ([Fig. 1, S](#)). The exact date of the undertaking is uncertain, because the original excavation, was not fully published, but it was sometime shortly after the extension of the walls into the cemetery to the south and west, and before the end of LH III B, i.e., very late in the thirteenth century B.C.¹ Mylonas called the system “the most striking construction in the citadel, a truly Cyclopean undertaking”² and “another wonder of the ancient world.”³ Probably spurred by Mycenae’s example, both Tiryns and Athens constructed analogous underground reservoirs approached from inside the fortifications, also toward the end of LH III B (i.e., ca. 1200 B.C.).⁴ Vermeule termed all three “marvellous feats of design,” which inspire “admiration for the palace engineers . . . tempered by awed respect.”⁵

The concept of securing fresh water for a siege by such a clever device that early in human history impressed Tsountas as “astonishing.”⁶ Still, Karo felt that the system at Mycenae had a significance far greater than its mere construction, and that one could not view it in a historical vacuum. He noted comparable Greek water projects of the Archaic and Classical Periods and declared that, despite the huge gap in time, the similarities were not accidental, but that the Mycenaean system was the archetype for the much later undertakings.⁷ In fact, one can think of the famous engineering marvel of Polycrates of Samos who, in the late sixth century, had spring water conducted into his city via a large tunnel.

When assessing the LH III B defensive architecture and water systems of Tiryns, Athens and especially of Mycenae, an example from beyond the Greek cultural sphere comes to mind. King Hezekiah of Judah, confronted by the Assyrian host, rebuilt the old walls of Jerusalem and erected new fortifications, hid natural springs and excavated a gigantic sinuous tunnel to carry spring water from Gihon to a reservoir at Siloam, most probably an underground cistern approached by a secret passage from inside the city. The Old Testament heralds that feat as one of his greatest secular accomplishments⁸ and modern archaeologists have confirmed the Biblical account, in fact, K. Kenyon called the undertaking “an event in the history of

Jerusalem which is of vital historical importance.”⁹ The Biblical description and the actual remains are very reminiscent of what took place at the northeastern extension of Mycenae. Hezekiah’s defenses and water project belong ca. 700 B.C., while the standard chronology places the ones at Mycenae, Tiryns and Athens ca, 500 years earlier.

Although it is certainly possible for the same idea to occur to different people indifferent locations at different times, under the revised chronology, the water systems of Mycenae, Tiryns and Athens are roughly contemporary with that of Jerusalem. It is therefore of interest to note that the three Greek tunnels seem so “astonishing,” precisely because they appeared suddenly and fully developed, and constitute such a novelty for the region. Hezekiah’s tunnel, on the other hand, was not only the successor to the earlier, less ambitious (and militarily disastrous) attempts by the Jebusites to channel spring water into Jerusalem, but also followed upon centuries of Israelite improvements which produced completely concealed water tunnels, making spring water accessible to besieged cities throughout Palestine at places such as Gibeon, Gezer, Megiddo and Hazor.¹⁰

Of far greater importance in determining the date of the three contemporaneous Greek water systems is the fact that in the two excavations where the archaeologists did record their findings, the results correspond to Wace’s trench by the Lion Gate. The Tirynthian and Athenian cisterns both contained pottery of the late eighth-seventh century immediately above, and mixed together with pottery from the transition of LH III B-C; they contained no ware from the “intervening” centuries and no layer of sediment to mark the passage of the five centuries which the standard chronology places between LH III B/C and the eighth/seventh century.¹¹

References

1. Wace, (1949), pp. 99, 104; Mylonas, (1957), pp. 32, 38-39; idem, (1966), pp. 31-33.
2. Mylonas, *ibid.*, (n. 6), p. 31.
3. Idem, (1957), p. 32.
4. Idem, (1966), pp. 14-15, 31-33, 41-43; Vermeule, (1972), pp. 161, 268-270.
5. Vermeule, *ibid.*, p. 161.
6. Tsountas-Manatt, (1897), p. 40.
7. G. Karo, “Archäologische Funde u.s.w.,” *Arch. Anz.*, (1933), pp. 227-228; idem, “Die Perseia von Mykenai,” *AJA*, 38 (1934), pp. 126-127.
8. II Kings 20:20; II Chron. 32: 3-5, 30; Isa. 22:9-11.
9. K. Kenyon, *Jerusalem* (London, 1967), p. 38, and cf. pp. 68-71, 77, 96-99 (pls. 37-44); cf. D.R. Ap-Thomas, “Jerusalem” in *Archaeology and Old Testament Study* (ed. D.W. Thomas) (New York, 1967), pp. 283-285.
10. In accordance with the standard chronology, J.B. Pritchard (*Gibeon*

[Princeton, 1962], p. 64), noting close similarities between the tenth (or ninth)-century water system at Gibeon and the late thirteenth-century examples from Greece, postulated that the idea might have traveled from Mycenae to Israel. That notion gained credence from the fact that scholars then dated the very similar, second, improved system at Megiddo to the twelfth century (e.g., J. N. Schofield, "Megiddo" in Thomas, (1967), p. 320). Even without Mycenae, however, Palestine showed its own evolutionary process. Some archaeologists dated Megiddo's first water system, a covered gallery, to the fifteenth century B.C., which would explain how the city withstood a seven-month siege by Pharaoh Thutmose III; that project was, nevertheless, far from ideal, since it left the spring exposed and at the mercy of attackers, who apparently killed the guard and cut off the city's water supply (loc. cit.), which presumably led to Megiddo's surrender (cf. J. Wilson in J.B. Pritchard [ed.], *Ancient Near Eastern Texts, etc.* 2 [Princeton, 1955], pp. 234-238). There is also the problem of why the Jebusites of ca. 1000 B.C. felt so secure in the face of David's siege that they taunted his army, when they had also left their spring susceptible to poison or to blockage by the enemy, and even left their septem undefended. For those failings they lost Jerusalem when Joab's forces stormed their shaft and thereby took the city by surprise (II Sam 5:6-9; I Chron. 11:5-6; cf. Kenyon, *Royal Cities of the Old Testament* [London, 1971], pp. 25-26. Those elliptical passages are controversial, leaving it uncertain whether Joab's men entered Jerusalem via the shaft or merely cut off access to the water). The Jebusites' failure to safeguard the spring and the shaft is difficult to explain if their system followed the inadequate first system at Megiddo, and especially if it followed the completely protected second system, and the Greek examples which supposedly inspired it.

Today, after further excavation, the scenario for Israel is as follows: the unprotected Jebusite system was the earliest, followed by the first water project at Megiddo which, despite its guard, also proved vulnerable.

Archaeologists have redated that project by 500 years from Thutmose III's reign to Solomon's (Y. Yadin, *Hazor* [New York, 1975], pp. 226-231)—two rulers who, under the revised chronology, were contemporaries (Velikovsky, (1952), pp. 143-177). Then followed the completely concealed and protected second tunnel at Megiddo, and the systems at Gezer, Gibeon and Hazor, and finally the tunnel of Hezekiah. There is at present a 200-year gap between the Greek tunnels which were completely concealed and the first, exposed, Palestinian ones, which came into existence in an imperfect form long after the complete abandonment of the three Greek systems—which hardly points to direct influence from that quarter; the Greek tunnels, without any known Greek antecedents, most resemble the latest Israelite tunnels after their centuries of development and improvement from inadequate local prototypes. (See Ap-Thomas, (1967), pp. 280-285; Kenyon [1971], pp. 25-26, 67-68, 102, 140; A. Negev, *Archaeological Encyclopaedia of the Holy Land* [New York, 1972], pp. 126, 129, 141, 204, 333; Yadin, pp. 226-231, 244, 247 for the Palestinian systems—to some of which material Rabbi J. Segal kindly referred me), (in an as yet unpublished essay, J.J. Bimson questions the Solomonic and Omrid dates for Palestinian material, reassigning it to ca. 700 B.C. which, if

correct, would even more tightly cluster all the completely concealed water systems of Israel).

11. Athens: Broneer, (1939), pp. 402-403, 427-428; *Tiryns*: For the late eighth-century date of the earliest post-LH III C material among the debris which the Tirynthians dumped into their twin tunnels at a later date (N. Verdelis, "Anaskaphe Tirynthos," *Archalocrikon Deltion* 18 [1963], p. 72 and 19 [1964], p. 110), see Rudolph, (1971), p. 93. Of greater significance, note the stratigraphy of the chamber adjoining the southern tunnel, filled by sediment washed down from higher up in the city, wherein one stratum contained both LH III C and late eighth/early seventh-century sherds (mostly the former). That layer which, by the standard chronology, should represent 500 years of deposition, is only slightly thicker than the one immediately beneath it, which represents at most, only a few decades, and is significantly thinner than the layer above it which *did* represent a few centuries (Rudolph, (1975), pp. 98-99, 114).





Ivory Carvings

Excavations in the eastern portion of the acropolis of Mycenae revealed a substantial structure, (Fig. 1, U) which contained hundreds of scraps of ivory, gold leaf, and other precious commodities, obviously comprising the quarters and workshops of the palace artisans, who produced many of the ivory figurines and plaques, gold jewelry, and carved gems found throughout the Aegean, and the East Mediterranean. (1) Ivory, probably from Syria, first appeared in Greece as tiny ornaments applied to other objects in the Shaft Graves at the beginning of the Late Helladic Period. By the late Eighteenth Dynasty, the Mycenaean craftsmen were fashioning ivory sculptures and inlay plaques with intricate patterns and subjects, such as hunting scenes, combats with real and mythical beasts, warriors, heraldic and religious motifs, etc., which spread across the Aegean and Near East. They and their Syrian counterparts freely exchanged their creations, in the process mingling Eastern and Western decorative elements to form an international style. (2)

By the end of the Mycenaean Age, the importation of raw and finished ivory from the East, and its carving in the Aegean, apparently ceased, “making its first re-appearance” in Greece some 600 years after the Shaft Grave Period. (3) Greek artisans resumed the fashioning of intricate carved ivories in the eighth century, (4) with the motifs very reminiscent of Mycenaean work some five hundred years earlier.

Ivory carving is an extremely delicate craft, which only a small guild of artisans practised, passing the technique from master to apprentice, and probably from father to son; Greece itself had a centuries-long gap in production, despite the close similarities of the later ivories to the Mycenaean ones; the Levant was the ancient source of the raw material as well as a center for ivory carving in antiquity; and the Levantine ivories of both the second and the first millennium B.C. displayed distinctive Mycenaean motifs. For all those reasons, students of ancient ivories looked to the East as the region which carried on the artistic tradition over the centuries when it had vanished from Greece. They believed, as did those who postulated the return of Mycenaean ceramic decoration from seventh-century Phoenicia, that thirteenth-century Mycenaean ivories influenced the Levantine artisans, who continued to fashion similar works without interruption until, centuries later, they sent the influence back to Greece. (5)

Those who look to the Orient as the place that preserved the artistic tradition meet the same difficulty there as they found for Greece, since from 1200-900 B.C., both places have “a sudden gap . . . in which no ivories are known.” (6) Across those three

centuries, one cannot detect any links to connect the ninth-eighth-century creations to the very similar examples of the fourteenth-thirteenth centuries, which were “now quite extinct,” both in the Aegean and in the Near East. “Unlikely though it may seem . . . this is yet the case.”⁽⁷⁾ Despite that gap, numerous authorities have long noted the close resemblance of the later group to the centuries-earlier one.⁽⁸⁾ There are some cases (e.g., at Delos) where ivories from eighth-century contexts look Mycenaean in style, so that scholars proclaim them to be 500-year-old heirlooms,⁽⁹⁾ and other cases which have sparked scholarly debates on whether the ivories stem from the thirteenth century or the eighth.⁽¹⁰⁾ Still there is a perplexing gap.

In order to bridge the gap, M. Mallouan recently suggested that the Levantine artists turned from ivory to media such as textiles and wood—all examples have long since perished—to keep the tradition alive.⁽¹¹⁾ If one accepts that theory for the Levant, one can as readily apply it to Greece, in order to sustain the art there, without requiring a hypothetical Oriental interlude. The disadvantages of that idea are that it is completely unprovable, and, for the Levant, at least, where there was a native supply of the raw material, it provides no reason why the artisans stopped carving ivory, or how they managed to resume the art so skillfully, with motifs scarcely, if at all, changed from those of the earlier period, immediately after the break. Also recently, D. Harden observed that the two chronologically distinct sets of ivories are “closely akin in style” with “little or no gap in artistic tradition.” With no stylistic break, the centuries-long gap in time troubled him. Whatever the effects of hypothetical invaders in Greece, or of raids on the Syrian coast, he could find no explanation for the art to cease in Phoenicia or further inland. He therefore concluded that, for the Levant, “there should not be such a hiatus in the evidence.”⁽¹²⁾

Much to everyone’s consternation, both the Aegean and the Orient presently have a very long “hiatus,” which “should not” exist (in the latter region, at least), dividing two sets of very similar Aegeo-Levantine ivory carvings. H. Kantor, who chronicled many of these similarities, but also saw the gap that separated them, considered “the problem of the relationship” of the two displaced sets of material to be of “predominant importance.”⁽¹³⁾ Yet that problem remains unresolved.⁽¹⁴⁾

That difficulty, of “predominant importance” today, did not trouble excavators at the turn of the century. A. S. Murray, then Keeper of Greek and Roman Antiquities at the British Museum, unearthed and published a number of Mycenaean Age ivory carvings at Enkomi on Cyprus. Observing the same close resemblances to ninth-seventh-century ivory and stone reliefs that still impress (and disturb) scholars today, he assigned his ivories, along with everything else he found at Enkomi, to that period. He did not believe in a Dark Age, and judged that the entire Mycenaean Age belonged that late, rather than five hundred years earlier.⁽¹⁵⁾ As Velikovsky has recorded above (“[The Scandal of Enkomi](#)”), other authorities, such as Arthur Evans, implicitly trusting in the dates furnished by Egyptologists for New Kingdom pharaohs, some of whose exports were also at Enkomi, blasted Murray and the

British Museum as well. They pushed back his dates by five hundred years,⁽¹⁶⁾ in the process creating two similar, but chronologically disjointed groups of ivory carvings. The ensuing problem not only disturbs modern archaeologists and art historians but, once again, the philologists as well, since Homer's mention of furniture inlaid with carved ivory plaques strikes some classicists as a thirteenth-century memory preserved by epic poetry, while others view it as a reference to the material again becoming common in the poet's own day, five hundred years later.⁽¹⁷⁾ The result of Egyptian chronology's triumph today are two epochs of ivory carving, showing similarities five hundred years apart, with a three-hundred-year break in the evidence, no way to bridge or even explain the gap, and a great many authorities who confess their bewilderment at the state of affairs which now confronts them.

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3. Snodgrass, (1971), p. 248.
4. R. Barnett, "Early Greek and Oriental Ivories," *Journal of Hellenic Studies*, 68 (1948), pp. 2-3, 13-14, 24; J. N. Coldstream, *Greek Geometric Pottery* (London, 1968), p. 360.
5. Coldstream, *loc. cit.*; Barnett, *loc. cit.*; idem, "Nimrud Ivories and the Art of the Phoenicians," *Iraq*, 2 (1935), pp. 195-196; idem, "Phoenician and Syrian Ivory Carving," *PEFQ*, (1939), pp. 11, 13-15; J. W. & G. M. Crowfoot, *Early Ivories from Samaria* (London, 1938), pp. 36-37; Kantor, (1956), pp. 169-174, (1960), p. 24; H. W. Catling, *Cypriote Bronzework in the Mycenaean World* [Oxford, 1964], p. 302; M. Mallowan, *Nimrud and Its Remains II* (London, 1966), pp. 480, 586; M. Robertson, *A History of Greek Art I* (New York, 1975), p. 32; I. Winter, "Phoenician and North Syrian Ivory Carving, etc.," *Iraq*, 38 (1976), pp. 9-11.
6. Kantor, *ibid.* (1956), p. 171.
7. *Ibid.*, p. 174.
8. Cf. n. 5 above and n. 15 below.
9. Kantor, (1956), p. 170; Webster, (1964), pp. 28, 111, 139, 170.
10. Kantor, *ibid.*, p. 156 and cf. ns. 15-16 below.
11. Mallowan, (1966), p. 480.
12. D. Harden, *The Phoenicians* (New York, 1962), p. 184.
13. Kantor, (1956), p. 171.
14. Very recently, see Winter, (1976), pp. 9-11.
15. Murray, *Excavations in Cyprus* (London, 1900), pp. 4-41. For ivories, specifically: pp. 10-14.
16. c A. Evans, "Mycenaean Cyprus as Illustrated in the British Museum Excavations," *Journal of the Royal Anthropological Institute*, 30 (1900), pp.

199-200. The heated, and, at times, vicious attacks which Murray's publication generated form a very instructive chapter in the history of scholarly attitudes towards chronology, which I hope to document in greater detail at a later date.

17. For Mycenaean times, see T. Webster, "Polity and Society," pp. 460-461, and F. Stubbings, "Crafts and Industries," p. 533, both in Wace-Stubbings, (1962). *A Companion to Homer* (London, 1962). For the eighth century, see V. Karageorghis, "Homerica from Salamis (Cyprus)" in *Europa: Studien. . . Ernst Grumach* (Berlin, 1967), pp. 168-170, and O. Dickinson, "Archaeological Facts and Greek Traditions," *Bulletin of the Archaeological Society of the University of Birmingham*, 12.2 [1973-4], p. 43.





Mycenaean Jewelry

Beginning in the Shaft Grave Period, the rulers of Mycenae not only patronized a guild of ivory carvers but also a guild of jewelers, who were probably inspired and instructed by, and perhaps originally were, Minoan artisans, who had had a venerable tradition in the art. The craftsmen of Mycenae fashioned gold rings with intricate designs of battle and hunting, and heraldic and religious scenes, and also produced lens-shaped and almond-shaped sealstones and gems of semi-precious materials, which they engraved with men, monsters and animals arranged in compositions similar to those on the ivories and gold rings.¹

Since the shaping, and especially the engraving, of such tiny, hard stones is an extremely precise and delicate craft which requires years of apprenticeship to master, and since both the shapes and the decoration of seventh-century gems and coins so closely resembled the jewels of the Mycenaean Age, late nineteenth-century archaeologists like Arthur Evans felt that there had been an uninterrupted tradition of Greek gem-carving from the Late Bronze Age until the historical period,² with Cecil Torr prepared to date the entire Mycenaean Period just prior to ca. 700 B.C. partly on the basis of carved gems.³ Further excavation, plus chronological reconsiderations, seemed to refute their belief, as Evans later admitted, but since he still detected remarkable similarities of seventh-century gems to Minoan-Mycenaean ones, he dropped the idea of survival, and replaced it with one of revival.⁴

According to the current scenario, the jeweler's art perished toward the end of the Mycenaean Period. By ca. 750 B.C. "the native art of gem-cutting" returned to Greece, but since barren centuries separated one "native" manifestation from the other, art historians could not consider Greece itself as the source of the revival. Thus they once again turned to the Near East as a place for the Greeks to relearn the craft.⁵ At first the Greeks used softer stones, formed various shapes, and engraved the gems by hand with the same type of geometrical patterns and figures as one finds on contemporary pottery. Within a few decades of their "relearning" the craft, the artisans created designs which, like seventh-century pottery, developed a more naturalistic, curvilinear appearance. Within seventy-five years of the re-introduction of the "native art," they again employed the cutting wheel used 500 years earlier, again standardized the shapes of the gems, mainly to the Mycenaean preference, and engraved themes extremely reminiscent of those belonging to the Mycenaean Age.⁶ In carving technique, shaping and design, the early seventh-century jewelers "were in some mysterious way imitating the gems which had been made at least half a millennium earlier."⁷

In order to explain the “mystery,” scholars now assume that seventh-century artists not only followed a line of artistic progression similar to that of their ancestors, but that they actually found and imitated 500-year-old gems. They seem to have made such expert copies that even today, when the find-spots of individual gems are unknown, some experts cannot decide whether they fall into the Mycenaean Age or the seventh century, or else one group of scholars will champion Mycenaean dates for gems which other scholars place 500 years later. Even instances when the experts know the provenience and associated material of some gems are not always helpful, since they sometimes judge the gems to be half a millennium older or younger than the associated material, on the assumption that many gems are 500-year-old heirlooms, or else that late gems somehow slipped into (or were dedicated at) 500-years-older structures.⁸

Before Egypt provided absolute dates for the Mycenaean Period, late nineteenth-century scholars had none of the problems with Mycenaean gems (or, for that matter, with anything else) which beset modern specialists. Even after Egypt began to fix Mycenae’s age. Cecil Torr had no problem, since he completely distrusted the Egyptologists’ calculations,⁹ but he was practically alone in his skepticism. Problems began for Evans and for everyone else from the turn of the century to the present, such that, even today, authorities freely admit that “there will always be some [engraved gems] which defy attribution” to one side or the other of the 500-year gap which now disrupts the sequence;¹⁰ and debates continue between experts championing dates half a millennium apart for individual gems that they discover.¹¹

Homer referred to Mycenae as “rich in gold,” an epithet which is very appropriate when we recall the wealth of the Shaft Graves. In dealing with their masks, hair rings, diadems, pins, garters, discs, the chariot-hunt ring, etc., we already noted a number of 400-700-year problems. Other pieces of gold jewelry from Mycenae and across the Aegean have caused still more bewilderment for the excavators. As was true of the gem-engravers, the first goldsmiths at Mycenae were probably trained by, or were themselves Minoan artisans, who had had a long history of craftsmanship on Crete. R. Higgins eloquently described “the superlative excellence of Mycenaean jewelry, in which the arts of filigree, granulation, inlay, enamelling, and repoussé work were carried to perfection.”¹² Much of that work, at least in its final stages, apparently emanated from the royal workshop on the citadel ([Fig. 1, U](#)).

Towards the end of the Mycenaean Period there comes “a real break in continuity,” with Greece too impoverished to create jewelry, except for rare pieces, which were “simple in extreme.”¹³ By ca. 850 B.C., more intricate works, again showing filigree and granulation, start to reappear. Since jewelers engage in the “most conservative of all crafts,” and there is a centuries-long break in the continuity of sophisticated jewelry in Greece, one could not assume that the Greeks began such delicate and intricate work again without the aid of non-Greek jewelers. Scholars therefore postulated that Mycenaean work which was exported to Cyprus and the Near East,

had a profound impact on the artists there, who kept the tradition alive during the centuries when the Greeks themselves lost it, then re-introduced the old techniques and some jewelry types, which were popular in the bygone era.¹⁴

There is clear evidence of Near Eastern influence on Aegean jewelry of the ninth-seventh centuries,¹⁵ but any evidence that the Orient adopted and continued the Mycenaean tradition from the twelfth-ninth centuries is almost as poor as that assumed for pottery painting, metal work, ivory carving and gem engraving.¹⁶ In fact the earliest known sophisticated jewelry” of ca. 850 B.C. from Athens, showing both filigree and granulation, looks less Oriental than it does native Greek; and the granulation does not resemble the Levantine type as much as it does Mycenaean work,¹⁷ which flourished some 500-600 years earlier.¹⁸ One therefore had to postulate that while Mycenaean techniques may have returned from the Near East, the Greek jewelers probably also rediscovered and copied centuries-old pieces of native Mycenaean craftsmanship.¹⁹

The problem of gold jewelry is not confined to the Greek mainland. On Crete in the eighth or seventh century,²⁰ art historians are likewise “suddenly confronted with jewelry” of great sophistication. ” One piece from contemporary Ithaca to the northwest displayed a complex pattern of filigree and granulation, which “inevitably recalls” a twelfth-century Cretan ring. Similarly a seventh-century Cretan ring resembles yet another twelfth-century Minoan ring. Such a repetition of designs after so long a period “leads to the question whether there can be any connection between the two groups. . . Can this resemblance be due to chance?” Higgins, seeing such marked similarities between jewelry from Ithaca and Crete separated by 500 years, felt that they could not be fortuitous. He felt that there had to be a continuous tradition, but discounting the Near East as the intermediary, he suggested something which he hoped was not “too far-fetched”—that Crete itself kept the art alive during the Dark Age. Still, there were not only the problems of a 500-year difference in dates, and the sudden appearance of the later jewelry, but the additional one that for Crete, just as for Greece, “the record is a blank” for some two hundred years after the creation of the twelfth-century rings²¹—which hardly helps to support the notion of continuity.

Similar problems have beset a cache of jewelry now in the British Museum, purportedly from Aegina, which many scholars have long viewed as Mycenaean in spirit but ninth-seventh-century in date, while others, also aware of their affinities to ninth-sixth century Italian, Aegean and Oriental material of the first millennium, have assigned the hoard to the period of and just prior to the Shaft Graves, ca. 1700-1500 B.C.²² A gold and enamel scepter from Cyprus has also become the subject of a debate between those who see its analogies to jewelry of ca. 1200 B.C., and those who see its resemblance to material of ca. 500 B.C.—again with a centuries-long gap separating the two groups, both for the jewelry technique and sophistication in

general, and the manufacture of enamel in particular.²³ The difficulties which have beset archaeologists and art historians over actual jewelry-have again provoked a 500-year “tug of war” between two schools of Homericists. Many commentators consider the Odyssey’s description of its hero’s golden brooch, depicting a hound attacking a fawn, to be a transplanted memory of Mycenaean jewelry design, while many others view it as an accurate reference to early seventh-century jewelry, and still others do not know which position to take.²⁴

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4. Evans, (1900), p. 209; idem, (1935), pp. 539, 560-561.
5. R Snodgrass, (1971), pp. 345-346, 399; J. Boardman, (1963), pp. 94-95, 110; G. Richter, *Engraved Gems of the Greeks and the Etruscans* (New York, 1968), pp. 27-32.
6. Richter, (1969), pp. 245-246.
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8. *Ibid*, passim, esp. 13-14, 20-21, 32-34, 52, 58, 64, 73-74, 92-95, 110 and n. 1, 153; cf. idem, *Archaic Greek Gems* (London, 1968), p. 169; Richter, (1968), pp. 32, 38; idem, (1969), pp. 245-246; Snodgrass, (1971), p. 382; Evans (n. 4 above); Higgins, (1967), p. 190; De Vries, (1972), p.100; Benson, (1970), p. 121; R.M. Cook, *Greek Art* (New York, 1971), pp. 166-167; Robertson, (1975), pp. 147-361.
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17. E.L. Smithson, “The Tomb of a Rich Athenian Lady, ca. 850 B.C.,” *Hesperia*, 37 (1909), pp. 111-112.
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19. *Ibid.*, pp. 95-96; Cf. idem, (1969), p. 145, and Robertson, (1975), p. 32.
20. J. Boardman (“The Khaniala Tekke Tombs, II,” *BSA*, 62 (1967), pp. 57-67) has recently re-dated much of the pertinent material from ca. 700 to ca. 800 B.

- C., Higgins (1969, p. 150), who originally accepted the later date, follows Boardman, while Snodgrass ((1971), pp. 267, 293 n. 49) remained skeptical.
21. Higgins, *ibid.*, pp. 149-150.
 22. For the ninth-seventh centuries, see Evans, (1892-93), pp. 197-226; F. Poulsen, *Der Orient und die frühgriechische Kunst* (Berlin, 1912), p. 60; Lorimer, (1950), p. 71 and n. 1; C. Hopkins, "The Aegina Treasure," *AJA*, 66 (1962), pp. 182-184. For dissatisfaction with such a late date for "Mycenaean" jewelry, see Myres, (1951), p. 70 and S. Marinatos, "Numerous Years of Joyful Life," *BSA*, 46 (1951), p. 114 and n. 36. For its redating to ca. 1700-1500 B.C., see R. Higgins, "The Aegina Treasure Reconsidered," *BSA*, 52 (1957), pp. 42-57; *idem*, (1961), pp. 60, 64-67, 77, 82, 201 (but cf. p. 136 for the "striking likeness" to late seventh-century work); Demargne, (1964), p. 110.
 23. For the twelfth century, see G.H. McFadden and E. Sjöqvist, "A Late Cypriot III Tomb from Kourion Kaloriziki No. 40," *AJA*, 58 (1954), pp. 134, 141-142; Karageorghis, *Mycenaean Art from Cyprus* (Nicosia, 1908), p. 7; *idem*, (1970), pp. 73, 156; Higgins, (1961), p. 26; *idem*, (1967), p. 180; A. Pierides, *Jewelry in the Cyprus Museum* (Nicosia, 1971), p. 23 (but see p. 3). For ca. 600 B.C., See L. Buxton, B. Casson and J. Myres, "A Cloisonné Staff-head from Cyprus," *Man*, 32 (1932), pp. 1-4; S. Casson, *Ancient Cyprus* (London, 1937), pp. 66, 157; G. Hill, *A History of Cyprus I* (Cambridge, 1940), p. 89, n. 6; P. Dikaios, *A Guide to the Cyprus Museum* (Nicosia, 1947), p. 107; *idem*, (1961 ed. of same book), p. 159. Both *groups* point to the similarity of the scepter's scale pattern to contemporary pottery, although alternating rows of colored, scales are characteristic only of the latter pots. Those who consider the scepter to be early point to the eleventh-century date of the tomb which allegedly contained it, and to similarly made twelfth-century Gypriote rings (although they must assume that the enamelling was an invention of that period, was used on the rings and scepter, and then vanished till ca. 600 B.C.). Those who date it late doubt that the scepter came from that early tomb (whose cremation burial presents yet another 400-year problem - cf. McFadden [1954], pp. 133-134; Karsgeorghis, (1967b), p. 119; *idem*, (1969), p. 9 [by M. Wheeler]), and point to similarly-made seventh-century jewelry. Most of them wrote before the discovery of the analogous twelfth-century rings; Dikaios, however, did know of them in 1961, but followed the same reasoning as Higgins (n. 21 above), and Pieride (1971, p. 3), assuming some seventh-century jewelry reproduced twelfth-century patterns.
 24. Mycenaean Age: A. J. Evans, "The Minoan and Mycenaean Element in Hellenic Life," *JHS*, 22 (1912), pp. 292-293; *idem*, (1935), p. 524; H.P. and A. Wace, "Dress" in "Wace-Stubbings, (1962), p. 500; Webster, (1964), p. 111; Hope Simpson-Lazenby, (1970), p. 2; Probably early seventh century Poulsen, (1912), p. 117; F. Studniczka, "Die Fibula des Odysseus" in E. Bathe, *Homer II.2 Odyssey* (Leipzig, 1929), pp. 145-148; Nilsson, 1933, pp. 123, 25; Carpenter (1946), p. 55; Lorimer, (1950), pp. 511-515; Jacobsthal, (1956), p. 141; C.M. Bowra, "Composition" in Wace-Stubbings, (1962), p. 41; probably early seventh century, but skeptical about the whole issue: Kirk, (1964), p. 181; W.B. Stanford, *The Odyssey of Homer II* (New York, 1967), pp. 325-326;





The Palace

In addition to the water system and the artists' quarters, the acropolis of Mycenae was also the site of the palace complex, including an eastern villa, called the House of Columns (Fig. 1, L, N). Both, at least in their final forms, belong to the LH III B period, and both, along with most of the rest of the city, as well as several other palaces and towns throughout the rest of the Aegean, perished in flames towards the end of the LH III B period (i.e., ca. 1200 B.C.). While there was a brief re-occupation of the House of Columns before its ultimate abandonment, the palace itself apparently became an uninhibited heap of rubble for the next five centuries, until the Greeks of the seventh (possible late eighth) century constructed a temple on the site.⁽¹⁾

The palace was the abode of the king, whom the Greeks of the eighth century, and probably earlier as well, (like contemporary peoples in Egypt and Asia) considered to be semi-divine;⁽²⁾ even though there was a separate religious complex in the lower city, presumably with its own priesthood, the king most probably still exercised much influence over the spiritual life of his subjects, performing sacred rites for the community as a whole inside the palace.⁽³⁾ Since the palace grounds were the scene of religious activity in LH III B and from ca. 700 B.C. till the Hellenistic period, some recent authors have postulated that there was a continuous cult there, with the archaic temple and its Hellenistic replacement showing its more impressive manifestations at a later date.⁽⁴⁾ As other have noted, however, if some 500 years actually transpired between the end of the palace and the erection of the first temple, with no evidence of cult activity during such a long interval, it is difficult to trace any continuity, and some even question whether the revival of religious activity on the site was a conscious one.⁽⁵⁾

The Greeks of ca. 700 B.C. erected temples over the ruins of LH III B palaces not only at Mycenae, but also at Athens, possibly at Prosymna,⁽⁶⁾ and probably at Tiryns, a site which again generated a 500-year "tug of war" between two schools of archaeologists, making that case "problematical."⁽⁷⁾ They also constructed shrines and temples over 500-year-old shrines and secular buildings on Aegina, Calauria, Crete, Delos and Samos; at Mycenae itself, Epidaurus, Olympia, Perachora, Therapne, Isthmia, Brauron, Eleusis, Delphi, Pherai, Thermon, and Tegea.⁽⁸⁾

Once again, those who noted clear evidence of religious activity at most of those sites before 1200 B.C., and again in the eighth-seventh centuries, postulated an uninterrupted cult, while those who were disturbed by the lack of evidence for religious activity—in many cases of *any* activity—at those sites during the

intervening Dark Age, believe, instead, that after a “prolonged lapse” of centuries, the Greeks of the eighth-seventh centuries sought a “deliberate communion” with their predecessors of the Mycenaean Age.⁽⁹⁾ Since the evidence for religious activity not only at each of those places, but throughout the Aegean, is so meager during the Dark Age,⁽¹⁰⁾ both those who believe in continuity of cult places, and those who do not, find it difficult to explain why “the huge increase in [religious and architectural] activity” occurred so late, and why “it had suddenly become so pressing a need” to erect temples to the gods only after some 500 years had elapsed since the destruction and/or abandonment of the earlier structures immediately beneath them.⁽¹¹⁾

At Mycenae itself, Archaic and Hellenistic levelling and building operations as well as severe erosion, and the less sophisticated excavation, recording and publication techniques of the early archaeologists, who first cleared the area, make it impossible to ascertain the exact relationship of the Archaic Temple to the LH III B. palace beneath it.⁽¹²⁾ At other sites, such as Tiryns, Delos, and Prosymna, however, many scholars once believed—and some still do—that the temples of ca. 700 B.C. followed immediately after the destruction of LH III B buildings beneath them, but because 500 years ought to intervene, most authorities now reject that notion.⁽¹³⁾

Mycenae’s palace, like most other opulent habitations of LH III B Greece, had its interior walls covered with a smooth facing of stucco, which fresco painters decorated with brilliantly-colored designs and scenes. Although Egypt and Crete had had a tradition of mural paintings for centuries, the Mycenaean, probably under Minoan influence, only began to adopt the art during the late Eighteenth Dynasty. Despite their late start, Vermeule judged the LH III A-B frescoes of Greece to be “perhaps the best of all Mycenaean arts.”⁽¹⁴⁾ After the destruction of the mansions and palaces during the late LH III B-C period, it seems that the Greeks abandoned that art form, along with so many others;⁽¹⁵⁾ once again, as in so many comparable cases, they seem to have revived the craft some 500 years later, when they painted frescoes on the walls of early seventh-century temples.⁽¹⁶⁾ Further west, some authors have detected marked similarities between Minoan-Mycenaean frescoes and sculpture of the Late Bronze Age, and Etruscan funerary murals of the seventh-fifth centuries, again confronted by the now-familiar centuries-long gap between the two groups.⁽¹⁷⁾

Mycenae’s palace, like many other contemporary structures, was a multistoried building, with its walls formed by vertical and horizontal timbers, between which the builders packed rocks in a matrix of clay. As we noted above, the workmen covered the interior walls with a smooth layer of plaster, which painters decorated with beautiful frescoes. The outer faces of the palaces external walls presented a more difficult problem, since their wood and rubble composition was both aesthetically unattractive, and also too vulnerable to the elements. To remedy that situation, the Mycenaean builders decided simultaneously to mask, beautify, protect and strengthen the exposed exterior. Thus they quarried fairly large boulders of *poros* limestone,

which they sawed into rectangular blocks, laying them in even courses, known as ashlar masonry, to present a solid architectural façade.

Although the Egyptians and Minoans had long been masters of monumental architecture in general and ashlar construction in particular, the Mycenaeans were again relatively late to adopt those skills, with the palace marking one of their last and finest accomplishments. Their earliest stone architecture of note consisted of the huge beehive tombs, at first constructed of rubble. With time they began to adorn them with ashlar façades and to line their entrances, which they had (rather than through earthen embankments, with ashlar retaining walls). Finally they changed from sawn *poros* blocks to much harder conglomerate rock, which they hammered into blocks not only for the façades and entrance walls, but also for the construction of the tombs themselves. Similarly, they began to employ huge, rectangular blocks of hastier-dressed conglomerate, laid in even courses, to sheath some portions of their older fortification systems, and as the exterior for new, thick, rubble-core walls which they added to the earlier enceintes, such as the Lion Gate. It was only relatively late that the Mycenaeans began to erect large buildings of stone and to face them with ashlar masonry. ⁽¹⁸⁾

Despite that late start, the relatively short period of use, and their rather restricted application of monumental construction techniques, the Mycenaean builders “reached a high state of development” and “proved their greatness.”⁽¹⁹⁾ In fact, whereas Vroom felt the highest esteem for those who painted the frescoes on the interior walls of buildings like the palace, Desborough considered that “above all . . . the architects and stonemasons arouse one’s admiration.”⁽²⁰⁾

As was true in the case of the frescoes, the Greeks seem to have suddenly lost the skills to shape some blocks, to create ashlar walls, or to erect impressive constructions of any kind by the end of the Mycenaean period. “Such artist and craft were not to be seen again in Greece” during the obscure centuries following⁽²¹⁾ the destructions of the Late Helladic palaces. During the Dark Age the Greeks seem to have made only snail structures of unbaked mud brick, at most having a low foundation of unworked pebbles set in mud—in many ways reminiscent of the architecture 500 years earlier. With time they again began to erect a few stone walls, but those usually consisted of unworked rocks in a matrix of mud, at best having only their outer faces squared.⁽²²⁾

Suddenly, ca. 700 B.C., the Greeks of Corinth and Isthmia, both less than twenty miles northeast of Mycenae, again erected large structures made of *poros* limestone, sawed into rectangular blocks, and laid in even courses:⁽²³⁾ “a striking token of the recovery of lost skills” employed half a millennium earlier,⁽²⁴⁾ Since both buildings are so early in the series of Greek temples, and follow 500 years of very meager architecture, one might expect them to be pretty “primitive”, but the excavators found both structures to be surprisingly sophisticated.⁽²⁵⁾ Since the construction of large-

scale buildings of rectangular porous blocks laid in the ashlar technique seems to have ended 500 years earlier, and there seems to be no intermediate stage after the mudbrick and pebble walls, and before the erection of those two temples, it is difficult to show that they continued the Mycenaean tradition or evolved from the intervening, native Greek works. In the present overview of Greek architecture, those two temples “appeared suddenly”, as a “revolutionary innovation” by an ingenious, yet anonymous, Corinthian inventor. [\(26\)](#)

R.M. Cook and H. Thompson, noting that abrupt, unprecedented revival of ashlar masonry, the extreme proximity of Corinth and Isthmia to Mycenae, and the fact that some of Mycenae’s ashlar walls (e.g., at the Lion Gate) are still extant, have recently suggested that those walls at Mycenae might have inspired the seventh-century architects to return to the techniques employed, then lost, some 500 years earlier. [\(27\)](#) While that view has its attractions, there looms the question of whether untrained people merely gazing upon the outer faces of 500-year-old walls, constructed of rectangular stone blocks, could successfully quarry, trim, transport, lift and set new blocks in the old manner. The Mycenaean ashlar masonry only form a façade to older walls behind it, to solid rubble cores, or to earthen embankments. They did not have to bear the full weight of a roof and did not have to be perfectly plumb, since their solid backing supported them. The Mycenaean blocks were not always perfectly rectangular, and did not need to make precise joins, since only the outer face was of concern; the unseen inner faces might be left partly unworked or else splayed apart, leaving gaps to be filled with wood, rubble and clay. [\(28\)](#) The seventh-century blocks did not form a façade, but comprised the entire wall, only one stone thick, were perfectly rectangular, and had to join one another precisely on all contiguous faces; the walls had to be perfectly plumb to prevent collapse, and had to support heavy roofs. By ca. 700 B.C. the Greeks must have had a sizeable labor force of expert quarrymen, stone cutters, architects, engineers and masons, which seems to have arisen without any previous trace.

For all those reasons, some doubt that the seventh-century Greeks, merely-looking at 500-year-old walls, decided to copy them and immediately succeeded with no evidence of the kind of experimentation through trial and error that one would naturally expect if the Greeks taught themselves anew—and even surpassed the architectural accomplishments of the predecessors whom they sought to emulate. Since the gap from 1200 to 700 B. C. is so huge, and one can trace no development in Greece itself leading to the achievements of the temple-builders, once again scholars postulate that some area outside of Greece kept the tradition alive for 500 years, and served both to reeducate the Greeks in the long-forgotten construction techniques of their ancestors (whom, it seems, they immediately surpassed), and to instruct them in the mathematics required to shape stone blocks of precise dimensions, with their right angles, and their parallel and perpendicular faces and to lay out and erect the structures. [\(29\)](#)

The Egyptians had a centuries-long tradition of monumental architecture formed by

regular courses of hard stone, sawn into rectangular blocks. Therefore, as in the case of monumental stone sculpture, some art historians once more look to the valley of the Nile as the region “of paramount importance” to which Greek craftsmen travelled to see the great buildings, and also to relearn the techniques first-hand at the large-scale construction projects in that land.⁽³⁰⁾ The fact is, however, that the ashlar temples of Corinth and Isthmia of ca. 700-675 B.C. antedate the re-opening of Egypt to Greek craftsmen by several decades.⁽³¹⁾ A third possibility is that the Greeks of ca. 700 B.C.. hit upon the idea of building monumental ashlar structures independent of any foreign or domestic models which might inspire them; and, untutored in the requisite techniques, quickly taught themselves how to create the blocks and erect the temples so successfully—admittedly the least compelling of the hypotheses.⁽³²⁾ Again, one is left to wonder how the Corinthians of ca. 700 B. C., came to recover the skills so suddenly and so perfectly, which the workmen and architects of Mycenae had employed and lost 500 years earlier, and less than twenty miles away.

References

1. “There were some pottery fragments from the “intervening” centuries in the area, but no evidence of dwellings or other structures (cf. “Dark Age Burials,” n. 7). By the revised scheme those Protogeometric and Geometric sherds, like the Middle Helladic and early Mycenaean ones found in the same area (Wace, (1949), pp. 84, 87) antedate not only the temple, but also the destruction of the palace itself. The earliest pottery” which Wace actually found *above* the LH III B destruction belongs to the seventh century (Wace, “The Palace,” BSA, 25 (1921-3), pp. 224, 226).
2. Hesiod, *Erga*, lines 159f; Homer, *passim* (esp. Il. XII:23, 312; XVI:604; Od. XI:304, 602-603); Cf. Vermeule, (1972), p. 307.
3. Vermeule, *ibid.*, p. 233; Tomlinson, (1976), p. 13. Mylonas (1972, p. 40) is correct to point out that the king was not in total control over the religious life of the city, nor was the palace the sole center of worship; but the separation of church and state, which he postulates, seems unlikely for Greece at such an early date. It is clear from Egypt and Near East that the kings exercised tremendous control over spiritual life-usually more than the clergy itself, which tended to act in concert with the kings, often owing their posts to royal appointments, and subject to dismissal or death at the whim of the king. The *Iliad* shows shows the royal house of Troy as more prominent -than the priesthood itself in performing sacred rites for the good of the city (Bk. VI:86-98, 269-311); it further shows a Greek prophet afraid to offend his king (Bk. I:69-113), and demonstrates that the gods rendered more aid to the suppliant king than to their own priests (cp. Bk. I:393f. to 35-54). Likewise, the Oedipus trilogy of Sophocles shows a Creek prophet afraid of offending his kings, and demonstrates how important the kings’ sets were to the well-being of the state (cp. the Old Testament accounts of good and bad fortune befalling the Hebrews’ because of the piety and impiety of their kings, rather than that of

the priests and prophets). Finally, the religious duties of the Athenian “king archon” of the historical period also points to the sacerdotal functions of the earlier kings.

4. Wace, (1949), pp. 84-86; Dietrich, (1970), p. 21.
5. Mylonas, (1957), pp. 63-64; Snodgrass, (1971), p. 397: cf. Tomlinson, (1976). The question is whether the Mycenaean five centuries later had any memory of an LH III B cult there.
6. Cf. n. below
7. Snodgrass, (1971), p. 398; cf. Velikovsky’s discussion of [Tiryns](#), and my section on [Tiryns](#), below, first published as Isaacson (1974), pp. 11-12.
8. Cf. “Later Use of the Grave Circles,” n. 14, to which add B. Berquist, *The Archaic Greek Temenos* (Lund, 1967), pp. 15f.
9. Snodgrass, (1971), pp. 343, 398 and cf. p. 194.
10. Two exceptions are the shrines at Knossos and Kea, which have their own 500-year gaps (“A Terracotta Figurine and a Terracotta Head,” n. 12).
11. Snodgrass, (1977), p. 32 and cf. pp. 25-26.
12. The early excavators found some fragmentary late seventh-century sculptured stone slabs, presumably belonging to an altar, in the main court of the palace, along with a few architectural members of the Archaic temple re-used in the construction of its Hellenistic successor. (Wace, (1949), pp. 85-86; F. Harl-Schaller, “Die archaischen ‘Metopen’ aus Mykene,” *Jahreshefte des österreichischen archäologischen Instituts*, 50 [1972-3], pp. 94-116). Wace, (loc. cit.) felt that the archaic temple underlay the later Hellenistic one ([Fig. 1, M](#)), and overlay a major cult center of the palace, preserving its orientation and function.

Unfortunately, so little remains of the first temple that its exact location and orientation remain unknown. For that reason, along with his skepticism that the palatial apartment served a religious purpose, and that people returning after 500 years of abandonment to a huge heap of rubble from a complex system of rooms, could ascertain the putative religious section, Mylonas (1957, pp. 63-64), doubted any religious or architectural continuity. It is extremely unfortunate that we have forever lost the exact geographical, stratigraphical and orientational information concerning the temple’s relation to the palace (and of both to the altar); by analogy to Tiryns, it is at least possible that the temple overlay the throne room of the palace, re-utilizing the base of its walls, and thus aligned E-W, rather than N-S, facing the altar to the West, rather than to the South.

13. For immediate replacement, cf. inter al., Frickenhaus, (1912), pp. 31-40 (Tiryns), 119-120 (Prosymna); K. Müller, *Tiryns III* (Augsburg, 1930), pp. 213-215; H. Gallet de Santerre, *Delos primitive et archaïque* (Paris, 1958), pp. 89-91, 216, 278 and Webster, (1964), p. 139 (Delos). Against immediate replacement, cf., inter al., Mylonas, (1966), pp. 48-52 (Tiryns); Snodgrass, (1971), pp. 395-396, 439, n. 36 (Delos), and, in general, cf. “Later Use of the Grave Circles,” n. 14.
14. Vermeule, (1972), pp. 184-187.
15. Snodgrass, (1967), pp. 35-36; idem, (1971), p. 399.

16. O. Broneer, *Isthmia I* (Princeton, 1971), p. 34; H. Robinson, "Excavations at Corinth: Temple Hill, 1968-1972," *Hesperia*, 45 (1976), pp. 228-229. It is possible, as some (e.g., Broneer, *ibid.*, p. 35, n. 52) suggest, that the ornamented terracotta temple models of the eighth century show that the Greeks had already begun to decorate the *exterior* walls of the temples; but it is just as likely that the potters merely painted those clay models as they did other ceramics, such as vases, a model of a subterranean tomb stone (?), tripods, model granaries, figurines, etc. (Snodgrass, (1971), figs. 57, 70, 100, 116, 119) with no particular concern for a faithful rendering of the original (cf. Higgins, 1967, p. 21).
17. E.g., Evans, (1935), IV, pp. 187-191; M. Pallottino, *Etruscan Painting* (tr. M. Stanley & S. Gilbert) (Geneva, 1952), pp. 43-44; S. von Cles-Redden, *The Buried people; A Study of the Etruscan World* (tr. C. Woodhouse) (N. Y., 1955), p. 143.
18. Wace, (1949), pp. 136-138; Mylonas, (1966), pp. 16, 20, 33, 48, 67, 73-79, 119, 187; Vermeule, (1972), pp. 116, 123.
19. Mylonas, *ibid.*, p. 187.
20. Desborough, 1972, p. 16.
21. loc. cit.; cf. Boardman, (1964), p. 22; Snodgrass, (1971), p. 369.
22. Snodgrass, *ibid.*, pp. 369, 383-384; cf. Desborough, *ibid.*, pp. 261-262; Tomlinson, (1976), p. 28.
23. Broneer, (1971), pp. 1, 12-33, 55; Robinson, (1976), pp. 225, 227 and n. 76, 234.
24. Snodgrass, (1971), p. 413 (referring to a mid-ninth century wall in Smyrna in Asia Minor, but equally applicable to the early seventh century temples of the Peloponnese. The Smyrna wall was "a revelation in that it finds no [contemporary] counterpart on the Greek mainland." [p. 298]).
25. Broneer, (1971), p. 55; Robinson, (1976), pp. 225, 234.
26. Cook, (1971), p. 192.
27. *Ibid.*, p. 178; H. Thompson, "The Tomb of Clytemnestra Revisited," n. 36 (a paper as yet unpublished, but soon to appear in *Expedition*. Prof. Thompson has very graciously supplied me with an advance copy of his article, to which I owe some references to the more recent literature. He justly observes that the ready access to an abundant supply of *poros*, which one can shape with relative ease, would facilitate the move to ashlar work (letter to me of March 29, 1979). While that was the case for the Greeks of the thirteenth century and the seventh, those of the intervening period seem not to have taken advantage of the situation, which, along with other considerations, which we shall presently note, calls for some explanation); cf. J.W Graham, "Mycenaean Architecture," *Archaeology*, 13 (1900), p. 54
28. (1956), pp. 35-36, 43.
29. Drerup (1969, p. 104) noted the "new" concern for measurement, proportion and symmetry among the eighth-century designers of rectilinear buildings (to which one must add their familiarity with the principles of solid geometry).
30. Tomlinson, (1976), pp. 32-33; Cook, (1971), p. 178.
31. The first Greeks to re-enter Egypt came from Asia rather than the

Peloponnese, were mercenaries rather than students of art and architecture, and arrived no earlier than ca. 664 B.C.. Merchants from Greece proper followed sometime thereafter, and tourists and “students” later still—cf. Herodotus II. 152-154 anc. A.B. Lloyd, *Herodotus, Book II; Introduction* (Leiden, 1975), pp. 14-60.

The Greeks did travel to the western coasts of Asia Minor long before reaching Egypt, but the Asiatic walls, like those of Greece itself, generally consisted of wood rubble, and/or mud brick. Such walls occasionally had a sheathing of stone ortho-stats, with their external faces rectangular and generally sculptured (Frankfort, (1963), pp. 145, 169 and fig. 81, 171 and fig. 83). Some Levantine structures had roughly rectangular blocks, but their walls were usually very thick and laid out in headers and stretchers. Often in complete contrast to Mycenaean and Archaic Greek architecture, their exposed faces retained unworked and rough bosses. There were some instances of thick walls with smoothed, sawn, rectangular blocks as a facing, again in headers and stretchers, but those were not the norm, and soon gave way to the more pervasive use of rubble (Kenyon, (1971), pp. 61, 76-78, 91, 95-96, pls. 30-32, 41-45, 63-64). It is of special interest than the Biblical account of Solomon’s building projects, we read that he generally used vast quantities of wood, and large stones which were roughly shaped at the quarry, but did not dress their faces during construction; the Bible emphasizes that he only used sawn stones to form quarters for the Egyptian princess whom he wed (I Kings 6:7-18; 7:8-12). The Levant is thus a far less likely area than is Egypt, for the Greeks to have learned the use of perfectly rectangular, sawn blocks, laid in even courses to form walls only one block thick (cf. Cook, (1971), p, 178).

32. Tomlinson, (1976), pp. 32-33.





The Design of the Palace

Approached through a large, open court, a covered porch, and a vestibule, there lies the large central room of the palace complex, called the “megaron,” in which the king of Mycenae held court and conducted the affairs of state. In the middle of its floor is a large circular hearth surrounded by four columns which supported the roof. Against the no-longer extant south wall the king probably had his⁽¹⁾ throne. As Vermeule has justly observed, most people pay little attention to, and retain scant recollection of architectural details,⁽²⁾ yet the LH palace designers obviously drew much inspiration from one another. Thus of the three best preserved LH III palaces at Tiryns, Pylos and Mycenae, the thronerooms all bear distinct similarities to each other, with those at Pylos and Mycenae almost identical in dimensions and arrangements.⁽³⁾ Since all three are roughly contemporary, separated only by geography, one assumes that, like their counterparts of the classical period, the LH architects made the relatively short journeys to study older plans and/or to design new buildings.

A more difficult problem presents itself when we consider that the throne rooms of those thirteenth-century palaces also bear many striking resemblances to the decoration, construction techniques, and the arrangement of eighth-seventh century temples. Despite the intervening gap, numerous authorities have sought to establish a direct connection between the eighth-seventh century temples and the 500-year-older palaces.⁽⁴⁾ Since a structure, which many scholars consider to be a seventh-century temple, rests directly above, copies the alignment and utilizes some of the features of the megaron of the palace at Tiryns, and since a number of archaeologists have felt that the later building succeeded the throne room immediately after its destruction, some writers therefore conjectured that the palace survived intact during those intervening centuries, and provided the required model for later builders.

There are problems with that notion, however. Some authorities regard the later structure as a dwelling of the twelfth century, rather than a temple of the seventh,⁽⁵⁾ whose existence on the site is certain, but whose location would then be undetected. Even those who do identify the structure with the temple generally concede that it is highly unlikely that the palace stood intact during the intervening half millennium. If it did survive the end of the Mycenaean Age, it must have been uninhabited, since there is no evidence of any occupation of the entire upper city, upon which the palace stood, from the late thirteenth century until the late eighth; there is also strong circumstantial evidence that the palace itself perished ca. 1200 B.C. in the same wave of conflagrations which destroyed Mycenae, Pylos and other seats of Mycenaean power, and which razed the rest of the upper city of Tiryns itself.⁽⁶⁾

With the case for continuity at Tiryns “problematical”,⁽⁷⁾ some authors have speculated that LH palaces may have survived intact for centuries in some other part of the Mycenaean world, which escaped the fate of the Peloponnesian centers. They therefore look to Athens and the Ionian coast of Turkey, since neither area fell victim to Dorian immigrants, whom many authorities have, blamed for the destruction of Mycenaean civilization; and both became centers of refuge for Mycenaean Greeks, including artists, craftsmen and royal families, who fled their afflicted homelands. In such areas, under such circumstances, one would reasonably expect the old way of life, with its characteristic art, architecture, customs and institutions (such as palaces), to continue without the interruption that characterizes the Peloponnese.

Greek tradition maintained that the colonization of Ionia was a result of the Dorian invasion, occurring in some cases immediately, or, at most, a couple of generations thereafter;⁽⁸⁾ it further ascribed the foundations of the Ionian settlements to princes who were, no doubt, accustomed to dwelling in palaces. During the late Archaic Period Ionia was a thriving center of science, philosophy and literature, which played a large part in inaugurating the classical age of Greece. Furthermore, that region has the strongest claim for the honor of producing Homer, and presumably for keeping alive the memory of Mycenaean civilization which he chronicled. Since his epics contain detailed descriptions of LH palaces, which have struck numerous scholars as extremely accurate in their intimate knowledge of Mycenaean architecture (a matter to which we shall presently turn),⁽⁹⁾ and since fourth century Ionian architects constructed buildings reminiscent of LH III palaces, it seemed, for all these reasons, quite possible that such edifices survived in Ionia.⁽¹⁰⁾

The facts are, however, that there is very little archaeological evidence for Greek settlement of that region prior to the eighth century—a date in keeping with some literary accounts—⁽¹¹⁾ and Ionia seems to have been a cultural backwater prior to its seemingly sudden bloom during the seventh century.⁽¹²⁾ It has produced no evidence of palaces or of large buildings of any kind during the Mycenaean period or the subsequent Dark Age—only small, dingy, single storey, single-room dwellings made of pebbles, mud-brick, poles and thatch, whose very attribution to Greeks, rather than native Anatolians, one can question.⁽¹³⁾

Discouraged by the picture from Ionia, but still inclined toward architectural continuity, some scholars have more recently looked to Athens,⁽¹⁴⁾ which also escaped the Dorian onslaught and immediately received numerous Mycenaean refugees, including artisans and royal families. Unlike Ionia, Athens had been a sizeable center of Mycenaean civilization, and had an LH III palace on its own acropolis. Unlike the other LH city states of the Peloponnese, there is no evidence that Athens’ palace, or any part of the city, caught fire or fell victim to barbarians. Also, unlike practically every other contemporary site, there is ample proof of the continuous occupation of the city throughout the Dark Age. There is a native tradition that kings (who permanently dwelled in a palace) governed the city long after the

Dorians conquered the other Mycenaean centers, and apparently as late as the eighth or early seventh century.⁽¹⁵⁾ Finally, we know that the Athenians, like the people of Mycenae and Tiryns, erected an archaic temple over the LH III palace—a circumstance which conforms to the Homeric references to one structure replacing its predecessor.⁽¹⁶⁾ Here, at least, one would expect the retention of Mycenaean civilization, whatever befell Athens' less fortunate neighbors.

What constantly surprises and perplexes archaeologists is that Athens, the one place where one should find continuity of culture is the very place which, without any obvious reason, changed most drastically, abandoning its Mycenaean characteristics more quickly and more completely than every other region. While the old ways lingered on in the severely struck Peloponnese., Athens suddenly and inexplicably adopted a material culture and customs which scarcely resemble their immediate predecessors in Athens or their contemporary counterparts elsewhere in Greece,⁽¹⁷⁾ but which in art, architecture, dress, burial customs, standard of living, etc., seen more closely akin to antecedents now placed 500 years earlier. Vermeule once stated that “without being burned, Athens faded away exactly like ore obviously destroyed sites; neither architecture nor art continued, only people.”⁽¹⁸⁾ More recently, H. Robertson likewise concluded that by the end of the Mycenaean Age “in Greece the greatest cities were all devastated; and even in places which, like Athens escaped the destruction, there is no monumental building, and the tradition of the major arts—architecture, sculpture, painting—dies out. This seems to be absolutely true” throughout the Greek world.⁽¹⁹⁾

The tradition of a continuous kingship until the period of temple construction conflicts with an equally firm account that it died out towards the end of the Mycenaean Age, several centuries earlier—the two seemingly contradictory accounts, as we noted for Olympia, becoming unsatisfactorily conflated.⁽²⁰⁾ The case for continuous occupation of the palace until its replacement by the archaic temple is almost precisely like that for Tiryns. Although people have inhabited Athens without any major interruption for the past 5,000 years, residing on the acropolis itself throughout early prehistory, and establishing a sizeable settlement thereon during the Mycenaean Period; and despite the fact that the settlement was neither invaded nor destroyed, its residents apparently deserted the entire upper city and the end of the Bronze Age.⁽²¹⁾

That abandonment, not only poses a difficulty for those wishing to extend the duration of the palace's use, but raises even greater questions. Since one can find traces of every other period of human activity on the Acropolis from the Neolithic Age until today; since, by its very nature, it was well fortified—the more so when, during the Mycenaean Period, the Athenians ringed the summit with massive stone wall which, in some areas, still stands today;⁽²²⁾ and since scholars generally portray the Dark Age as a period of anxiety and fear, one must wonder why it was precisely then that the people abandoned their bastion and moved to a “relatively unprotected”

low-lying area “where there had been no previous Mycenaean buildings.” “Astonishingly”, whereas the Athenians seem to have forsaken their former stronghold, they followed the same practice as the Dark Age folk at Tiryns and Mycenae, using their deserted settlement solely as a place to inter a few of their dead. ⁽²³⁾ As was true of the graves inside Mycenae’s citadel, one might consider it “extremely unlikely” that people, who did not live on the acropolis, would scale it only to use it for burials, ⁽²⁴⁾ especially since they then had a cemetery nearer their homes and in much softer ground. ⁽²⁵⁾ Again, one should note that they used the same type of cist tombs on the acropolis as those in the same general area, but supposedly dug 500 years earlier. ⁽²⁶⁾ Because of all those considerations, scholars generally conclude that even though Athens was not invaded or destroyed, its palace still ceased to be occupied after the end of the Bronze Age. ⁽²⁷⁾ Neither is there any evidence that a new palace or mansion replaced the old palace, nor, in fact, that the Athenians erected any large-scale structures after the twelfth century and before the late seventh. ⁽²⁸⁾

Even if Tiryns’ palace miraculously escaped the blaze that, incinerated the rest of its citadel, and that palace and/or the one at Athena stood intact, though abandoned, after the end of the Mycenaean period, and even if other palaces still remain to be found at a later date (perhaps in Ionia), their very style of construction with rather thin walls, comprised of tremendous amounts of wood, snail stones and clay, would render them, in the words of one author, “an insurance company’s nightmare.” ⁽²⁹⁾ The frequent seismic shocks of the region, termites, rot, crumbling clay, inclement seasons or some subsequent fire, singly or in any combination, would probably have reduced them to heaps of debris long before five centuries would have transpired. ⁽³⁰⁾ Since eighth-seventh century temples still had a ground plan and other artistic and architectural details similar to those of the throne-rooms of Mycenaean palaces, which a few of those temples definitely overlay at Tiryns (?), Mycenae and Athens, some scholars decided that there must be a direct relationship. They have suggested that if the later architects did not see the palaces while they still remained intact, then they probably returned to the sites where the palaces had stood five centuries earlier and, poking through the piles of debris (cement-hard in many cases), discerned the older arrangement and details, liked them, and decided to reproduce them. ⁽³¹⁾ The fact is, however, that the later Greek architects “revived” the LH III arrangement before they erected temples over the Mycenaean palaces—even before people seem to have returned to the sites of those palaces—and constructed their first monumental temples at places that had no palaces. ⁽³²⁾

Some suggest that the type may have persisted during the intervening period in monumental, rectilinear buildings of stone, which have so far eluded discovery. but most scholars reject that notion, because the examples of Dark Age architecture, which we do know, are not similar to the structures of either the thirteenth century or the eighth, but rather look back to buildings 500 years earlier still. ⁽³³⁾ As they do with

other phenomena which seem to show 500-year “revivals,” some authors have suggested that the type did survive, but only in wood, which has long since vanished.

(34) Such hypothetical structures should nevertheless have left at least some trace, even if only of their contents (e.g., pottery), and their post holes and wall trenches, but none has come to light. Additionally, in a land like Greece where massive rock formations, field stones and clay are far more common than suitable trees, the Greeks have always preferred to use those substances—which do leave traces—to the scarcer commodity; but, even if they did erect perishable buildings, it was their practice to make at least the foundation of stone to support the wall, and to safeguard against rot and erosion. The lack of evidence of large-scale aegaron-shaped structures to span the centuries between the thirteenth-century palaces and the eighth-century temples thus seems significant. (35) Faced with those difficulties, some authorities have expressed an opinion that, by the time the canonical megaron returned to Greek architecture in the eighth-century temples, their builders must have lost all recollection of the Mycenaean palace. Nevertheless, the similar arrangement troubled them. (36)

Since most authorities now consider it highly unlikely that an LH III palace survived intact to inspire eighth-century builders; since those builders reproduced the megaron plan before they returned even to the ruins of the earlier palaces; and since one can trace no tradition of similar structures to bridge the gap—yet the eighth-century temples still resemble LH III throne rooms—one is left with two options. The first is to view the similarities as superficial or insignificant or coincidental. Experts, however, seem unanimous in considering the correspondences very close in many details, so that, in whatever way they try to explain them, they find them difficult, if not impossible, to attribute to mere chance. (37) Finally, some who view all the other alternatives as unprovable, improbable or impossible, have proposed another explanation. As in the case of the built tombs of the Mycenaean Age and their nearly identical, but 500-year-later, counterparts of the ninth-seventh centuries (p. 13 above), they have suggested that Greek temples simply evolved from similar origins as, and in the same manner as, Mycenaean palaces, following a parallel development, separated by a 500-year gap, which precludes a conscious revival or even a direct survival of form. (38) But even proponents of that notion admit that it is intrinsically “less satisfying” than the other theories which they reject. (39)

For some reason(s) not fully understood, not universally accepted and not especially satisfying even to their proponents, the eighth-century inhabitant of Mycenae and most of the Greek world decided to erect temples over the heaps of rubble of bygone palaces and religious centers, returned to fresco painting, somehow regained the lost skills of stone cutting, engineering, solid geometry and ashlar masonry, and copied the architectural details of LH III thronerooms—all after a 500-year period during which their predecessors made no similar attempts.

References

1. The southeastern portion of the room has long since collapsed down the steep scarp of the ravine. Some (e.g., H. Wace et. al., *Mycenae Guide* [Meriden, Conn., 1971], p. 40, pls. C.P.) feel that the throne was in a separate room to the west of the court, but Mylonas (1972, pp. 30-31) believes that to be a guest room; by analogy to the completely preserved LH III palaces, he reconstructs the throne room in the megaron.
2. Vermeule, (1972), p. 186.
3. Mylonas, (1966), p.63 and fig. 16; Graham, (1900), p. 52 and fig. 12
4. Cf. above “The Religious Center of Mycenae,” n. 5.
5. C. Blegen, *Korakou* (New York, 1921), pp. 132-133.
6. Cf. above “The Entrance to the Citadel,” n. 13 and “The Palace,” n. 13, and below, section [Tiryns](#), for a fuller discussion (first published as Isaacson, [1974]).
7. Snodgrass, (1971), p. 398.
8. *Ibid.*, p. 302; cf. n. 11 below.
9. Cf. n. below.
10. D. Gray, “Houses in the Odyssey,” *Classical Quarterly* N. S. 5 (195), pp. I, II; cf. G. Kirl, *The Songs of Homer* (Cambridge, 1962), pp. 111-112; Lorimer, (1950), p. 430.
11. C. Whitman (1958, pp. 49-51, 322-323, ns. 16-21) made that assessment over twenty years ago. J.M. Cook conceded that most early evidence seemed to indicate an eighth-century date, but stated that new discoveries pushed the event back into the tenth century B.C. (“Greek Archaeology in Western Asia Minor,” *Archaeological Reports for 1959-1960*, p. 40), an assessment oft-repeated by Cook (e.g., “Greek Settlement in the Eastern Aegean and Asia Minor,” *CAH3* 11,2 [1975], pp. 780, 785) and echoed by others (e.g., Snodgrass, (1971), pp. 127, 329, 373; Desborough, (1972, pp. 183-184). The fact is, as Cook’s brother realized (1972, p. 11) that the amount tenth-century material is rather meager to represent the major colonization which tradition attests. Besides those early imports need not indicate a Greek settlement as opposed to being trade goods sent to the natives (cf. the far larger quantities of LH III A-3 pottery found in Cyprus and sixth-century Athenian ware found in Etruria). Most instructive in that regard are the instance of Protogeometric pottery found in native Anatolian graves (Desborough, *ibid.*, p. 184) and the situation at Smyrna, where Cook interpreted the vast quantity of “Grey Ware” ceramics as belonging to Greek settlers (*ibid.*, [1975], pp. 780, 785), while Coldstream (1968, pp. 338-339) and Desborough (*ibid.*, pp. 183-154) more reasonably judge them to belong to the indigenous population.

Despite the more recent discoveries and literature, the situation is still closest to Whitman’s assessment—viz., that there is no compelling evidence for actual Greek colonization prior to the eighth century. Therefore the statement by the seventh-century Ionian poet Mimnermus that “we” came from Neleid Pylos to Colophon, and then sacked Smyrna (ca. 688 B.C.) (quotation in Strabo XIV.1.4) and Thucydides’ pairing (1.12.4) of the Ionian migration with the late eighth century colonization of Sicily and Italy take on a new interest.

Although modern scholars (e.g., Webster, (1964), p. 148; Snodgrass, (1971), p. 8) regard both accounts as highly compressed, since they take no account of the half millennium which supposedly intervened, they follow the same trend as other classical references which we have noted and shall note, which seem to indicate a centuries-later assignment for many events currently dated according to Egyptian chronology.

12. Whitman, loc. cit.; Notopoulos, (1960), pp. 185-186, n. 27.
13. J.M. Cook, *The Greeks in Ionia and the East* (New York, 1963), pp. 31-32; Snodgrass, (1971), pp. 369-370, 413; Desborough, 1972, pp. 183, 262. For the question of who the inhabitants then were, cf. n. 11 above.
14. E.g., Hope-Simpson-Lazenby, (1970), p. 2.
15. C. Hignett, *A History of the Athenian Constitution* (Oxford, 1958), pp. 38-46.
16. Cp. *Od.* VII. 50-81, where Athena enters the house (sc. palace) of Erechtheus to Il. II. 526-551 where Erechtheus was placed in her temple. Cf. Webster, (1962), pp. 454-455 and idem, (1964), pp. 107, 143.
17. T.G. Skeat, *The Dorians in Archaeology* (London, 1939), pp. 62-63; Demargne, (1964), p. 287; Snodgrass, (1971), pp. 31-40, 123, 134-135, U3-153, 179, 3U-316, 326-329; Desborough, 1972, pp. 32-33, 64-67, 76-79, 81-82, 106-111, 269-271, 293.
18. Vermeule, (1960), p. 71.
19. Robertson, (1975), p. 14; cf. Desborough, 1972, p. 289.
20. Hignett, (1958), pp. 38-46. Two other Athenian traditions regarding the unification of Attica and Athens' participation in a religio-political league on the island of Calauria (Poros) have similarly split modern scholars into two opposing camps, championing either the Mycenaean Age or the ninth-seventh centuries (for useful, though by no means exhaustive summaries of each case, cf. respectively, R.A. Padgug, "Eleusis and the Union of Attica," GRBS, 13 [1972], pp. 135-150, and T. Kelly, "The Calaurian Amphictiony," AJA, 70 [1966], pp. 113-122, esp. pp. 116-117 for the "striking" lack of continuity between thirteenth and eighth century remains).
21. Broneer, (1939), pp. 427-428; Iden, "What Happened at Athens," AJA 52 (1948), p. 114; Snodgrass, (1971), pp. 31, 316, 363; S. Immerwahr, *The Athenian Agora XIII: The Neolithic and Bronze Ages* (Princeton, 1971), pp. 154-155; J. Travlos, *Pictorial Dictionary of Ancient Athens* (London, 1971), pp. 52-53; Desborough, (1972), p. 64; Tomlinson, (1976), pp. 78-80. After the twelfth-century abandonment, the next evidence of architecture and cult activity on the acropolis belongs to the seventh century (Travlos and Tomlinson). The earliest post-Mycenaean pottery belongs to the ninth-eighth centuries (Coldstream, (1968), pp. 13, n. 2, 55, 399); but it is of interest that those ceramic finds come from the fountain, where they were mixed with, and lay beneath, pure Mycenaean ware (Broneer, 1939), and from the area of the Parthenon, where they lay in the same "well defined" deposit as Mycenaean ware (W. Dinsmoor, "The Date of the Older Parthenon," AJA 38 (1934), pp. 416-417, 426).
22. Scholars, who noted the similarity of that wall (The Pelargikon) to the earliest defences of Acrocorinth, sought to date them both to the Mycenaean Age. R,

- Carpenter (in Carpenter and A. Bon, *Corinth III.2; The Defences of Acrocorinth and the lower Town* [Cambridge, Mass., 1936], pp. 30-34 and n. 1), who also saw the resemblance— but could not assign the latter fortification earlier than the seventh century, decided to downdate the Pelargikon accordingly. O. Broneer (1939), p. 423, n. 177) showed that the Athenian wall did belong to the Mycenaean Age, so that now one must interpose an interval of ca. 600 years (during which time the Greeks built nothing comparable) between the two similar fortification systems—a situation which we shall encounter again regarding the Cyclopean bridge at Mycenae (ns. below).
23. Desborough, (1972), p. 64; Snodgrass, (1971), pp. 202, 316.
 24. Cf. ns. 5-6 above.
 25. Desborough, (1972), p. 64; Snodgrass, (1971), pp. 145-151.
 26. For MH graves on the acropolis, cf. Travlos, (1971), p. 57, fig. 67. For the similarity of the earliest post-Mycenaean graves to their pre-Mycenaean counterparts, cf. above “Dark Age Burials,” n. 2.
 27. E.g. Immaerwahr, (1971), pp. 154-155. Because Athens looms so large in every discussion of post-Mycenaean Greece, it has seemed appropriate to mention some of its problems not directly related to Mycenae’s palace; we shall return to it when considering other sites at the end of this treatise.
 28. Cf. ns. 18-19, 21 above.
 29. L. Pomerance, *The Final Collapse of Santorini (Thera)* (Götteborg, 1971), p. 17.
 30. *Ibid.*, pp. 16-17; Blegen, (1921), pp. 132-133; Mylonas, (1966), p. 49.
 31. Mylonas, *ibid.*, pp. 51-52; H. Plommer, “Shadowy Megara,” *JHS* 97 (1977), p. 82.
 32. Snodgrass, (1971), pp. 409-412, 422-424.
 33. Cf. above “The Religious Center of Mycenae,” ns. 6-7.
 34. E.g., G. Rodenwaldt, “Zur Entstehung der Monumentalen Architektur in Griechenland,” *Ath. Mitt.*, 44 (1919), pp. 179-180.
 35. Cf. Tomlinson, (1976), pp. 15, 20-22, 28, 32.
 36. Rodenwaldt, (1919), pp. 179-180; idem, “Mykenische Studien I,” *JdI*, 34 (1919), p. 95 and n. 2; Dinsmoor, (1950), p. 58.
 37. Cf. “The Religious Center of Mycenae,” n. 5 and n. 35 above.
 38. Dinsmoor, (1950), pp. 35, 57-58; Tomlinson, (1976), p. 28.
 39. Tomlinson, loc. cit. Cf. pp. 20-22 that, though continuity seems unlikely after a gap of centuries, it still offers “an attractive hypothesis.”





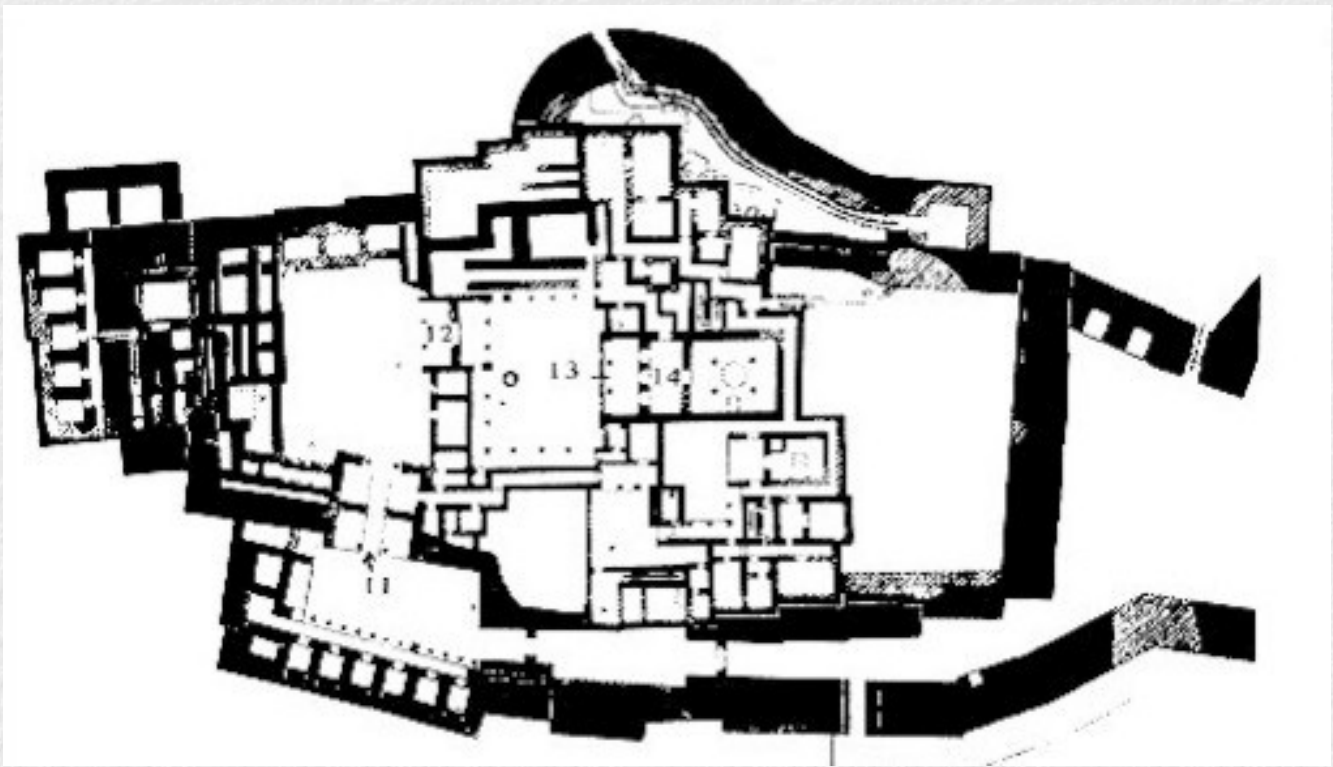
Tiryns

Travelling only a short distance southeast of Mycenae we arrive at another Late Helladic center, Tiryns.

Legend connected the Bronze Age hero Herakles with the site, while its fortifications, constructed of tremendous stones, were attributed to the mythical giants, the one-eyed Cyclopes. Tiryns, under the leadership of Odysseus' friend Diomedes, sent a contingent of men and ships to help regain Helen from the Trojans.

Excavation of the site began in 1884, when Schliemann, the first to excavate at Mycenae, turned his attention to Tiryns. The German Archaeological Institute in a number of prolonged campaigns has laid bare much more of the site and continues the work even today.

Before reaching Tiryns' palace, one must first pass through two monumental gate structures (propylaea) (Fig. below: 11 and 12), built in the Late Helladic period. They, along with the entire (?) citadel, were destroyed in a violent conflagration dated ca. 1200 B.C. For centuries thereafter there is no evidence for monumental architecture in Greece, and monumental propylaea were not to re-appear until the archaic period. When propylaea do "return," however, at the Aphaia temple on the island of Aegina and on the Athenian acropolis, they are said to copy the plan of the Tiryns gates. Some scholars are quite struck by the re-emergence of a model extinct for 700 years.¹ How could the later Greeks have discerned the plan of the Tiryns gates if they had been buried beneath rubble for those 700 years, in fact, until Schliemann's excavations?



After passing through the second propylon at Tiryns, then crossing a courtyard (Fig. above: 13), one reaches the palace (Fig. above: 14). “Along one side of the porch of the large megaron [the throne room and perhaps cult center of the palace] at Tiryns was found a curious series of seven interlocking blocks of alabaster . . . inlaid with blue glass paste” forming “two elongated half-rosettes with inner patterns.” The blocks’ “resemblance to Doric triglyphs and metopes is very striking”.² The bench formed by these blocks is “strikingly close to the triglyph and metope pattern of the later Doric order of architecture”.³

One source sees the Doric triglyph altars as “a direct descendant” of this ritual stone bench at Tiryns,⁴ while another author has the entire Doric order, including triglyph and metope friezes, “invented” “in about the middle of the seventh century” B.C.⁵

If the Doric altars are “a direct descendant,” “how is it that we have no trace of the motif during the Dark Ages?”⁶ Were such bench-altars made continuously between 1200 and 600 but only in perishable material, or did people return to Tiryns 500-600 years after it was destroyed, see, use, and then decide to copy the stone bench of the palace?⁷

If there is no direct descent, no copying of an extinct model, if the idea was invented afresh in the 7th century, how does one explain the “very striking” similarity of 7th-century altars to a 13th-century bench? On the other hand, how does one explain a decorative device with no functional nature or origin,⁸ which, after its re-invention, “remained without variation for over four centuries” in altars and temple architecture? This fact, “it is argued, points to at least as long a period of development before its appearance in stone at the end of the seventh century”.⁹ Yet it is precisely the period

before its appearance in stone, some 600 years, for which “there is at present no evidence to show that the Doric frieze was derived from this ancient scheme” as found at Tiryns.

“It is not impossible that the two forms have some real historical connexion”.¹⁰ While not impossible, if 600 years really separate the two forms, it is highly improbable. If 600 years did not transpire, as is the premise of the revised chronology, the similarity of the friezes is only natural and ceases to be “very striking.”

It has been claimed that the Tiryns bench served as the model for triglyph altars. For the use of the triglyph and metope scheme on temples, a number of Bronze Age buildings and depictions of buildings with the triglyph and rosette frieze higher up are cited as prototypes.¹¹ Among these structures is the Treasury of Atreus at Mycenae. The position of the triglyph scheme above the columns (Fig. 4) is particularly notable, as this arrangement of Doric-like frieze surmounting Doric-like columns is set centuries before the Doric order was “invented” in the 7th century. While this might remind one somewhat of a Doric temple facade, the chronological gap is hard to explain.

We now come to a very thorny problem at Tiryns. The upper town was gutted by a fire dated ca. 1200 B.C. Did the palace on the citadel miraculously escape the conflagration?

Many archaeologists have noted and been struck by the fact that the ground plan of a Mycenaean palace (especially the throne room or “megaron”) is essentially the same as that for 8th-century and later temples. “How, for example, are we to explain the typical plan of the classical temple—with the two columns of the porch in line with the end walls and with the main shrine, or naos, and its central statue base—except as a carryover of the plan of the Mycenaean megaron?”.¹²

This could be explained very easily if there was continuity between the buildings of the 13th century and those of the 8th or 7th, but by the accepted scheme there is none. Immediately after the expiration of the Mycenaean period the “new” architecture displays an “essential discontinuity with Mycenaean architecture”.¹³ The change was quite abrupt.¹⁴ Now, rather than monumental, rectilinear structures, we find oval-shaped huts and apsidal buildings (i.e., with one end rounded). The latter shape, however, is not new. Just as the 8th-century temple seems to be a 500-year throw-back to Mycenaean palaces, the “post-Mycenaean” apsidal house seems to be a 500-year throwback to Middle Helladic buildings.¹⁵

When the 8th-7th-century temples were built, the 13th-century palace plans must have been long forgotten,¹⁶ unless some Mycenaean palace managed to survive intact until that time, or unless a ruined palace was cleared and its ground plan was then studied and copied. It is in the context of these two possibilities that Tiryns’ palace becomes so important for those desiring to connect 13th-century palaces with 8th-7th-century

temples.¹⁷

The palace of Tiryns has special significance for the Homericists as well. Now that Homer is assigned to the late 8th century while the destruction of the Mycenaean palaces is put in the late 13th, could Homer have been influenced by Bronze Age palaces when he describes them in his *Odyssey*?

Since Homer is removed by 500 years from the palaces he described, “Mycenaean monuments . . . will thus play no role” in any attempt to study the architecture that Homer actually knew.¹⁸ So says one archaeologist.

Other archaeologists and Homericists disagree. They believe that Homer must have been familiar with at least one Mycenaean palace.¹⁹ “No better succinct description could be given of the restored palace of Tiryns” than is found in Homer’s *Odyssey*. “Buildings combining these characteristics [enumerated by Homer] are known in Greece at one period and one only, that known as Late

Helladic III, and that is the period within which the action of the *Odyssey* is supposed to fall. Such a degree of coincidence can hardly be fortuitous, and it is now generally agreed that some connexion, however enigmatic, exists between the house of Odysseus and the Late Mycenaean palace.”

“The extent to which the action of the *Odyssey* can be adapted to the stage of Tiryns must not, however, blind us to the extreme difficulty of accounting for the knowledge which the poet apparently possessed of architecture of the LH III type”.²⁰ “How was the knowledge of the LH III type of palace preserved?”²¹

How can the palace at Tiryns help the Homeric archaeologists with their “extreme difficulty” of accounting for 13th-century details known so intimately by an 8th-century poet? How does it make the connection less “enigmatic”? How can it help the student of Greek architecture with his equally difficult problem of bridging the 500 years between Mycenaean Age palaces and 8th-century temples?

On the acropolis of Tiryns a large deposit of 8th-5th-century pottery and cult objects and 7th-century architectural fragments was unearthed.²² It was thus reasonable to assume that an 8th or 7th-century temple existed on the citadel. A suitable spot, in fact the only possible spot, was chosen.

Above the megaron of the Mycenaean palace lay the walls of a somewhat smaller and less well-built structure, identified as the Greek temple. Since the temple seemed to have been built almost immediately after the palace perished in flames, and the builders were familiar with the palatial ground plan, it was decided that the palace miraculously escaped the conflagration of 1200 B.C., and continued to stand until ca. 750 B.C. when it perished to a second fire on the citadel. Above its ruins the temple was then erected.

It was not only difficult for the excavators to imagine that the palace stood nearly half a millennium without alteration, but astonishing (“erstaunlich”) to think that the Mycenaean elements of the palace (architectural, artistic, and stratigraphical) remained unchanged and visible to people 500 years later. Nevertheless, they felt compelled to accept this view, since the temple obviously followed immediately after the fire that razed the palace.²³

If the palace of Tiryns stood 500 years longer than the other Bronze Age palaces, if it survived the fire of 1200 B.C. on the citadel and remained visible to 8th-century Greeks, then the architectural and Homeric problems are solved. The 8th-century temple builders and Homer were familiar with a 13th-century palace.

The conclusions of the excavators were challenged by Carl Blegen. He agreed that immediately after the palace burned down, the smaller structure was built by men intimately familiar with the palace when it stood;²⁴ but there was only one fire, ca. 1200, and it destroyed the palace with the rest of the citadel. Thus, to him, the smaller megaron-structure represents the remains of a 12th-century building, not a 7th-century temple. In support of his contention was the vast quantity of Mycenaean pottery around the site. He too found it difficult and astonishing to believe that the palace survived intact an extra 500 years, so he rejected the notion. Others also reject it as impossible, since the wooden beams within the walls would have rotted away long before.²⁵ While this interpretation explains away many 500-year difficulties, it leaves the problem of the 8th-7th-century votive deposits and 7th-century architectural fragments. If this building, which followed immediately after the fire that destroyed the palace, belonged to the 12th century, where was the 7th-century temple?

If the palace did not stand an extra 500 years, how can it help with the problem of the 8th-century temples copying Mycenaean palaces and with Homer’s knowledge?

A third solution is to have the palace destroyed in the great fire of 1200 B.C., have the site abandoned, then rediscovered and cleared in the 8th or 7th century. Those clearing the debris would see the ground plan of the destroyed palace, thus pleasing the Homericists and architecture students. A temple could then be erected on that spot after a lapse of ca. 500 years. While this view eliminates many problems and explains much of the evidence, it neglects one very important item. Both of the other schools of thought regarded it as a fact that the smaller structure was built immediately after the palace burned-500 years did not elapse between the destruction of the palace and the construction of its successor.

But these are stratigraphical problems. Perhaps the architectural form of the later structure will settle the dispute over its date—12th century or 7th. Here again we find a difficulty. Its ground plan, a rectangular building with a single row of interior columns, can be found in a few structures of the 14th-12th centuries or in a long list of 8th-6th-century buildings. No intermediate examples seem to exist to connect these two

groups.²⁶ To which group should we assign it?

What should one do? For the sake of helping the Homericists and students of architecture, does one presume that the palace stood intact an extra 500 years? Does one date the later structure to the 12th century, overlook the 8th-5th-century finds and see no temple here at all, thus destroying the one hope of the Homericists and architectural historians? As a compromise, does one have a 500-year-later rebuilding on an ancient site, partially pleasing, but partially displeasing both groups? This question has plagued Aegean scholars for over 50 years, has never been satisfactorily answered, and as long as 500 “ghost years” exist, it will remain “problematical”²⁷ and defy explanation.²⁸

Even the objects from the temple cult, while of certain date, are “problematical.” Among these were terracotta figurines and grotesque masks of the 7th century B.C. Like so many other 7th-century votive terracottas, they were produced on the wheel “in the old technique” the Mycenaeans had used 500 years earlier.²⁹ Such votives “kept reappearing spontaneously in widely separated parts of the country without any direct continuity that can be traced among the votive statuettes themselves. Something much more than an archaeological zeal on the part of the faithful needs to be invoked to explain this!” If we reject continuity, reject imitation of extinct models, and also reject the hypothesis that the type was preserved for centuries only in perishables now lost to us,³⁰ what is left for us?

At Tiryns we have run into 500-700-year problems with triglyphs, with propylaea, with Homer and 8th-century temple plans, with the architecture and archaeology of the palace, and with the temple votives.

The fire that destroyed the acropolis of Tiryns is of approximately the same date as the great fire that destroyed much of Mycenae, including its palace. If we accept the hypothesis that Tiryns’ palace was destroyed then, not 500 years later (i.e., that the palaces of Mycenae and Tiryns burned down at about the same time), what was that time? We have seen arguments for making it the 8th or 7th century B.C. We have also seen problems that crop up if we refuse to bring down the date that far.

Now let us travel across the Aegean Sea, and, like the “13th-century” kings of Mycenae, Pylos, and Tiryns, we will arrive at Troy.

References

1. H. Schliemann, *Tiryns* (New York: 1885), pp. 194, 197; Tsountas and Manatt, *The Mycenaean Age*, pp. 45, 322; Schuchardt, *Schliemann’s Excavations*, p. 105; W. A. McDonald, *Progress into the Past* (New York: 1967), p. 45; Robertson, *Greek and Roman Architecture*, p. 29; Dinsmoor, *The Architecture of Ancient Greece*, p. 18; W. Voigtländer, *Tiryns* (Athens: 1972), p. 10. See E. R.

Fiechter, “Die mit dem Tempel gleichzeitig oder später entstandenen Bauten” in A. Furtwängler, et al., *Aegina: Das Heiligtum der Aphaia* (Munich: 1906), pp. 67, 83 for the date of the Aegina propylon, and p. 84 for its close similarity to those at Tiryns; J. A. Bundgaard, *Mnesicles* (Copenhagen: 1957), p. 191, n. 39 for lack of propylaea between those of Tiryns and those of late archaic date. Beneath the Mnesiclean Propylaea of Athens, traces of an earlier Propylon have been found. This building is variously dated between 520 and 480 B.C.. (See J. S. Boersma, *Athenian Building Policy from 561/0 to 405/4 B.C.* (Groningen: 1970, pp. 19, 21, 109, n. 232, 202.)

2. Robertson, *Greek and Roman Architecture*, p. 30.
3. McDonald, *Progress into the Past*, p. 424.
4. M. L. Bowen, “Some Observations on the Origin of Triglyphs,” *ABSA* 45 (1950); 124.
5. R. M. Cook, “The Archetypal Doric Temple,” p. 17. See also p. 19 and Cook’s earlier article, “A Note on the Origin of the Triglyphs,” *ABSA* 56(1951): 52.
6. M. L. Bowen, “Origin of Triglyphs,” p. 124.
7. *Ibid.*, pp. 124-25.
8. The Roman author Vitruvius (*De Architectura*, Book IV. 2-3) postulated that the stone frieze represented original wooden members. D. S. Robertson, *Greek and Roman Architecture*, p. 32, also believed in an early constructional origin. Both Bowen, “Origin of Triglyphs,” pp. 113-14, and Cook, “Origin of Triglyphs,” pp. 50-52, give good reasons for rejecting this notion.
9. M. L. Bowen, “Origin of Triglyphs,” p. 113. 94. Robertson, *Greek and Roman Architecture*, p. 32.
10. *Ibid.* If the bench was used until the 8th century, both similarities to and differences with 7th-century friezes are easy to explain.
11. Bowen, “Origin of Triglyphs,” pp. 121-22.
12. McDonald, *Progress into the Past*, pp. 423-24. See also Dinsmoor, *The Architecture of Ancient Greece*, p. 21; Bowen, “Origin of Triglyphs,” p. 123; Tsountas and Manatt, *The Mycenaean Age*. p. 322; B. Schweitzer, *Greek Geometric Art*, trans. by P. and C. Usborne (New York: 1971, published posthumously), pp. 223-24.
13. A. M. Snodgrass, *The Dark Age of Greece*, p. 369. See also H. Drerup, *Griechische Baukunst in geomelrisciter Zeit (Archaeologia Homerica II, 0*, Göttingen: 1969), p. 77.
14. Drerup. *Griechische Baukunst*, p. 77.
15. *Ibid.*, p. 82: A. M. Snodgrass, *The Dark Age of Greece*, p. 369; Dinsmoor, *The Architecture of Ancient Greece*, p. 58; D. M. Robinson, “Hails” in Pauly-Wissowa’s *Real-Encyclopädie*, Supplement 7 (1940), 235. (S. Sinos, however, in *Die vorklassischen Hausformen in der Ägäis* [Mainz: 1971], pp. 75-84, 87-90. 109-16, cites some examples of the co-existence of rectilinear, apsidal, and oval structures in the Middle, Late Bronze, and Dark Ages. He admits, p. 114, that there is no example of a megaron between Mycenaean times and the later temples.) A few apsidal houses do seem to have been built during the Late Helladic period but they were in vogue only during the Middle Helladic and “post-Mycenaean” times, were atypical in the Late Helladic period, and do not seem plentiful enough to span the time to connect the two peak periods. The

most often-cited example is that at Thermon where the date is in dispute. As is so often *the* case, about 500 years are at stake. Elsewhere I will treat this case, and intend to show that essential discontinuity, and an abrupt change with a 500-year throw-back is not only true of “post-Mycenaean” architecture, but is also the case with the contemporary graves and the pottery.

16. Dinsmoor, *The Architecture of Ancient Greece*, p. 58; G. Rodenwaldt. “Zur Entstehung der Monumentalen Architektur in Griechenland,” *Ath. Mitt.* 44 (1919): 179-180; G. Rodenwaldt, “Mykenische Studien I,” *Jahrbuch* (of the German Archaeological Institute) 34 (1919): 95 and n. 2.
17. Robertson, *Greek and Roman Architecture*, p. 36; Schweitzer. *Greek Geometric* 224; G. Rodenwaldt, “Mykenische I,” p. 95, n. 2.
18. H. Drerup, “Griechische Architektur zur Zeit Homers,” *Archäologischer Anzeiger* (1964): 180: “Mykenische Denkmaler werden also im Gegensatz zur Homerinterpretation keine Rolle spielen. ”
19. H. L. Lorimer, *ibid.*, p. 407.
20. *Ibid.*, pp. 408-10.
21. For a brief list of finds see G. Karo, *Führer durch Tiryns*, 2nd ed. (Athens: 1934), pp. 47-49.
22. A. Frickenhaus, “Die Hera von Tiryns,” *Tiryns I* (Athens: 1912), pp. 35 f.
23. C. Blegen, “The So-called Temple of Hera at Tiryns,” an appendix to *Korakou* (New York: 1921), p. 132.
24. *Ibid.*, 132-33; G. Mylonas, *Mycenae and the Mycenaean Age*, p. 49.
25. Bowen, “Origin of Triglyphs,” pp. 122-23. He incorrectly dates the *Korakou* example to Middle Helladic times (see Blegen, *Korakou*, pp. 80-83, 133). The only other Bronze Age examples he gives are a house from the VIth level at Troy, the archaeology of which we will soon examine, and the structure at Tiryns. (To this one should add an LH III example from Attica. See G. Mylonas, *Aghios Kosmas* [Princeton: 1959], “House T,” p. 55 and fig. 15.) Bowen rightly suspects the 9th-century date assigned to the Artemis Orthia temple at Sparta (see Snodgrass, *The Dark Age of Greece*, p. 277); more recently see H. Drerup, *Griechische Baukunst*, p. 89
26. Drerup, *Griechische Baukunst*, p. 89.
27. Snodgrass, *The Dark Age of Greece*, p. 398.
28. Since Velikovsky has released his chapter on Tiryns (*Pensée* [Winter, 1973-74], pp. 45-46), I have left out much detail in order not to repeat his points. In addition to Velikovsky’s article, the reader is referred to H. Drerup, *Griechische Baukunst*, pp. 17-18, 89 for a succinct statement of the case and the opposing views. Drerup himself pointedly abstained from giving his own opinion. His bibliography is quite extensive, but by no means exhaustive. A similar situation exists with two Mycenaean edifices on the island of Delos. The excavator claims that both of these—one, a sanctuary—stood until ca. 700 B.C., and that the sanctuary was then converted into a Greek temple. Snodgrass (*The Dark Age of Greece*, pp. 395-96) and others (*ibid.*, p. 439, n. 36) reject this 400-year-long continuity.
29. R. V. Nicholls, “Greek Votive Statuettes,” p. 17.
30. *Ibid.*, p. 21. Nicholls seeks perishable (i.e., wooden) models to fill the gap here,

as did Bowen for similarities of Doric triglyphs to Mycenaean friezes, as did some for connecting Linear B and the Phoenician alphabet. Likewise it had been proposed, and rightly rejected, that the connection between Mycenaean palatial architecture and 8th-century temples was to be found in monumental megaron-shaped wooden temples (G. Rodenwaldt, "Zur Entstehung," p. 179 f.). Why the Greeks should have used perishables exclusively during the Dark Age to connect similar non-perishable items separated by 500 years, when we know that they still fired clay, made metal objects, and used stone during that period is not adequately explained. Since they continued to make pottery on the wheel, they could quite easily fashion figurines in that way, rather than carving them from wood. The lack of wheel-made terracotta votives to span those 500 years requires another explanation.





Troy

The Trojan War was probably the single most significant event of the Mycenaean Age. The tale, immortalized in Homer's epics, is familiar to us moderns even millennia later. For the sake of the beautiful Helen, and to avenge her husband's indignation at her kidnapping, the Late Bronze Age Greeks mounted a massive campaign. Approximately 1200 troop-carrying vessels¹ were launched, and a war raged around the besieged city of Troy for 10 years, until the stratagem of the wooden horse gave the Greeks access to the citadel. Once inside the city, they utterly destroyed it, slaughtering many inhabitants and enslaving all survivors who did not flee. This, at least, is the mythical account. When was that war fought?

The canonical Greek calculation was 1193/2-1184/3 B.C. This number was arrived at by the 3rd-century B.C. chronographer, Eratosthenes of Alexandria, who apparently relied on the calculations of Ctesias and on Manetho's Egyptian king-lists. Ctesias, a late 5th-century author, is today viewed as "an amusing liar"² and "an ancient red herring".³ Manetho's lists are the basis for modern calculations for Egyptian chronology. They are convincingly challenged by Velikovsky.⁴

The archaeologists also have a date for that war, ranging sometime between ca. 1260 and 1200 B.C.⁵ This date is assigned to a conflagration layer (stratum Vila) at the site of Hissarlik in Northwestern Turkey, which, in the excavator's opinion, marks the Greek destruction of Troy. The date depends on the time of the Mycenaean pottery found in this layer. That in turn is based solely on Egyptian chronology.⁶ Thus, if the Egyptian scheme is off, both the Greek calculations and the archaeological date must be changed.

It is a simple task to show that the Greek calculations are of no worth and that the Greeks themselves made the Trojan War contemporaneous with many events that we now know to be of the 8th century B.C. Elsewhere I will show this in some detail. Only the archaeological problems will here concern us.

It is conceded that no artistic representations of any event connected with the Trojan War appear before the 8th century B.C.⁷ We have already seen that cults to the Greek leaders of that war do not seem to have sprung up until then. Homer is invoked to explain both these and many other phenomena, but Homer was almost universally regarded by the ancients as composing his epics very shortly after Troy's fall.⁸ In our attempt to resolve this dilemma, we shall examine the archaeological findings from Hissarlik to see why they were assigned an early date, and whether the stratigraphy

and other archaeological considerations support a 13th-century date for the great war. The Homeric problem and mythical matters relating to the war will await discussion until another time.

Just as at Mycenae and Tiryns, the first large-scale excavation of the site was undertaken by Heinrich Schliemann in the 1870's-1890. His collaborator, Wilhelm Dörpfeld, continued the work after Schliemann's death in 1890. From 1932-1938, yearly excavation of the site was undertaken by an expedition from the University of Cincinnati. Their findings, published in final form in the 1950's, provide the principal scientific data about the site.

Nine major habitation levels, ranging from the Early Bronze Age (stratum 1) to Roman times (stratum IX) were distinguished, of which only levels VI-VIII will concern us.

As was pointed out in my earlier paper, the 8th-century Phrygians, who, according to Homer, were allies of Troy during its siege, copied the architectural style of the fortifications of Troy VI when they built their great gate at Gordion. Since the end of Troy VI is put at ca. 1300 B.C., its walls must have been buried by 500 years of debris, making them invisible in the 8th century. The excavator of Gordion, faced with this 500-year problem and no intermediate examples, still saw close similarities and was hard pressed to explain them.⁹ A house of Troy VI, destroyed in the great earthquake that leveled the site, assigned to ca. 1300 B.C., is of the same type as buildings beginning in the 8th century B.C. after a supposed break of centuries during which no similar houses are known.¹⁰ The end of the sixth layer of Troy is dated by the presence of Mycenaean pottery, which, in turn, receives its place in time from Egyptian chronology.

Between the 7th and 8th strata of Hissarlik, it is said that 400 years transpired, during which the site was "a ghost-town in the gloom of the Dark Ages of the ancient world." "There is nothing at Troy to fill this huge lacuna. For 2000 years men had left traces of their living there; some chapters in the story were brief and obscure, but there was never yet a chapter left wholly blank. Now at last there is silence, profound and prolonged for 400 years; we are asked, surely not in vain, to believe that Troy lay 'virtually unoccupied' for this long period of time".¹¹

Why are we asked to believe this? The eighth settlement began ca. 700 B.C. The seventh, however, contained Mycenaean pottery, which, of necessity, should be centuries earlier. At a *tell* such as Hissarlik one would expect a layer of wash and/or humus to mark this 400-year abandonment.¹² There is none.

Recalling the legend of Troy, we would hardly object to an abandonment after the Greek sack of that city; it would be only natural, and is, in fact, attested in ancient sources.¹³ But the settlement said to mark the Trojan War is VIIa, and we are here

dealing with the second sub-stratum above this, VII b2.¹⁴

Why should people who tenaciously remained on the site for 2000 years, despite fires, earthquakes and all-out war, abandon the town now? Was there another sack of the city, this time more devastating than the earlier destruction by the Greeks, yet, unlike its predecessor, lost forever to human memory?¹⁵

Let us examine this 400-year gap in some detail. Was the end of settlement VII b2 marked by a destruction layer so intense that abandonment could be rationalized? Reading the official publication of the most recent excavation, we find that it was not known what caused the end of stratum VII b2.¹⁶

If there is no sterile layer marking the desertion and no obvious cause for such action, we are certainly justified in asking if the site really was abandoned. If level VIII immediately overlay level VII, why could it not have begun immediately after the end of VII? The answer is that Troy VIII began in the early 7th century B.C. while Troy VI and VII contained Mycenaean pottery. Between VII and VIII “some four centuries *must* have elapsed” (emphasis added).¹⁷

If, by redating Egyptian chronology, we reduce the age of Mycenaean pottery by centuries, could Troy VIII have followed immediately after Troy VII without any gap?

Surprisingly, perhaps, for those accepting the old chronology, such a revision fits the circumstances of the two layers. In 1893 Dörpfeld, the great German excavator of Troy, more interested in stratigraphy and architecture than in pottery, treated Troy VII and VIII as a single unit, and, in some cases, could not differentiate between the two phases.¹⁸ With the results of over 20 years of excavations before him and an additional 8 years to reflect on matters, he still had Troy VIII follow immediately after Troy VII, and, at times, noted the presence in Troy VII of the 7th-century pottery characteristic of Troy VIII.¹⁹

Dörpfeld assigned the task of analyzing the pottery from all levels of the site to Hubert Schmidt. Schmidt noted obvious Greek wares in level VIII, marking a Greek colonization, while the material from layer VII seemed to represent a different culture. He nevertheless placed VIII immediately after VII. Noting Mycenaean imports in Troy VII, he still put this layer at ca. 1000-700 B.C., rather than 500 years earlier.²⁰

These were early excavators and could be forgiven for their opinions as they did not know any better. Egyptian chronology had not yet established firm absolute dates for Mycenaean pottery.²¹ What did the modern excavators find?

After completing seven seasons of excavation at Troy, Carl Blegen, the chief archaeologist of the Cincinnati expedition of the 1930's, saw no break between layers VII and VIII.²² After several more years had elapsed, allowing additional time to reflect on the dig, to study the pottery more carefully, and especially after Mycenaean pottery dates became more firmly entrenched,²³ it was realized that a gap of centuries should exist between the two layers. Nevertheless, even in their official publication, the excavators were so impressed by certain facts relating to the mound itself that they left open the possibility that there was no gap.²⁴ By the accepted chronology there had to be a lacuna, as they acknowledged, but they hesitated on this point. Their reasons are interesting.

The new excavations showed that the locally-made pottery of Troy VIII was “obviously akin” to that of Troy VII.²⁵ The local grey ware pots of Troy VII (i.e., of the Mycenaean Age) were looked upon as the “direct ancestors” of the local ware not only of Troy VIII but also of 7th-6th-century Northwestern Turkey and the off-shore island of Lesbos as well.²⁶ With a 400-year gap in the evidence, how can one connect this widespread 7th-6th-century ware with that of the Mycenaean Age?

At the very time that there was supposed to be a 400-year abandonment of Hissarlik, one house seemed to show continuity between the end of layer VII and the time of VIII, as if no one had left and only a few years had passed.²⁷

In several deposits of Troy VIII there were sherds from Troy VII.²⁸ There was finally, however, a more serious problem. Although the excavators were meticulous in their method of digging stratified layers and labelling and recording all finds and their provenience,²⁹ in sub-strata of Troy VII that seemed to be undisturbed, sherds were found of the imported Greek pottery of the early 7th century.³⁰ “The only explanation we can find is to suppose that, in spite of our efforts to isolate and certify the deposits we examined, contamination had somehow been effected and brought about the intrusion of the later wares into strata of Troy VII b”.³¹ The discovery of these 7th-century sherds “in several areas in the strata of Troy VII b1” stratified *below* layer VII b2, which is supposed to represent the 12th century, “presents a perplexing and still unexplained problem”.³²

After all the digging by Schliemann, Dörpfeld, and Blegen at Hissarlik, only one sherd has turned up which could conceivably fall within the 400-year gap postulated for the site. Stratigraphically, however, it was not found where it should have been. A rim fragment from a “Protogeometric” cup was found “with sherds of Phase VII b I, but probably out of context.” The reason it was probably out of context is that it was covered over by “two successive buildings of Phase VII b2”³³ which of necessity belong to the 12th century B.C. The sherd *beneath* those two buildings is seen as part of a body of material found from Palestine to Macedonia³⁴ which, beginning perhaps

ca. 900 B.C., was in vogue until the 8th or 7th century B.C.³⁵ It is stratigraphically impossible to have a 7th, 8th, or even 9th-century B.C. item below the floor of a 12th-century B.C. building, unless contamination occurred. “There was apparently no contamination from disturbance or later intrusions,” however.³⁶

In time these “perplexing and still unexplained” problems were brushed aside, and reservations about a 400-year gap were abandoned, because, by the accepted chronology, that gap had to exist. All the work of the excavators, their failure, to detect any physical sign of abandonment, their belief that Troy VII ended immediately before Troy VIII began (i.e., sometime around 700 B.C.), their detection of continuity of culture, their discovery of a house that seemed to span the ghost years, their finds of “12th-century” pottery just beneath or mixed in with 7th-century strata, their finds of 7th-century pottery in and sometimes *under* “12th-century” layers which seemed undisturbed (a situation quite similar to but more disturbing than what we saw for the stratified section just inside Mycenae’s Lion Gate), the opinions they held, the problems that upset them—all became secondary to making the evidence fit the accepted chronology. Archaeological facts were forced to fit a historical theory.

Then a new theory was needed. If there was indeed a 400-year gap, something must have caused it. The cause for the end of layer VII b2 was unknown when no gap was seen,³⁷ but when the gap became necessary, it was decided that Troy VII b2 must have perished by fire and sword more terrible in their effect than the Trojan War which ended Troy VIIa. Why else would people too stubborn to leave despite 2000 years of great hardships abandon their site now?

Only revision of the Egypto-Mycenaean dates can explain the “still unexplained” problems at Hissarlik. Only then do they cease to be “perplexing.”

References

1. The number of ships is commonly (but incorrectly) said to be 1,000. Thucydides (1. 10.4) speaks of 1200, while the sum preserved in the *Iliad* (II. 494-750) is 1 186.
2. J. Forsdyke, *Greece Before Homer* (London: 1956), p. 68.
3. A. R. Burn, *Persia and the Greeks* (London: 1962), p. II; see pp. 11-13.
4. I. Velikovsky, “Astronomy and Chronology,” *Pensée* (Spring-Summer, 1973); 38-49. Other ancients also dated the war early. We have already seen that the most ancient source, Herodotus, also got his date from the Egyptians, who were obviously lying to him (see “Shaft Grave Art: Modern Problems,” n. 41). Other estimates ranged from the 14th-12th centuries B.C. (see Forsdyke, *Greece Before Homer*, p. 62 and G. Mylonas, “Priam’s Troy and the Date of its Fall,” *Hesperia* 33 [1964]; p. 353, n. 3). These dates are challenged as too early even by adherents to the accepted chronology. I hope to treat this topic in detail at a later date.

5. C. W. Blegen, the latest excavator of the site, pushed the date progressively back (see “New Evidence for Dating the Settlements at Troy,” *ABSA* 37 11936-19371: 12 for 1200 B.C.; *Troy IV. I* [Princeton: 1958], p. 9 for pre-1230 B.C.; “Troy,” *Cambridge Ancient History* [henceforth *CAH*], fascicle 1 [1961], p. 14 for 1250 B.C.; *Troy and the Trojans* [London: 1964], p. 174 for 1260 B.C.), Other archaeologists lean more toward Blegen’s original assessment of ca. 1200 B.C. (See Blegen, *CAH* fascicle, p. 14, n. 1; C. Nylander, “The Fall of Troy,” *Antiquity* 37 (1963): 7, 10, II; G. Mylonas, “Priam’s Troy,” pp. 362-66). The problems are complex: how much earlier than the destruction of Pylos the destruction of Troy should be; whether certain potsherds from Troy Vila are very late LH III B or very early LH IIIC; the time of the transition from LH III B to LH IIIC. These need not detain us here. For our purposes, the archaeological date falls sometime within the 13th century B.C.
6. Blegen, *Troy and the Trojans* (henceforth *T & T*) pp. 159-61, 174.
7. K. Friis Johansen (*The Iliad in Early Greek Art* [Copenhagen: 1967], p. 36]) sets the influence of the *Iliad* on art at ca. 700. J. N. Coldstream (*Greek Geometric Pottery* [London: 1968], p. 351) has one scene appear early in the 8th century, but Johansen, pp. 23-25, does not think that the *Iliad* itself is responsible for that scene. The subject, Siamese twins, need not be connected with Nestor’s account in Book XI of the *Iliad*, or even be connected with Nestor. In any case, no example exists before the 8th century. Of course, the lack of figural representation during the Dark Age could account for this, and this is not *prima fade* evidence that the war was fought this late.
8. See “Shaft Grave Art: Modern Problems,” n. 41.
9. Isaacson, “Carbon 14 Dates.” p. 28, see n. 33, p. 32 for references.
10. See “Later Use of the Grave Circles,” n. 5.
11. D. Page, “The Historical Sack of Troy,” *Antiquity* 33 (1959): 31.
12. Since most of the material from Troy VIII was found on the lower slopes of the mound, one would expect the erosion of the upper mound to deposit a layer of the dissolved remains of the mud brick houses, etc., from higher up the slope. Such a layer should be found above the last deposits of Troy VII and below the first of Troy VIII. For just such an instance from another mound and a good explanation of the process see K. M. Kenyon, *Digging up Jericho* (London: 1957), pp. 44-45, 171, 259-60, 261; and M. Wheeler, *Walls of Jericho* (London: 1958), pp. 43, 55, 124.
13. Those authors (Lykurgus, *In Leocrantem*, 62; and Strabo, XIII. 1.41-42) make it quite clear that the abandonment lasted at least till the Roman period. Strabo considered Hissarlik not to be the Troy of Homer (XIII. 1. 25, 35, 37, 38). For these and other literary, archaeological, stratigraphical, geographical, and topographical reasons, this writer is unconvinced that Hissarlik is the site of the Homeric Troy. He is further unconvinced that the burning of layer Vila was the work of the Greeks, or, in fact, of invaders. J. L. Caskey, a participant in the Cincinnati expedition, who does believe that Hissarlik is the site of Troy, states some of this writer’s reservations very well (“Archaeology and the Trojan War,” *Journal of Hellenic Studies* 84 [1964]: 9). Since it is generally accepted that the Trojan War was fought at Hissarlik, its archaeology is important.

14. There is, in fact, no sign of abandonment or marked population loss or change after the conflagration of level Vila. On the contrary, the original inhabitants quickly rebuilt the town (Blegen, *T & T*, pp. 165 f.)
15. Blegen (*T & T*, p. 172) suggests this.
16. C. W. Blegen, et al., *Troy IV. I* (Princeton: 1968), p. 147.
17. *Ibid.*
18. W. Dörpfeld, *Troja 1893, Bericht über die im Jahre 1893 in Troja veranstalteten Ausgrabungen* (Leipzig: 1894), p. 64.
19. W. Dörpfeld, *Troja und Ilion* (Athens: 1902), pp. 31, 201.
20. H. Schmidt, "Die Keramik der verschiedenen Schichten" in Dörpfeld, *Troja und Ilion*, pp. 296-98.
21. Blegen, *Troy IV.1* p. 4.
22. Blegen, "New Evidence," p. 12. Although he set the division at 900, rather than Dörpfeld's 700 B.C., he still had one layer follow immediately after the other. The journal for 1936-1937 was not released until 1940, two years after excavations at Troy had ceased. From the article (p. 10) it is clear that Blegen wrote after the end of his last season, and, whenever the article was submitted between 1938 and 1940, there is no evidence that he changed his mind before publication of the volume (there is no postscript, or corrigendum attached).
23. A. Furumark's monumental work of dating Mycenaean pottery by Egyptian associations came out shortly after the Troy excavations had ended.
24. Blegen, et al., *Troy I. 1* (Princeton: 1950), p. 23; Blegen, *Troy IV. 1*, p. 250.
25. Blegen, *Troy IV. I*, p. 251. Also see pp. 147, 252-53, 257.
26. W. Lamb, "Grey Wares from Lesbos," *Journal of Hellenic Studies* 52 (1932): 1-2. See Blegen, *Troy IV. I*, p. 253.
27. Blegen, *Troy IV. 1*, p. 250, 291-93.
28. *Ibid.*, pp. 253, 265.
29. Blegen, *Troy I. I*, pp. 20-21.
30. Blegen, *Troy IV. I*, pp. 158, 181.
31. *Ibid.*, p. 181.
32. *Ibid.*, p. 158. Blegen, as we saw in my previous article (*Pensée* [Spring-Summer, 1973], p. 27) was faced with the same problem of 7th-century sherds in bona fide Mycenaean strata at Pylos and was again at pains to account for this state of affairs.
33. *Ibid.*, p. 233.
34. *Ibid.* Blegen compares it to V. R. Desborough's low-footed skyphoi with pendent semicircles. See Desborough (*Protogeometric Pottery* [henceforth *POP*] (Oxford: 1952), p. 192).
35. For scholarly opinions on the Euboean and/or Cycladic manufacture and the range of dates for this type of cup, see Desborough, *POP*, pp. 192-94; Desborough, "A Group of Vases from Amathus," *Journal of Hellenic Studies* 77 (1957): 218; Desborough, "The Low-Footed Skyphoi with Pendent Semicircles," *Archäologischer Anzeiger* (1963), cols. 204-205; Desborough, *The Greek Dark Ages* (London: 1972), pp. 186, 197 and see 199; O. T. P. K. Dickinson in Popham and Sackett's *Excavations at Lefkandi, etc.*, p. 28; J. N. Coldstream, *Greek Geometric Pottery*, p. 330; A. M. Snodgrass, *The Dark Age*

of Greece, pp. 71, 98, n. 4, 335 and index p. 448; H. W. Catling, "A Pendent Semicircle Skyphos from Cyprus and a Cypriote Imitation," *Reports of the Department of Antiquities of Cyprus*, 1973 (Nicosia: 1973): 184-85.

Most exports of this ware to the East Mediterranean (presumably including the example from Troy) are thought to belong to the early 8th century (Desborough, *PGP*, pp. 192-94; Snodgrass, *The Dark Age of Greece*, p. 335) but possibly continued into the 7th century (Snodgrass, *The Dark Age of Greece*, p. 98, n. 4). To my knowledge, no one has treated the example from Troy to determine its date within the 9th-7th-century range, but wherever it falls, its find spot still poses a serious stratigraphical problem for the standard chronology.

36. Blegen, *Troy IV*. 1, p. 231. If Troy VII b2 really ended ca. 1100 B.C., this sherd of the 9th, 8th, or 7th century ought to lie above this layer. Instead, it was found stratified ca. 1/2 m. below, and two buildings were constructed over the spot where the sherd was found. Since no contamination was detected, these buildings assigned to the 12th century B.C. should postdate this 9th, 8th, or 7th-century sherd, and the "12th-century" Mycenaean pottery they contained ought to postdate the sherd as well. See Fig. 359 of *Troy IV.2*.
37. See "The Warrior Vase," ns. 10, 16, 18.





Pylos

Near the modern town of Pylos in Messenia in the southwestern Peloponnesus, a Mycenaean palace and town, taken to be the ancient Pylos of which Homer sang, were uncovered. According to legend, Nestor, its aged king, fought in the Trojan War. Carl W. Blegen, the excavator of both Troy and Pylos, assigned absolute dates to a burned layer at the site of Hissarlik in Northwestern Turkey, which he assumed to represent the Greek destruction of King Priam's Troy, and to the Palace of Nestor, also destroyed by fire. The absolute dates were furnished by Mycenaean pottery in and under both destructions. Blegen found Mycenaean pottery in the destruction layer of Pylos obviously representing "the ceramic shapes and styles that were in normal current use on the very day the palace was set afire and destroyed".¹ "The collection as a whole reflects chiefly the latest stage in the style of Mycenaean III B" but there were quite a few pieces belonging to the III C period.² Arne Furumark set the transition from the one style to the other at ca. 1230 B.C., about the time of the death of Pharaoh Ramses II.³ Blegen revised this downward by about 30 years, setting the date of Pylos' destruction at ca. 1200 B.C.⁴

In the debris of the palace he also found a great deal of pottery which was dated not by Egyptian criteria but on the internal evidence from Greece itself. This ware he ascribed to ca. 600 B.C.⁵ Blegen saw that after the fire "the site was obviously abandoned and thenceforth left deserted."⁶ To account for the mass of later pottery he acknowledged that ca. 600 B.C. "there was fairly widespread activity on the site".⁷

This later pottery appeared in many rooms of the palace, often, in fact, in the same layer as the pottery dated 600 years older⁸ so that the earlier sherds must have percolated up. In one case the later sherds were found together with the earlier ones in a layer "which rested on the stucco pavement of the court" and "unquestionably represents the latest phase of occupation of the palace." Since, by the accepted chronology, they are six centuries too young to have been in use "on the very day the palace was set afire and destroyed" (see note 1 above), they "must somehow have penetrated from above"⁹ through however much dirt settled and vegetation grew over 600 years, then slipping through "a compact layer of smallish stones closely packed in blackish earth"¹⁰ .15 - .25 m. thick, they finally forced their way into a .03 - .10 m. thick "clayey deposit" (see note 9 above), for how else could they have gotten there?

Two sets of pottery are involved here: a group dating to the 7th century on internal grounds, and a group dating to the 13th century on external grounds - the time of

Ramses II of Egypt, with whose scarabs Mycenaean III B and C pottery is found.¹¹ Though the two groups were found together in the same strata, because of the supposed passage of 600 years, the “late Geometric” pottery was branded part of “an intrusive deposit”¹² and the Mycenaean was used as a dating criterion for the fire. Velikovsky has postulated that Ramses II reigned ca. 600 B.C., not in the 13th century B.C.¹³ This would solve a problem at Pylos. No pottery percolated. None “penetrated from above.” The two styles were contemporaneous. Both were used in the palace before the fire and buried by the debris.

References

1. C. W. Blegen, *The Mycenaean Age, The Trojan War, The Dorian Invasion, and Other Problems* (Cincinnati, Ohio, 1962), p. 18.
2. C. W. Blegen and M. Rawson, *The Palace of Nestor at Pylos in Western Messenia* (henceforth PN), vol. I (Princeton, 1966), p. 421.
3. A. Furumark, *The Chronology of Mycenaean Pottery* (Stockholm, 1941), p. 115.
4. PN 421. S. E. Iakovides, *Perati*, vol. B (Athens, 1970), p. 468, brings down the date a bit further. The evidence for reducing the date is not at all secure, and, if anything, the change now seems to me to have *preceded* Ramses’ death.
5. In “The Palace of Nestor Excavations of 1956,” *American Journal of Archaeology*, 61 (1957), 130, Blegen cautiously said, “perhaps of the seventh century B.C.” but see PN 177, 184 for his most recent view. He constantly called these sherds “late Geometric” (PN 64, 175, 229, 294-6, 300, 329, 332 and see AJA 1957, p. 130). More recent analysis by J. N. Coldstream, *Greek Geometric Pottery* (London, 1968), p. 330, established ca. 750-680 B.C. as the limits for the Late Geometric phase in this area, but Coldstream seems unsure whether Blegen’s finds are “late Geometric” (408)-either the term is incorrect in the light of this more recent analysis or the pottery precedes 680 B.C.
6. PN 422.
7. PN 294.
8. PN 181, 184, 185, 294, 300, 303.
9. PN 294.
10. AJA (1957), p. 130. Above the black layer the earth was plowed (PN 294) and much disturbed (AJA, 1957, p. 131) and there is a discrepancy whether the black layer was “immediately below the surface” (AJA 130) or under “a stratum of plowed earth, ca. 0.15 m. deep” (PN 294) or if the two descriptions mean the same thing. This being the case, especially since the surface down to perhaps. 15 m. was disturbed (PN 294. AJA 131) it would be difficult to say how much dirt would settle and vegetation grow over the 600 years (see PN 422 for vegetation growth) but one would expect both processes to have occurred if 600 years really did transpire. The small stones in the black layer were presumably from the collapse of rubble walls within the palace (PN 177).

Such walls would most certainly have fallen at or soon after the time of the fire, not standing six centuries to topple onto later pottery.

11. A. Furumark, *The Chronology of Mycenaean Pottery* (Stockholm, 1941), pp. 114-15. Iakovides, *Perati*, vol. A (1969), pp. 166, 382; vol. B (1970), pp. 467-68.
12. PN 175.
13. I. Velikovsky, *Ramses II and His Time* (New York, 1978).





Ugarit

We now leave Asia Minor's northwest coast and travel to the area where its south coast meets northern Syria, to Ugarit and Alalakh.

In the published volume of *Ages in Chaos*, Velikovsky made a strong case for challenging Ugarit's conventional dates.¹ He pointed out many 500-year problems in the literary texts uncovered at the site, and shows the difficulty relating to vaulted Cypriote tombs constructed in the style of those from Ugarit but set 500 years later. For those who have not read or were not already convinced by the material presented by Velikovsky for Ras Shamra-Ugarit, perhaps a couple of additional problems will suffice.

Let us again look at the vaulted tombs of Cyprus. Velikovsky has already mentioned some of these, especially the 7th-century example from Trachonas. The island of Cyprus has an "astonishing" number of these tombs² which divide neatly into two series: those assigned to 1550-1200 B.C., and those beginning in 950 B.C. And continuing for some time.³ The first group of vaulted tombs (at Enkomi) corresponds closely in date and style to the Ugaritic tombs, and the type is thought to have come from Syria to Cyprus.⁴ The second group of Cypriote tombs corresponds to both the Ugaritic and earlier Cypriote examples, but a 250-year gap separates the inception of the second group from the end of the Bronze Age tombs. More important than the 250-year period when no tombs were built in Syria or Cyprus to connect the later tombs to the earlier ones, is the fact that the earliest tombs of each group (i.e., those of 1550 and 950 B.C.), separated by 600 years, are most similar.⁵

The Cypriote vaulted tombs from 950-600 B.C. seem to undergo the same development as the Enkomi and Ugaritic tombs with 600 years separating the corresponding phases. It has been postulated that the later tombs somehow copied the earlier Cypriote or Syrian ones, but the tombs presumably copied must have been buried and invisible for some 600 years.⁶

Similar tombs are found in Jerusalem, Asia Minor, and Urartu of the 9th-7th centuries, and again it is thought that they originated in 9th-7th-century Syro-Phoenicia.⁷ But the only tombs of this type in that region, notably the ones from Ugarit, are placed centuries earlier.

Leaving behind the regions bordering Syro-Phoenicia, we shall travel briefly to an actual Punic colony. In the 9th or 8th century B.C.,⁸ a group of Phoenicians sailed to

North Africa and founded Carthage. One of the oldest archaeological discoveries from the site is a late 8th-century B.C. built tomb “closely related” to the Ugaritic tombs in architectural plan.⁹ It is a “faithful miniature rendering” of the Syrian tombs both in design and, apparently, in arrangements for religious rites.¹⁰ It would hardly be surprising for 8th-century Phoenician colonists to bring over a *current* tomb type and burial customs from their motherland. The only similar tomb type and burial customs that their motherland can produce, however, are put 500 years earlier. By the accepted scheme, the colonists’ ancestors would have been very familiar with these matters, but by the 8th century B.C., the Ugaritic tombs must have been buried over, invisible, and forgotten.¹¹

How did these tombs of Ugarit serve as models for Cypriots, Israelites, Urartians, Anatolian peoples, and Phoenician colonists, if contemporaneity is denied, and they went out of use and were thus forgotten 500-600 years earlier?

The final items we will examine from Ugarit are a gold bowl and a gold plate, both beautifully decorated. Stratigraphically, they belong shortly before the destruction of the city during the Amarna period, and are thus assigned a date somewhere between 1450-1365 B.C.¹² Stylistically, as well, they belong to the Mitannian-Amarna period and show scenes reminiscent of late 18th Dynasty Egypt, notably the time of King Tutankhamen.¹³ Both stratigraphically and stylistically, then, a late 18th Dynasty date is necessitated. Since Velikovsky lowers that date by over 500 years, how are the gold bowls affected?

These two pieces are called “remarkable antecedents of the use of the frieze of animals on metal bowls” of Phoenician workmanship, firmly dated to the 9th-7th centuries B.C.¹⁴ What is more “remarkable” than the Ugaritic examples’ manufacture and burial over 500 years before the “later” series began, is the subject matter of the two items. Extraordinary conservatism was attributed to the Phoenicians, since the later group faithfully reproduced similar scenes and arrangement of the decoration,¹⁵ after a lapse of 500 years.

The chariot scene on the 14th-century gold plate is compared to similar scenes of the 9th-century Neo-Hittites and of the Assyrian King Assurnasirpal II (883-859 B.C.).¹⁶ The elongated gallop of the horse is seen to be quite similar to depictions on Assyrian reliefs, but Assyrian influence “is chronologically impossible, all the Assyrian monuments presently known where horses are depicted at gallop being about half a millennium later than our plate” (174). The gold bowl (Fig. 7) with its combination of Aegean, Egyptian, Mesopotamian, and Levantine motifs is “an excellent example of Phoenician syncretism, half a millennium before Phoenicians in the proper sense are known”.¹⁷

Surely, it was thought, these golden objects, remarkably foreshadowing by 500 years

similar metal bowls and similar scenes, “may be claimed as ancestors of the series of ‘Phoenician’ bowls of the ninth-seventh centuries B.C.”¹⁸ How can they be ancestors if they were buried and unseen for 500 years before the later series began, and the art was lost over those 500 years?

If metal bowls reproduced similar scenes in similar arrangements *for* 500 years, that would indeed be “extraordinary conservatism.” That 9th-7th-century Phoenicians should imitate so closely 14th-century bowls they never saw, after a 500-year *gap*, is merely “extraordinary.”

When their date is reduced by half a millennium, these bowls fit beautifully into the later series. If one keeps high dates for the Mitannians and the 18th Egyptian Dynasty, then this is yet another mystery to add to our list.

References

1. I. Velikovsky, *Ages in Chaos*, pp. 179-222.
2. A. Westholm, “Built Tombs in Cyprus,” *Opuscula Archaeologica* II (1941), p. 30.
3. *Ibid.*, pp. 32-51.
4. *Ibid.*, p. 57.
5. *Ibid.*, pp. 52-53. See also A. Westholm, “Amathus,” in E. Gjerstad, et al.. *The Swedish Cyprus Expedition* (henceforth *SCE*) II (Stockholm: 1935), p. 140, and E. Sjöqvist, “*Enkomi*” *SCE* I (Stockholm: 1934), pp. 570-73.
6. E. Gjerstad, *SCE* IV.2 (Stockholm: 1948), p. 239; V. Karageorghis, *Excavations in the Necropolis of Salamis I (Salamis, vol. 3)* [Nicosia: 1967], p. 123.
7. D. Ussishkin, “The Necropolis from the Time of the Kingdom of Judah at Silwan, Jerusalem,” *The Biblical Archaeologist* 33 (1970): 45-46.
8. The foundation date was disputed in antiquity. Most ancient estimates fell within the range of 846-751 B.C. Of particular interest for our purposes is the fact that a number of ancient authors stated that Carthage was founded *before* the Trojan War.
9. G. C. and C. Picard, *The Life and Death of Carthage*, trans. from the French by D. Collon (London: 1968), p. 47.
10. *Ibid.*, p. 52, and see C. Picard, “Installations Cultuelles Retrouvées au Tophet de Salammbô,” *Rivista degli Studi Orientali* 42 (1967): 189-99.
11. Picard, “Installations,” sees close relations between the Ras Shamra and Carthage tombs but recognizes the chronological difficulty. His suggestion, pp. 197-98, that this tomb type came from Cyprus does not help matters. The Carthaginian settlers were primarily Syro-Phoenicians, not Cypriots. Besides, he seems not to realize that the type did *not* survive in Cyprus from Bronze Age times (contra, p. 197). Like the Carthaginian example, it “came back” after a mysterious chronological gap. Even if we make the Carthage example depend on Cyprus, not Syria, we are still left with the puzzle of how and why

the Cypriots copied, yet did not copy, the 600-year extinct tombs of Ras Shamra or Enkomi.

12. C. F. A. Schaeffer, *Ugaritica II* (Paris: 1949), pp. 5, 47. See H. Frankfort, *The Art and Architecture of the Ancient Orient* (Baltimore: 1963), p. 150 for their assignment to the Mitannian period, p. 140 for his dates for that period; D. E. Strong, *Greek and Roman Gold and Silver Plate* (Glasgow: 1966), p. 53.
13. Frankfort, *Art and Architecture*, p. 150.
14. P. Dikaios, "Fifteen Iron Age Vases," *Report of the Department of Antiquities of Cyprus, 1937-1939* (Nicosia: 1951): 137. 1 72. Schaeffer, *Ugaritica II*, p. 47.
15. M. Vieyra, *Hittite Art*, pp. 45-46.
16. Schaeffer, *Ugaritica II*, pp. 22-23: "Une influence de ce coté est chronologique-ment impossible, tous les monuments assyriens actuellement connus où figurent des chevaux au galop étant postérieurs de près d'un demi-millénaire à notre patère."
17. Frankfort, *Art and Architecture*, p. 150.
18. Strong, *Gold and Silver Plate*, p. 53.





Alalakh

Traveling a bit farther inland and to the north, one reaches Tell Atchana, the ancient Alalakh.

The uppermost levels VI-I of the site, the ones of most concern to us, depend solely on Egyptian chronology, and the dates for imported Late Cypriote and Mycenaean pottery, Hittite New Empire and Mitannian material.¹ The four latter sets of material owe their dates solely to Egyptian chronology, and maintain them by floating on mysterious Dark Ages, which are archaeologically empty, or, at best, very obscure. It is thus an easy matter to find some 500-600-year puzzles of the type met over and over again in this paper. For the sake of brevity we will treat here only two.

During part of the period of the 18th Egyptian Dynasty, Alalakh was ruled by King Niqmepa. His royal palace is thus assigned to the 15th-14th centuries B.C. Only a short distance north of Alalakh lies the site of Zinjirli with its 5th-century palace.

According to H. Frankfort there are no monuments, in fact, no works of art to fill the gap between ca. 1200 and 850 B.C. in this part of the ancient Levant. He was nevertheless struck by the resemblances of the 8th-century palace of Zinjirli to the 14th-century palace of Alalakh.² How was the tradition of monumental architecture kept alive for 600 years, if the Niqmepa palace was covered over and invisible by the 14th century, and if there is absolutely no continuity in this or any of the other arts between the two periods?³

Many large fragments of sculpted stone lions were also unearthed at Alalakh. These were found re-used in the last phase of the “temple”,⁴ but presumably guarded the doors to this structure at an earlier date. According to the excavator,⁵ these lions have great “importance as monuments for the history of art. In the ‘Syro-Hittite’ period gateway lions of this sort are so regular a convention as to be almost the hall-mark of North Syrian art.” Such lions are normally assigned to the 9th-7th centuries B.C.,⁶ but because Egyptian chronology provides the absolute dates for Alalakh, “now for the first time we have a series of lion sculptures which cannot be later than the fourteenth century B.C.”

Should we view the Alalakh lions as “early forerunners of the whole series of Syro-Hittite lions”?⁷ Were they also the model for the guardian lions of Assyrian palaces, “anticipating [both sets] by five hundred years”?⁸ Could they have provided the inspiration for the 500-year-later sculptures?

If, by the 9th century B.C., the Alalakh lions were completely buried over by debris and long forgotten,⁹ and no similar lions exist to span the Dark Age in this region, “how can we explain why the system of flanking gates with large, guardian figures and stone reliefs in the ninth-century Assyrian palaces resembles so much that employed”¹⁰ here at Alalakh and other contemporary centers some 400-500 years earlier?

References

1. L. Woolley, *Alalakh* (Oxford: 1955), p. 384-99.
2. H. Frankfort, *Art and Architecture*. On p. 166 he speaks of the Dark Age. He saw similarities between Alalakh and Zincirli in constructional technique employed by the architect but invisible to onlookers (p. 145), and in ground plan (p. 167). He was, in fact, so struck by these similarities that he disbelieved a break in architectural continuity during the Dark Age (p. 163). Yet he himself has shown that, by the accepted scheme, the palace at Alalakh and other contemporary buildings were all destroyed long before Zincirli's palace was built, and he fails to cite any intermediary structures to fill the gap between 1200 and 850 B.C. (pp. 163-66).
3. W. F. Albright's attempt (“Northeast-Mediterranean Dark Ages and the Early Iron Age Art of Syria” in *The Aegean and the Near East*, ed. S. Weinberg [Locust Valley, New York: 1956], pp. 144-65) to bridge the chronological gap fails. While many of his remarks are quite cogent, he disregards much evidence for dating some finds, and, as was his custom, chose dates to suit his own scheme.
4. Frankfort (*Art and Architecture*, p. 162) believed that the building called a temple by Woolley may have been a palace.
5. L. Woolley, *A Forgotten Kingdom* (London: 1959), pp. 132-33.
6. Woolley (*ibid.*, p. 132) pushes the lions back to the 10th century, but Frankfort (*Art and Architecture*, p. 166) shows that they only go back to the 9th century.
7. Woolley, *A Forgotten Kingdom*, p. 133.
8. S. Lloyd, *The Art of the Ancient Near East* (New York: 1961), p. 274. Lloyd is actually speaking of stone sphinxes from the Hittite capital of Boghaz Koy foreshadowing Assyrian bulls and lions, but the quotation fits the Alalakh lions as well.
9. Woolley, *A Forgotten Kingdom*, p. 152.
10. W. S. Smith, *Interconnections in the Ancient Near East* (London: 1965), p. 109. Smith actually refers to Hittite art, but the situation is the same for the Alalakh lions. See also Lloyd, *Art of the Ancient Near East*, pp. 193-94, and Woolley, *A Forgotten Kingdom*, p. 133. Smith, Lloyd, and Woolley all wanted to connect the “early” lions with the “late” ones, but they could not bridge the Dark Age pointed out by Frankfort (*Art and Architecture*, pp. 164-66), which should separate the two groups. It is true that the Alalakh lions are less

sophisticated than other lions from this region, but that need not be a sign of a very early date. Frankfort (*Art and Architecture*, p. 254, n. 7) speaks of various degrees of success, or lack of it, in local carvings of the 9th century, citing the Alalakh sculptures as an earlier precedent.





Résumé

In this work the reader has traveled to six ancient cities to study some of the buildings and artifacts that modern excavators have unearthed. These six places were referred to as stumbling blocks for the revised chronology. We were told that they could not come down by centuries in time, thus the revised chronology, a nice enough theory, was disproved by archaeological facts. What did we see?

At Mycenae, Tiryns, Troy, Pylos, Ugarit and Alalakh, we found numerous 500-700-year problems for the excavators and for those trying to trace the development of artistic and architectural types. We have examined palaces, temples, tombs, pots, pins, carved slabs, bowls, figurines, etc. We have come across stratigraphical sections that do not conform to the expected and accepted sequence of events. Everywhere we went we found unanswered questions, perplexing problems, and always these involved 500-700 years.

In this article only five places were visited, and these but briefly. The number of 500-700-year problems studied by this writer is quite large, and the more he reads, the greater the number swells. No *ad hoc* theory has yet been advanced which adequately explains any one of the cases, let alone all of them. Only a revision of ancient history, a shortening of Egyptian chronology, works for all the cases mentioned in this paper, and, in fact, for all others which this writer has researched.

If there were no problems, or only a couple of minor points not yet fully understood, it would be simple, indeed necessary, to accept the standard chronology. When, however, major “exceptions to the rule” appear in great numbers, and these form a consistent pattern,¹ it becomes very difficult to brush them aside and have faith in “the rule.” One must make a choice. Should archaeological evidence be forced to fit the Procrustean bed of historical theory, or should a new scheme be put forth to explain all the facts?

A few problems from a handful of sites do not prove that the revision is valid. Volumes could and need to be written to enumerate all the problems faced by the old scheme, which act as confirmations for the new. One article need not convince the skeptical reader that Velikovskiy is right, but anyone reading this might start wondering: Just how sound is the accepted chronology?

References

1. As merely one case of consistency, let us reconsider the “12th-century” LH

IIC period. At Pylos we found 7th-century pottery mixed with the 12th. We have seen that stylistically LH IIC figural pottery most resembles 7th-century ware. Stratigraphically 7th-century sherds were mixed with LH IIC inside the Lion Gate of Mycenae. At Troy two LH IIC structures were built over a 9th or 8th-century sherd, while 7th-century pottery was found stratified directly above, mixed with, and *under* LH IIC. Many more cases exist (e.g., the perplexing mixture of LH IIC with early 7th-century pottery in a stratum of Scoglio del Tonno near Taranto in South Italy). Why don't stylistic and stratigraphical considerations cause the redating of this period? As was pointed out above, this period is connected with Pharaoh Ramses II. Utilizing other evidence, Velikovsky has redated this king from the 13th to the late 7th century BC.





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The Tombs at the Argive Heraion

Argos, in the south of the Argive valley, or Argolis, was, according to Greek tradition, a very ancient city. It stood four miles from the sea at the foot of a steep hill, which formed its acropolis. In the days of the Trojan war it was reputedly ruled by Diomedes, one of the heroes of that war. In historic times, during the reign of King Pheidon, in the first half of the seventh century, Argos was the leading city in the Peloponnesos; but later it surrendered its supremacy to Sparta.

To the north of the city stood a temple dedicated to Hera: legend has it that it was at this Heraion in the Argive plain that the leaders of the Trojan War assembled and took an oath of loyalty to their cause.¹ Legend has it also that this center of worship of Hera was founded at least thirteen Generations before Agamemnon and the Trojan expedition.

Close to the Heraion a cemetery of Mycenaean Age was excavated by Carl Blegen early in his distinguished archaeological career.² We shall follow him through a series of tombs and see whether Furtwängler's scheme did insure the archaeologist against any conflicting evidence. We can say at the start that this journey along the graves will not be as problem-free as it should be if the accepted scheme is all true and if the centuries between the Mycenaean and Ionic ages are real and not fictitious.

The cemetery was ascribed by Blegen to the Mycenaean Age, in round numbers, from -1600 to -1200. The only object "definitely datable through foreign analogies was the Egyptian scarab found in Tomb XIV, which may be attributed to the reign of Queen Hatshepsut, not much later than 15— B.C."³

Here, as in all other places of early Greece, chronology is established through contact with Egypt. And it stands only if, as in this case, Hatshepsut reigned about -1500. Since, however, as was shown in *Ages in Chaos*, vol. I, Hatshepsut was a contemporary of King Solomon and lived in the tenth century, we are prepared for all kinds of embarrassing finds and strained solutions.

The problem which Blegen faced almost wherever he dug was "the recovery in so many tombs of objects dating from the Geometric period⁴—a time separated by centuries, actually by more than half a millennium, from that of Queen Hatshepsut—this on the conventional timescale. We can start our survey with any one of the fifty-two excavated tombs, since the problem is not confined to one or to several among them.

“Tombs IX, XIX and L had . . . clearly been disturbed, and the discovery of geometric pottery on or just above the Floor permitted the disturbance to be approximately dated. . .?” That kind of disturbance was it? “There was nothing to suggest that the tombs had been deliberately rifled,”⁵ and, as we shall presently see, even had the tombs been rifled, the perplexing problem would persist.

Tomb IX is most instructive: “The tomb had been entered and disturbed in the Geometric Period. . . . Practically all braces of Mycenaean occupation had been removed and the earth filling the chamber contained objects of Geometric date, which continued down to the floor itself, at a depth of 2.90 meters below the surface of the grounds. . . . Just above the floor were recovered two spherical beads of glass paste, probably dating from the Mycenaean period.”⁶ Where geometric ware was found in the fill it was thought to have a later date of deposition, but how with the Mycenaean ware in the fill, above the geometric ware on the floor?

Let us turn to tomb XIX and once more quote Blegen, since the issue is of decisive importance. The tomb “was opened and entered in post-Mycenaean times, and the objects which were then deposited in the chamber make it clear that the date of the intrusion is to be assigned to the later part of the Geometric Period.”⁷ But for what purpose were the tombs opened? “The purpose of this reopening of the tomb in Geometric times was not definitely ascertained. No traces of bones came to light, and it did not look as if this deposit of bronzes and other objects was of a sepulchral character.” Then, what moved people to deposit their pottery and bronze in tombs over half a millennium old? “The tomb may have become in effect a simple shrine” of the cult of the dead. There was no rifling of the tomb, nor a second burial: the objects were deposited to honor ancestors whom nobody could remember.

About tomb L Blegen wrote: “Most of the fill of Mycenaean times, except for a few centimeters above the floor, had disappeared, and the earth and the debris removed in the course of our excavations contained many Geometric sherds and a few fragments of bronze.”⁸

In all the three cases cited above the sole basis for claiming disturbance was the finding of Geometric pottery—and not only in the fill of the tombs, but “on or just above the floor.” If the “disturbance” is of a later date than the time the sepulchers were made, how could the ware have come to lie under the fill, on the floor? If the tombs were opened in the Geometric period, how could the objects put in by the disturbers find their place with the Mycenaean ware, on the floor?

“In eight further instances [tombs VIII, X, XXVI, XXXIV, XXXVII, XL, XLIII and XLIX] similar deposits came to light.”⁹ Let us examine them one by one.¹⁰

The Geometric deposit in tomb XXVI “was apparently not of a sepulchral nature, but

in all respects similar to that brought to light in the chamber of tomb XIX”¹¹—that is, a votive deposit—though here it did not rest on the floor itself. It looked as if the roof had caved in; but instead of pilfering the contents of the thus-exposed tombs, the pious Geometric people, descendants of five centuries, added objects of their time to the ancient funerary equipment.

The contents of tomb XXXIV evoked the following admission on the part of the excavator: “the date of this [Geometric] deposit is more easy to determine than its significance. The oenochoe for “wine pourer” . . . is of the Geometric style; the skyphos a typical Protocorinthian fabric . . . the unpainted vessels and the bronzes are of types one might expect in the same association? and the whole deposit might be as late as the end of the eighth century.”¹²

In tomb XXXVII “a number of small Protocorinthian sherds and many fragments of bronze, bronze wire and a bronze pin of a Geometric type were found down to within half a metre of the floor.”¹³ The roof was found to have collapsed.

In tomb XL Blegen found the roof in its place, but the drop of the lintel opened access into the chamber—“the opening above the walled door must have been large enough for a roan to enter: a number of objects of post-Mycenaean date, at any rate had been deposited inside the chamber and were found in the fill at a height of 1 m to 1.60 m above the floor. These objects included a small Corinthian jug, a number of fragments of Proto-Corinthian pottery, representing several skyphoi, a bronze bowl, and a bronze pin.” Blegen concluded: “This deposit of post-Mycenaean objects in the chamber is, I believe, to be interpreted as evidence for a continuing cult of the dead.”¹⁴ But is it likely, or even imaginable, that a man would squeeze through a hole in the lintel of a grave in order to put objects in? and that no one else, seeing the opening, would break in to steal the ancient artifacts? Yet this is what Blegen had to assume on the basis of the accepted chronology.

The tombs numbered XLIII and XLIX also contained Geometric deposits besides those identified as Mycenaean.

The finds of Protocorinthian skyphoi in tombs XXXIV and XL were especially on Blegen’s mind. “What is the significance of these objects?” he asked.¹⁵

Their significance is in their perturbing the accepted historical time table. Since the tombs were not reused, how good is the explanation that the disturbers—riflers they were not—deposited bronze and pottery of their own age in so many graves? It was absolutely clear to Blegen that none of these graves had ever been reused for burial or second interment.

In the absence of a more reasonable answer to the startling state of things Blegen, as we have seen, arrived at the conclusion that the eighth or seventh century inhabitants

of the place were devotees of an ancestors' cult. Therefore "what we have in a high level in these Late Helladic tombs [-1600 to -1200] are clearly votive offerings which were deposited at *some* time in the Geometric Period. This evidence, it seems to me," Blegen continued, "can only mean that the cult of the dead, some traces of which we have already seen within the sepulchers themselves, was still flourishing in the cemetery at the Heraeum long after the Mycenaean age had passed away."¹⁶ But the words "we have in a high level" in the tombs conflict with Blegen's observation and description: in several tombs the Geometric ware was clearly the earliest—it was on the floor of the tombs—in others mixed with the Mycenaean ware. And since no repeated burials were found in these tombs, Blegen admitted that they presented "a puzzling problem."

"In tombs IX, XIX and the main chamber of XXVI, the presence of Geometric objects on the floor of the chamber, or near it, suggested that the disappearance of some Mycenaean remains was due to later disturbance. . . In almost every instance recorded or a skeleton lying in order in the tombs at the Heraeum it is clear that the body of the person buried had been laid directly on the floor of the chamber."¹⁷ Is it, then, thinkable that the late worshippers of the dead in some instances added their ware to the Mycenaean ware and in other instances replaced the Mycenaean ware by one of their own time, surrounding the skeleton of the dead with objects five centuries more recent than himself?

* * *

Should we try, on the basis of contact with Egypt, to establish the true age of the cemetery at the Heraion? First, the already mentioned scarab found in tomb XIV—what is its evidence?

"The cartouche apparently reads, 'the good favour of Amen'. . . It is of a type common in the time of the eighteenth dynasty and is almost exactly similar to some scarabs of Queen Hatshepsut's reign, recently found by Mr. Winlock in the excavations of the Metropolitan Museum at Deir el-Bahari. The chronological evidence supplied by this scarab is of no little value in confirming the date of our tomb." It belonged to a type "used in the early XVIII Dynasty as amulets or charms."¹⁸

"Other Egyptian objects dating from the XVIII Dynasty were found in the Tholos [beehive] tomb at the Heraeum and from the slope below the Second Temple."¹⁹

It is not excluded that the older of the tombs date from the time of Hatshepsut of the Eighteenth Dynasty; yet the scarab found and attributed to her reign was not a royal signet, but a charm or amulet, and could be from a later part of the Eighteenth Dynasty. It appears that the cemetery dates from sometime in the tenth or, more probably, the ninth to sometime in the eighth century.²⁰

The state of things at the cemetery of the Argive Heraion calls for a vindication of some of the views of W. Dörpteld and some of A. S. Murray. But before we reverse the verdict, we will follow Carl Blegen to Troy and to Pylos.

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1. Dictys Cretensis 116.
2. C. W. Blegen, *Prosymna, The Helladic Settlement Preceding the Argive Heraeum*, vol. I (Cambridge, 1937).
3. *Ibid.*, p. 261.
4. *Ibid.*, p. 262.
5. *Ibid.*, p. 262.
6. *Ibid.*, p. 165.
7. *Ibid.*, pp. 59-60.
8. *Ibid.*, p. 140.
9. *Ibid.*, p. 262.
10. Tomb VIII “. . .The earth filling it contained a considerable number of objects dating from the Geometric period” on top of a shallow Mycenaean deposit, (*ibid.*, p. 161) The situation in tomb X was very similar.
11. *Ibid.*, p. 93.
12. *Ibid.*, p. 112.
13. *Ibid.*, p. 124.
14. *Ibid.*, p. 133.
15. *Ibid.*, p. 262.
16. *Ibid.*, p. 263.
17. *Ibid.*, p. 262.
18. *Ibid.*, p. 169.
19. *Ibid.*, p. 281. Blegen dated the Second Temple to post-Mycenaean times (p. II). Besides objects attributed to the Eighteenth Dynasty, scarabs of “a much later” date, belonging to the Twenty-sixth Dynasty, were found there, too.
20. Blegen published a more complete survey of what he considered later or intrusive deposits in the tombs in an article In the *American Journal of Archaeology* 43 (1939), titled “Prosymna: Remains of Post-Mycenaean Date.” Cf. also - J.N. Coldstream assumes widespread cult surrounding the Mycenaean tombs five centuries after they were abandoned and forgotten. It is much more likely that the Greeks of the late eight century remembered ancestors who had not been buried more than a few decades. Cf. also - idem, *Geometric Greece* (London, 1977) pp. 346 ff.





The Identification of Troy

When Alexander crossed the Hellespont, setting foot in Asia for the first time, he paused briefly at what he believed to be the site of the Homeric Ilion—the hill we know today as Hissarlik. A Greek and after it a Roman town named ‘Ilion’ grew up on the site, and few ancient writers doubted that here once stood the “well-towered” citadel of Priam. The Roman geographer Strabo, however, questioned the identification, and brought many arguments to show that ‘Ilion’ was in all respects unlikely to have been the site of the Homeric city.⁽¹⁾ Uncertainty about the identification of Troy continued into modern times, and even Schliemann’s spectacular discoveries at Hissarlik did not end it. Several years after the publication of *Troy and Its Remains*, Professor R. C. Jebb, one of the foremost classicists of the age, proclaimed that Schliemann had not uncovered Homer’s Troy at all and, further, that it was vain to expect that a city such as Homer sang of lay hidden beneath the soil of the Troad. Hissarlik, in any case, could not accommodate any fortress on the scale envisaged by the poet: “The spacious palaces, and wide streets of the Homeric Troy point to a city totally different, both in scale and in character, from anything of which traces exist at Hissarlik.” Although in his view “no one site in the Troad satisfies all the Homeric data for the position of Troy,” yet Bali Dagh, a nearby hill looking over the village of Bunarbashi, was, according to Jebb, a much better choice: “‘Troy *ought* to have been here’ is one’s feeling when, coming from Hissarlik, one mounts the hill above Bunarbashi.”⁽²⁾

Jebb’s objections would continue to weigh on the minds of those who followed Schliemann in his identification, as well as those who disagreed: the area of Hissarlik, even at its widest extent, was barely a twentieth of the size of the great citadel conjured by the poet. Even Schliemann expressed his dismay:

“I am extremely disappointed at being obliged to give so small a plan of Troy; nay, I had wished to be able to make it a thousand times larger, but I value truth above everything, and I rejoice that my three years’ excavations have laid open the Homeric Troy, even though on a diminished scale, and that I have proved the Iliad to be based upon real facts.”⁽³⁾

By the early 1890’s new discoveries at Hissarlik had shown that Troy II, where Schliemann had found the great treasure, and which he confidently identified as the fortress of Priam, was in fact much more ancient: it was as old as the Pyramids, and it met its fiery end at the same time as the Egyptian Old Kingdom collapsed into anarchy. The finding of Mycenaean pottery in Troy VI made Wilhelm Dörpfeld, Schliemann’s pupil and leader of the new campaign of excavations, claim that city as

the most likely to have been the Ilion of Homer.⁽⁴⁾ Doerpfeld found evidence that Troy VI had been destroyed by a violent earthquake; the damage was partly repaired and the city rebuilt, though on a much smaller scale. Such evidence, in the view of Carl Blegen, who conducted the most recent excavations on the site, could hardly be reconciled with the Homeric account of a city whose walls were breached by an enemy after a lengthy siege and which, on being plundered and denuded of its inhabitants, was for a long time left deserted. Blegen disagreed with Dörpfeld about the identity of the Homeric city; looking for a fortress that fell not due to an earthquake, but by siege and assault, he identified the Troy sung by Homer in Troy VIIa.⁽⁵⁾

Troy II was a stronghold; Troy VI was also a well-built fortress, girded by thick walls embracing an even larger area. Yet even in Troy VI “you could still saunter from side to side in less than two minutes; and a moderate sprinter could cover the ground in less than twenty-five seconds.”⁽⁶⁾ But Troy VIIa was smaller still. Before Blegen identified it as Priam’s citadel, it had been known as a settlement of squatters. It is still described as “degraded and altogether pitiable.” Poor huts with earthen floors, “sheepish cubicles,” huddle against the walls of the little town.⁽⁷⁾

“The very poverty and insignificance of Troy VIIa,” wrote C. Nylander in criticism of the conclusions of Blegen’s expedition, “make it a less likely object of a large scale military enterprise from far away across the sea by a coalition of Mycenaean states, such as depicted by Homer.” In his view the pottery found in this settlement is not of as early a date as was assigned to it by excavators—the evidence indicates that Troy VIIa was destroyed in the same series of catastrophes which overtook the palaces of Mycenae, Tiryns and Pylos together with so many other cities in all parts of Greece and the ancient East as a whole. The citadel of Priam, in Nylander’s opinion, must have succumbed earlier than this, when the Mycenaean cities were yet strong. Thus, he concluded, if a Homeric city did exist it had to be Troy VI.⁽⁸⁾

This view, however, has not found general acceptance.⁽⁹⁾

Whichever level scholars may agree to identify as Homer’s Troy, the wider problem of relating the Homeric geography to the site of Hissarlik remains. Some years ago Rhys Carpenter put the matter very succinctly: “There are obvious indications,” he wrote, “that Hissarlik does not agree with the situation demanded by the Iliad, which speaks of a great walled city with streets, houses and palaces, rising to a temple-crowned acropolis, at an approachable distance from the Hellespont [Straits of Dardanelles] and apparently invisible from it, situated across the Scamander, with abundant springs of deep-soil water gushing close at hand. Actually, Hissarlik is in plain sight of the Hellespont, on the same side of the river, without any running springs, and enclosed within its walls an area of less than five acres.”⁽¹⁰⁾

From the Iliad it transpires that the Achaeans could not effectively besiege Troy

because of its great size—the Trojans were able to receive aid from all the nations of Asia Minor until the very end of the war.

Whether or not Troy has really been found, the mound of Hissarlik remains one of the most carefully excavated sites of Mycenaean times: and it is to the stratigraphic sequence that we shall now turn.

References

1. Strabo, *Geography*, Book XIII, ch. 1. Strabo draws chiefly on information supplied by Demetrios of Skepsis; cf. Schliemann's refutation of Strabo in *Troy and Its Remains* (London, 18750, pp. 41-42. Cf. also W. Leaf, *Strabo on the Troad* (London, 1923). For a recent geological survey of the site, see John C. Kraft, Ilhan Kayal, Oguz Erol, "Geomorphic Reconstructions in the Environs of Ancient Troy," *Science* 209 (15 August 1980), pp. 776-782.
2. R. C. Jebb, "I. The Ruins of Hissarlik. II. Their Relation to the Iliad," *Journal of Hellenic Studies* 3 (1882), pp. 195-217. But cf. fn. 10 below that Bunarbashi was, in fact, not inhabited that early.
3. H. Schliemann, *Troy and Its Remains*, p. 344.
4. W. Doerpfeld, *Troja und Ilion: Ergebnisse der Ausgrabungen in den vorhistorischen und historischen Schichten von Ilion 1870-1894* (Athens, 1902).
5. C. W. Blegen, "New Evidence for Dating the Settlements at Troy," *Annual of the British School at Athens* 37 (1936-37), pp. 8-12; idem, *Troy and the Trojans* (New York, 1963).
6. D. Page, *History and the Homeric Iliad* (Berkeley, 1959), p. 54.
7. Idem, "The Historical Sack of Troy," *Antiquity* 23 (1959), p. 27.
8. C. Nylander, "The Fall of Troy," *Antiquity* 37 (1963), pp. 6-9. A similar view was earlier expressed by F. Schachermeyr in *Poseidon* 1950, pp 189ff. and in *Minoica*, p. 368.
9. V. R. d'A. Desborough, *The Last Mycenaeans and Their Successors* (Oxford University Press, 1964), pp. 164-65; G. Mylonas ("Priam's Troy and the Date of Its Fall," *Hesperia* 33 [1964], pp. 352-380; *Mycenae and the Mycenaean Age* [Princeton, 1966], p. 215) also argues in favor of Blegen's identification of Troy VIIa as the Homeric city.
10. *Folk Tale, Fiction, and Saga in the Homeric Epics* (Los Angeles, 1946), p. 49. Carpenter argues that Homer construed the *Iliad* without knowledge of the true site of the city of which he sang, and with the assumption that Bali Dagh represented the remains of Ilion. If Homer did make such an assumption, archaeology does not bear him out—J. M. Cook (*The Troad: An Archaeological and Topographical Study* [Oxford, 1973] failed to find any evidence of Bali Dagh being inhabited so early.





The Archaeology of Hissarlik

Any modern discussion of the stratigraphical situation at Troy must lean very heavily on the work of the University of Cincinnati expedition which dug at the site between 1932 and 1938 under the direction of Carl W. Blegen. The need for a new and definitive survey of Hissarlik arose in the 1920's because of continuing uncertainties about the dating of the various strata identified earlier by Schliemann and Dörpfeld.

Schliemann's great trenches, dug in haste in his relentless drive to reach the lower layers of the mound, where he firmly believed he would find the remains of Priam's fortress, ironically resulted in the irretrievable loss of large portions of the higher levels which scholars were later to identify as the Ilion of Homer. Dörpfeld's campaigns, though executed and organized on a much more scientific basis, nevertheless dismantled additional portions of the hill without really resolving some of the most urgent problems facing Homeric scholarship. While a few definite conclusions could be drawn on the basis of Dörpfeld's work—such as the realization that Troy II belonged to the Early Bronze Age, and could not therefore be the Homeric city—many new problems arose, especially concerning the relation of the Late Bronze Age city to its seventh-century Greek successor.

It was left to Carl Blegen, whose careful work at Korakou, Zygouries, and Prosymna had earned him a well-deserved reputation for accuracy and thoroughness, to undertake a new examination of what remained of Hissarlik in the hope that the troubling chronological questions could once and for all be resolved.

Before turning to the results of the American excavations, let us briefly glance at the stratigraphic situation as it was understood before Blegen.

Schliemann's interpretations have already been reviewed—his identification of Troy II with the Homeric Ilion led him to describe the sixth city with its characteristic Gray Minyan ware as a "Lydian" settlement, "contemporary with the colonization of Etruria by the Lydians."⁽¹⁾ Yet in his last campaign at Troy, conducted in 1890 with the assistance of Wilhelm Dörpfeld, he found this same Gray Minyan pottery belonging to Troy VI mixed with Mycenaean ware of a sort familiar to him from his diggings at Mycenae and Tiryns. Further discoveries by Dörpfeld in the years following Schliemann's death confirmed the fact that Troy VI in its later phases belonged to the Mycenaean Age.

When in 1902 Dörpfeld published his results,⁽²⁾ he argued for the sixth city to be identified as Priam's, and had Troy VII follow immediately after. After about the

year -700 the appearance of “advanced Geometric pottery” marks the transition to Troy VIII. “We can thus take approximately the year 700 as the boundary between the VIIth and VIIIth strata.” ⁽³⁾ H. Schmidt in his ceramical study in the same publication viewed the two phases of the seventh stratum as “a long period of transition” from the Homeric sixth city to the Greek eighth. The seventh stratum could be linked to the sixth by the presence in both of imported Mycenaean pottery and of Gray Minyan ware; the manufacture of Gray Minyan pottery continued into the eighth phase. “In about the year 700 B.C. belongs the approximate boundary between the latest phases of the seventh stratum and the oldest of the eighth.” ⁽⁴⁾ No break in the occupation of the site was noted by either Schliemann or Dörpfeld. Even Blegen at first found no reason to postulate any hiatus—in an article published soon after the completion of his excavations he put forward some of the new insights presented by his discoveries, outlining the areas where he found it necessary to differ with Dörpfeld’s scheme. ⁽⁵⁾ Troy VIIa was made to span the thirteenth century, and thus became the obvious choice as the city of Priam. Troy VIIb, where imported Mycenaean pottery of a late phase was still in evidence, was assigned to the years from ca. -1200 to ca. -900, the latter date marking, in Blegen’s view, the beginning of the eighth city with its Gray Minyan and Geometric pottery.

The final publication of the findings of the Cincinnati expedition was only completed in 1958, twenty years after the end of the excavations. By then it had become evident that the solution advocated by Blegen in his earlier article was no longer tenable: Troy VIIb could not have lasted for three centuries—its span was halved to ca. 160 years—and Troy VIII showed no sign of being any earlier than ca. -700. ⁽⁶⁾ Blegen’s final conclusions can be summarized as follows: after the destruction of the sixth settlement in an earthquake ca. -1300, the survivors rebuilt the town, though poorly, and on a much-reduced scale. Troy VIIa was destined to be short-lived, succumbing to an enemy attack ca.-1260, and was replaced by Troy VIIb, whose two phases lasted until about -1100. The eighth settlement, built atop the remains of this last Bronze Age city, was unmistakably a Greek town, and was assigned to the beginning of the seventh century. What transpired in the meantime? Archaeology could provide no clue, no trace of any human habitation between the extinction of Troy VIIb, supposedly ca.-1100, and the beginning of the Greek city slightly before -700. Thus a Dark Age was called upon to envelop Troy.

The lack of any deposits between the levels of the Late Bronze and Greek cities would normally be interpreted as indicating that there was no break in the occupation of the site, and it was so understood by Dörpfeld, as we have seen; but here, a diametrically opposite conclusion was reached purely because of the need to conform to the strictures of an extraneous chronological system. The imaginary break in the stratigraphic sequence was then claimed to signify a total desertion of the hill during the Dark Age.

An even more puzzling problem arose when it was realized that the inhabitants of the eighth, or Greek, settlement were linked to their predecessors in the seventh, or

Helladic, settlement by numerous and strong cultural ties, despite the supposed gulf of some four centuries separating the one from the other: there was “a continuity of transmission” of an “abundant heritage, cultural and historical.”⁽⁷⁾ Most perplexing was the fact that the new settlers used the same type of pottery as their Helladic predecessors. “In the seventh century B.C. the Trojan citadel, which had been virtually deserted for some four centuries, suddenly blossomed into life once more with occupants who were still able to make Gray Minyan pottery.”⁽⁸⁾ Gray Minyan ware made up “the great bulk of the pottery of Troy VIII,”⁽⁹⁾ and was characteristic also of the earlier Late Bronze Age settlements, Troy VI and Troy VII. The survival of the tradition at Troy itself was ruled out since Blegen’s scheme required a 400-year abandonment of the site—but, the excavators speculated, was it not possible that the artisans carried on their peculiar style elsewhere during the dark centuries and then returned? Some remnants of the Trojans perhaps survived on the near-by hill of Bali Dagh, where they could have “maintained a foothold for several centuries in virtual isolation until 700 B.C.” There the survivors would have “clung to their customs and traditions through the troubled period from about 1100 to 800 or later, and thus transmitted their ancestral gray pottery to successors in the eighth and seventh centuries.”⁽¹⁰⁾ Such remarkable tenacity of tradition is all the more questionable, being devised specifically to evade the conclusions that would normally follow from a straightforward interpretation of the stratigraphical situation. Even so, it is not explained why the Trojans would have found Bali Dagh any more hospitable than their own hill during the Dark Age, and why, once settled elsewhere, they would have seen fit to reoccupy bare and desolate Hissarlik.

The strata exposed by Blegen’s team reveal a city of the Late Bronze Age (Troy VIIb) remade ca. -700 into a Greek settlement (Troy VIII), with considerable continuity between the two phases. Even the boundary between the two settlements could not always be clearly delineated—thus in undisturbed strata belonging to the Late Bronze Age Settlement were found fragments of pottery assigned to “the very beginning of the seventh century.” “As far as we could judge [the sherds] seem to be of exactly the same kind as the late Geometric pottery from the archaic [seventh-century] strata.” Such finds were unacceptable in the standard chronological scheme; as a way out the excavators pleaded *mea culpa*: “the only explanation we can find is to suppose that, in spite of our efforts to isolate and certify the deposits we examined, contamination had somehow been effected, and brought about the intrusion of the later wares into the strata of Troy VIIb.”⁽¹¹⁾ In another part of the site, in the level of the Late Bronze Age settlement, pieces “indistinguishable from types that are common in Troy VIII and are usually attributed to the seventh century” were found; and the excavators acknowledged that “their occurrence in several areas in the stratum of Troy VIIb, below the deposits of Knobbed Ware [pottery characteristic of the last Bronze Age settlement] presents a perplexing and still unexplained problem.”⁽¹²⁾

In the Greek city the archaeologists came upon the remains of a house (no. 814) which, as became evident with the progress of digging, had been originally a Late

Bronze Age building belonging to Troy VIIb—yet its seventh-century Greek owner apparently could re-occupy the place and re-use the still-standing walls and intact foundations of the previous structure. Parts of the walls of the Greek house were “indistinguishable from the earlier construction,” and the excavators “could not follow any clearly marked stratum throughout the building”⁽¹³⁾—in other words, they could not distinguish supposedly twelfth-century features from seventh-century ones.

The continuing doubts and misgivings, raised by finds such as these, finally evoked the following admission from Blegen’s team—this after seven years’ digging and decades of careful analysis:

“...It has been argued that Troy VIIb came to its end about 1100 B.C. Generally considered, our evidence leads us to believe that a gap of 400 years exists between the end of Troy VIIb and the beginning of Troy VIII, but the *possibility of a contrary view* is established by the evidence of several successive floors of house 814, and also by the presence of Geometric sherds in a context of Troy VIIb.”⁽¹⁴⁾

What the “contrary view” might be they did not spell out; but the question would not be laid to rest: Did not the Greek city follow the Homeric directly, with no abandonment of four centuries’ duration intervening?

References

1. Schliemann, *Ilios, The City and Country of the Trojans* (New York, 1961). Herodotus (I.94) put the migration of the Lydians to Etruria some time before the Trojan War; but archaeologists find no sign of the Etruscans in Italy prior to about the beginning of the eighth century, a discrepancy of ca. 500 years. Cf. T. Dohrn, “Stamnoi und Kratere aus grauem Ton, Nachahmungen von Metallgefassen (Civiltà Castellana)” in W. Helbig and H. Speier, *Führer durch die öffentlichen Sammlungen klassischer Altertümer in Rom*, (revised edition, Tübingen, 1969), p. 701, Nr. 2791; H. G. Buchholz, “Gray Minyan Ware in Cyprus and Northern Syria” in *Bronze Age Migrations in the Aegean* (Park Ridge, NJ, 1974), p. 180.
2. *Troja und Ilion. Ergebnisse der Ausgrabungen in der vorhistorischen Schichten von Ilion 1870-1894* (Athens, 1902).
3. *Ibid.* p. 201: “Die VIII lassen wir mit den entwickelt-geometrischen Vasen beginnen und koennen daher als Grenze zwischen der VII. und VIII. Schicht rund das Jahr 700 annehmen.”
4. *Ibid.*, p.298.
5. C. W. Blegen, “New Evidence for Dating the Settlements at Troy,” *Annual of the British School at Athens* 37 (1936-37).
6. According to J. N. Coldstream (*Greek Geometric Pottery* [London, 1968], p. 376) some vases from Troy VIII belong to ca. 720-700, but a few sherds may

be slightly earlier. In *Geometric Greece* (London, 1977), p. 246, he dates the re-settlement of Troy “from ca. 750 B.C. onwards.”

7. C. W. Blegen, J. S. Caskey, M. Rawson, *Troy*, Vol. IV, pt. I (Princeton, 1958) p. 10
8. Blegen, *Troy and the Trojans* (New York, 1963) p. 172.
9. Blegen et al., *Troy*, vol. IV, pt. I, p. 251.
10. *Ibid.*, p. 147. Surveys of Bali Dagh carried out in 1959 and 1968 revealed “nothing earlier than 600 B.C.”—J. M. Cook, “Bronze Age Sites in the Troad” *Bronze Age Migrations in the Aegean*, p. 38.
11. Blegen et al., *Troy*, vol. IV, pt. I, p. 181.
12. *Ibid.*, p.158.
13. *Ibid.*, pp. 291-92.
14. *Ibid.*, p. 250 (emphasis added).





Blegen at Pylos*

Pylos in Messenia, in the western Peloponnese, had a rather brief existence—according to tradition, no more than four kings were its rulers from its founding to its destruction. It was Neleus, the father of Nestor, who built the city, having come from Iolcus when his brother Peleus expelled him, and settled there a mixed population of his own followers.¹

Neleus brought great renown to Pylos; but later in his reign, when his sons were still only young men, some unexplained disaster overtook the city, remembered in tradition as the destruction of Pylos by Heracles.² A large part of the population perished: of Neleus' twelve sons Nestor only survived; but the people of Pylos rebuilt the city on an even grander scale, including a spacious palace for Nestor, who followed Neleus on the throne. Afterwards the city became involved in bitter warfare with neighboring Elis, and Nestor distinguished himself at the head of the Pylian forces.³ But by the time of the Achaean expedition against Troy Nestor's age no longer permitted him to lead his warriors in battle. Homer tells in the *Iliad* that this king of Pylos had seen two generations of men pass—"those who had grown up with him, and they who were born to these in sacred Pylos, and he was king in the third age."⁴ From this we can judge that some four or five decades separated the time of the disaster which overtook Pylos in Nestor's youth from the siege of Troy. Of those who came to Troy with Agamemnon, Nestor's was one of the few safe returns; once again he seated himself upon the marble bench in his palace, "scepter in hand, a Warden of the Achaean race."⁵ Homer describes the visit of Telemachus, Odysseus' son, to Nestor at Pylos, ten years after Troy's fall—the prince from Ithaka found a prosperous city at the head of a peaceful realm, unruffled by any whiff of danger. Yet it is worth noting that Nestor took care to placate Poseidon the "earthshaker" with frequent sacrifices.⁶

The end of Pylos came in the second generation after Nestor: "After the end of the war against Ilium, and the death of Nestor after his return home, the expedition of the Dorians and return of the Heracleidae two generations afterwards drove out the descendants of Neleus from Messenia."⁷ That there was an influx of Doric-speaking peoples into the Peloponnese after the downfall of the Mycenaean centers is certain—the distribution of Greek dialects in classical times attests to this; but the old view that they were the cause of the widespread catastrophe that marks the end of the Late bronze Age in Greece now finds few supporters. The Dorian bands descended on the weakened Mycenaean kingdoms, taking possession of a depopulated land.⁸ The Heraclids, as their name shows, were worshippers of Mars. Having been expelled

from the Peloponnese one or two generations before the Trojan War, they settled in northern Greece. However, the dislocations and upheavals which marked the eighth and early seventh centuries uprooted them once again and brought them back to claim possession of their ancient homeland. But this was no mass displacement of populations; as Pausanias records, only the royal family, “the descendants of Neleus” were expelled. “The old Messenians were not turned out by the Dorians, but agreed to Cresphontes being their king, and to the partition of the land among the Dorians. And they were brought over to this compliance by suspicion of their former kings, because they were Minyae who had originally sprung from Iolcus.”⁹

The route by which the Heracleidae reached Pylos appears to have been this: They were advancing from the north towards the Peloponnesos, but were dissuaded from crossing the Corinthian Isthmus;¹⁰ instead they took to the sea, directing their ships westward through the Corinthian Gulf, and disembarked on the unprotected northern coast of Achaia. Thence they advanced south through Arcadia towards Elis, and then on to Pylos. The unprotected palace of Nestor was seized and put to the torch.¹¹ The conquest completed, Pausanias relates, the Heraclid king who received Messenia as his share did not establish himself at Pylos, but “changed the royal residence to Stenyclarus.”

Thus Pylos was abandoned and remained deserted—even the knowledge of the site of Nestor’s palace was lost; it became a matter of discussion already in antiquity. Most ancients and moderns, however, have agreed in placing Nestor’s palace somewhere in the vicinity of the Bay of Navarino in western Messenia.¹² This was also the conviction of Carl Blegen when in 1939 he came to Messenia to search the countryside for any sign of the ancient city of Pylos with Nestor’s famous palace, celebrated by Homer.

Blegen selected for his first dig a prominent hilltop, a short distance from the sea, which seemed to him eminently suitable to be the site of a royal palace; and really, as soon as he began to lift the earth from his first trench, extensive structures began to appear, and much pottery of Mycenaean time. Here, without doubt, was Nestor’s great palace. The excavations at Pylos were hardly even started when war intervened; it was not until 1952 that Blegen was able to return with a team from the University of Cincinnati and organize a thorough campaign of excavation—he was to stay for a dozen years.

Already in 1939 in the very first trench he dug Blegen unearthed scores of tablets written in Linear B—and soon there were hundreds of them. Such profusion made the archaeologists question whether the script was Minoan or had its origins on the mainland of Greece; and when subsequently more tablets inscribed with these characters were found at other sites on the Greek mainland—at Mycenae and at Thebes—the name “Mycenaean” came rather regularly to be applied to the script.

For over a decade after their discovery the tablets were neither published nor read;¹³ but when read, they were found to contain no literary text: they were regularly archive notes, dealing with taxation or conscription, or human and animal census or storage inventory. Nevertheless, interesting parallels could be drawn with the Homeric epics: Pylos is mentioned at the head of nine towns that profess allegiance to it—in Homer and on the tablets—even some of the names of the towns are the same in both sources.¹⁴ And to Blegen's great satisfaction Pylos was found repeatedly mentioned on the tablets retrieved from the palace he identified as Nestor's.¹⁵ Nestor's name, however, was not found.

The tablets, originally not fired but only dried, would have disintegrated long ago, were it not for the fire that destroyed the palace and baked the tablets. A great conflagration raged over the structure; it came rather suddenly, since neither furniture, nor pottery, nor the contents of the storage rooms and archives were removed, nor were the animals led away: but humans all fled.¹⁶ Blegen placed the destruction not long after the Trojan War, at the close of the Mycenaean age.¹⁷ However, no signs of warfare, siege, occupation by people of another culture or occupation in general were found.¹⁸

The palace and the temple next to it, a sanctuary of Hera, presented Blegen and his collaborators with problems not unlike those that had already occupied him at the cemetery of Argos and then at Troy. The time of the destruction of the palace of Nestor was determined by the Mycenaean pottery found in the ruins, sealed by the layer of ashes and debris of the final conflagration. Comparing the designs on the pottery in use at the time of the palace's destruction with the established stylistic sequence of Mycenaean pottery, calibrated according to the Egyptian time-scale, the excavators decided that the end of Pylos came ca. the year -1200.¹⁹ But this date was reached at the cost of ignoring the evidence of other pottery pointing to a much later time. In the main building of the palace, among sherds from Mycenaean vases "a not inconsiderable number stood out as of a different character: from this material it was possible to reconstruct in whole or in part four pots which may be assigned to a late geometric phase . . ."²⁰ Nor was this an isolated case—such finds were common throughout the palace: "in some places . . . in the upper black layer [the level of burning] . . . were found, along with the usual Mycenaean pottery, a few glazed sherds of Late Geometric Style as in so many parts of the site, where similar deposits were encountered."²¹ If Late Geometric sherds were found next to Mycenaean ones in the level of burning, the question must arise: When was the Palace of Nestor destroyed, ca. -1200 or in the seventh century? To escape this dilemma Blegen postulated "fairly widespread activity on the site in late geometric times"²² after five centuries of abandonment—this despite his assertion that the conflagration marked "the end of human occupation of the site."²³ But such an explanation is hardly tenable in the light of the stratigraphic situation. If the Late Geometric pottery had been left by new occupants of the hill five hundred years or more after the burning of

Nestor's palace, the remains of these vases would not have been found mixed with the ware used by the occupants of the palace at the time of its destruction. The exact position of the Late Geometric pottery merits a closer examination. The pavement of the court was covered by a thin "yellowish-white clayish deposit" ; immediately above it was an "extremely black layer" less than a foot deep. In "the yellowish-white stratum /which/ unquestionably represents the latest phase of occupation of the palace" were found, besides fragments of Mycenaean pottery "also some pieces of glazed Geometric ware."²⁴ But how could fragments of seventh-century Geometric ware have come to rest on the floor of Nestor's palace? They "must somehow have penetrated from above." How they could possibly have achieved this, however, finds no easy answer. After the palace's destruction "vegetation spread its mantle over the whole area."²⁵ To penetrate to the floor of Nestor's buried palace the sherds would have had to find their way not only through the layer of earth and vegetation but also through the black stratum of the final burning, "a compact layer of smallish stones closely packed in blackish earth."²⁶ These small stones within the burnt stratum were clearly remains of the roof and walls which had collapsed in the conflagration and covered whatever deposit was left on the floor at the time. A stratigraphic situation such as this allows only one conclusion: the Geometric ware belonged, as did the Mycenaean, to the last occupants of the palace and was left behind when they fled. The collapse of the building in the course of the raging conflagration sealed the deposit in place.

Most of the smaller towns in Messenia suffered a similar fate, and only a handful survived into the subsequent. Archaic age.²⁷

References

**The passages marked in red are by Velikovsky. The section on Pylos is one of several that were written as a collaborative effort between myself and Velikovsky; Velikovsky wanted to highlight the work of Blegen and the chronological problems this archaeologist faced at each site where he dug. The sections on Blegen's excavations at the Argive Heraion and at Troy were also parts of that collaborative effort, although the actual writing is entirely by me. The collaboration involved my writing of certain passages based on research by Velikovsky, Schorr and myself, Velikovsky's editing of those writings, subsequent rewritings, etc. In 1980, at the request of Velikovsky's Estate, I separated out the parts written by myself from the rest of the manuscript. However, some Velikovsky passages are integral and inseparable from my own work; I have therefore kept them and marked them in red letters in the html text I have submitted to the archive editors. —Jan Sammer*

1.

Diodorus IV. 68. 6; Pausanias IV. 36. 1.

2.

The *Iliad* XI. 689; “Heracles” may be an allusion to the planet Mars (Hyginus, *Fabulae* II.42: “Tertia est stella Hartis quam alii Herculis dixerunt.” Cf. Macrobius, *Saturnalia* III.12.5-6, reporting the opinion of Varro). The excavators of Nestor’s palace found also remains of an earlier settlement whose violent destruction they attributed to Neleus’ occupation of the site (C. W. Blegen and M. Rawson, *The Palace of Nestor in Western Messenia*, vol. I, pt. I., Princeton, 1966, p. 423). However it is more likely to represent the city of Neleus destroyed by “Heracles”. Diodorus differs from Pausanias in asserting that Neleus was the *founder* of Pylos.

3.

Iliad., XI. 682, 698-701.

4.

Iliad., I. 250-252.

5.

Odyssey III.

6.

Odyssey III. 3f. For evidence of the cult of Poseidon at Pylos see also M. Ventris and J. Chadwick, *Documents in Mycenaean Greek*, second ed. (Cambridge, 1973), p. 279.

7.

Pausanias IV, 3.

8.

See above, section “A Gap Closed,” n.6.

9.

Pausanias III. 3. The exile of the Neleids to Attica is mentioned in numerous ancient sources. For an evaluation of these traditions in the context of recent archaeological evidence, see Ch. Sourvinou-Inwood, “Movements of Populations in Attica at the End of the Mycenaean Period” in *Bronze Age Migration’s in the Aegean* (1974) pp. 215-222.

10.

Pausanias, *Elis* I, iii.6. The massive wall built across the Isthmus of Corinth in late Mycenaean times may have been a factor in forcing the Heracleidae to put to the sea. Cf. o. Broneer, *Hesperia* 28 (1959), pp. 298ff.; G. Mylonas, *Mycenae and the Mycenaean Age* (Princeton, 1966), pp. 219-220.

11.

The conflagration in which Nestor's palace perished preserved many clay tablets with inscriptions in Linear B, dating from the palace's last days; they have been interpreted to indicate preparations for an enemy attack from the sea (L. Palmer, *Minos*, vol. IV, d. 22; idem, *Mycenaeans and Minoans* (London, 1962); Ventris and Chadwick, *Documents in Mycenaean Greek* n. 138) but this view has been questioned (D. Page, *History and the Homeric Iliad*, pp. 193ff.; V. R. d'A. Desborough, *The Last Mycenaeans and Their Successors* Oxford, 1964, p. 223). Blegen's team found no traces of any fortifications, in contrast to strongholds such as Mycenae, Gla and Tiryns which were heavily fortified. The lack of defence preparations within the palace has been noted by several authors: F. J. Tritsch, "The Women of Pylos" in *Minoica* (ed. E. Grumach) 1958, pp. 406-410; L. Palmer, *The Interpretation of Mycenaean Greek Texts* (Oxford, 1963), pp. 116-120; L. Deroy, *Les leveurs d'impôts dans le royaume mycénien de Pylos (Incunabula Graeca 24)* (Rome, 1968); R. Schmitt-Brandt, "Die Oka-Tafeln in neuer Sicht," *Studi Micenel ed Egeo-Anatolici*, 7 (*Incunabula Graeca* 28) (1968), pp. 69-96. On balance the evidence does not necessarily imply destruction by a human agent, and seems consistent with the effects of some natural cause.

12.

The major dissenter was Strabo who placed Pylos farther north in Triphylia, and his case was taken up in modern times by Wilhelm Dörpfeld. But Blegen's excavations in Messenia re-solved the debate in favor of the southern Pylos. Cf. Blegen and Rawson, *The Palace of Nestor*, I, pt. I, pp. 3ff.; w. A. McDonald, *Progress into the Past* (Indiana University Press, 1967), pp. 229-242.

13.

They were published in 1951 (*The Pylos Tablets; A Preliminary transcription*) and the decipherment was completed by 1953. See below, section "Linear B Deciphered."

14.

Iliad II. 591-594; Blegen & Rawson, *The Palace of Nestor*, vol. I pt. 1, p. 419.

15.

The Palace of Nestor, loc. cit.

16.

Ibid., p. 424.

17.

Ibid., p. 422.

18.

Ibid., p. 422.

19.

Ibid., p. 421.

20.

Ibid., p. 124. Blegen dates the style “perhaps to the turn from the seventh to the sixth century.” The date may have to be revised upwards by a few decades on the basis of the work of J. N. Coldstream (*Greek Geometric Pottery*, London, 1968; p. 330) who dates the Late Geometric Style to between -750 and -680. However the workmanship of the vases is very rough with hardly any design distinguishable; they are not given to precise dating.

21.

Palace of Nestor, p. 300.

22.

Ibid., p. 294.

23.

Ibid., p. 424.

24.

Ibid., p. 294.

25.

Ibid., p. 422.

26.

C. W. Blegen in *American Journal of Archaeology* 61 (1957).

27.

Imre Tegye, “Messenia and the catastrophe at the end of Late Helladic III B” in *Bronze Age Migrations In the Aegean*, pp. 227-232.





The Trojans and their Allies

As the host of the Achaeans, gathered from every part of Greece, stepped out of their “curved ships” and filled the plain before Troy till they seemed like “sands of the seashore” to the anxiously watching Hector, the allies of Priam, who had come to his aid, were arrayed opposite them, an army of many nations’ and divers tongues. There were. Dardanians, led by Anchises, father of Aeneas, Pelasgians and Thracians; tribes from Paphlagonia and Mysia, also Phrygians, Lycians and Carians “of the outland speech”, and many others from every region of Asia Minor.

Of all these peoples it is the Phrygians in particular that shall concern us—not only because of the prominent role they are assigned in defending Priam’s citadel, but because the time of their presence and influence in Asia Minor is well known from ancient authors and is attested also by numerous archaeological investigations.

“Phrygian art first originated at the beginning of the eighth century”—so wrote Ekrem Akurgal, who devoted a lifetime to the study of the ancient cultures of Anatolia, adding that there is no sign of the Phrygians or any other people in central Asia Minor in the four centuries prior to ca. -800.¹

The eighth century before the present era, starting in -776, was, together with the beginning of the seventh, a period of great natural upheavals. These changes in nature moved entire nations to migrations in the hope that beyond the horizon Fertile lands, not damaged by unchained forces of nature, awaited the conquerors.

It seems that in one of the earliest waves of the eighth-century migrations the Phrygians moved from Thrace over the Hellespont or the Bosphorus into Asia Minor. Xanthus the Lydian is said by Strabo to have held the view that the Phrygians arrived in Asia Minor sometime after the Trojan War; but Strabo himself, noting that already in the Iliad they are listed among Priam’s allies, was of the opinion that the Phrygians’ migration must have taken place before the siege of Troy. Then, Strabo wrote, gaffer Troy was sacked, the Phrygians, whose territory bordered on the Troad, got mastery over it.”² Arrian, the biographer of Alexander, explained the Phrygians’ crossing into Asia Minor as resulting from their being harassed by the Cimmerians.³ A few decades afterwards these same nomads were to destroy the short-lived Phrygian kingdom. The tradition of how Gordias, the first king of the Phrygians in their new domicile, selected the pile of his new capital, Gordion, is a well-known legend.⁴ Under Midas, the son of Gordias, the Phrygian kingdom reached the peak of its power;⁵ while Midas, even more than his father, was an object of legendary motifs—whatever he touched turned to gold, he had the ears of an ass—he was also a

historical person, and is attested in contemporary documents.⁶ He reigned, according to the chronicle of Hieronymus, preserved by Eusebius, from -742 to -696;⁷ his prosperity and growing power involved him in international intrigue: he conspired with the rebellious king of Carchemish against Sargon II of Assyria (-722 to -705), and the curbing of Midas was the aim of Sargon's campaign of the year -715.⁸ But eastern Anatolia was not yet pacified, and continuing disturbances brought Sargon several more times to the defense of his northeastern frontier; he finally met his death there in battle in -705.

The Phrygian kingdom in Asia Minor had an ephemeral existence.⁹ As we saw, no Phrygian presence can be recognized in the archaeology till the beginning or even the middle of the eighth century—and soon after the start of the seventh, about the year -676, the Phrygian kingdom was destroyed in the catastrophic Cimmerian invasion. This is also when Midas met his end¹⁰ and his capital Gordion was burned to the ground.¹¹ Of the royal tumuli (kurgans) excavated by the Körte brothers, only three are antecedent to the Cimmerian invasion; this suggests that not more than three generations of kings reigned in Gordion from its founding to its destruction.¹²

“The Phrygian kingdom was thus at the apex of its power toward the end of the eighth century, when it apparently extended as far southeast as the Taurus and was in contact with Assyria. This period of power was apparently the time of the adornment and fortification of its capital city.”¹³ In 1953 a team from the University of Pennsylvania led by Rodney Young, in the course of their work at Gordion, exposed to view a large double gateway with a central courtyard, belonging to the Phrygian period. Its date, like that of most of the Phrygian constructions at Gordion, was put sometime in the eighth century.¹⁴ The manner of construction of the walls of the gateway reminded the excavators of the fortifications at another Anatolian site: the walls of the sixth city at Troy appeared to be nearly duplicated in those of the Phrygian Gate at Gordion. In his report of the discovery. Young wrote:

“In their batter as well as their masonry construction the walls of the Phrygian Gate at Gordion find their closest parallel in the wall of the sixth city of Troy . . . Though separated in time by five hundred years or thereabouts, the two fortifications may well represent a common tradition of construction in north-western Anatolia; if so, intermediate examples have yet to be found.”¹⁵

The search for intermediate examples is bound to be fruitless since the time gap between Troy VI and Gordion is unreal, a phantom construct of historians. Whereas

the Trojans had a long tradition building in stone, the Phrygian gateway appears as if out of nowhere, without any visible antecedents; yet at the same time it displays technical skills that speak of a long period of development. This apparent contradiction is also noted by Young:

“ . . . The planning of the [Phrygian] gateway and the execution of its masonry imply a familiarity with contemporary military architecture and long practice in the handling of stone for masonry. The masonry, in fact, with its sloping batter and its more or less regular coursing recalls neither the cyclopean Hittite masonry of the Anatolian plateau in earlier times, nor the commonly prevalent contemporary construction of crude brick. The closest parallel is the masonry of the walls of Troy VI, admittedly very much earlier. If any links exist to fill this time-gap, they must lie in west Anatolia rather than on the plateau.”¹⁶

The Trojan fortifications belong according to the revised chronology, in the eighth century, and thus were roughly contemporary with the Phrygian.

A little light is thus shed on the alliance between Phrygians and Trojans, known to Homer; and the date of the Trojan War is delimited by the period when the Phrygians were a power in Asia Minor, between the years -750 and -676.

Regarding the Cimmerians and the extent of Homer’s knowledge of there, the question was already discussed by various ancient authors. Strabo, for one, was certain that Homer was acquainted with the historical Cimmerians, “for surely if he knows the name of the Cimmerians [Odyssey] he is not ignorant of the people themselves—the Cimmerians who in Homer’s own time, or shortly before his time, overran the whole country from the Bosphorus to Ionia. At least he intimates that the very climate of their country is gloomy, and the Cimmerians, as he says, are ‘shrouded in mist and cloud, and never does the shining sun look upon them, but deadly night is spread o’er them.’”¹⁷

The Cimmerians are not mentioned in the Iliad by name, only in the Odyssey,¹⁸ but it is rather probable that the Amazons who are mentioned in the Iliad as well as in later authors like Diodorus,¹⁹ were the historical Cimmerians. Quite possibly the tales about the Amazons arose from accounts of the warlike Cimmerian womenfolk who used to accompany the men in battle.²⁰

After destroying the Phrygian kingdom and pushing the Phrygians toward the Bosphorus, the Cimmerians ravaged the western regions of Asia Minor settled by

Greeks—Aeolis and Ionia,²¹ attacking Smyrna, Miletus, Sinope and other coastal cities.²² It appears that Homer refers to the Cimmerian invasion of Phrygia in the passage where he has Priam recall how once he “went into vine-clad Phrygia” and there saw “the Phrygian men with their gloaming horses, most numerous, encamped by the bank of the Sangarios. For I was mustered as an ally among them on that day when the Amazons came. But even so, they were not as many as are the glancing-eyed Achaeans.” Rhys Carpenter, discussing this passage in his *Folk Tale, Fiction and Saga in the Homeric Epics* reasoned thus: “. . . it is quite possible, and even probable, that the last stand [against the Cimmerians] was made behind the long, curving barrier of the great Phrygian river, the Sangarios. Here all the forces of western Asia Minor would have gathered to stop the terrible archers on horseback, who nonetheless overwhelmed them and rode westward to the sea. In the pages of the Greek historian Diodoros, centuries later, these same horsemen are the Amazons. If they were already Amazons for Homer, the date of Priam’s reference must be the year of Midas’ downfall, 676 B.C. . . . If the author of the *Iliad* was an Ionian Greek of the early seventh century, the most impressive and tremendous political event of his lifetime must have been the Cimmerian destruction of the Phrygian empire. Of what else *could* he have been thinking when he made Priam speak of Phrygian armies gathered against the Amazons on the banks of the Sangarios?”²³

According to Herodotus the Cimmerians were originally displaced from the Asiatic steppes by the Scythians: but it was not until the second half of the seventh century that the Scythian hordes themselves arrived on the scene and, after decimating the Cimmerians with the aid of Assyria, pushed southward to the very border of Egypt, engulfing Palestine. The population fled in terror before “the noise of the horsemen and bowmen.”²⁴

The Scythians at that time were worshippers of Mars, whom they represented as a sword, for a while leaving their ancient worship of Saturn in abeyance. They were called Umman-Manda, or “People of Saturn” in Akkadian and in the so-called Hittite literary texts.

If the author of the *Iliad* composed his poem in the early decades of the seventh century, he may or may not have known of the Scythians. At one point in the *Iliad* there is mention of a people named “the proud Hippemolgoi, drinkers of milk” and of “the Abioi, the most righteous of all men.”²⁵ A scholium on Homer considers these to be tribes of Scythians²⁶ as does Strabo: “How then,” he asked, “could the poet be ignorant of the Scythians if he called certain people ‘Hippemolgi’ [mare-milkers] and Galactophagi’ [curd-eaters]? For that the people of his time were wont to call the Scythians ‘Hippemolgi’ Hesiod too is witness in the words cited by Eratosthenes: the Ethiopians, the Ligurians; and also the Scythians, Hippemolgi”²⁷ That the *Iliad* is referring to some nomadic tribes appears certain. Whether it is the Scythians who are meant and whether they had by then already left the plains of South Russia cannot be decided on the basis of the vague Homeric reference.

In the tenth year of the siege, after the action described in the *Iliad*, Priam was said to have received a contingent of Ethiopians under the leadership of Memnon. The brave Ethiopians fought valiantly against the Greeks and caused them much hardship, till Achilles finally slew Memnon and caused them to depart. Some of these traditions are very ancient, in the *Odyssey* Nestor recalls the death of his son Antilochos,²⁸ who died by the spear of “the glorious son of shining Dawn”²⁹ which is an epithet of Memnon. Later in the *Odyssey* the Ethiopian warrior is mentioned by name as “great Memnon”.³⁰ The epic *Aethiopsis*, a sequel to the *Iliad*, recounted the deeds of Memnon and of the Ethiopians at Troy—it is considered to be among the earliest of the post-Homeric epics, possibly as early as the seventh century.³¹

The heyday of Ethiopian power lasted a little over half a century, from the end of the eighth to the middle of the seventh centuries; following their emergence out of Nubia, they fought repeatedly and at times successfully with the Assyrians for control over Egypt. The Ethiopian host mentioned in the *Iliad* suggests an Ethiopian attempt to outflank the Assyrian enemy by sending an expeditionary force in support of the Phrygians, under pressure from the Ionians in the West and the Assyrians and Cimmerians in the East.³²

Again and again we are brought to the same period—the time of Phrygian power in Asia Minor, of its destruction by the Cimmerian invasion, and of the Ethiopian rule in Egypt is the end of the eighth and beginning of the seventh centuries before the present era. Then this is the historical background of the Trojan War, and if there be any core of truth to the story it must be seen in relation to these events.

References

1. E. Akurgal, *Phrygische Kunst* (Ankara, 1955), p. 112; cf. idem, in *Hittite Art and the Antiquities of Anatolia* (Arts Council of Great Britain, London, 1964), p. 35.
2. Strabo, *Geography*, transl. by H. L. Jones (Loeb Classical Library, 19..) Bk. X, ch, iii.22. Modern scholarship has also attempted to put the Phrygians in Anatolia in time to succor Priam in the thirteenth century (e.g.. *The Cambridge Ancient History*, vol. I, 19.., p. 108). The lack of archaeological evidence for their presence there before the eighth century is a serious drawback to this view. Cf. M.J. Mellink, “Postscript on Nomadic Art” in *Dark Ages and Nomads c. 1000 B.C.; Studies in Iranian and Anatolian Archaeology*, ed. by M.J. Mellink (Leiden, 1964), p. 64.
3. Arrian, quoted by Eusthates in Denys Periegetes, 322.
4. Arrian. *The Anabasis of Alexander* 11.3; Justin, XI.7; G. & A. Körte, *Gordion* (Berlin, 1904), pp. 12ff.; R. Graves, *The Greek Myths* (1955), no. 83.
5. R. S. Young, “Gordion: Preliminary Report, 1953” in *American Journal of Archaeology* 39 (1955), p. 16.

6. M. Mellink, "Mita, Mushki, and the Phrygians" in *Anadolu Arastirmalari* (Istanbul 1955); cf. Akurgal, *Die Kunst Anatoliens*, pp. 70-71.
7. *Eusebius Werke*, ed. R. Helm (Leipzig, 1913), vol. VII, pp. 89, 92.
8. Mellink, "Mita, Mushki, and the Phrygians" ; Akurgal, *Die Kunst Antoliens*, p. Master, *L'Asie Mineure et l'Assyrie*, p. 37.
9. R. S. Young, the excavator of Gordion, estimated a period of "a half century" or more for the flourishing of Phrygian culture at the site—"The Nomadic Impact: Gordion" in *Dark Ages and Nomads*. p. 54.
10. By suicide according to Eusebius (Chron. p. 92) and Strabo (Geography I.3.21.).
11. The Cimmerian destruction level was found in 1956) see Young, "Gordion 1956: Preliminary Report" in *American Journal of Archaeology* 61 (1957), p. 320. Cf. also idem, "The Nomadic Impact: Gordion" pp. 54-56. 12
12. Cf. Young, "The excavations at Yassihuyuk-Gordion, 1950" in *Archaeology* 3 (1950), pp. 196-199. The non-royal tumuli were much more numerous. A royal tomb, perhaps of Gordias, was excavated in 1957—Young, "The Royal Tomb at Gordion," *Archaeology* 10 (1957), pp. 217-219.
13. Young, "Gordion 1953: A Preliminary Report" p. 16.
14. *Ibid.*, loc. cit.
15. *Ibid.*, p. 13.
16. Idem. "The Nomadic Impact: Gordion", p. 52.
17. Strabo, *Geography* I. 1. 10 (transl. by H. L. Jones, Loeb Class. Libr., 1917). Cf. *ibid.*, III. 2. 12.
18. However, the fact that some of the *variae lectiones* in the manuscripts give different readings of the name throws some doubt on Strabo's argument. Cf. Rhys Carpenter, *Folk Tale, Fiction and Saga in the Homeric Epics* (University of California Press, 1946), pp. 148-149.
19. Diodorus Siculus II. 45.
20. This was the view expressed by Emile Mireaux in his *Les poèmes homériques et l'histoire grecque* (Paris, 1948-49).
21. Strabo III.2.12.
22. Herodotus IV. 12.
23. Carpenter, *Folk Tale, Fiction and Saga in the Homeric Epics*, pp. 175-176, Cf. Strabo 1.2.9: "The writers of chronicles make it plain that Homer knew the Cimmerians, in that they fix the date of the invasion of the Cimmerians either a short time before Homer, or else in Homer's own time."
24. Jeremiah 4:29.
25. *Iliad* XIII. 5-6. A scholium takes the description "righteous" to refer to the Scythian custom of holding all property in common (*Venetus A*). Cf. Herodotus' description of the nomadic Massagetae (1. 216.1), Nasamones (IV. 172.2) and Agathyrses (IV.104). See also F. Buffiere, *Les mythes d'Homère et la pensée grecque* (Paris, 1956), pp. 362-363.
26. *Venetus A* to *Iliad* XIII. 6.
27. Strabo, *geography* VII. 3. 7.
28. *Odyssey* III. 111-112.
29. *Odyssey* IV. 185-202.
30. *Odyssey*, XI. 522.

31. We know of the contents of the *Aethiopsis* only from the summary of it made by Proclus (*Chrestomathia ii*), preserved by Photius. It was ascribed to Arctinus of Miletus “who is said to have flourished in the first Olympiad (776 B.C.)”—H. G. Evelyn-White, *Hesiod, The Homeric Hymns and Homeric*, Loeb Classical Library, (1914), p. xxxi. For several reasons this date appears much too early—writing was only re-introduced into Greece in the second half of the eighth century, and the *Aethiopsis* is not likely to be earlier than the *Iliad*. A seventh-century date thus appears more probable. Later classical writers wrote extensively about Memnon, and it is not excluded that the *Aethiopsis* was among their sources. Notable among these were the so-called “chronicles” of Dictys of Crete (lv. 5-8. VI. 10) and of Dare’s the Phrygian (25, 33), both apparently-composed in the first century (see the translation by R. M. Frazer Indiana University Press, 1966), and the *Posthomerica* of Quintus Smyrnaeus.(Bk. II) dating most probably from the fourth. The accounts of Diodorus Siculus (11.22. 1ff) and Plato (Laws III. 685C) are of less value being contaminated by the tabulations of Ctesias.
32. Mireaux, *Les poèmes homériques et l’histoire grecque*. Mireaux sees many parallels between Homer’s Ethiopians and the rulers of Egypt’s XXVth Dynasty, most notably their bountiful sacrifices to the gods (Il. I,423-425; Od. I, 22-26). As several authors have noted it was these feasts that gave rise to Herodotus’ story of the Table of the Sun (III.18), located on the upper reaches of the Nile. The parallel with Homer’s Ethiopians is drawn also by A.D. Godley in a note to his translation of Herodotos (Loeb Classical Library, 1921). In Mireaux’s view the verses of Od. I, 23-24 that tell of the Ethiopians as divided into two groups, western and eastern, is an interpolation based on later geographical knowledge.





The Western Colonies

Greek literary tradition recounts many tales of the “returns” of the heroic generation that fought at Troy—but few of the plunderers of Priam’s citadel reached home safely, and those who did kept their thrones for only a little while; most were condemned to years of wandering in the far reaches of the known world until finally, in despair of ever again seeing their homes, they settled on distant shores from one end of the Mediterranean to the other. It was as if the return home was blocked—not just by stormy seas, but by upheavals and dislocations that deprived the returnees of shelter in their own land. Following the disasters that afflicted the Greek lands, the last of the heroic generation turned into wanderers and pirates, seeking for living space far from their own ravaged habitations.⁽¹⁾ Strabo, the Roman geographer, thus described the situation that ensued in the wake of Troy’s fall:

For it came about that, on account of the length of the campaign, the Greeks of that time, and the barbarians as well, lost both what they had at home and what they had acquired by the campaign; and so, after the destruction of Troy, not only did the victors turn to piracy because of their poverty, but still more the vanquished who survived the war. And indeed, it is said that a great many cities were founded by them along the whole seacoast outside of Greece, and in some parts of the interior also.⁽²⁾

Excavations in Sicily over the past one hundred years have revealed evidence of extensive contact with Greece in the Mycenaean Age. As to the people with whom the Mycenaeans traded, their remains attest to a prosperous culture, beginning in the Early Bronze Age and lasting for many centuries; but then, after the latest style of imported Mycenaean ware had run its course,⁽³⁾ no new pottery, actually no sign of any human presence, appears until the late eighth century. Scholars conclude that Sicilian civilization of the Late Bronze Age “came to an abrupt end about the end of the thirteenth century B.C.”⁽⁴⁾ Were the same causes which brought to a close the age of Mycenaean greatness also active on the far-removed island of Sicily? Archaeologists can only speculate about causes; but on one point their verdict is clear—“A real Dark Age set in only to be brought to an end five centuries later with the Greek colonization of Sicily and Southern Italy.”⁽⁵⁾ Regarding the new Greek settlements, archaeology and tradition agree that the first ones were established near the end of the eighth century and the beginning of the seventh. The founding of colonies in the western Mediterranean was one of the earliest achievements of the historical Greeks as they emerged out of the ruins of the Mycenaean Age. Syracuse, on the eastern coast of Sicily, was founded, according to the almost universally

accepted tradition, ca. 735 B.C.;⁽⁶⁾ Thucydides wrote that “Gela was built in the forty-fifth year after Syracuse by Antiphemus, that brought a colony out of Rhodes.”⁽⁷⁾ This yields a date of ca. -690 for the founding of Gela on the island’s southern shore.⁽⁸⁾ A tradition preserved by Eusebius has Gela founded in the same year as the city of Phaselis in Asia Minor. Eusebius’ date for both cities is -690, closely matching that of Thucydides.⁽⁹⁾ These traditions were set forth in greater detail by a Greek historian whose works are no longer extant except for fragments preserved by other ancient writers. In one surviving fragment from his book *On the Cities of Asia*⁽¹⁰⁾ Philostephanos wrote that Antiphemos, the founder of Sicilian Gela, was a brother of Lacijs who founded Phaselis in Asia Minor, both brothers hailing from Rhodes—they had been in the company of Mopsus as he made his way into Cilicia in the years following the Trojan War. In the chronology of Philostephanos, then, Gela was founded in the same generation that saw the fall of Troy, by one of the warriors who took part in that war; and since, as we have seen, the historical date of Gela’s establishment is acknowledged by the best authorities to be ca. 690 B.C., Priam’s city could not have fallen more than two or three decades earlier.⁽¹¹⁾

If the Sicilian Late Bronze Age, contemporary with the Mycenaean Age in Greece, ended abruptly about the time of the Trojan War, the stratigraphic sequence yields no evidence about the dark centuries supposedly separating it from the Geometric Age. After only a few decades the Geometric Age was interrupted by the arrival of Greek colonists, bringing their own distinctive culture from Corinth and Rhodes and other places in Greece. Despite the marked changes in the archaeological finds after the cessation of imported Mycenaean ware, many of the old Mycenaean influences continued to flourish both in the native settlements of the late eighth and early seventh centuries and in the Greek colonies—the examples are very numerous.

“The strength of ‘Mycenaean’ influence in Sicily [in Late Geometric times] is attested by a tholos tomb at Sant-Angelo Muxaro, north of Agrigento [an ancient port on Sicily’s southern coast]; but it can scarcely be appreciated without knowledge of the Mycenaean royal tombs.”⁽¹²⁾ The “large and unusual tholos tombs”⁽¹³⁾ at Muxaro “are, in fact, real tholoi, comparable with the Mycenaean ones”⁽¹⁴⁾ even though they are dated “much later than Mycenaean times”⁽¹⁵⁾—this because of the Geometric pottery found inside. How the Sicilians were able to imitate the dome-shaped tholos tombs half a millennium after such constructions ceased to be made in Greece, and despite being “cut off from contact with the Aegean” during the same period⁽¹⁶⁾ is a puzzling question, especially if we consider that scholars deny that any such tombs were built in Sicily in the five preceding centuries, though they were common in the Late Bronze Age.⁽¹⁷⁾ But let us enter some of the tombs and examine the objects found inside. Little pots with geometric and orientaling designs indicated a period not earlier than the beginning of the seventh century.⁽¹⁸⁾ Among them the excavators discovered two “splendid gold rings with animal figures incised

in their settings.” (19) One of these “shows a cow suckling a calf, the other a strange feline animal, or perhaps a wolf,” (20) depicted in a way clearly descended “from remote Mycenaean traditions.” (21) Not only the rings, but gold bowls found in the same tomb “derive from Mycenaean gold-work.” (22) “Perhaps here again we have a far-distant echo of the Mycenaean world.” (23)

The same puzzling survivals from Mycenaean times appear also at another Sicilian site—at Segesta, in the western part of the island. The founding of Segesta was dated by tradition to the years following the Trojan War, and was ascribed to a Trojan named Aegestes. (24) The eighth and seventh-century Geometric pottery from Segesta displays startling Mycenaean influences. “A good example is the schematized drawing of a bull, moving from the left to the right, with horns butting against an unidentified object. This motif was a common one on Mycenaean and, more generally, Aegean pottery.” Other motifs of Mycenaean derivation include stylized floral patterns and tassels with meandering lines; these motifs “are not paralleled in Geometric pottery.” (25) The examples are many; and they are all the more remarkable since the last Mycenaean pottery on the island is said to have gone out of use some four or five hundred years earlier. These observations caused much amazement among art historians, but brought no viable suggestion as to how the motifs could have been transmitted through the Dark Age to influence the Geometric ware of Segesta half a millennium later. Could the Phoenicians perhaps have preserved the Mycenaean tradition and, on establishing themselves on the island, have imparted them to the native people of Sicily?, wondered one scholar; but he rejected the thought, for the earliest Phoenician settlement in Sicily dates from the seventh century, and what was found there “of course is not Mycenaean.” (26)

Wherever the archaeologists turned they found a blank in the archaeological sequence where five centuries should have left at least a trace. At Gela “there is a gap... between the Bronze Age sites, belonging at the outside to the middle of the second millennium, and the objects from the first Greek occupation in the seventh century B. C.” And the explanation? “This is one confirmation that the native peoples left the coastal regions at the close of the age when, at the dawn of the Greek world, the Mycenaean and other seafarers who came in their wake brought piracy, violence and looting along with trade.” (27) At Thapsos, in the vicinity of Syracuse, “Mycenaean imports... cease towards the end of Mycenaean IIIB, and this implies that the coastal villages were abandoned by about 1270 B.C... In the late VIII century Thapsos was occupied again for a short time by Greek colonists...” (28) If the coast was abandoned during the Dark Age, did life continue in the interior? At Morgantina in central Sicily, “below the earliest defences put up by the colonists... late Mycenaean XIII century ware and Ausonian pottery of the XII century [was followed] by VII century pottery of Sant’Angelo Muxaro type.” (29) Between the levels, nothing at all was found.

The responsibility for creating the Dark Age of Sicily lies with the erroneous

Egyptian timetable. Some of the Mycenaean ware found on the island “is exactly the same pottery as that found in Egypt in the ruins of Tell el-Amarna, the capital of Amenophis [Akhnaton]”⁽³⁰⁾ All the indications from Sicilian sites showing direct succession of the Late Bronze Age and Greek colonial periods counted for nothing when the an absolute time scale, introduced from Egypt, demanded the insertion of five empty centuries. As one scholar admitted in another context, “the Aegean prehistorians have no choice but to adapt themselves to the Egyptologists.”⁽³¹⁾

References

1. Cf. above, section “A Gap Closed.”
2. Strabo, *Geography*
3. The latest style was Late Helladic III B with a small number of exemplars of Late Helladic III C. See W. Taylour, *Mycenaean Pottery in Italy and Adjacent Areas* (Cambridge, 1958) p. 74; H.-G. Buchholz, “Agäische Funde und Kultureinflüsse in der Randgebieten des Mittelmeers,” *Archäologischer Anzeiger* 89 (1974) pp. 343, 345, 346, 349-350. Thapsos, near Syracuse and Agrigento, are the two main find spots.
4. L. B. Brea, *Sicily Before the Greeks* (New York, 1966) p. 130.
5. *Ibid.*, *loc. cit.*; cf. M. Guido, *Sicily: An Archaeological Guide* (New York, 1967) pp. 133, 196-198.
6. M. Miller, *The Sicilian Colony Dates: Studies in Chronography I* (SUNY Press, Albany, 1972) pp. 13, 21, 32, 33, 41, 42, 110, 182.
7. Thucydides, *The Peloponnesian War* VI.4.
8. Cf. A. G. Woodhead, *The Greeks in the West* (London, 1962) pp. 51-52; P. Griffo and L. von Matt, *Gela: The Ancient Greeks in Sicily* (Greenwich, Conn., 1968).
9. This tradition is given in the version of Eusebius’ *Chronicle* preserved by Jerome, Dionysius and Barhebraeus; cf. Miller, *The Sicilian Colony Dates*, pp. 14, 187.
10. In Athenaeus, *Deipnosophistae* VII. 298.
11. A Cretan named Entimus is said to have assisted Antiphemus in the founding of the city; and traces of Minoan influence at Gela have been noted by E. Langlotz (*Ancient Greek Sculpture of South Italy and Sicily* [New York, 1965], transl. by A. Hicks, p. 15) and by many others.
12. Langlotz, *Ancient Greek Sculpture*, p. 15.
13. Guido, *Sicily*, p. 102.
14. Brea, *Sicily Before the Greeks*, p. 174.
15. Guido, *Sicily*, p. 102; the author dates them “probably from the VIII to the middle of the V” pre-Christian centuries. (p. 129).
16. T. J. Dunbabin, “Minos and Daidalos in Sicily,” *Papers of the British School at Rome*, Vol. XVI (New series, vol. III [1948]) p. 9: “The complete absence of Protogeometric, and of Geometric older than the second half of the eighth century, makes it clear that the Minoan-Mycenaean contacts were quite broken.”

17. E.g., at Thapsos, Cozzo del Pantano and Caltagirone; cf. Woodhead, *The Greeks in the West*, p. 22.
18. Brea, *Sicily Before the Greeks*, p. 174; but cf. above, n. 15.
19. *Ibid.*, p. 175.
20. G. K. Galinsky, *Aeneas, Sicily, and Rome* (Princeton, 1969) p. 86.
21. Brea, *Sicily Before the Greeks*, p. 175. For photographs of the ring, see E. Sjoqvist, *Sicily and the Greeks* (Chicago University Press, 1973) fig. 1 on p. 5.
22. Langlotz, *Ancient Greek Sculpture*, p. 15.
23. Guido, quoted in Galinsky, *Aeneas, Sicily, and Rome*, p. 86.
24. Strabo, *Geography* 6.2.5; 6.1.3. Another name for Segesta was Aegesta.
25. Galinsky, *Aeneas, Sicily, and Rome*, p. 83.
26. *Ibid.*, p. 89.
27. Griffo and von Matt, *Gela*, p. 56.
28. Guido, *Sicily*, pp. 196-198.
29. *Ibid.*, p. 133. On the excavations at Morgantina, cf. the reports in *American Journal of Archaeology*, vols 62, 64, 65 and 66.
30. Brea, *Sicily Before the Greeks*.
31. J. Cadogan, "Dating the Aegean Bronze Age Without Radiocarbon" in *Archaeometry* 20 (1978) p. 212.





Mycenae, the Danube and Homeric Troy

In *Danube in Prehistory*, Gordon Childe tells of the “fierce controversy” occasioned by the various attempts at dating the Hungarian urnfields. Did they belong to the Late Bronze Age (before ca. 1100 B.C.) as some authorities argued, or should the indications of their close relation to the Iron Age or the Halstatt period that begins ca. 800 B.C. be considered decisive, as another group of scholars urged?¹ There is much to be said for the Iron Age dating—the objects from the Hungarian urnfields have numerous parallels in the Iron Age pottery of Silesia and Hallstatt. “Near the urnfields or settlements themselves we have noticed objects of uncontestably Iron Age date,” wrote Childe. “On this line of reasoning the urnfields just described would . . . last from 1000 to 600 B.C.” Yet, “Aegean connections . . . are scarcely compatible with the low chronology.”² Several lines of evidence converged to date the urnfields “on the whole to the epoch between 1400 and 1000 B.C.”³ even while it had to be admitted that this high chronology, which Childe favored, involved “difficulties” which could not be disguised.

Certainly, Aegean and Anatolian connections both pointed in the direction of a higher chronology: Decorative motifs on pottery related some of the urnfield cultures to Hittite and Minoan ware, and there were convincing links to Macedonian Bronze Age pottery; also, analogies of pottery decoration from the earlier urnfields with motifs of Mycenaean ware dated to the fourteenth century were undeniably present. “The scheme based on the Aegean connections, however, involves serious difficulties when relations with Italy come to be considered.”⁴ The period in which Villanovan culture, predecessor of the Etruscan (whose introduction into Italy is usually placed in the eighth century), spread its influence to the north and east toward the Danube cannot be put earlier than the eleventh century.⁵ There is an obvious affinity between the Villanovan pottery types and some of the finds from the urnfields, showing that they were “roughly contemporary.”

Pulled in two opposite directions, trying to respond “to the clamours of the Italian archaeologists” and also “meet the needs of the Aegean prehistorians,”⁶ Childe reluctantly opted for an early dating, accepting the antiquity of some finds to be as high as 1400 B.C., and letting others be as late as 1000 B.C. He acknowledged that dates five hundred or more years lower were plausible: “We therefore only adopt the higher dating provisionally until excavations at other stratified sites—of which there are plenty—have settled the issue.”⁷

A good illustration of the predicament faced by Childe and by all other scholars in the field is the chronological placement of the key Vattina culture of the Hungarian plain. Some scholars are convinced that the later phases of the Vattina culture should be dated approximately to between 700 and 400 B.C.⁸—Childe notes what he terms a “striking correspondence with the pottery of the inhabitants of Troy VIIa”⁹ the very stratum which Carl Blegen later identified as the remains of the Troy of Homer, and accordingly dated to the mid-thirteenth century.¹⁰ At the time that Childe wrote, the stratum was known as a settlement of squatters and was dated by Wilhelm Doerpfeld to slightly before 700 B.C.

References

1.

Childe, *The Danube in Prehistory* (London, 1929), pp. 291-295, 386-387, 416-417. The Halstatt period in Europe corresponds to the Geometric period in Greece and the early Iron Age in general. See A. Mahr, *et al.*, *Prehistoric Grave Material from Carnida, etc.* (New York, 1934), pp. 9-11.
2.

Ibid., p. 92.
3.

Ibid., p.295.
4.

Ibid., pp.293ff.
5.

Ibid., p. 294.
6.

Ibid., p. 417.
7.

Ibid., p. 387.
8.

Childe cites, especially, B. Milleker, *Vattinai oestelep* (Temesvar, 1905).
9.

Childe, *op.cit.*, p.386.
- 10.





The Date of Carthage's Founding

The Phoenicians, who are credited with imparting the alphabet to the Greeks, themselves left few documents, though we know that they had their historians and kept official chronicles. Apart from the laconic testimony of some scattered inscriptions carved in stone, Phoenician writings have perished; for what we know of their history we depend on the reports of Greek and Roman authors who were not kindly disposed towards them. A grim struggle was waged for centuries between the Greeks and Romans on the one hand, and the Phoenicians and their western offshoot, the Carthaginians, on the other, in which the prize was nothing less than the political and commercial control of the Mediterranean. It began as early as the Orientalizing period of the eighth and early seventh centuries with the rivalry of Greek and Phoenician settlers in the West, and culminated with Alexander's capture of Tyre in the fourth century, Rome's defeat of Carthage after the exhausting Punic wars of the third, and Carthage's destruction in the second. Carthage had been the focus of Phoenician presence in the West for many hundred of years before it was leveled to the ground by the Romans in -146. The Roman historian Appian gave a round figure of seven centuries for Carthage's existence, which would imply a date for its founding about the middle of the ninth century. Timaeus, the Greek chronographer, gave the year -814 as the date of Carthage's founding⁽¹⁾ by Dido or Elissa, who had fled with a group of followers from the hands of her murderous brother Pygmalion, king of Tyre. Josephus dated Dido's flight 155 years after the accession of Hiram, the ally of David and Solomon, that is, in -826. Another tradition, associated with the fourth-century Sicilian chronographer Philistos, placed Carthage's founding "a man's life-length" *before* the fall of Troy. Despite the fact that Philistos' dating of the Trojan War is unknown, scholars have assumed that he put the date of the founding of Carthage in the thirteenth century.⁽²⁾

Yet Appian, who followed Philistos in dating the founding of Carthage "fifty years before the capture of Troy"⁽³⁾ knew that the city, destroyed in -146, had had a lifetime of not more than seven hundred years.⁽⁴⁾ Thus Appian dated the Trojan War to ca. -800, and there is no reason to think that Philistos did not do likewise.

Archaeology, however, does not support a mid- or late-ninth century date for Carthage's founding. After many years of digging archaeologists have succeeded to penetrate to the most ancient of Carthage's buildings. P. Cintas, excavating a chapel dedicated to the goddess Tanit, found in the lowest levels a small rectangular structure with a foundation deposit of Greek orientaling vases datable to the last quarter of the eighth century. These are still the earliest signs of human habitation at the site; although Cintas originally held out hope that there would be found remains

of the earliest settlers of the end of the ninth century, the years have not substantiated such expectation.⁽⁵⁾ Scholars are now for the most part ready to admit that the ancient chronographers' estimate of the date of the city's founding was exaggerated.⁽⁶⁾ But if Carthage was founded ca. -725 the Trojan War would, in the scheme of Philistos and Appian, need to be placed in the first quarter of the seventh century.

References

1. *The Antiquities of the Jews*
2. Pauly's *Realencyclopädie*, article "Karthago"; G. C. Picard, *The Life and Death of Carthage* (London, 1968) p. 30.
3. Bk. VIII, pt. I. *The Punic Wars I.1.*
4. Bk. VIII, ch. 132.
5. J. N. Coldstream, *Geometric Greece* (London, 1977) p. 240; Picard, *The Life and Death of Carthage*, pp. 34ff.
6. Picard, *The Life and Death of Carthage*, pp. 34, 37; Coldstream, *Geometric Greece*, p. 240. A. R. Burn long ago pointed to this tendency of the ancient chronographers to give inflated estimates of past dates. See his "Dates in Early Greek History," *Journal of Hellenic Studies* 55 (1935) pp. 130-146. Cf. R. Carpenter, "A Note on the Foundation Date of Carthage," *American Journal of Archaeology* 68 (1964) p. 178.





Tarshish

According to the picture which emerges with the removal of the dark centuries from ancient history, the Late Minoan civilization finds its place at the beginning of the first millennium before the present era alongside the Mycenaean culture of mainland Greece and the New Kingdom in Egypt. In Israel the corresponding period gets underway with the anointing of Israel's first king, David, and the brilliant reign of his son and successor, Solomon; it continues with the divided monarchy till the time of Isaiah.

The impressive power of Minoan Crete, whose ships plied the sealanes of the ancient Mediterranean and regularly called at Levantine ports, and whose rulers were for a time uncontested masters of the busy, and vital, trade routes, could not have passed unnoticed on the pages of the Old Testament. And indeed, in several books of the Scriptures frequent reference is made to a trading nation called Tarshish. Biblical scholars widely disagree on the whereabouts of Tarshish: but Minoan Crete is not among the suggested sites.

The debate had an early start: the *Septuagint*, the Greek version of the Old Testament, translated Tarshish as Carthage;¹ Josephus and others with him identified Tarshish with Tarsus in Cilicia;² Julius Africanus thought it was a name for Rhodes or for Cyprus;³ Eusebius and Hippolytus conjectured that the city of Tartessos in Iberia, mentioned by Herodotus and other ancient writers⁴ was the Biblical Tarshish.⁵ Modern authors are divided between Tartessos in Iberia⁶ and Tarsus in Cilicia⁷—although some would regard the expression “ships of Tarshish” as a general term for ships sailing on long-distance voyages;⁸ others consider the name Tarshish to refer to foreign lands in general⁹ and William F. Albright and several others with him, suggested that it referred to mines for precious ores and was applied to certain countries which produced them.¹⁰ However, as another scholar rightly remarks, Tarshish is for the writers of the Old Testament a specific land¹¹—it is mentioned in the company of Lud (Lydia) and Javan (Ionia).¹² The great perplexity of scholarship on this question and the fact that none of the suggested locations for Tarshish was compelling enough to have produced a general concensus, result from a mistaken chronological scheme which eliminated the possibility of a correct identification before it was ever suggested.

I will attempt to bring evidence in support of Velikovsky's view that Tarshish was the name employed by the writers of the Old Testament to designate Crete as a whole, or

its chief city Knossos.¹³

The first mention in the Book of Kings of this geographical location refers to the activities of Solomon: “The king had at sea a navy of Tharshish with the navy of Hiram: once in three years came the navy of Tharshish bringing gold and silver, ivory and apes, and peacocks.”¹⁴

These precious or exotic items were brought from Ophir, a land whose location is uncertain—but it must have been a rather distant place, considering that the return voyage took three years.¹⁵

In the next, ninth, century, King Jehoshaphat: “made ships of Tharshish to go to Ophir for gold: but they went not; for the ships were broken at Ezion-geber.”¹⁶ The parallel account in the Book of Chronicles explains the destruction as being due to the Lord’s wrath at Jehoshaphat’s alliance with the wicked Ahaziah of Israel.¹⁷ It would thus appear that the Minoans had a fleet on the Red Sea which participated with the Phoenician navy in trading ventures to far-away lands. Ezion-geber also must have been the harbor whence the ships of Tarshish set out on their long journey to Ophir in the time of Solomon.¹⁸ The ill-fated attempt by Jehoshaphat to resume the voyages to Ophir was cut short by the intervention of nature, if we may so understand the verse in the forty-eighth Psalm: “Thou breakest the ships of Tarshish with an east wind.”¹⁹

The destruction of the fleet from Tarshish at Ezion-geber did not stop that nation’s commercial activity, for In the next century we again hear of the ships of Tarshish frequenting the port of Tyre in Phoenicia. The prophet Isaiah in his message to Tyre refers to some overwhelming disaster which overtook the city in his time;²⁰ and since Tyre had been a major base for the ships of Tarshish, they are said to bemoan their loss: “Howl ye, ships of Tarshish, for it [Tyre] is laid waste, so that there is no house, no entering in. . .” The Inhabitants of the devastated city are invited to “pass over to Tarshish”—possibly indicating that some of Tyre’s citizens resettled on Crete. As a sign of the two countries’ commercial interdependence Tyre is called a “daughter of Tarshish”. The ships of Tarshish are said to be fatally weakened by the loss of their chief port of call: “Howl ye, ships of Tarshish, for your strength is laid waste.”

The tradition of the close links which had existed, ever since Hiram’s expeditions to Ophir, between the ships of Tarshish and the merchant city of Tyre was re-echoed down the centuries. In the time of the Babylonian exile Ezekiel wrote in his message to Tyre: “Tarshish was thy merchant by reason of the multitude of all kinds of riches. . . the ships of Tarshish did sing of thee in thy market: and thou wast replenished and made very glorious in the midst of the seas.”²¹

The trade between Tarshish and the Levant continued in the mid-seventh century, as is shown by the story of Jonah, who was able to board at Joppa (Jaffa) a ship making

a regular commercial run to Tarshish.²²

So far we have based our discussion of the identity of Tarshish on Biblical sources; but there also exists an allusion to that land in another source, a cuneiform text found about a hundred years ago at Assur on the Tigris. The text is part of the annals of the Assyrian king Esarhaddon, who ruled over Assyria from -681 to -669. It reads:

“All the kingdoms from (the islands) amidst the sea—from the country of Iadanan and Jaman as far as Tarshishi bowed to my feet and I received heavy tribute.”²³

The identities of the first two countries mentioned by Esarhaddon are known: Iadanan is Cyprus and Iaman is the Ionian coast of Asia Minor; the location of Tarshishi, however, became the subject of some debate, for this statement by Esarhaddon is the only time the name appears in any Assyrian text. It was noted that “Tarshishi” has the determinative *māt* for “country” in front of it, as do Idanana, or Cyprus and Iaman, or Ionia. The only clue to its location was its being described as a kingdom “amidst the sea”, apparently somewhat farther removed from Assyria than either Cyprus or Ionia.

When Esarhaddon’s text was first published and transliterated the name was read as “Nu-shi-shi.”²⁴ At that time there were several conjectures as to the identification of this land. The city of Nysa in Caria was one suggestion; another was that the word refers to “nesos” for Peloponnesos. In 1914 D. D. Luckenbill ventured that “Knossos, for Crete, would fit better.”²⁵ Three years later B. Meissner made a fresh examination of the cuneiform tablet and found that the original transliteration of the name had been mistaken, and that “Tar-shi-shi” was the correct reading.²⁶ The new reading took away Luckenbill’s chief reason for his identification; yet he had the right solution, even if he reached it on wrong grounds. More recent scholarship identifies the land of Tarshishi mentioned by Esarhaddon with the city of Tarsus in Cilicia.²⁷ Had Tarshishi been a city the name would have been preceded by the determinative URU; however, as mentioned above, it has *māt* for “country”. It is also difficult to see how a place in Cilicia would fit the description “from Iadanan and Iaman as far as Tarshishi.” Clearly Tarsus was farther west than either Cyprus or Ionia. These criteria are filled admirably by Crete.

Velikovsky sought to support this identification by the following facts: In the work of the ancient Greek grammarian Hesychius, who composed his biographical lexicon in the fourth century of the present era, it is said that “Tritta” was another name for Knossos.²⁸ A double t is often substituted in ancient Greek by a double s.²⁹ From Trissa could have been derived the name Tarshish, and the designation may later have been extended to cover the whole island of Crete.

Whoever held sway over the island in the early part of the seventh century, the motive for sending gifts to Esarhaddon is clear. After the subjugation of Sidon and

the imposition of a treaty of vassalage on Tyre, the sealandes of the Levant were under Assyrian control; and the gifts may have been intended to gain access for the ships of Tarshish to their traditional ports of call; Crete could hardly have felt itself directly threatened by the land-based power of Assyria.

The reason why the identification of Tarshish with Crete, so evident from the texts quoted above—the Old Testament narrative of the trading ventures of Solomon and Hiram, the prophecies of Isaiah and Ezekiel, the story of the voyage of Jonah, as well as the annals of Esarhaddon—was not made before is due to the fact that the end of Minoan Crete is considered by scholars who follow the accepted chronology to have occurred some four to six hundred years before these texts were written. In the days of Solomon, as in those of Isaiah and of Esarhaddon, Crete is said to have been immersed in its own Dark Ages, without the possibility of a high civilization, with no question of a far-ranging fleet. Only when the disarrayed centuries are brought to their proper order does the identity of Tarshish with Minoan Crete emerge into the light of history: the solution to an old puzzle.

References

1. Cf. Jerome (St. Hieronymus) in his Latin translation of the Scriptures, the *Vulgate*, in the passage Ezekiel 27:2.
2. Josephus, *Jewish Antiquities* I. vi. 1; the Scholiast to Lycophron's *Cassandra*, 653; Stephen of Byzantium, 'Ligystiné', Cod. A; Eustathius to Dion, 195.
3. Quoted in G. Syncellus, *Chronography*, 380.
4. Herodotus 1.163; IV 152, 191; Sfesichorus (fl. -608) in Strabo 3.2.11; the Scholiast to Aristophanes, *Ranae*, 475; Eustathius to Dion, 337.
5. Eusebius, *Chronicle* 11.17 in Syncellus, *Chronography*, 91; Hippolytus, *Chronicon Paschale*, II. 98.
6. S. Mazzarino, *Fra Oriente e Occidente* (Florence, 1947), p. 272; G. Charles Picard, *La vie quotidienne à Carthage au temps d'Hannibal* (Paris, 1958), p. 265, n. 7; A. Schulten, *Tartessos*, second ed., (Madrid, 1945), pp. 54ff.; A. Garcia y Bellido, *La Peninsula Ibérica en los comienzos de su Historia* (Madrid, 1954), pp. 170ff.; the last-named author professes not to be absolutely certain about this identification. Cf. D. Harden, *The Phoenicians* (London, 1962), p. 160. P. Bosch-Gimpera considers it very doubtful: *Zephyrus* 13 (1952), p. 15; *La nouvelle Clio* 3 (1951).
7. G. Conteneau, *La civilisation phénicienne* (Paris, 1949), p. 235; Bérard, *L'expansion et la colonization grecques jusqu'au guerres médiques* (Paris, 1960) p. 129; H. L. Lorimer, *Homer and the Monuments* (London, 1950), pp. 65ff. On Tarsus see also J. Boardman in *Journal of Hellenic Studies* 85 (1965), pp. 16ff. Cf. U. Täckholm in *Opuscula romana* 5 (1965), pp. 143ff. and W. Culican, *The First Merchant Ventures* (London, 1966), pp. 77ff.
8. Garcia y Bellido, Bosch-Gimpera and Conteneau, cited above.
9. Conteneau, *La civilisation phénicienne*.
10. Albright, *Bulletin of the American Schools of Oriental Research* 83 (1941), pp. 14ff.; Cintas, *Céramique punique* (Paris, 1950), p. 578; Hitti, *History of*

- Syria* (London, 1951), p. 104.
11. J. M. Blazquez, *Tartessos y Los Origenes de la colonización fenicia en Occidente* (Universidad de Salamanca, 1975), p. 18. This fact should be remembered in connection with C. Gordon's attempt to interpret the name "Tarshish" with the "wine-dark sea" of Homer—*Journal of Near-Eastern Studies* 37 (1978), pp. 51-52.
 12. Isaiah 66:19; cf. Psalm 72:10: "The kings of Tarshish and of the isles shall bring presents: the kings of Sheba shall offer gifts."
 13. The name for Crete in the Bible is generally assumed to have been Caphthor (Keftiu of the Egyptian texts). Velikovsky has already indicated that Caphthor is the Biblical designation for Cyprus (*Ages in Chaos*, vol. I, section "Troglodytes or Carians?", n. 17). It follows that the tribute bringers from Keftiu depicted on the walls of Egyptian tombs of the Eighteenth Dynasty were in reality Cypriots, and not Cretans, and that the homeland of the Philistines was Cyprus, and not Crete. The idea that Caphthor refers to Cyprus was long ago expressed by Birch ("Mémoire sur une patrie égyptienne du Musée du Louvre [1857]", *Mém. Soc. Imp. Ant. Fr.* XXIV [1858]) but found little support. Cf. H.R. Hall, "The Peoples of the Sea" in *Recueil d'études égyptologiques dédiées à la mémoire de Jean-François Champollion* (Paris, 1922), p. 300.
 14. I Kings 10:22; cf. I Chron. 9:21.
 15. Suggestions for the site of Ophir have ranged over the five continents, and this is not the place to discuss their relative merits. Some part of Africa or India could furnish the products listed as coming from Ophir; both are accessible from Ezion-geber on the Red Sea. The three-year return voyage is compatible with a journey around Africa (cf. Herodotus IV. 42 for the three year duration of the circumnavigation of Africa in the time of Pharaoh Necho II, i.e., the late seventh or early sixth centuries. Since King Hiram of Tyre, in association with Solomon, also sent his own ships, unassisted by the Tarshish fleet, to Ophir [Kings 9:27-28, 10:11; II Chron. 8:17-18, 9:10], it is not unthinkable that the Phoenician sailors despatched more than three hundred years later by Necho II, had prior knowledge of the route.) In recent years R. D. Barnett has made a detailed and plausible case for locating Ophir in India—though his placement of Tarshish in the same region is untenable. See Barnett, *A Catalogue of the Nimrud Ivories in the British Museum* (London, 1957) pp. 59-60, 168; *Antiquity* 32 (1958), p. 230. For a general discussion of Solomon's trading ventures, see O. Eissfeldt, *The Hebrew Kingdom* (Cambridge, 1965), pp. 56ff.
 16. I Kings 22:48.
 17. II Chronicles 20:35-37. The words "to make ships to go to Tarshish" should likely be understood as meaning ships of the navy of Tarshish which were being readied for the voyage to Ophir. The passage may be based on a misunderstanding of a tradition more accurately recorded in the Book of Kings.
 18. Cf. n. 15 above.
 19. Psalm 48:7. The passage may, however, refer to a later event. Whether the storm alluded to in the Psalm has any connection with the very violent eruption of the volcano on the island of Thera north of Crete (which, by the revised chronology, belongs in the mid-ninth century) must remain an open

question.

20. Isaiah, chapter 23.
21. Ezekiel 27:12, 25.
22. The Book of Jonah purports to deal with events of the mid-seventh century when Nineveh, Assyria's capital, was still standing, but in paramount danger of destruction by hostile armies. Although the book was written much later than this, some of the background of the story, such as the Tarshish-bound ship which Jonah boards at Joppa, probably preserve memories of actual seventh-century conditions.
23. J. Pritchard, *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 1955), p. 260.
24. Messerschmidt in *Keilschrifttexte aus Assur historischen Inhalts* vol. I, Nr. 75, vs. 10f.
25. D. D. Luckenbill, "Jadanan and Javan (Danaans and Ionians)", *Zeitschrift für Assyriologie* 28 (1914), pp. 94-95, n. 3.
26. B. Meissner in *Orientalistische Literaturzeitung* (1917), p. 410; Cf. F. Hommel, *Ethnologie und Geographic des Alten Orient*, p. 1001.
27. S. Mazzarino, *Fra Oriente e Occidente*, pp. 132f.; Blazquez, *Tartessos*, p. 21.
28. Pauly-Wissowa's *Realencyklopädie der Altertumswissenschaft*, article "Knossos" ; cf. v. C. Burian, *Geographie von Griechenland*. vol. II (Leipzig, 1868-72), p. 559 n. 1; see also Diodorus V. 70, 72.
29. E.g. Attic *thalatta*, meaning "sea," becomes *thalassa* in Doric.





The Dark Age Spanned

Of all the excavated sites in Greece and the Aegean region, it was to Athens that the archaeologists pointed as the once place which preserved a continuity from the end of the Mycenaean age down to classical times, and where a sequence of pottery spanning the Dark Age could be followed. Athens thus became the site by which the finds at all other excavated places were identified and placed in time. We are therefore bound to examine the actual stratigraphic situation at Athens.

The sequence of pottery styles at Athens—and thus in all the Greek lands—is usually given thus?

| | |
|---------------------------|--------------|
| Middle Helladic | to ca. -1550 |
| Mycenaean (Late Helladic) | to ca. -1230 |
| Submycenaean | to ca. -1050 |
| Protogeometric | to ca. -900 |
| Geometric | to ca. -680 |

It must immediately be said that neither in Athens nor at any other site in Greece has a stratified sequence such as this been uncovered. Then on what basis was the scheme built?

There are three ways of determining the relative position of pottery in time;

1) *Relationship of motifs*: Determining the sequence from a study of the way decorative motifs merge into one another. This method is of necessity a rather uncertain one but can be useful if employed together with other methods.

2) *Juxtaposition of finds*: If different styles are found in a common undisturbed deposit, this is strong evidence that they were contemporaneous. If they are found at different levels in a stratified deposit, this indicates their relative position in time.

3) *Links with outside chronologies*; If a certain style of Greek art can be associated with, for instance, Thutmose III and another style with Akhnaton, then at least a relative chronology can be established, even if the absolute chronology is in dispute.

The final stages of the Mycenaean period at Athens were illuminated by Broneer's

excavations on the Acropolis in the late 1930s. Broneer found that emergency measures had been taken to fortify the city and prepare it for withstanding a siege: one of the measures was the construction of a deep well on the Acropolis with a wooden stairway leading down the shaft. At some point the stairway collapsed and the well was abandoned and filled with discarded sherds of late Mycenaean pottery.¹ Following the destruction of the fountain (Plato in his *Kritias* attributes it to “earthquakes”) occupation on the Acropolis ceased; only in the seventh and sixth centuries did building activity resume on the site.

Where did the people go during the dark centuries? This is a question which baffles the archaeologists. From the end of the Mycenaean age till the seventh century there will be no dwelling places in Athens²—only a necropolis, or “city of the dead.” Where was the city of the living?

The series of burials which are supposed to fill the dark centuries between the end of the Mycenaean age and the time of the Proto-Attic ware of the seventh century are located near the north-western Dipylon gate of Athens and in the Kerameikos cemetery next to it. Other tombs were excavated in the Agora, or marketplace, north of the Acropolis. The burials in the Kerameikos are associated with the style named “Protogeometric”—characterized by a narrow band of decoration around the middle of the vase, with the rest of the vessel having a black glaze. The decoration inside the band consists of concentric circles drawn by some sort of multiple i compass. The relationship of this ware with the latest Mycenaean pottery found inside the fountain on the Acropolis cannot be judged for “it is a significant fact that the pottery from the fountain extends to, but does not overlap, the period represented by the early graves in the Kerameikos cemetery.”³ This brings into question the usual assertion that the Protogeometric ware followed the Mycenaean and sub-Mycenaean styles. If there is no overlap, how, can a sequence be established? Beside the fact that no dwelling places have been found for the people buried in the Kerameikos, there is another important indication that the Protogeometric pottery and the population associated with it are incorrectly placed following the Mycenaean: all of the Protogeometric burials are inside cist-tombs of the type used in the pre-Mycenaean or Middle Helladic age. These tombs are not derived from Mycenaean tombs, but., where dated to Middle Helladic times, are considered antecedent to them.⁴ This, together with other factors to be discussed below, is a strong clue to the true placement of the Protogeometric pottery and the population group associated with it. The archaeologists should look to the Middle Helladic (pre-Mycenaean) settlements for the houses of those buried in the Kerameikos.

The Kerameikos burials continue into the Geometric period, but the bulk of Athenian Geometric pottery has been found near the Dipylon gate. Other Geometric sherds were found in a stratified deposit south of the Parthenon mixed together in one and the same stratum with Mycenaean ware. A terrace filling yielded eight distinct layers, the lowest “well-defined stratum” dating from Mycenaean and Geometric times and the one above it, taking in the period up to the burning of the Acropolis by the

Persians at the beginning of the fifth century.⁵ But the Mycenaean and Geometric periods are said to be separated by some four centuries. If the deposit had been accumulating for this length of time, how is it that none of the Protogeometric wares that supposedly followed the Mycenaean and preceded the Geometric was found in it? The problem should be seen in the light of the solution proposed above, that the Protogeometric ware belongs to the pre-Mycenaean, Middle Helladic settlement. As was noted long ago by Gardner, “fragments of Geometric vases, indistinguishable from the Dipylon type, have been found on various sites in Greece together with later examples of Mycenaean pottery.”⁶ On the Acropolis itself fragments of Mycenaean vases were found mixed with Geometric sherds.⁷ The find south of the Parthenon, taken together with the discoveries at other sites from Troy to Pylos to Olympia, tends to show that Geometric ware was in fact contemporary with Mycenaean, a case also very forcefully argued by W. Dörpfeld, as Velikovsky pointed out his discussion of “Olympia.”

Evidence amounting to proof that Protogeometric and Geometric pottery preceded and was contemporary with Mycenaean ware was unearthed by C.C. Edgar at Phylakopi on the Aegean island of Melos. He found Geometric pottery *under* Mycenaean, and mixed with it until the very end of the Mycenaean deposit.⁸ Thus it would seem that while Protogeometric ware is contemporary with Middle Helladic and early Mycenaean pottery⁹ the Geometric style coexisted with the Mycenaean. An added proof of this is in the fact that in Egypt, in tomb paintings of the time of Thutmose III (tenth century according to the revised chronology) foreigners are shown bringing geometric pottery.¹⁰

The designs on the geometric vases from the vicinity of the Dipylon gate display features which strongly indicate that they were indeed made at the same period as Mycenaean vases. They show “two-horse chariots, with very primitive horses, and with men whose wasp-waists remind one of Minoan and Mycenaean art; and in some cases much of the human figure is concealed by the great Mycenaean or Minoan figure-of-eight shield.... The women are dressed much in the same fashion as the Minoan and Mycenaean women, in tight bodices and bell-shaped skirts.” Thus, “everything seems to point to a civilization at Athens in the Dark Age something like the old Mycenaean. ...”¹¹ The Mycenaean civilization survived till the beginning of the seventh century and merged with the orientalizing and proto-Attic styles.

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Preface

In May 1948 the State of Israel came into being, and dramatic developments followed. Since the fall of the previous year I had been writing for the editorial page of the *New York Post* a series of over fifty articles on the Middle East, signing them "Observer." They were widely read, in U.N., in Washington, by Jews. The identity of the author was a much discussed topic. Nobody knew, for several months not even the editor of the *Post*, Thackrey, who found it out only by a trick on the day the Israeli state was founded. Not many single items served so well the cause in America as these articles.



New York Post

TUESDAY, NOVEMBER 25, 1947

United Nations Omens

Final Partition Vote Shows Up Extent of Arab Immoral Influence

The session of the United Nations has produced some sinister and some hopeful omens. Among the hopeful ones is the determination of a majority of the nations to face the issue of Palestine squarely and do justice. This is despite the fact that the claimant, the Hebrew people, lacking statehood, is not a member of the United Nations, and cannot give concessions in oil or barter votes.

Both Russia and the United States set new moral standards in taking a joint firm stand in favor of ignoring any special advantage to either in exploitation of the Arabian situation. Their joint position on the Palestine question is a major victory for the peace of the world, overshadowing even the Palestinian problem as such.

But the record of the final vote in the plenary session of the General Assembly is clearly of the greatest significance. It shows unmistakably which of the nations either by abstention or by voting against the partition plan, have decided to disregard the recommendations of the investigating commission and the Palestine Committee.

The British declaration, in refraining from any action toward implementing 'what is not acceptable for both the Jews and the Arabs' is in direct contravention of the declarations of their Conservative and Labor Parties, and of the international obligations of their government.

* * *

In the plenary session, not merely a majority but a two-thirds vote, not counting the abstentions, is required to make the Assembly's action decisive.

In the Palestine situation this has acted to give the Arabs and those nations anxious to curry favor with them an enormous, wholly disproportionate power... and one which the British have continually exploited for their own ends, which have been obviously to block any United Nations solution if possible.

The Hebrew people of Europe were decimated before our eyes. The perpetrators of this crime proved this defenseless minority could be maltreated, even burned in ovens, without retribution being meted out to the culprits. The Arabs quickly learned the lesson and instigated pogroms in Iraq, Egypt, and Algiers, in which thousands were killed; the guilty ones were not called to Justice.

Consequently, the act of a majority of nations on behalf of a cause they deem just, disregarding selfish interests, is an auspicious sign, a good omen. On the other hand, the attempt to seduce the members of the United Nations to side with the strong, with those in a position to reciprocate, and not with the just, is a threat to the very foundations of the Assembly

of the nations of the world.

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Only recently, in pursuance of this policy, the Arab members of the United Nations abstained from voting on questions in which the USSR was concerned, not because of any conviction in the matter, but because of the principle of “do ut des.”

Even in the commission investigating the Palestinian problem, the Moslem members (from Iran and India) from the very beginning sided with the Arabs. In the United States such bias on the part of a judge in favor of his coreligionists would be regarded as a vicious thing. The overt selling of votes and favors by the Arab bloc is an act which, if permitted to continue, will make of the United Nations a court of Sodom.

The Arab bloc has six votes: Iraq, Syria, Lebanon, Saudi Arabia, Yeman, and Egypt. Until oil was discovered in Arabia, the Egyptians regarded it as an insult to be called Arabs; they considered themselves as belonging to the Egyptian nation and race.

And why are there five Arab nations besides Egypt? The members of the Arab League act as if they were one nation, and actually they are one. Before Versailles there was no independent Arab land; all these countries formed a part of the Asiatic province of Turkey. Then Hussein, the sheriff of Mecca, became King of Hejaz; one of his sons was crowned in Iraq, and another in Trans-Jordan which was severed from the area covered by the Balfour Declaration. The creation of the state of Trans-Jordan already constituted a partition of Palestine, made with the alleged intent to leave the entire Cis-Jordan as the Jewish National Home.

If Ibn Saud, who expelled Hussein from the Hejaz, should divide his kingdom among his 30 sons, 29 additional Arab nations would be created, each with a vote in the United Nations, since each would be independent and “freedom-loving.”

Is the United Nations to be a mere collection of potentates who increase the number of nations by dividing their kingdoms?

In violation of the very principle on which the United Nations was created, the members of the Arab League proclaim that they will make war if the United Nations reaches a decision on Palestine contrary to their desires. Let us look at the potency of their threat.

* * *

The truth of the matter is that the Arab states have millitary value only to the extent that they receive American and British or Russian arms. The Hebrew population of Palestine, which played such a decisive role when the scales were evenly balanced at Alamein, could easily defend itself aganist the Arab nations if it had comparable equipment. The backwardness of the Arab people makes them poor contenders in modern warfare.

The Iraqi are some 3,500,000 poverty-ridden, malaria-and-trachoma-stricken, illiterate peasants, paying up to 300 percent yearly interest on the eternal loans from the effendis, and this is a country which, in historical, pre-Arab times, provided a plentiful living for 50,000,000 people. The empire of the Ibn Saud has no parliament, no elections; the criminal code provides barbaric punishments, such as cutting off arms, often for petty offenses. In the entire kingdom there is but one newspaper, owned by the government, with a circulation of 200.

Yemen, with its 2,000,000 people, has no newspapers at all and no public opinion. It has a vote in the United Nations, yet Jews in Yemen are slaves of the crown, and any attempt to migrate to Palestine or elsewher is punishable by death. In contrast, the city of Tel-Aviv alone publishes over 20 dailies and periodicals; during the war years about four hundred books were published annually. Trans-Jordan has a population of 300,000 semi-nomads, unable to read and to write or even to sign their names` a British puppet, they have applied for United nations membership, a “nation” with a population equal to half that of Buffalo and without it industry.

The discovery of oil in Arabia brouth the Arab kings to baleful eminence. They knew how to exploit American interests in Arabain oil, to create fear of Russian penetration into the Middle East, intriguing with Russia without a sincere intent to let her in.

Who does not like American dollars? Actually, in Arabia like the seeds of future war. It was another good omen, therefore, that Russia disentangled itself from Arab intrigue and declared her intention to go along with the “majority plan” for Palestine, thus demonstrating to the United States that it had no desire to exploit American consent to the partition plan as an opportunity to play the “protector of Islam.”

The major point of discord between Russia and America thus falls out. Policies in Greece or Turkey are important to the economic interests of America prima facie inasmuch as these countries guard the way to the Middle Eastern oil fields. The joint positions of Russia and the United States on the Palestine question is a major victory for the peace of the world, overshadowing the Palestinian problem itself.

Thus, good and bad portents have appeared in this session of the United Nations. This organization might easily have become a screened battlefield for oil, and a future historian might have called it “the oily alliance,” an organization where power politics were played as in the Holy Alliance of 1815.





New York Post

TUESDAY, FEBRUARY 17, 1948

Atom and Oil

We Risk War for Oil Fields in Middle East But Neglect Atomic Energy for Peace

By OBSERVER

These days we are being told that work on atomic weapons will proceed on a greater scale, and that new and more modern atom bombs are in the process of development; that the development of atomic energy for manufacturing and other civilian uses will be slowed down; that the prospects of seeing this energy employed in civilian production are dimmer now than they were only a few months ago; and that, not in one or two years, but only in ten years from now will there be any chance to put atomic energy to work for the benefit of mankind.

Why is this so? Because, we are told we must be prepared for war with Russia. Why must we engage in a war with Russia? Because Russia threatens American oil concessions in the Middle East.

Oil is fuel and, thus, a source of energy. America is the greatest producer of oil, but also the greatest consumer. The day may come when America will import more oil than it exports. Especially in the event of hostilities, oil will be the decisive raw material, and American oil resources may not suffice to lubricate and fuel another war of several years' duration.

Consequently, it is argued, we must prepare ourselves with atomic weapons for a war, even a preventive war.

This is a chain of fallacious arguments. Although Russia, by its support of partition in Palestine, demonstrated that it does not intend to exploit American difficulties in the Middle East centering around Palestine and oil concessions in Arabia, the oil

companies of America and our Administration feel insecure over the

fabulous concessions in Arabia. These concessions belong to private companies.

* * *

In January of this year, profits from Arabian oil by two foreign corporations owned by two American oil companies were stated to be more than \$ 1 1 7,000,000, in disclosures made to the Senate War Investigating Committee. Treasury agents told the committee, however, they saw little chance of obtaining any tax revenues from these profits.

Sen. Owen Brewster, chairman of the Senate Committee, had presented the facts unearthed before his committee to the Treasury Dept. on Nov. 21 last.

It appeared that the Texas Company and the Standard Oil Company of California jointly owned the Bahrein Petroleum Company of Canada, which, it was testified, piled up profits of \$92,186,107 on an investment of \$ 100,000, and the California Texas Oil Company (Caltex), incorporated in the Bahamas, had profits of \$25,387,673 on an investment of approximately \$ 1 ,000,000.

“No taxes of any kind had ever been paid to the United States or to any foreign government,” Sen. Brewster told the Treasury Dept.

Much has been made in certain quarters of the close proximity of Russia to the oil fields of the Middle East. But if the threat were as real as it is portrayed, considerable doubt should be cast on the wisdom of the State and Defense departments’ policy of placing our national resources behind the oil concerns, risking involvement in war with Russia to protect these fields.

Because Russia is so close to the oil fields in question and we are so far away, in the event of hostilities, these fields, and the developments financed with American capital, would not only be beyond the reach of American forces, but

* * *

Are the oil companies interested in a war that will engulf the Middle East? They should certainly not be. They would be unable to exploit their concessions during a war, and very probably they would lose these concessions as the result of a war. War would be a death warrant for all the profits these companies hope to extract from the Middle East.

Then do we follow the path of wisdom or the road of fools? To postpone the development of atomic energy as a source of energy for national manufacturing and other civilian uses in order to prepare for a war to defend oil, an inferior source of

energy in comparison with the atom, is a grave mistake.

One gram of atomic fuel has enough energy to carry a plane around the world, and a few grams may drive a ship around all five continents. The money and human effort expended on the development of atomic weapons, if devoted to the development of atomic energy for civilian purposes, would relegate oil to a secondary position.

Would we drive a donkey in a Rolls Royce? Should we use atomic energy for the sole purpose of upholding oil concessions when the atomic product is infinitely superior to oil.

America does not need to fear a lack of oil; the atom would keep production going, and make the world a good place to live in.

The oil industry would like to prevent the development of the atom for peaceful uses; it therefore presses it into war uses, totally blind to the fact that in the event of a war the oil industry would lose its possessions in the Middle East; the enemy would itself use the oil, the pipe lines, the installations, and refineries now built, unless we ourselves blow them up at the start of the war.

* * *

It is obvious, therefore, that the oil industry is leading not only America, and the entire world, but also itself, to disaster. In the atomic age no war should be fought for any source of energy whatsoever.





New York Post

MONDAY, FEBRUARY 23, 1948

Ex-Mufti, Criminal Ally

State Dept. Conceals Promised White Paper Book; Uses Whitewash Instead

By **OBSERVER**

On Mar. 19, 1942, the ex-Mufti of Jerusalem spoke to the Arab world by Rome radio and said: "If, God forbid, America and her allies are victorious in this war . . . then the world will become hell, God forbid. But Allah is too just and merciful to grant such murderous violators any victory."

After a long struggle and supreme sacrifices, the "murderous violators" became victors. They entered Germany while the ex-Mufti was still there with the bags of gold he had received from Hitler. He escaped to Switzerland, was expelled from there back to Germany, was captured by the French army and placed under house arrest; then he escaped from France to Cairo on a false passport, and became the head of the Arab Higher Committee.

On Aug. 28, 1946, Dean Acheson, then Acting Secretary of State, announced that "the State Dept. is preparing a White Paper concerning the activities of the ex-Mufti of Jerusalem." Acheson said the publication would be in the form of a book, which would cover all the documents concerning the ex-Mufti seized from German files.

This White Paper has not yet been published, although 17 months have passed.

What keeps the State Dept. from publishing it? Who is interested in the delay? Are all the documents safe?

* * *

In October, 1941 Gen. Wavell, commander of the British Middle Eastern forces, offered a \$100,000 (25,000 pounds) reward for the capture of the ex-Mufti, dead or alive. This offer has not been withdrawn and therefore it still stands. Nevertheless, the British Government allies itself with the ex-Mufti and the Arab Higher Committee which he heads, and follows him on everything that concerns Palestine.

In August, 1945, Yugoslavia asked that the ex-Mufti be placed on the official list of war criminals. What is the reason for the failure to bring him to trial in Germany, where he was captured when Germany collapsed?

If the State Dept. is not subservient to this war criminal, why does it keep back documents it is bound to publish? Officials of the State Dept. who conceal documents that would be useful at present during the trials of war criminals are guilty of shielding the criminal and become fellow culprits.

What, can be the facts that the friends of the ex-Mufti in the State Dept. should find It necessary to add the information to the unpublished archives, instead of releasing it without delay, as I promised by Dean Acheson over 17 months ago? This protected person is a fugitive from justice, and has been since 1937, being under a still valid warrant of arrest of the Palestine government for the assassination of Jews, Arabs, and British, including Galilee Commissioner Andrews. Since then he has lost his Muftiship, to which he was never elected by the Arabs, but merely appointed, ignoramus that he is (he never finished a single course in the Cairo Theological University and was expelled) through the intrigue of Gen. Storrs, later of evil Cyprus fame.

* * *

The ex-Mufti escaped from Jerusalem and Palestine in the garb of a woman. In Syria he was on Mussolini's payroll. When, with the beginning of the war, his position in Syria, a French mandate, became 'insecure,' he escaped to Iraq. There he worked hard and succeeded in bringing Iraq into the war against the Allies, the declaration of war having been made on May 2, 1941. At that time the Nazis' entered Greece and Egypt.

When the revolt was crushed (mainly by the Jewish volunteers from Palestine), the ex-Mufti escaped to Iran and hid himself in the Japanese Embassy there. From Teheran he escaped to Italy, where his arrival was announced by the Fascist radio as a "great and happy event;" in November, 1941, he arrived in Berlin and was received by Hitler. In 1942 the ex-Mufti organized the Arab Legion that fought the American invasion in Africa (on Apr. 10, 1946, Representative Celler referred to 3,000 members of the Arab Legion that were held prisoners of war at Camp Opelika in Alabama).

* * *

On Dec. 29, 1942 the ex-Mufti sent a telegram of congratulations to Emperor Hirohito, assuring the latter that the Arabs were “praying for the final victory of Japanese arms.”

By the end of 1943 the ex-Mufti had organized Bosnian “Black Legions” to fight the Allies. He also bears a heavy responsibility for the annihilation of European Jewry, according to Nazi testimony given at Nuremberg. He visited the gas chambers; he wrote to the Cabinet Ministers of Hungary and Romania asking them to send the Jews from their countries to the concentration camps in Poland.

Thus according to the Charter of the International Tribunal at Nuremberg, the ex-Mufti is a criminal on all three counts, for crimes against peace, war crimes, and crimes against humanity.

If the ex-Mufti is not only not brought to Nuremberg, but is permitted to continue his murderous career, then we will do well to reflect once more upon his words quoted at the beginning of this article. Did not the world really become hell?





New York Post

SUNDAY, FEBRUARY 29, 1948

We Lose to Great Britain

*The U.S. Is Jockeyed Out of Role of
Mediator Into Antagonism to U.S.S.R*

By OBSERVER

Before the war ended, Great Britain became increasingly apprehensive of Russian expansion. During the war it was British policy to postpone the opening of the second front as long as possible; the Russians say that this was done on the chance that Germany and Russia would bring about their mutual destruction.

Never in her history had Britain permitted a continental power to become strong enough to dominate Europe. She had fought Napoleon when he became the dominant force in Europe; she entered into a coalition against Germany under Wilhelm II in World War I; between two world wars Britain helped Hitler build up a - state capable of checking France, which seemed to be growing into the dominant continental power.

But never has there been an empire that stretched from the Pacific Ocean to the British Channel: London is within shooting distance of V-missiles from Stettin. Where World War II finished World War III, if there is one, will begin. The V-weapon was put into action not long before D-Day; better weapons would destroy London within a few hours after the beginning of the next war. This makes the British very concerned over prospects for the future: and almost paralyzes normal life.

When World War II was over, Russia made great efforts to stay on friendly terms with the United States because of genuine admiration for American technical genius and recognition that the opening of the second front was decisive in the outcome of the war. There was even a possibility that if Russia felt secure she would make a step toward real democratization in the western spirit.

But in the summer of 1945, the British watched with great anxiety the demobilization of the American Army and its withdrawal from Europe. America had required years to reach the peak of her military might, and now that this force was being scrapped, the Russian menace became intolerable for Britain.

There were people on the Isles who wished that the prophecy of Hitler would come true; and that before Russia could repair its war-shattered land, the Western Powers with their atom bomb monopoly would reduce Russia to such a state that she would no longer be a threat to Britain and the other countries of Europe.

How did it happen, then, that the United States, which had played the role of arbiter between Britain and Russia in the days of Roosevelt, became the antagonist of Russia with Britain playing the role of mediator? Russia would have

preferred to antagonize Britain rather than the United States. Who maneuvered America into the role of the “chestnut-puller”?

Britain has made every effort to drive a wedge between the United States and Russia. Churchill’s Fulton, Mo., speech, in which he actually called for war against Russia, is still fresh in our memory. At the same time, however, British Government voices asserted that Great Britain is too exposed to attack and cannot afford to participate in a war against Russia, and in the event of a conflict she would remain neutral.

Thus, on the one hand; Britain is represented as an ally of the United States in case of war, and on the other hand, she may well remain neutral. She requires help from America in the form of loans in order to be able to continue as a vital force against Russian expansion. Actually, Britain exploits its own fear of Russia by infecting America with the same fear and, on the basis of the engendered fear, borrowing from America, with scant intention of repaying. Russia, feeling the threat, being frightened by atom monopoly of the Anglo-Saxons, arms herself, builds an iron curtain, competes with England and the U. S. in occupying strategic positions, and scares England out of her wits.

In dealing with the United States, Great Britain is one of the two great “Western Powers” opposing totalitarianism; but in its relations with Russia, Great Britain is a socialist comrade opposed to capitalism.

In America, many Senators, editors of large-newspapers and influential men in Washington are Surrounded by, the British fifth column, consisting of social friends, title-bearing visitors and British newspapermen, both male and female, who entertain at luncheons, dinners and cocktail parties, to create a war hysteria here. The United States is thus maneuvered into the position of the principal antagonist of Russia, while Britain retreats into the role of and arbiter or pacifier of America and Russia.

* * *

The fact that Russia has a political and economic system very different from that of the United States need not become a cause of armed conflict, though great effort is being made to convince us that such an outcome is “inevitable.”

The Russian regime under the czars was surely very different from ours, but America and Russia were never at war: in fact, they are the only two great powers that never made war against each other. Russia is also the only great foreign market that could absorb American production if there should be a depression in the domestic market. Then why war with Russia. The most interested parties are Great Britain and four American oil companies.

If Russian is defeated, another two or three hundred million people would become the liability of the American taxpayers, for such a victory would be achieved only after Russia had been reduced to a shambles. And Western Europe would be dependent upon America’s feeding hand beyond this generation.

Nor will any civilian in the United States be safe from the modern means of wholesale destruction. War will destroy victor and vanquished. But history teaches that if weapons are produced, they are used, and if war is talked into the people, one day it becomes a reality. British fear of Russia is the principal motive for war.

Instead of fulfilling her historic role as the leader in co-operation among nations, Great Britain, driven by fear, pursues the path of short-sighted politics by stirring up antagonisms and animosities, a course which was brought into the open by Churchill at Fulton, and carried a step further in his latest speech in Parliament, in which he asked for a showdown with Russia.

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Although Leader of the opposition, Churchill actually speaks for the Government, for in this case Bevin would not dare to express in his official capacity what Churchill is free to say. Thus Britain actually plays the role of the mediator.

Meanwhile, Russia, feeling segregated and menaced, grows into an aggressor, aggression substituting for defence.

* * *

If America, by reason of its oil interests, sees in necessity for making war with Russia, then it is making its own policy. But when the public is whipped into war-hysteria against Russia as a pawn in Great Britain's wishful ream of dividing to conquer—it is time for sane men to call a halt.





New York Post

SUNDAY, MARCH 21, 1948

Homeland for Heroes

Yesterday, Today and Tomorrow— Palestine's Saga of Toil, Hope and Promise

By OBSERVER

Whoever, in our days, has stepped on the soil of Palestine, knows that in that country there lives a generation of Biblical stature. In the 1800 years and more since the destruction of the Jewish state by the Romans, the Jewish people, dispersed and persecuted, have not given up their determination to return to the Promised Land.

Three times a day the Jew turned his face toward Zion and prayed that it might be God's will that in his day the Jewish people should, with Divine Grace, return to the land of their forefathers.

In each of the eighty generations of the dispersion, in times when there were no steamships and no trains, aged Jews went to Palestine in order to die there; around Jerusalem there are an estimated six million graves of these Jewish pilgrims whose greatest wish was to lie in the Holy Land with their faces toward Jerusalem.

And every religious Jew who died or dies in the dispersion and is buried by his fellow Jews—in Europe, in America, in Australia, in South-Africa is given a little pillow with sand from Palestine under his head, that he may lie on it in the place of his eternal rest, wherever that may be.

* * *

The forefathers of the Jews did not leave Palestine of their own will. The Roman Empire subjugated all countries and all peoples in their reach—Saxons and Germans and Gauls—and none offered the resistance put up by the Jew in their little Palestine. The Roman Empire conquered all, and in the whole world there was none who would dare to fight for his freedom, none but the Jews, who rose to defend their land and their liberty. Wrote the Roman historian Tacitus, an enemy of the Jews, who lived in the time when the Jewish state was destroyed:

“The entire community of the besieged, of all ages, both men and women, numbered, as we learned, 600,000 souls. All were armed who could carry some weapon, and more people than one might have calculated from the total number rushed with their weapons into battle. Both men and women proved to be, equally tenacious; they dreaded remaining alive, in case they would be subjected to exile, more than death. That was the city and that was the people whom Titus Caesar decided to fight with towers and walls.”

And Dio Cassius, another Roman historian, narrates:

“Even when a breach in the second wall was made, the Jews were hardly subdued, but they crushed a mass of their advancing enemies . . . The Jews considered it a great good fortune to sacrifice their lives fighting for their Temple. . . . And as small as their number was compared with their enemies; they were not, nevertheless, overcome, until a part of the Temple went up in flames. Then they hurled their bodies against the enemies, swords, or killed one another, or jumped into the flames. Everyone felt that to be buried under the debris of their Temple was not death, but victory and immortality.”

Those few who survived did not leave their homeland of their own will, nor did they sell the soil of their land, that they became homeless.

In the dispersion they remained true to their race and to their spiritual heritage. They endured inquisitions and pogroms. In the face of abuse and injury and death, they remained steadfast. And in our days, in this, the 20th Century of the Christian era in the center of the civilized world, the Jews were rounded up and tortured, starved, gassed, burned, and mutilated, yet in the ghettos they defended themselves without adequate weapons, one against thousands, and died gloriously.

* * *

And in these times, when the Jewish people have been decimated, we see also its rise to statehood on the soil of the homeland.

Three generations ago there rose in the Jewish people the belief—which grew to conviction that God’s will is in the hands of the people, that the hour for their return to their homeland had struck, and they started on their final way home. They found a desolate country, where there was not one tree to cast a shadow, a country of ruins and malarial marshes. They drained the marshes, and the first generation of pioneers succumbed to malaria.

They planted among the rocks and on the dunes, and a nation that had been condemned to ghettos for centuries in a few decades became a rural population performing miracles in agriculture unattained anywhere else.

They also wrought the miracle, of reviving the language of the Prophets, and made the Hebrew of the Bible the tongue of their daily lives.

They did not go to Palestine seeking their fortune, as the pioneers of other countries and the pioneers who opened the American West. Boys and girls left universities and the capitals of Europe to become farmers in the marshes of Galilee, in the pit that is the valley of the Dead Sea, the hottest spot on earth, and in the desert of the Negev, where nothing but dusty cactus grows.

* * *

Whoever steps on the soil of Palestine is aware that in that country there lives a generation of Biblical stature. They have created new forms of life based on the idea of co-operation and individual freedom. They have revived the land. They have created a rich literature in Hebrew. And if mankind is looking for new relations in a society of man helping man in individual freedom, then it must turn again to Palestine of the Jews, as it has done more than once in the course of history: this much said General Sir Arthur G. Wauchope when he returned to England after serving from 1931 to 1938 as High Commissioner of Palestine. The old Hebrew Bible, which is the story of the Jewish people and the peoples among whom they lived, ought to be reopened and new chapters written there.

This generation of Jews in Palestine and of six million martyrs who were killed for being Jew deserve a narrative in the Bible no less than the generations of Judges, Kings and Prophets, and certainly as much as the deeds of Queen Esther of Persia or of the early Zionists of the days of Ezra and Nehemiah.

* * *

Not one colony has been abandoned in spite of today's events, not a single post in the waterless desert, not a little farm near the Dead Sea, not a children's home in the hills of the Jezreel Valley, not the quarter of the old and poor Jews inside the old Jerusalem walls, although most of these places are strategically indefensible.

Arms are sold and given away by the British to the Arabs of all the countries around Palestine. They would like to come from the hills and deserts to take gratis what the Jews, by supreme effort have built there in three generations.

In Palestine the Arabs have created neither spiritual nor material values. The Jews found there almost nothing that had been added since the destruction of Jerusalem.

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The country is called by all humanity the Holy Land because of the Jewish past, and not because of the Arab past. Long before the Balfour Declaration and the vote of the United Nations for partition, it was called by all humanity the Promised Land, and long ago all peoples agreed for which nation it was meant.





New York Post

SUNDAY, MARCH 26, 1948

Munich at Lake Success

The Black Friday When We Betrayed Partition Appeased Only Evil

By OBSERVER

On Black Friday, when the United States and the Security Council made their about face, a delegate to the United Nations said: "The first child of the United Nations is dead." To which another delegate replied: "The mother is dead, too."

Last spring the United Nations convened in a special session of the General Assembly. A committee for Palestine, in which all members of the United Nations were represented, was established; a Commission of 11 nations was sent to Palestine and Europe to investigate the problem; after many weeks of investigation, it brought back 1st report.

All the nations again deliberated at Lake Success in the Palestine Committee after long discussion the plan to partition Palestine was accepted by the Committee and submitted to the General Assembly at Flushing Meadows.

The General Assembly of all nations again deliberated at length and agreed by a more than two-thirds majority to the partition of Palestine.

It fixed the date when this partition was to take place and when the Jewish and the Arab states were to be established, with representatives at the United Nations. Five small nations were asked to send members to Palestine to effectuate partition. Great Britain refused them permission to enter earlier than two weeks before the end of the mandate on May 15.

The Arab states around Palestine sent troops into Palestine thus violating the decision of the United Nations.

The United States imposed an embargo on arms to Palestine, but the British sent arms to the Arab states "according to the contracts." It was up to the Security Council to decide whether Palestine presented a menace to peace.

Behind a silken curtain of silence the State and Defence Depts. planned a "shabby trick on the Jewish community of Palestine," in the words of the New York Times editorial of Mar 21.

There was need to build up a segment of public opinion which should demonstrate that not every one in the United States agreed with partition. Miss Virginia Gildersleeve, retired Dean of Barnard College, organized a small committee.

D. Dodson in the American Mercury of July, 1946, wrote that Barnard College under Dean Gildersleeve practices “most flagrant discrimination where the number of Jewish applicants is concerned.” This statement has never been disproved or disputed. Apparently, Miss Gildersleeve believes that Jews should be admitted into Palestine as they are into Barnard College—by a **numerus clausus**. As to the prerogatives of the General Assembly of the United Nations, Miss Gildersleeve wrote (Herald Tribune, March 9)

“In order to uphold the United Nations we are not now obliged to put through partition just because the General Assembly recommended it . . . So I beg you to urge our leaders, our press, and our people to read the Charter of the United Nations. . . of that world organization, on which our hopes for the future so largely depend.”

Now Secretary of State Marshall calls for another special session of the General Assembly in order to make the about-face before a greater public. But if the General Assembly can only recommend, then it is, in the words of Dr. Abba Hillel Silver, just a debating society with “actors and supernumeraries busily engaged in futile talks.”

Mr. John D. Rockefeller, Jr. might as well ask the United Nations for the return of his generous gift of a parcel of land on the East Side of New York City. A debating society does not need so much space. They can convene in Columbus Circle under the sky. And on rainy days they can stand there under umbrellas, the symbol of Munich, of the appeasement of evil.





New York Post

SUNDAY, MARCH 28, 1948

The General Surrenders

*The Consistent Record of Pro-Arab Policy
by Our Secretary of State*

By **OBSERVER**

The American Administration—Truman and Marshall—and the United Nations delegate to the United Nations, Austin, have made a serious blunder by proposing at this late date a trusteeship for Palestine.

It would be an appropriate step if it applied to the Arab part of Palestine for which no authority is prepared to take over at the end of the Mandate on May 15, but in the form in which the proposal was presented, it reverses partition itself.

This about-face makes a mockery of the United Nations and of all its deliberations, investigations, reports, and resolutions.

It demonstrates that the United States is not a leader, but a wavering colossus who can be intimidated by bands armed by the British, and at American expense and with American consent. It also proves that the Administration has no idea, even a single hour in advance, what the immediate reaction of the American press and public would be, in itself a sign of ineptness.

* * *

It demonstrates, too, that the Administration is unaware of even the most elementary requirements of fair procedure. If there was a change of mind, the State Dept., instead of taking the Arabs into its confidence, should have consulted rather with the Congress, or the House and Senate Foreign Relations Committees, the Secretariat of the United Nations, and the Jewish Agency, the possessor of rights acquired by the vote of the General Assembly on Nov. 29 which the State Dept. intends to nullify.

The Administration has shown itself to be wholly ignorant of the influence its act would have on the political situation in Palestine. The Arabs are easily cowed and respect force above all else, but they always try to bully you first.

Their bands, which did not intimidate the Jews, who fought without adequate arms, succeeded in intimidating Gen. Marshall and President Truman. The result? The fight has flared up more intensely, with this difference, that now the Arabs are given the green light to destroy the Jewish community in Palestine, which is a “shabby trick” on the part of America, in the words of the Times editorial of Mar. 21.

* * *

Even before the change of mind the Arab states were not asked to abide by the decision of the United Nations and not allow armed bands to cross the border into Palestine; now they are actually being invited to send these bands to prevent the partitioning of Palestine.

Thus, ineptness in action, breach of faith, ignorance of American public sentiment, disregard of the results of this about-face on the Near Eastern situation, and ignorance of elementary fairness in handling political matters are combined in lone single bundle as never before in any situation in American political history. The result the United States is a laughing stock all around the 360 degrees of the globe.

Why did not Gen. Marshall go to the Senate Foreign Relations Committee before announcing the reversal of the United States stand? He might have received some advice on the proper thing to do. Instead, Austin went to the Arabs to inform them of the impending about-face. To make matters worse, not one concession was asked as the price of this surrender, in matters of immigration or anything else.

* * *

The ex-Chief of Staff, who is now Secretary of State, seems also to be completely uninformed of the military strength of the Arabs in the Middle East. Before the First World War all these Arab states constituted an Asiatic province of Turkey, and Turkey was not a strong power.

These countries have made no progress militarily; just the opposite. Turkey, if permitted, could easily subdue them all again. These six or seven Arab states together are weaker than the one democratic ally in Palestine, the Jewish community which has forty thousand men who were trained in Allied armies during the war.

The Arabs are backward, inefficient, alphabetic; that they are treacherous, too, is evidenced by the declaration of war against the Allies by Iraq on May 2, 1941, an episode liquidated by 700 Allied soldiers.

Four years ago, when the war was still going on, Gen. Marshall appeared before the Senate Foreign Relations Committee.

For several months the Senate had been prepared to pass the Taft-Wagner resolution favoring immigration of Jews to Palestine. The immediate question was the admission of Romanian and Hungarian Jews, since these countries were threatened by German occupation.

At first the State Dept. opposed the passage of the resolution; then President Roosevelt had the State Dept. inform the Senate that it withdrew its opposition.

But in the first days of March, 1944, Gen. George C. Marshall, then Chief of Staff of the Army, appeared before a closed session of the Senate Foreign Relations Committee and urged rejection of the Palestine resolution that was before both Houses of Congress. The result was that the resolution was shelved and was not brought up at that session of Congress.

* * *

On March 10, 1944, Germany began the military occupation of Hungary. As a first step, Jewish children were separated from their parents and sent to gas chambers in Poland.

President Roosevelt protested, but his protest could not help. Three hundred thousand Jews in Hungary were destroyed, not because the door of Palestine was kept closed to them by the Nazis, but, because it was locked on the inside by the British in default of American demand for its opening as intended by the Taft-Wagner resolution.

After the Jews of Hungary came the turn of the Jews of Romania, who for five years lived with the specter of being

captured by the Nazis before them.

Did Gen. Marshall correctly appraise the situation when he sacrificed hundreds of thousands of human lives by allowing them to be trapped? Certainly not. The Arab world is as vociferous as it is impotent. Moreover, in the spring of 1944, the Axis was on the decline and the Arabs had started to shift to the other side of the fence.

On March 24, 1947 General Marshall again went before the Senate foreign Affairs Committee, behind closed doors. Again he covered himself with the phrase, “national defense demands it” and this despite the obvious fact that national honor forbids it. Must not national honor be safeguarded by national defense, first and foremost?

* * *

To make the picture even more somber, the beneficiary of American retreat, in 1944 as now, is the ex-Mufti of Jerusalem. Before Hungary was occupied by the Nazis on June 28, 1943, the ex-Mufti in Berlin addressed the following letter (in French) to the Foreign Ministers of Hungary, Romania, and Bulgaria:

“I beg your Excellency to permit me to draw your distinguished attention to the necessity of preventing these Jews from leaving your country for Palestine, and if there are any reasons which make their withdrawal necessary, “that they be sent to other countries, as for example Poland, where they would find themselves under active surveillance.”

By an irony of history, Gen. Marshall tried to prevent the Hungarian and Romanian Jews from reaching Palestine; this was also the aim of the ex-Mufti in Berlin. Success was complete. Gen. Marshall is a great soldier and has a kind heart. How could it happen that he is so blind to the vital problem, the very survival of a persecuted nation? How could it happen that he makes the same call for the second time and by doing this shepherds the United Nations to humiliation?

The ex-Mufti, instead of hanging from gallows (his file has not yet been made public by the State Department), plays the role of Gen. MacArthur, leaving to President Truman the role of the Mikado. Little wonder the world is shocked by American surrender.





New York Post

SUNDAY, APRIL 14, 1948

False Issue: Communism

Palestine's Foes Try to Drag Red Herring Over the Trail of Justice and Logic

By **OBSERVER**

The Arab League offers cynically to join the Western block on the condition that Jewish Palestine be sacrificed. Not long ago the League threatened to go over to Russia if the Palestine problem was not solved to its liking. The League bargains with the conscience of the world and offers as the price, the impotent military strength of Arabia, nil and nihil that it is.

In other words, if Jewish Palestine is delivered to their mercy, then will they give in return? No, then they will agree to accept American dollars through ERP! In time of war, anyway, they will side with the winning party, as they did during World War II, when they crossed the fence less than thirty days before the fall of Berlin.

The U. S. S. R. is accused of trying to use the situation in Palestine for its own ends. The truth is that Russia, being reluctant to make war with atom-armed America, by her attitude in the Palestinian question, tried to free America of the fear that she is plotting against American interests in the Middle East. Had Russia opposed partition, she might have won the friendship of the Arab states with their oil, and voices charging that she did so as a political maneuver would have been justified.

By going along with the United States on the program of partition, Russia showed that she did not intend to use the Palestinian problem to antagonize the United States.

Having voted for partition, Russia is accused of plotting in the Middle East against America; having voted against partition Russia would certainly have left herself open to the same accusation. How should she have voted in order not to provoke suspicion?

* * *

Immediately before Mr. Austin, the American delegate to the Security Council, announced the reversal of the American stand on Palestine, the Lebanese delegate, Mr. Chamoun, in a speech, declared that the plan adopted by the United Nations would lead to penetration of Communism into the Middle East.

For a time a subversive propaganda campaign on the Goebbels motif of "Communists and Jews" was going on behind the scenes. In view of the acuteness of the present international situation, this underground propaganda against Jewish Palestine, which came into the open in Chamoun's speech, requires an exposition.

* * *

The Arabs and their supporters try to exploit the international situation by attempting to show that Palestinian Jewry is Communistic. The history of the Zionist movement utterly refutes this. The fact is that IN NO COUNTRY OF EUROPE IS THE COMMUNIST ELEMENT SO WEAK AS IT IS IN PALESTINE. Actually it is almost non-existent, for according to the World Almanac, 1948, there is only one Communist against 800 non-Communists as compared with France or Italy where the ratio is roughly one Communist against two non-Communists.

There is in Palestine a well-organized labor movement, but it vigorously opposed the Third (Communist) International, at least as strongly as did the Labor Party in England.

It is also a fact that for the 30 years since the Russian revolution, Zionism has been outlawed in Russia, and Zionists were and still are banished to Siberia. During the Arab disturbances of 1920, 1921, 1929, and 1936-38, the Soviets carried an anti-Zionist propaganda. This could not make the Palestinian Jews the Soviets' friends.

But, again according to the World Almanac, Communism is rather widespread in Syria and Lebanon and in many pleasant homes there hang pictures of Stalin, sometimes next to those of Hitler and the Mufti. For every Communist in Palestine there are tens of Communists in Lebanon, and Syria, though with a tint of fascism. The ideology of dictatorship has an appeal for an Arab, not for a Jew.

The work of spreading the lie that thousands of Communists are infiltrating from the Balkan countries is carried on, not only by the Arabs, but by the British propaganda as well. Actually all these immigrants were selected by Zionist organizations in the lands of their departure.

Thus, this propaganda is as clumsy as the report put out by British official circles charging the Zionist organization with kidnapping Jewish children from their parents, to counteract world indignation at the sending of the refugees of the Ship Exodus 1947, who had already stepped on the soil of Palestine, to vacant camps in Germany.

* * *

The Palestinian problem should rather be used to build peace. Just as from one crystal new crystals grow; so the proper solution of the Palestinian problem, based on an agreement between the major powers, would lead to the proper solution of other problems in dispute and world peace would follow.

But also with the war chances growing daily, Jewish Palestine as a stronghold of democracy and as the only productive country in the Middle East, should not be destroyed. Strategically, Palestine played a major role in the Middle East in World War II; the victory at El Alamein would not have been won had it not been for the Palestine "hinterland" with its production, its system of private enterprise in the spirit of free competition, and the enthusiasm of the Jewish people for real democracy.

* * *

On March 27, three Senators, Chavez of New Mexico (D), Magnuson of Washington (D), and Chapper of Kansas (R), wrote to Secretary Marshall: "Irrespective of our views in the matter, the fact remains that the Jewish nation exists in Palestine. This nation has some 200,000 able bodied men and women who are mobilized to defend their country. Unless we endeavor to establish friendly relations and have an alliance with them, we will force them to seek protection from Communist Russia against the forces poised to attack them."

They stressed also that Jews, as allies, are a better choice than the Arabs.

It would be disastrous for mankind if America's ill-conceived policy in the Middle East should sacrifice justice to power

politics, especially power politics based on the false premise that the Arab states are an effective military ally.

As far as the oil of the Middle East is concerned, it is already trivial to repeat that this oil and installations for its exportation will be of no service to the United States in case of war, but may be of service to her potential enemy.





New York Post

FRIDAY, APRIL 16, 1948

Lake Success—or Lake Failure

*Day of Judgment Opens in Shadow as Nations
of World Debate Doom of Justice*

By OBSERVER

IT IS LIKE a scene on the Day of Judgment. The time is the day after World War II, that had been fought on land, on sea, and in the air. A shadow lies over a desolate world, for already it is the twilight before the darkness of another World War that will eclipse the previous ones and may mark the end of the age of man on earth. The world with its two billion human beings sends emissaries from all its nations to its greatest metropolis. For a year and more they debate, and search, and argue for and against giving a little strip of land, 12 miles wide, to a stateless nation that lives there, the most ancient of them all, to be called home.

* * *

THE SUN rises and goes down; the streets are filled with people; cars run on winding high-ways; trains speed underground; and life goes on its way. But the sand runs low in the hour glass, and the weapons of destruction are piled high, and still the Conscience of the world deliberates. To give the people of the Bible their Promised Land as agreed to by 55 nations at San Remo 28 years ago? To give them, perhaps, only the part that is this side of the Jordan? Or maybe only a strip twelve miles wide?

The nations of the world send emissaries from 12 of their number to investigate on the spot and to report. The emissaries return: the nations of the world again deliberate in commissions and vote, in committees and vote, in the plenum of the Assembly and vote. Finally, they appoint emissaries of live nations to give the narrow strip of land to this most ancient people.

The nations around the Holy Land move their bands there to destroy what Israel has built; and those on the isles of "The Ten Lost Tribes" (as the English say of themselves) send arms to the aggressors to make the destruction possible; and those in the land of the Star Spangled Banner put an embargo on arms needed by the ancient nation for the defence of its home.

* * *

THE NATIONS of the world reconvene. They are given a last chance to make good the evil which they and their fathers and their forfathers did to a homeless people, to wanderers over the face of the earth since the day they lost their home in war of independence with Rome and through all the generations when they were persecuted for being true to their faith

and to their heritage.

But the nations repent of their openhandedness. A twelve-mile strip? Too much! They were too generous! Return the judgment of the nations for reconsideration. Let us assemble together again at Lake Failure; it is certainly too much, a twelve-mile strip.

SAYS THE Prophet Isaiah (Chap. 43) “Let all the nations be gathered together, and let the people be assembled. . . O, Israel, Fear not: for I have redeemed thee. . . Fear not: for I, am with thee. . . I will say to the north, Give up; and to the south, Keep not back; bring my sons from far, and my daughters from the ends of the earth.”

In these days, in dark store rooms, missiles by the thousands are heaped, one of which sufficed to snuff out the breath of seventy thousand people of Hiroshima. Whoever c r e a t e d this world—or did it create itself?—man can destroy it.

If the nations of the world, Christian and Moslem and Buddhist alike, sitting in their Tribunal in this year 1948, will twist justice and empty it, and will stretch out their hand to extinguish the hope of the eternal people to return home, then:

“Behold the nations are as drop of a bucket, and are counted as the small dust of the balance. . . All nations before Him are as nothing; and they are counted to Him less than nothing, and vanity” (Isaiah 40)





New York Post

SUNDAY, APRIL 18, 1948

Partition: An Old Custom

When Syria Was Divided it Took Only a Small French Force: What of Palestine?

By OBSERVER

Syria and Palestine are neighboring countries, both on the eastern shore of the Mediterranean; Syria occupies the northern half of that coast and Palestine the southern half. Since the partition of Palestine is so much in the focus of attention, it is useful to recall that the original Syria was also partitioned and that only a short time ago.

From 1920 to 1944 Syria was a French mandate, just as Palestine was a British mandate. The French divided Syria into Lebanon, on the coast, and present-day Syria, but ruled over both parts under one mandate.

On Nov. 26-27, 1941, the Free French declared their intention to make Lebanon and Syria independent republics. Syria strongly objected to the separation of Lebanon, but in vain.

An agreement signed Dec. 27, 1943, transferred, as of Jan. 1, 1944, all powers hitherto exercised by France to the Syrian and Lebanese Governments. Both republics elected parliaments, which in turn elected presidents of their respective states. In 1945 both countries became members of the United Nations.

* * *

The division of Syria into Syria and Lebanon follows a religious line. Lebanon "was made a separate republic under the mandate because of its predominant Christian population" ("Lebanon," Encyclopaedia Britannica, 14th. ed.). The population of Syria is Mohammedan, whereas the population of Lebanon consists mainly of Christian Arabs (Maronites and others) with a large Moslem minority.

Before the division, the Christian Arabs were in the minority. In 1946, the population of Lebanon was estimated at 1,160,000 on an area of about 3,600 square miles, and that of Syria at 3,006,000 on a much larger area. The territory of Lebanon is a strip along the Mediterranean about 120 miles in length, varying in width from 30 to 35 miles. Its population comprises 600,000 Christians (Maronites, Greek Orthodox Catholics, etc.) which is the dominant group, and Moslems of various sects-Sunnites, Shiites, and Druges-numbering between 500,000 and 525,000 people.

The division of Syria into the Syrian and Lebanese republics set a pattern very similar to that, recommended for Palestine. In Palestine there are about 800,000 Jews, most of them concentrated in the area designated for the Jewish State.

* * *

The Arab argument against the division of Palestine into Arab and Jewish States is negated here by the fact of a similar division of Syria. Because the Christians are the minority in Syria they must not be dominated by a Moslem majority and consequently they are given their own country. But when it comes to Palestine, the Arabs of Lebanon, as well as of the Syrian Republic, argue that a majority race or a majority religion must dominate a minority religion.

Democratic principle requires the subordination of the minority in a nation to the majority in that nation, but not the subordination of a smaller nation to a larger one. In partitioned Palestine, Arabs are the majority in their part, and Jews the majority in theirs.

* * *

In accordance with the democratic principle of equal rights of small and large nations, the members of the United Nations each have one vote, regardless of the fact that one nation may be ten or fifty times as numerous as another.

The Arab argument against the division of Palestine falls before the democratic principle of equality of small and large nations. It is utterly impotent in view of the prior division of Syria along religious lines.

The remarkable fact is that the most vociferous opponents of the division of Palestine in the United Nations is the Lebanese delegate, matched only by the Moslem delegate of Pakistan, a state which came into existence as the result of partition of India in 1947; partition which was undertaken against the initial opposition of the Brahmatic majority of India in order to give the Moslems of that country an opportunity to fashion their own destiny.





New York Post

FRIDAY, APRIL 23, 1948

Great Britain Bets on the Wrong Horse

*We Should Beware of Copying Policies
Which Lost Her Ground in Middle East*

By OBSERVER

Great Britain's position in the Middle East goes from bad to worse. In the 1930s her rivals in the Middle East were Italy and France. Italy kept an army in Libya, west of Egypt, and in Eritrea, south of Sudan. France held a mandate over Syria, a wedge between Palestine and Iraq. But the good old days are gone.

Today, the two great forces that stand on the threshold of the Middle East are the United States and Russia. From under the nose of Great Britain the United States took possession of the oil of the entire Arab peninsula, an area that for decades lay in the British sphere.

Russia, taught by the experience of the war how important it is for her to have access to a warm sea, put pressure on Turkey, which controls the Dardanelles, and on Persia, through which passed the war supply route from the Persian Gulf to the Caucasus. Russia did not make any real move to compete with Great Britain on the Arab peninsula; it was America who took over the oil concessions in Arabia, leaving Britain with her old concession in southern Persia and a half share of Iraqi oil.

* * *

GREAT BRITAIN Was very much put out by the fact that she had been so slow and that the United States had snatched up the Arabian concession. She decided to prove to the Arab world that the British are greater friends of theirs than the Americans, and to do this, she started systematically to suffocate the Jewish National Home, a trust from the League of Nations.

Even when Jewish Palestine played a decisive role in the fight for the Middle East against the Axis army approaching Egypt, the British did not abandon the White Paper policy of 1939, and kept the doors to the Jewish Home closed, thus actively contributing to the massacre of the Jewish people in Europe.

In trying to play the Protector of Islam, a role in which fascist Italy was her rival, Britain made a series of dangerous mistakes. She organized the Arab League. Together they dislodged France from Syria and Lebanon. The British tried to impress the Arabs that they, and not the French are their friends. They also perpetrated all kinds of chicanery on the

Jewish population of Palestine, and hunted down immigrants with the Royal Navy.

* * *

THEN Great Britain came to ask for her reward. She expected that because of her policy against the French and the Jews, she would be recognized as the friend of the Arab world. But what actually came out of this policy?

Bevin entered into an accord with Egypt concerning Sudan, and returned from Egypt to England to find that he had gone too far. The accord was not signed. Egypt now demands the annexation of Sudan and the withdrawal of the British from that country. Egypt is also dislodging the British from the Suez Canal zone in order to draw the attention of the Arabs away from Sudan, Great Britain stirs up civil war in Palestine and takes the side of the Arabs.

Bevin sought an agreement with Iraq. With much pomp on January 15 this year he signed a treaty with that country, which owes its very existence as a state to Great Britain. This country of beggars and loan sharks is, thanks to the British, a member of the United Nations and this despite the fact that it was a member of the Axis, proclaiming war against the Allies on May 2, 1941. Oil, as you know, cleanses.

Dukes, marquises, and members of the Cabinet and of Parliament went to Portsmouth to witness the great success of Bevin's policy in the Middle East. But a few days later the nationalists of Iraq chased their premier, who had returned from Portsmouth, out of the country and rejected the treaty, which bound Britain to defend Iraq in case of war, and gave her an equal share with Iraq in two airports in time of peace.

The misfortune Bevin had with this much-heralded treaty, which was to have become a pattern for other countries of the Middle East to follow, is unique in the history of modern politics.

THE FUNDAMENTAL mistake of the British policy in the Middle East lies in the fact that it is based on the assumption that by dislodging others from this area—the French, Italians, the Jews, and some day the Americans—they can prove to the Arabs that they are their best friends. But actually what they have succeeded in doing is to nurture Arab nationalism until it has become very chauvinistic, and now demands that the British leave, too.

The fact is that the Jewish homeland in the Middle East is an outpost of western civilization in that region of the world.

If it is destroyed, the British will not be able to maintain a foothold there, either in Sudan, or in Suez, or on the Persian Gulf, or in the Iraqi oil fields. After the British it will be the turn of the Americans, for the Arabs, taught to hate foreigners, will apply the lesson to all foreigners indiscriminately.





New York Post

TUESDAY, APRIL 27, 1948

Sportsmanship Lacking, Too

The British Wind Up in Palestine by Helping Goliath Against the Defender, David

By OBSERVER

On the 17th of this month the United Press received and made public a cable from its correspondent in Amman, Trans-Jordan, which reported his interview with King Abdullah. The King said that his Arab Legion would be used to fight the Palestinian Jews. He said that he would quickly throw his Legion into the fighting and added that “in the future there will be real battles.”

“Abdullah’s British-trained British-officered, British-equipped. Arab Legion of about 20,000 men is the most powerful striking force in the Arab world,” noted the correspondent.

Three days later, on the 20th of this month, the United Press correspondent in Jerusalem cabled from there: “Large Arab Legion units—with armored cars equipped with 2-inch guns—entered the huge British Alamein camp on the outskirts of Jerusalem today, reportedly replacing British troops.” Only a few minutes after the British troops had left the camp, the Arab Legion, led by British officers, entered Jerusalem from Trans-Jordan. “The Alamein camp,” continues the cable, “is the largest in the Jerusalem area. It is reported to have immense stores of arms and ammunition, said to have been left intact for the Arab Legion.”

Then came confused reports that the British would let the Arab Legion return to Trans-Jordan before May 15, the day the mandate ends; and other reports that on that day, May 15th, the British officers would leave the Legion stationed in Palestine. The impression is left that the British are preparing another breach of faith.

The outrageous act of bringing the Arab Legion of Abdullah into Jerusalem “for policing duties” a few days after Abdullah had declared that his Legion would fight the Jews in Palestine is probably unequaled in the annals of hypocrisy. Not only did the British fail to prevent the arrival of Arab bands from Syria, Lebanon and Iraq, although at the same time preventing Jewish immigrants, languishing in Cyprus behind barbed wire, from coming to Palestine; not only did they arm these bands by sending weapons to Syria, Lebanon and Iraq; but now the British themselves bring the Arab Legion from Trans-Jordan into Palestine and give them the military supplies of the mandatory power, and do this immediately after Abdullah has declared that his Legion will fight the Jews in Palestine.

* * *

If the British Government does not immediately order the removal of the Legion of Abdullah back to Trans-Jordan, then

it crowns beautifully its history of governing Palestine, and the trust to create there a Jewish National Home. Then they prove themselves not builders, but deliberate wreckers.

The fact that the United Nations Commission has been denied admission to Palestine until May 1, when everything will already be in chaos, when the British will have finished burning their archives, and when it will be impossible for any commission to take up the threads of administration in Jerusalem or in any other area, speaks for itself.

This most recent act of the British Government demonstrates not only that their politics are unfair, but that they do not know what fair play is nor what sportsmanship is. In Palestine there are twice as many Arabs as Jews (so the British say). Since the Arabs refused to submit to the judgment of the United Nations and preferred to act by force, and the United Nations was slow to implement their decision, then let the Jews and the Arabs of Palestine decide between themselves by resorting to arms.

* * *

The Jews have been denied arms by the United States embargo and the British control of import; the Arabs have been supplied weapons by the British via the neighboring Arab states. Arabs from the surrounding countries have been allowed to enter Palestine, though it is possible to keep them out. (During the disturbances of 1936-38, when Gen. Wauchope was High Commissioner in Palestine, an electrically charged fence was erected on the Palestine-Syria border, and no Arab bands could come in.) But Jews are barred. Now that seven Arab countries have united their forces to fight the Jews in Palestine, the British bring the Arab Legion into Jerusalem. Is this sportsmanship?

This Legion is equipped with American money—from the taxes you pay—since the British Treasury draws steadily from the American Treasury.

The British are wagering on Goliath, the giant who failed them in World War II. Today the shield of David is fastened over Haifa, the city of the harbor and the pipeline terminal. The British are foolish at this late hour to bet on Goliath, rather than on David, who keeps faith to those who are faithful to him.





New York Post

FRIDAY, APRIL 30, 1948

Ibn Saud's Star Wanes

British Scheme to Dislodge Americans From Middle-East Oil Control

By OBSERVER

In recent days the inner struggle in the Arab world for domination has taken a decisive turn. The star of Ibn Saud, king of Saudi-Arabia, is setting with the rise of the star of Abdullah, king of Transjordan. In this change, the figure behind the scene are British and American interests. Abdullah is a stooge of the British. Ibn Saud is a protege of the Americans. The entire setup shows that the British have been not only playing against Jewish interests in Palestine but developing a long-range scheme against American interests in the Middle East.

The end of the First World War saw the Emir of Mecca under the Turks, Hussein Ibn Ali of the Hashimite Family, become king of independent Arabia. One of his sons, Feisal, was enthroned in Damascus, from which he was later removed by the French, and then invited to be king of the new kingdom of Iraq under the British mandate. Abdullah, another son of Hussein, and the elder brother of Feisal; became Emir of Transjordan, which had been separated from the body of Palestine but kept within the Palestine mandate entrusted to the British by the League of Nations. Thus the family of Hussein the Hashimite ruled over the major part of the Arabian Peninsula and over Iraq and Transjordan.

* * *

A LEADER of the Wahhabi tribe of religious zealots, by the name of Ibn Saud, who ruled in Nejd, in the western part of the Peninsula, rose against Hussein Ibn Ali, king of Mecca and "all Arab countries." Only shortly before, in March, 1924, Hussein, during a visit at Amman, Transjordan, had proclaimed himself the Caliph of all Moslems. Ibn Saud marched toward Mecca. Hussein and his heir Ali were defeated. Hussein abdicated and went into exile, and was brought by a British warship to Cyprus, a British Crown Colony. There he died.

Feisal, King of Iraq, involved himself in a protracted dispute with Ibn Saud and had the British on his side. When Feisal died and his son, who succeeded him, was killed in an accident another son became the present regent of Iraq, the king being a child, a grandson of Feisal.

Abdullah is now the head of the Hashimite family and a bitter enemy of Ibn Saud, who expelled his father from Mecca. Abdullah is a British puppet and was elevated to the kingship by the British on May 25, 1946. By this step that part of the mandate over Palestine which is on the east of the Jordan was terminated—a wholly unauthorized act, since the British had no right to make such changes in the body of the mandate without the approval of the League of Nations or its heir, the United Nations.

* * *

THE head of the Moslem world is the Caliph. For centuries the Caliphate belonged to the Turkish Sultan. Since the deposal of the last Sultan, Abdul Hamid, and the rejection of the office by Kemal Ataturk, the first President of the Turkish Republic, following the separation of church and state in Turkey, there is no Caliph in the Moslem world.

The chief pretenders for the much desired role of Caliph are Abdullah, the son of Hussein, who was the deposed king of Mecca and a self-proclaimed Caliph; and Ibn Saud, the ruler of Saudi Arabia, which includes the emirate of Hejaz with Mecca and Medina. Other pretenders are King Farouk of Egypt, the most populous country in the Middle East, but his weak personality does not impress the Arab world. Still another aspirant is the exiled ex-Mufti of Jerusalem, a schemer whose entire ambition is directed toward that goal. As a student of the Moslem law he is an ignoramus, and has made many enemies among prominent Arab families because of his assassination of his political foes. With the defeat of the bands which he sent to Palestine, his star has become completely dimmed.

* * *

THE two main aspirants to domination in the Arab world are personal enemies: Ibn Saud, who gave the oil concessions in his kingdom exclusively to American interests, and thus earned the animosity of the British; and Abdullah, whom he deprived of the throne at Mecca and who is a British-created, British-supported, and British-financed king.

In the event that Abdullah, with the help of the British, is successful in the war against Jewish Palestine, he, and not Ibn Saud, will be regarded as the head of the Arab world and as the natural successor to the Caliphate.

This is the objective for which the British prepare, using Jewish Palestine as a rung in the ladder in order that they and Abdullah may return to the riches of Saudi Arabia with its oil.

It is a long-range policy camouflaged by the Palestinian problem. The British Middle-East strategists have maneuvered the American oil companies and the State Department into playing decidedly against their own interests.





New York Post

TUESDAY, MAY 4, 1948

Two Down, One Up

*The Prestige of the U. S. and U. N. Down,
Faith in the Jewish People Up*

By OBSERVER

On Black Friday, when the United States made its about-face on Palestine, it presaged not one tragedy, but three tragedies bound together. The United States would become known as a power greedy for profits and a nation that makes deals with its principles. The United Nations would degenerate into a debating society, powerless to carry through its decisions; an international tribunal that reverses its own judgments even before it tries to implement them; intimidated by the Arab members of the organization.

And the Jewish nation; how could it stand up against this treachery? Decimated in the last few years, would it not crumble under the new turn of events, a deceived nation, abandoned and cheated?

Now, six weeks after the Black Friday, we see two tragic prophecies become realities, but not the third.

If a poll should be taken among the delegates of the United Nations on the question. "Which of the nations of the world at present commands the least respect?" the almost unanimous response would be: The United States of America.

* * *

Mr. Austin took upon himself the most ungratifying task of standing before the nations of the world and uttering words of confusion, often unable to clarify what he meant, and often mute when expected to speak. During the present Assembly session delegates of nations look upon him with pity.

A great name has been lowered, the name of a nation that shortly before had spelled magnanimity, honor, and leadership. If tomorrow the United States would like to rally around itself the nations of the world for some great cause, who will follow? Who could be certain its promises would be kept?

The United Nations, which for more than a year occupied itself with little Palestine, sits impotent, unable to make its will respected, or its decision stand. And if tomorrow one among the nations should defy the will of the United Nations, nothing could be done because a precedent has been created that a decision can be flouted, voting is a passtime, and a resolution is a scrap of paper.

* * *

The President of the United States said that, because of grave peril to world peace, the General Assembly of the U. N. should reconvene to reconsider the Palestine question. Subsequent to this speech, the United States delegate at the Security Council refused to acknowledge that there is a threat to peace in Palestine in order to avoid the application of sanctions and the sending of troops against the violators of the decision of the United Nations.

If ever a mockery was made of international rights, it was here. The United Nations is a decomposing body. If it does not know this, it is because it is dead. “Blessed is the man that walketh not in the counsel of the ungodly, nor sitteth in the seat of the scornful.” (Psalm 1:1)

The third tragedy; however, has not materialized. Clinging to the earth of their motherland, the boys and girls of Jewish Palestine in a few weeks have become the idols of all who love freedom, respect devotion, and admire courage. The Arabs have not thrown the Jews into the sea, as they predicted. Quite the opposite. They themselves have run away, 60,000 from Haifa alone—in boats and schooners—or surrendered. They ran away from Palestine to neighboring states.

* * *

Other Arabs are coming in their stead from Iraq, from Lebanon from Syria from Trans-Jordan from Saudi Arabia, and from Egypt carrying weapons supplied by the British from the arsenal of the Empire. The British use tanks and field guns and aircraft “to stop the attacks of the Jews.”

But the Jews have not abandoned a single hamlet, though surrounded and attacked by Arab bands, and, in defiance of all the rules of strategy, hold their ground in walled cities, in streets, on beaches, in the hills, and in the deserts. The performance of the Jewish Haganah is the pride and the hope of all decent and humane people in the world.

Might we not have known on that Black day as we pondered the betrayal and its consequences, that the reaction of the Jewish people in Palestine would be an inspiration, that their deeds would sound a clear call like a Liberty Bell ringing in these days of deceit and power politics? Was it not the Jewish people whom the poet had in mind when he wrote:

*I am old, I am bent, I am cheated,
But don't count me among the defeated,
For tomorrow I start again.*





New York Post

FRIDAY, MAY 7, 1948

President Needs Advice

Since Partition is a Reality the Economic Union of Palestine States is Next Task?

By OBSERVER

Let us be kind to the President of the United States. Is he not the elected of the people? He is human and he can make mistakes; he is human and he can persist in his mistakes. But finally he is eager to disentangle himself from the maze of blunders and find the way out. Believing wholeheartedly that such is his sincere wish, we humbly offer our—entirely private—advice.

Since the present special session of the United Nations was convoked at the request of the United States, it is very important for this Administration that some useful and positive result should come out of it.

The President should realize, however, that the United Nations is a body made up of many nations, not a department of the Administration in Washington, and the U. S. cannot impose its whim or the heart's desire of certain civil or military servants or lobbyists. He should also realize that his advisers on Palestine have achieved only five things:

1. The moral and political position of the President has been undermined;
2. The chances of the Democratic Party for winning in 1948 have been greatly reduced;
3. The prestige of the United States has been lowered;
4. The prestige of the United Nations has been irreparably damaged;
5. The strife in Palestine has been augmented tenfold.

Not even the Arabs won anything because of their reversals on the field of battle. The President would do himself a kindness if he would drive the advisers who succeeded so much in so little a time far from the grounds of the White House.

* * *

The President must realize that the partition plan was not a United States plan that it could revoke at will; the partition plan was a proposal put forth by the majority of the eleven-member Special Committee on Palestine appointed by the General Assembly of the U. N. to investigate the Palestine problem on the spot. In the selection of member nations for this committee, the Arab states participated, but not the Jewish Agency. In the vote of Nov. 29 the United States had only one vote, and if it changed its mind after the vote (under the pressure of the oil lobby), it is in no different position than one member of a fifty-member jury who changes his mind after the verdict has been brought in.

The President should bear in mind that Jewish Palestine is to a large extent an American investment which should be protected as much as the oil fields of Arabia, which are American investments when protection is required, but are largely not American investments when it comes to paying taxes on profits.

The President should also give thought to the fact that American oil interests are very different from British oil interests in the Middle East and that in supporting King Abdullah he works against the American interests and against Ibn-Saud, but by supporting Jewish Palestine, he does not work against Ibn-Saud. If Abdullah will return to Mecca and to the throne of his father and will become Caliph, the British will be in the saddle in Arabia; they were driven from there by Ibn-Saud.

The President should be reminded that partition is a democratic principle. Only three years ago the Syrian mandate of the French was terminated by the creation of two republics, the Syrian Republic with a Moslem majority, and Lebanon with a Christian majority (and a large Moslem minority), with precisely the purpose of giving the Christian minority a place where it could work out its own destiny.

Since partition is an accomplished fact in spite of being disliked by some people in Washington, we shall from now on speak not about partition, but about the unification or the Union of the Palestine States.

* * *

Here is a plan for the President to propose and for the Assembly to act on. Four tasks confront the Special Assembly. The first task is to establish trusteeship over the Jerusalem enclave. The three consuls in Jerusalem, of America, of Belgium, of France, should act as temporary trustees, and should be supplied with police or a military force as they may see fit to demand, to be contributed only by those states that agreed to the plan accepted on November 29 regarding Jerusalem and Palestine in general.

After three months these three officers should turn the trusteeship over to the eleven nations that were originally designated to make the report on Palestine, or to those of them which voted for the "Majority plan." All decisions should be taken on a simple majority vote.

The second task concerns the Arab state. The Arabs of Palestine have not prepared machinery to administer their state, and refused to do so; moreover they are incapable of doing so. The "Higher Committee" does not represent the Arab population, is not an elected body, and exists only on the assassination of its political opponents. The trustees of Jerusalem should also be entrusted with the administration of that part of Palestine, education of the population in democracy and after a few years with the preparations for a democratic election. No force, no state, no king should participate in this administration if it disagrees with the idea of partition.

The third task is to give recognition to the Jewish State (of which the Jewish Agency is already a trustee) as of May 15.

The fourth task is to select as Commission for the purpose of negotiating between the Jewish state and the trustees of the U. N. for the rest of Palestine of setting up a Union of Palestinian States.

* * *

This plan, if put into effect, would stabilize the Middle East, would save the Arabs from utter humiliation and calm the beginning unrest of the Druses in Syria and Kurds in Iraq, would secure the peace that is necessary for the development of oil, and would reestablish the equilibrium of the conflicting British and American interests in the Middle East.

All this would be in full accord with both the letter and the spirit of the United Nations decision on Palestine of Nov: 29 and would justify the convocation of the present session of the United Nations on the initiative of the United States.





New York Post

FRIDAY, MAY 11, 1948

A Stamp for Artzenu

*Pertinent Suggestion to Certain
Prominent Philatelists on a New Issue*

By OBSERVER

In a few weeks, or only days, letters will arrive from Palestine bearing Hebrew stamps. The issuance of these new stamps is not a month-in month-out occasion, nor even one that takes place every year.

Since the year 71 of the present era, when, after the fall of Jerusalem, Simon Bar Giora, the leader of the war against the Romans, was dragged to Rome and there thrown down from the Tarpeian rock, there has been no Jewish state on earth.

Hebrew coins were minted for the last time by Bar-Kochba, who raised the flag of rebellion against Rome in the year 132 to 135. For eighteen hundred years there has been no Jewish state and no signs of Jewish independence, and the only regalia has been the Jewish anthem—the Hebrew Psalms of Zion, and the Jewish crown that was placed on the scrolls of the Torah, the Holy Scriptures, where it is still, as everyone can see for himself by visiting a synagogue.

In our day, under the Premier-Designate, David Ben-Gurion, Hebrew money and stamps are being printed.

* * *

Thus when you see Hebrew money and stamps, you will know that these signs of statehood are not a daily occurrence. It is an event that came to pass after eighty generations, which longed for the rebuilding of Zion, dying without having seen it. We are privileged to live in a very unusual time, a time to which 80 generations have addressed their prayers.

We know that this right of statehood was not given, but was acquired by a nation in which burgeoned anew the seed of heroes of eighteen hundred years ago.

In 1895, in the early part of June, a Paris correspondent of a Viennese newspaper, sent to cover the Dreyfus trial, suddenly turned from reporting to writing a book. In his room in the hotel close to the Place de la Concorde, he wrote feverishly, and as he described in his diary, he felt as if there was a murmur of angels' wings in the room. The book was "The Jewish State."

The Jewish colonization of Palestine had been going on already for two decades, but here were pronounced the magic words: "The Jewish State," and the response was audible in every place, large or small, where a Jew lived. The likeness

of Dr. Theodor Herzl, the author of "The Jewish State," (creator of political Zionism, and the President of the first Zionist Congresses, is on one of the stamps of the new State.

* * *

During the First World War, a one-armed veteran of the Russo-Japanese war, a burning idealist, went to the Near East to fight for the liberation of Palestine from the Turks. The Jewish Brigade he formed in Egypt fought with the British army against the Turks on the Gallipoli expedition, the most arduous war adventure devised by Winston Churchill, then First Lord of the Admiralty in the Lloyd-George Cabinet.

The Jewish Brigade had agreed to serve at Gallipoli instead of fighting in Palestine because it had been persuaded by the British that this was the most useful contribution it could make and because it had been told it would be rewarded with Palestine. Later another Jewish Legion, composed largely of American Jewish volunteers, fought under Gen. Allenby and participated in the conquest of Palestine. Then the one-armed captain went to defend Gallilee against Arab bands. At the Tel-Hai settlement, a small group of defenders stood heroically against a force of attackers a hundred times larger; they fell with their captain, whose last words were: "It is good to die for our land." The picture of Joseph Trumpeldor is also on a stamp of the new State.

At this late moment, the new defenders of their National Home deliberate on the name of the new State. Zion? But Zion is the hill of David in Jerusalem, and Jerusalem is not yet included in the Jewish State. Land of Israel? But the Jewish State does not cover the historical land of Israel, only a small part of it. Judea? But Judea is a geographical designation for the southern, part of Palestine only, Judah having been the leader of the southern tribes of Israel.

A scholar who is preparing an extensive new history of the Near East and , who is closely known to me suggests the name, "Artzenu" ("Our Land"), the name often employed in the Scriptures: It was also the last word spoken by Trumpeldor.

* * *

Is not Mr. Attlee a philatelist? Is not President Truman a philatelist? I recommend that they be among the first to obtain stamps of the Hebrew Republic, possibly postmarked May 6, 1948. Their contribution to the realization of the Jewish State has not been greater than the weight of a stamp, but perhaps they will be asked to produce such a stamp when they will know at the door of Paradise seeking admission.





New York Post

FRIDAY, MAY 14, 1948

A Jewish State is Reborn

*After Two Thousand Years of Struggle
Free Citizens Live Again in Palestine*

By OBSERVER

Since the first day radio waves began to carry messages over the air and for many days to come, there has not been and there will not be made an announcement as will come today.

A homeless nation, a sufferer among the peoples of the earth, a living reproach to humanity, a victor over 2,000 years' persecution, is no longer homeless.

The Sabbath candles kindled tonight in Palestine will still be burning when the Jewish State is born.

All who believe in Destiny and Providence ought to say a prayer of thanksgiving. The President of the United States should lead this nation in prayer. Is not the redemption of Israel a divine promise, and a fulfillment of a covenant, and a benediction for all humanity?

Are not the Hebrew Bible, the Christian Gospels, the Moslem Koran, full of prophecies of this day?

The Jewish State is reborn and the most ancient nation on earth is redeemed. "O thou afflicted, tossed with tempest, and not comforted... in righteousness shalt thou be established... for the mountains shall depart, and the hills be removed; but My kindness shall not depart from thee, neither shall the covenant of my peace be removed, saith the Lord that has mercy on thee... whosoever shall gather together against thee shall fall." (Isaiah, Chapter 54.)





New York Post

FRIDAY, MAY 18, 1948

No Buck-Passing

*Great Britain and the U.S.A.,
Not Merely Abdullah, Can Control Invasion*

By OBSERVER

On May 14, Gen. Sir Allan Cunningham, the last British High Commissioner in Palestine, went from the pier in Haifa to a warship, and together with his luggage the gallows the mandatory power was shipped to Britain. He did not leave the Jewish National Home in quiet and peace; nor did he leave it secure and well fortified against foes from outside. But it was for the creation of this Home that the British obtained the mandate of 51 nations more than a quarter of a century ago.

On Apr. 14, Abdullah of Transjordan announced that his legion would fight the Jews in Palestine “in real battles.” A few days later the British brought additional contingents of the Arab Legion of Abdullah to Palestine “for police duty”: It was less than a month before the expiration of the mandate. The British gave their solemn promise—in Jerusalem and in the Parliament in London—that the Araba Legion would be returned to Transjordan before the expiration of the mandate on May 15.

On Apr. 27, it was asserted in this column that the British would not keep this solemn promise. We wrote then: “The impression is left that the British are preparing another breach of faith. The outrageous act of bringing the Arab Legion of Abdullah for policing duties a few days after Abdullah had declared that his Legion would fight the Jews in Palestine is probably unequalled in the annals of hypocrisy.”

* * *

The accusation was fully warranted. The British did not return the Legion to Transjordan. They considered that they had absolved themselves when they announced that “coinciding” with the end of the mandate in Palestine, British officers would withdraw—or receive leave?—from the Legion for the period of fighting in Palestine.

The Legion is free, under British interpretation of international law, to attack to Jews on the soil of Palestine with the arms they received for their “policing duty” on behalf of the mandatory power.

Moreover, while the mandate was still in force, and while Cunningham still occupied his residence near Jerusalem, the Arab legion attacked, at first, the settlement Neve-Jacob, north of Jerusalem, and then the agricultural settlement of Kfar-Etzion, south of Jerusalem, on the way from Hebron to Bethlehem, south of Jerusalem. It is a lonely place where a community of orthodox Jews planted the first shade trees on the mountains of Judea since the fall of the Jewish state in

the year 70.

* * *

With tanks and field guns and flame-throwers the Arab Legion battled for tend days with the defenders of the place, Jewish pioneers, whose weapons of defense were small arms, mortars and hand grenades. The tanks and the field guns are British; the Legion itself is British-organized, British-equipped, and British-paid. Most of its defenders slain, Kfar-Etzion fell on the dawn of the day when the State of Israel was born.

The Jewish defenders were not even supposed to possess the small arms they had, since this was prohibited by the British. Until the last day of the Mandate, Jewish defenders of Palestine were searched for arms by the British, and the possession of arms was punishable by imprisonment for life. At the end of the mandate, on May 15, the Jewish population of Palestine had no right to possess a single pistol and a few hours later they had to defend themselves against armies of five states.

* * *

Abdullah is underwritten by the British and is on their service for any job required. He calls himself “king,” but his title was presented to him by the British two years ago. The separation of the “kingdom” of Transjordan from Palestine was an act unauthorized by the League of Nations or by the United Nations. Abdullah jumps when the British pull the strings. A new military alliance was signed only a few weeks ago, in preparation for these events.

This treaty was signed on Mar. 18 of this year, and in the New York Times of Mar. 18 Clifford Daniels cabled from London that, “according to the treaty, it provides for an Anglo-Transjordan joint defense board composed of equal numbers of British and Transjordan officers...” “that Transjordan will continue to have the services of British officers for each Arab Legion...” “and that Transjordan remains a British military satelline and receives a subsidy from the British Treasury...”

* * *

But the British would not dare to do what America refuses to countenance, for to a large extent Britain is financed from the American Treasury. It is therefore entirely within the power of the President of the United States to force Abdullah’s Legion to return to Transjordan.

There should be no buck-passing. “It is not me, it is him”—says the Colonial Office as it points to Abdullah. Abdullah is stout, but still too small a man for such large figures to hide themselves behind his back.





New York Post

TUESDAY, MAY 25, 1948

The Throne of David

Bevin Attempts to Anoint the Head of Abdullah With Oil From a Jordan Pipeline

By OBSERVER

The Arab Legion of Abdullah and of Brigadier John Bagot Glubb shells Jerusalem, designated by the United Nations as an international city. The British intend to crown Abdullah in Jerusalem and thus to raise him over the Arab world. Then Abdullah, thus strengthened morally and materially, would demand Mecca, the holy city of the Moslem world, from which his father had been expelled by Ibn Saud. Together with Abdullah, the British would return to Arabia with its oil, at present the possession of Ibn Saud and the concession of the Americans.

King Abdullah rules over 350,000 semi-nomads, most of whom do not know how to read or write, or even, for the most part, to tell their right hand from their left. Yet he is a British-made king with a British supplied treasury and a British-made army. He is the chief of all the marionettes manipulated by Great Britain in the Middle East. The British tried to pull Transjordan, as another of their yes men, into the United Nations, but the membership was refused.

* * *

King Abdullah dreams of a Greater Syria, but the Syrians do not want him as king. He dreams a dream of returning to Mecca, but Ibn Saud is still there. The first step toward these two achievements is the throne of Jerusalem, and he dreams of this throne. Launching his war against the Jews of Palestine, he has offered to accept them as his citizens, promising to "protect" them.

Lawrence of Arabia in his book "The Seven Pillars of Wisdom," gives a picture of Abdullah with his "fits of arbitrariness," exercising a "feeble tyranny disguised as whims." This characterization is on the conscience of its British author. "The leaven of insincerity worked through all the fibers of his being." "His indolence marred his scheming." He "would spend much of the day and all the evening tormenting the court fool. . . Once Abdullah shot a coffee-pot off his head thrice from 20 yards."

All this sounds so very attractive that one may himself desire to become a subject of King Abdullah, surrendering his American citizenship. Does Abdullah measure in moral stature to mankind's conception of the king that is to sit on David's throne?

Are we to believe that the people of the Haganah, of Irgun, and of the Stern group (Fighters for the Freedom of Israel) need only a pat on the back to make them turn into Abdullah's patriots? That they would march under Arab banners and stand guard at Abdullah's harem? And will Abdullah shoot pots from the heads of the professors at Hebrew University?

* * *

King Abdullah probably sleeps in the bed of his predecessor, the giant King Og, who ruled in the same Rabbath Amman in the days when the Israelites under Moses came from Egypt.

Of him it is said in the Scriptures: "Behold his bedstead was a bedstead of iron; is it not in Rabbath of the children of Ammon? Nine cubits was the length thereof, and four cubits the breadth of it, after a cubit of a man!" (Deuteronomy 4). In a bed nine feet (cubit) long great dreams must be dreamed.

In the meantime, the vandalic assault on Jerusalem continues, destroying its population, its cultural establishments, and its historic shrines.

Every shell fired into Jerusalem by the Arab Legion and its British officers drives deeper the wedge between the British and the entire civilized world.





New York Post

WEDNESDAY, MAY 26, 1948

Against Russia—or Us?

Britain's Huge Military Base on Cyprus Opposes American Influence, Too

By OBSERVER

Cyprus is situated in the eastern Mediterranean, close to the Syrian mainland on the east and to Turkey on the north. There the British are beginning to construct a formidable military base. This base is intended to serve for the defense of the Near East against the Russians; it also dominates the oil-rich Arab countries and the pipelines that carry the oil from the wells to the ports of Mediterranean. It can be shown, however, that this British base is designed not only against Russian penetration into the oil countries, but also against the Americans and their interests in this area, and even more against them than against the Russians.

The short history of Cyprus in modern times is this:

In the 16th century the island was ruled by the Venetian Republic and controlled the trade routes to the Levant (Near East). Shakespeare made it the scene of his tragedy about 01470thello,0148 the Venetian Governor of Cyprus. In 1571, Sultan Selim II wrested it from the Venetians. It belonged to Turkey until 1878, when Disraeli, Britain's Prime Minister, obtained it from Turkey for the purpose of administration. In 1914 the British converted it into a Crown Colony.

The population consists of a Greek majority and a Turkish minority (one fifth of the population.)

The British ruled the island, inciting the minority against the majority. In 1931 the Greek population of Cyprus, inspired by its religious leaders, burned the palace of the British Governor, Gen. Storrs. It was this same scheming Storrs who, before that, as the Governor of Jerusalem, had appointed to the post of Mufti in Jerusalem a soap-box orator and an ex-convict sentenced to 15 years at hard labor.

The Greek population of the island longs to reunite with the Greek state. But the British opposite this and since the Greek king is a German-born, Nazi-oriented, British-reinstated monarch, the present Greek Government does not support the desire of the Greek population of Cyprus to become a part of Greece.

* * *

Here appears the strangest paradox. In Greece the British have instigated the annihilation not only of the left-wing elements, but of democratic elements as well, a work being accomplished with the monetary and military help of the Americans. But on Cyprus, the British at present persecute the right-wing Greeks, and build their policy on promoting the left-wing elements.

The reason is simple. All Greeks on the island are eager to see Cyprus a part of Greece, but the left-wing elements would not like to unite with present-day Greece with its reactionary government, because they are afraid of persecution. Thus, while the British support the Left wing, Communists included, on the island, they support the Right wing in Greece, turning the expensive job of fighting the Left wing over to the Americans.

By supporting the Communists and the Left in general on Cyprus, on the one hand, and, on the other hand, pretending to build there a base against Communist penetration into the Near and Middle East, the British play a game against the Americans. The British lost the oil fields of Arabia to the Americans, not the Russians.

In order to re-enter into this area, they have to eject the Americans, not the Russians. Since the end of World War II in Europe, they have done everything to create antagonism between the Americans and the Russians. If there should be war, the British, under the pretext of being too much exposed to attack, and also because they pretend to be a socialist government, ideologically between capitalist America and Communist Russia would try to maintain neutrality.

Whatever may be the outcome of such a conflict, the British hope to come out with spoils. The most desirable spoils in the world are the oil regions of the Middle East. To have a strong military base on Cyprus prepared for this contingency is a well-calculated move in the game of power politics.

* * *

If the British are sincere in maintaining that the fortress of Cyprus is built against penetration in the Near and Middle East by the Russians, and not against American interests already there, then let them offer to lease a part of the island to the Americans for a base of their own. If the Americans are good enough to finish the job the British started in Greece, why should they not have a military base on Cyprus? Here is a test of British integrity with respect to America.





New York Post

FRIDAY, MAY 28, 1948

Lion—or Jackal?

The British Symbol Changes as Bevin's Policy Displaces the Balfour Promise

By OBSERVER

An official spokesman of the Foreign Office said a few days ago that Great Britain must support the Arabs in their war against the Jews because of the great alliance with the Arabs during World War II and their contribution to the Allied victory. This announcement is not overburdened with truth. But at the same time Ernst Bevin pretends to be impartial. On May 25 Churchill asked in Parliament whether Bevin “will bear in mind the great importance of our pursuing an evenhanded course of strict impartiality at a time when we are resigning our responsibilities in Palestine?” Mr. Bevin replied: “I have done that. I have quite a clear conscience on that.” At the time he spoke, British officers were directing fire at the Jewish sections of Jerusalem.

When, in 1942, the onslaught of the Axis armies reached their greatest proportions, and they descended on the Middle East from the Caucasus in the north, from Libya in the south, and from Burma in the east, and when the Sunday editions of newspapers carried large maps showing three converging black arrows, Churchill made a most desperate speech, in which he conceded “the great peril that threatens the British Empire.”

At that time the only people in the area between the converging arrows that came to help, voluntarily mobilizing itself and rushing to el-Alamein in invaded Egypt, and that built up an efficient part of the Eighth Army under Montgomery, were the Jewish people of Palestine.

* * *

“Out of a Jewish population of half a million, 137,000 registered for service the moment war broke out,” writes Pierre van Paassen in his book, “The Forgotten Ally.” All of them were volunteers, since Palestine, as a mandated territory, had no conscription. This would be equivalent to 45 million volunteers in the United States. At the time when Montgomery took over from Auchenleck the command in Africa, a quarter of the troops on the African front, according to van Paassen, were Jews. The more than 30 thousand combat soldiers—the defenders of Tobruk, the sappers of the desert, the parachutists who descended behind Rommel’s army—were Jews.

“Palestine furnished to the British armies in Libya, Eritrea, Ethiopia, and Somaliland, thousands of doctors, nurses, and dentists.” Thousands of truck drivers with their trucks, medical supplies and food for the Eighth Army. “In the fateful

hour when Britain's fate hung in the balance, and when Rommel boasted that as far as he was concerned it was all over but the shouting, the little land of Palestine placed at the disposal of the British Empire and its armies in the Near East an industrial apparatus of 7,000 factories, large and small."

* * *

"The Jewish Palestine was one of the imponderables that turned the tide against Hitler at the moment when he and almost the whole world least expected it."

For four years the Mediterranean route was impassable—Italy ruled at its center. Supplies from England, and also from America, had to be shipped around the continent of Africa, a route longer than the equatorial circumference of the globe, over submarine-infested waters. But for Palestine, its production and its volunteers, the army of Montgomery would have been beaten.

At the time of this great emergency, Ibn Saud of Saudi Arabia supplied the army of Montgomery with "not even a single donkey." The Egyptian royal family and the Ministers of Egypt were in direct contact with Rommel; the Egyptian military staff spied for Rommel; and all was prepared for the triumphant entry of Mussolini and Rommel into Egypt. Iraq had already perpetrated its stab in the back, having declared war against the British on May 2, 1941. Syria and Lebanon were under Vichy rule. But the Jews of Palestine helped to quell the rebellion of Iraq, and guarded the pipelines from there to Haifa in Palestine. Besides, almost a million Jews served in the Allied armies all around the world.

* * *

In the fable, a wolf had a bone stuck in his throat and was choking. In his distress he begged help of a crane, promising eternal friendship and every favor. The crane put his head into the wolf's mouth and removed the bone with his beak. When he asked the promised reward, the wolf replied: "Is it not enough that I did not bite off your head when it was in my mouth?"

But the British Lion actually tried, and still tries, to bite off the head of the Jewish crane.

* * *

As late as 1944, when refugees from Hungary and Romania could have been saved from Hitler's death camps, Great Britain slammed the doors of Palestine in their faces. When the war was over Britain hunted down Jewish survivors of the death camps with the Royal Navy, killing some, imprisoning all the others.

A fortnight ago the British murdered, with the hands of the Arab Legion, 300 men, women, and children of Kfar Etzion. Today British officers direct the shelling of Jewish Jerusalem, its University, its synagogues, its hospitals.

The greatest retribution that could be inflicted on the British for all this is the transformation of the Lion into a cowardly and ungrateful creature, the degeneration of a once noble nation into the spiritual heirs of Hitler.





New York Post

SUNDAY, MAY 30, 1948

How the Security Council May Vote on Palestine

By **OBSERVER**

The article 27, Section 3, of the Charter of the United Nations says that the decisions of the Security Council should be made "by an affirmative vote of seven members including the concurring votes of the permanent members" provided that "a party to a dispute shall abstain from voting."

The Security Council consists of 11 members, five of which are permanent members—the Big Five—and each of these five must vote affirmatively in order that a decision should be reached—which is known as the veto power. Six other members are elected from among other nations.

The United Kingdom is a part of the Palestinian dispute because it was accused by the Palestine Committee of the United Nations with obstructing the implementation of the decision of the General Assembly of Nov. 29; because it bears the entire financial budget of the Arab Legion and directs its action through the Defense Board established by the treaty between the United Kingdom and Transjordan in March of this year; because it supplied arms to the armies of the Arab states which invaded Palestine.

Since the United Kingdom is a party in the dispute only four out of the Big Five may vote on the Palestine conflict in the Security Council. Not being entitled to vote the United Kingdom cannot exercise its veto power.

Also the Syrian delegate in the Security Council has no right to vote on the Palestine conflict. Like the United Kingdom, Syria participates in the fighting in Palestine.





New York Post

TUESDAY, JUNE 1, 1948

Wedgwood's Curse

*The Darkest Hour in British Ethics Came
When His Faith Was Betrayed*

By OBSERVER

When, during World War II, the late Josiah Wedgwood, a much respected member of the British Parliament, came to the United States to seek lend-lease for his country, he appealed in a pamphlet to the American nation with these words:

“We shall not convert a crusade into Imperialism by a mean use of your help. May the Lord do so to us, and more also, if once we break that faith.”

Lend-lease was granted. Soon thereafter Josiah Wedgwood died. And the British converted the crusade into imperialism by a mean use of American help.

* * *

Josiah Wedgwood was the greatest champion of the cause of Zionism, and of every just cause, in Great Britain. Winston Churchill, in his preface to Wedgwood's autobiography, “A Fighting Life,” wrote “The distressed of the whole world learned to look to him and through him to Parliament for the redress of wrongs.” At his death there was none to take up the mantle of the champion of “unselfish courage and constancy in the support of what he deemed honor.” Had Josiah Wedgwood lived, Great Britain would not have fallen so low in political morality. Today is “the darkest hour” in British ethics.

* * *

Several months ago we read on the front page of the New York Times in large letters: “Britain's Descent to Poverty Marks New Turn in History.” It is regrettable to have to say that the descent to poverty is marked also by a deterioration of the British Government as a moral power and liberating agent in the world of nations.

Great Britain, for some reason inexplicable from the viewpoint of self-interest, placed Palestine at the top of her politics, although a quarter of the world is still in British hands.

There she heaped mistake upon blunder, blunder upon injustice, until she became so enmeshed in colonial intrigue at the expense of the Jewish people that she lost face and moral stature. Violating the decisions of the old League of Nations,

misinterpreting the mandate and the Balfour Declaration, she actually became co-culprit with Nazi Germany in the annihilation of the Jews in Europe.

The wrecking work of Great Britain is causing the breakdown of the new world organization the United Nations. Great Britain, more than any other nation, should be interested in the existence of this organization for Great Britain endures not only by her own strength but by the charity of the United States and not financial charity alone, but military and political charity.

But in the calculating mind of Ernest Bevin, Great Britain could escape the obviously humiliating role of international beggar by increasing the differences between Russian and America, by infecting both countries with suspicion.

Bevin tries to use the Palestinian problem as an apple of discord between Russia and America, applying the old Hitlerian slogans of “the Jews and the Communists.” From the day when the Chancellery building in Berlin collapsed over the bodies of Hitler and Goebbels, Great Britain has taken over Hitler’s work.

Today Great Britain is the main protagonist of anti-Semitism in the world. Therefore it is futile to argue that Great Britain is a socialist country with a socialist government.

A socialist country that supports Franco in Spain, King George in Greece and Chiang Kai-shek in China, the Mufti in Palestine, and great cartels in Germany, and that spreads anti-Semitism in the world is a national-socialist government, and Nazi is an abbreviation for this.

The Nazis in Germany also introduced a number of social reforms. But the attitude of the Nazis toward peoples of other nationalities made them diverge from the socialist movement, and it is the same with the British Labor Government. This is the criterion: As long as an anti-Semitic policy motivates a government, it is not socialist but national-socialist. As a logical result, such government will side with Franco, the Mufti, etc.

Britain’s recent action in India with her 350 million people, with its pauper population and endemic famines, is a liability, not an asset. The time when a colony was valued for its rubies and emeralds is gone. Great Britain pulled out of India in order to concentrate on the deserts of the Middle East with their oil. But instead of bringing a creative program of peace and development. Britain intrigues there against American oil interests, creates disorders in the Holy Land, muddles in the United Nations, and lives a parasitic life on the American treasury. It has converted a crusade into imperialism by a mean use of our help.





New York Post

FRIDAY, JUNE 4, 1948

Message to Lady Astor

*Anti-Semitism Wanes as Israel Advances;
Peeress Mistook Her Friends for All U. S.*

By **OBSERVER**

Lady Astor, returning to England after a short stay in America, announced that she was startled to witness how much anti-Semitism had increased in the United States as a result of the Palestinian dispute. Fortunately, the Atlantic Ocean, which she crossed to bring this information to England, did not blush crimson. After all, the lady was not so much a misinformer as misinformed herself, and the reason for this is that so many of those with whom she associates are Jew-baiters. In her innocence she decided that her thinning society is the American people.

The truth is that anti-Semitism is on the ebb in America. And the cause is—Israel. The noble and honest stand of the Jews in the United Nations in defense of their human rights has brought to their side most of the nations and the overwhelming majority of Americans. Their courageous fight in Palestine has evoked a spontaneous feeling of admiration among all from the bottom to the top of American people.

* * *

Seven hundred thousand Israelis, constituting a two-weeks' old state amid the vast Arab area of the Middle East, fight against odds in numbers and odds in weapons with unsurpassed courage and an unbroken faith.

There are no Israeli refugees from Palestine. There are no draft dodgers in the nation. There are no deserters from the field of the battle. These people fight with small arms against fieldguns; they go afoot against tanks; and when British fliers in Egyptian bombers bomb the Israeli capital, children bask in the sun on the capital's beach, paying little attention to the bombing.

“Hundreds of Legion shells have fallen on Jewish sections of Jerusalem for two weeks,” Kenneth Bilty wires to the Herald-Tribune. “The Jewish weakness, as the Arabs well know, is lack of heavy guns. No Jewish artillery has been fired within the Holy City. Their success in withstanding the Legion to date is a tribute to their tenacity and to the spirit of the individual soldier.”

* * *

When, a year ago, Rabbi Korff, a New Yorker, hired in Paris a two-seater passenger plane to fly over London and drop leaflets of protest against the deportation of the immigrants of “Exodus 1947” from the shores of Palestine back to the

German concentration camps, and the rumor spread that the Rev. Korff intended to bomb London, the morning papers carried dispatches from London saying that its population “became chilly with panic” when the radio announced that Rabbi’s intention. This was despite the fact that simultaneously it was broadcast that Rabbi Korff had been arrested before the plane left the Paris aerodrome.

Apparently the nerves of the Londoners are anaphylactic to bombings since the days of the war. Anaphylaxis is a medical term for an exaggerated reaction to the second administration of a drug. But why does this story crop up in this column?

I remembered it when I read about the Israeli city of Tel Aviv’s being under incessant bombing for five consecutive days, a city that had no fighters to intercept the planes and little other anti-aircraft protection, since only a week before the Israelis could not legally possess any weapons at all. Most persons in the cafes did not even lift their heads from their newspapers when bombs crashed into the streets. These Israelis—yesterday’s Jews—also had plenty of reason to be anaphylactic to the danger of destruction. But instead of anaphylaxis, they had immunity in their hearts.

* * *

In his book on anti-Semitism in America, “A Mask for Privilege,” Carey McWilliams writes:

“It is notorious that the sadist persecutes the weak and defenseless not merely because it is safer but because it is somehow more pleasurable than to persecute the strong.”

The epic of the Israeli fight for their homeland enchants all the peoples of the world, fills them with respect, and destroys anti-Semitism together with its pathological roots. The Israelis are not defenseless but instead deal blow for blow to seven armies of seven states. Even in Arab countries anti-Semitism is on the ebb. And in America, in its stead, a feeling grows against the Empire that cowardly hides itself behind the backs of Arab states.

The respected educator, Alvin Johnson, in a letter to the New York Times on June 1 wrote: “They (the British) imagine that the American policy of recognition of Israel is dictated by concern over the Jewish vote. It is not. It is an American issue, the issue of republicanism against the imperialism which backs barbaric ‘kings’ and emirs. I do not find half the bitterness against England among Jews that I find among my solid Declaration of Independence Yankees of the Middle West.”

This is the message that Lady Astor should have brought to the British shores.





New York Post

TUESDAY, JUNE 8, 1948

Home of the Brave

America's Sorry Record in Failing to Protect Flag or Citizen Abroad Since Nov.

By **OBSERVER**

On Nov. 30, the day after the United Nations Assembly voted the partition of Palestine, the United Press correspondent wired from Damascus, Syria, that the Arabs there had stoned the building of the American Legation and hauled down the flag flying in front of the United States building.

It was said later in the bazaars of Damascus that strips of the flag were used to wipe out the filthy public latrines of the city, and hoodlums dishonored the Stars and Stripes in an indescribable manner.

Syrian government officials did not come to the Legation to present their apologies; instead they waited until the United States Chargé d'Affaires visited the Syrian President and Premier "to discuss the attack on the Legation and the affront to its flag." Both officials expressed regret in behalf of their Government.

Lowell C. Pinkerton, American Minister to neighboring Lebanon, cabled a report to Washington on the attack and said "he would await a reply before filing any formal protest with the Syrian Government," runs a dispatch in the New York Times of Dec. 1. As far as can be gathered from the press, a formal protest was never lodged. The United States Government did not even ask for the punishment of the offenders who tore the flag before the eyes of the Syrian police.

* * *

A month ago the S.S. Marine Carp sailed from New York bound for Beirut, Lebanon, Haifa, Palestine and Alexandria, Egypt. This ship is operated by the American Export Line for the State Dept.; in other words, it is a government ship. On May 20, in Beirut the Lebanese military boarded the ship, ordered the passengers going to Palestine to leave the ship, and removed 69 passengers by force, 41 of whom were American citizens. The luggage of the passengers were split open with hatchets. The protest of the Captain was of no avail. The passengers were put in prison camps.

The American government meekly protested, received an arrogant reply, protested still more meekly, and was told to mind its own business. The Lebanese government refused to allow the 41 Americans to proceed to the country of their destination. The American government expended not a single word on behalf of the 28 passengers, not American citizens who had entrusted themselves to a ship flying the American flag and had paid the State Department for their transportation.

Did the American government at least cancel future calls of the S.S. Marine Carp at Beirut? No, indeed. It canceled future calls at Haifa, Israel. But it will visit Beirut regularly.

* * *

In May, the American Consul at Jerusalem, Thomas C. Wasson, was fatally shot by an Arab assassin. From the capital of Abdullah came the “information” that Israelis had killed him. But before this information became “an established fact,” —Mr. Wasson on his death bed stated that Arabs had shot him.

The American government made no representations to Abdullah, Commander-in-Chief of the Arabs, or to the Secretary General of the Arab League, or to the Arab Higher Committee, the quasi-representatives of the Arab of Palestine at Lake Success. Instead, the American government issued a document in which it stated that the nurses at the bedside of the dying Consul to whom he addressed his last words, were Jewish, and satisfied itself with this statement.

On Nov. 29 the General Assembly of the United Nations voted to make Jerusalem an international city. Hundreds of American citizens live in Jerusalem, both Jew and Gentile. The city was shelled by the Arab Legion, commanded by the British officers; the American-owned Hadassah hospital was a target for weeks. For three months the food supplies were cut off, though in the city there live Americans as well as citizens of many other nationalities. The New York Post repeatedly drew the attention of the United States government to the necessity of sending American military forces to protest American citizens and their property in a city that had no governmental authority and that had to be internationalized. No action was taken. Mr. Wasson is one of the victims of this inaction.

* * *

The Egyptian government declared a blockade of the Palestinian coast. In the Suez Canal, an area covered by international agreement, it stopped ships sailing to Palestine, searched them and confiscated their cargo, though they included no war material. It declared its determination to do the same thing wherever it would find ships in the Mediterranean sailing to or from Palestine. The State Dept. weakly protested.

. . . effect, as follows: First find the shreds of the American flag torn in Damascus and have the offenders punished. Then go to Jerusalem, and make at least a protest about your murdered Consul and shelled hospital and the Americans kept in siege. Then go to Beirut and liberate the passengers taken off the American ship. Before you do all this, don't waste your breath talking to us.

When the Germans in World War I blockaded the North Atlantic approaches to Europe, President Wilson vigorously asserted the rights of American ships to sail the sea lanes. The Germans defied Wilson's warning and as a consequence the United States declared war on April 6, 1917. The fleet of Wilhelm II had greater striking power than the fleet of King Farouk has—a fleet that has already been routed by a single Israeli corvette and a few planes.

* * *

At no time in its history, from the days when America was young until it grew into a union of 48 states, would it have acquiesced in the dishonoring of its flag; in the forcible removal of its citizens from United States ships; in the murder of its Consul; in the interruption of its trade lines.

American might is no longer used to defend the American flag or the life and liberties of American citizens. Does the American flag fly over “the home of the brave?”





New York Post

WEDNESDAY, JUNE 9, 1948

Son Supports Father

*Israel Defends Jerusalem for United Nations,
but Gets No Help for Own State*

By OBSERVER

Jerusalem is the City of Peace, according to the meaning of its name, but a city of war as its fate at the present is. Why is Jerusalem a city of war? The Israelis agreed that it should be an international city as decided by the United Nations on Nov. 29. But the British scheme with Abdullah is to make it the capital of this puppet king. Thus it turns out that the British and Abdullah are trying, by war and by siege, to take for themselves the city which is declared by the family of nations to belong to all nations.

Instead of all the nations defending Jerusalem against the British and the Arabs, the Israelis, who already have the task of defending their State against the onslaught of the armies of seven Arab states, now bear the additional burden of defending Jerusalem and thus of fighting for all the nations.

The invasion of Palestine by the Arab states and their war against Israel should be met with international force, but the Security Council hesitates to follow this path; and so, instead of receiving help, the Israelis give help to all the nations that assigned Jerusalem as an international city. Nor do the Israelis merely provide help; they actually carry the entire burden of defending Jerusalem from those who strive to make this international city their possession.

Strange as it seems, 50-odd nations do not come to the assistance of Israel, but Israel, in addition to its own war, wages war on behalf of the 50-odd nations.

* * *

On November 29, 1947, the General Assembly voted:

“To place the City of Jerusalem under international trusteeship” with “the United Nations as the Administrative Authority.”

“The City of Jerusalem shall be demilitarized, its neutrality shall be declared and preserved, and no para-military formations, exercises or activities shall be permitted within its borders.”

“A Governor of the City of Jerusalem shall be appointed by the Trusteeship Council. He shall be neither Arab nor Jew

nor a citizen of the Palestinian States, nor, at the time of appointment, a resident of the City of Jerusalem.”

“The City of Jerusalem shall guarantee free transit and visit to residents of the Arab and Jewish States in Palestine.”

“The protection of the Holy Places, religious buildings and sites in the City of Jerusalem shall be entrusted to a special police force, the members of which shall be recruited outside of Palestine and shall be neither Arab nor Jew.”

* * *

Thus the United Nations decided about the city that is holy to a major part of humankind. It did nothing to implement its decision. The Governor was not appointed, a police force was not sent to Jerusalem, the city was not assured, and access to holy places was not guaranteed.

Instead of this, and even for many weeks before Great Britain surrendered the mandate, the British did not object to Jerusalem being put under siege; the mandatory made no effort to help keep the roads to Jerusalem open for the transport of food to its inhabitants.

Jerusalem being under siege, the field guns of the British-Arab Legion shell the residential sections of the city, and its hospital and university in the suburbs. It has been under incessant fire for many weeks. Before hostilities began and afterwards, the Israelis repeatedly offered to remove Jerusalem from the conflict. The United Nations, however, have done nothing, great or small, to bring order to the Holy City or to establish its neutrality.

When the Vandals sacked Rome in the year 455, they erected a memorial to themselves; their very name became a word for wanton destroyers. The Vandals, however, did not profess any spiritual affinity of religious feeling for Rome. But both the British and the Arabs declare that Jerusalem is a holy city, and express pious sentiment for the City of Peace. The waging of war in the City of Peace is sacrilegious and wanton, and it is all the more so when the vandals who bombard it do so with pious words on their lips.

If the nations of the world are an honest family and their representatives in the United Nations act with integrity, then Jerusalem can be saved from further destruction. Let a Governor be appointed immediately for Jerusalem, whether it be Count Bernadotte or Harold Evans from Philadelphia (both are already in Palestine) or Sir Carl Berendsen of New Zealand or Evatt of Australia or Smuts of South Africa; let an international police force be dispatched to Jerusalem and placed at the disposal of the Governor; and let it be proclaimed that the family of nations does not intend to allow Jerusalem out of its charge.

Were all the resolutions on Jerusalem written and accepted only as a sham? You put your hand on the Bible when you swear. When you put your name to a resolution on Jerusalem, it is a kind of oath. Should this oath be broken, the United Nations will stand before the generations to come as a company of welsers. Wars will never cease.

For if all the nations together cannot make peace in Jerusalem, which is their common trust, then there will be no peace anywhere on earth either for you or for your children.





New York Post

MONDAY, JUNE 21, 1948

The Spirit of Israel

*New Nations Shows That Love for Peace
Should Not Be Mistaken for Weakness*

By **OBSERVER**

On June 9 Count Bernadotte arranged a four-week truce in Palestine. The problem before him was not to convince the Israelis that peace is better than war, but to convince the Arabs. And actually, it was not he who convinced the Arabs of this but the military success of the Israelis, who not only beat the Palestinian Arabs and the Army of Liberation based in Syria, but also withstood the regular armies of Transjordan, Syria, Lebanon, and Egypt, supported by Saudi Arabia and Yemen, and richly supplied by the British with tanks, planes, fieldguns, and other material, as well as officers and pilots.

When the truce was proclaimed, the Israelis had in their hands the area allocated to them by the U.N. partition and, in addition, western Galilee with Acco, the plain of Jenin, and the city of Jaffa. The Arab armies, on the other hand, held no Israeli territory, with the exception of a few villages. Jerusalem, designated to be an international city, is occupied largely by the Israelis (the new city) and partly by the Arabs (the old city).

* * *

Although it is tragic that the State of Israel is being born in the blood sacrifice of its sons and daughters, the war nevertheless has its positive aspect. Had an international force effected partition, the illusion would remain that the State of Israel was a defenseless community, artificially made into a nation and a state by support solely from the outside. Not only no international force was sent to effect the partition but the Israelis have even been denied arms. But the Jewish State has been reborn and is beholden to no one for its redemption save to God and to the courage of its people.

* * *

Although the Israeli has proved a splendid fighter, he is also a man of peace. This he has demonstrated repeatedly. He refrained from answering Arab fire for a number of days after the conflict started; five times he accepted the Security Council's cease-fire order. The Arabs on British advice, rejected these orders until fear of the imposition of sanctions and especially recognition of the hard fact that they are unable to beat Israel made them agree to a truce for peace negotiations.

Israel regards its return to statehood, not as a narrow chauvinistic affair, but as an historic mission and as the fulfillment of the visions of the Hebrew Prophets. This mission is also to promote peace in the world and a spirit of friendliness in the family of nations.

* * *

When, in 1936, the British Royal Commission, headed by Lord Peel, recommended partition of Palestine, the Arabs, led by the Mufti, started a three-year war against Jewish Palestine. Daily and nightly men, women, and children were killed from ambush on roads, on farms, and on the outskirts of towns. Every morning the newspapers carried the names of the victims in this one-sided war, and before long the number of the assassinated was over 500. It was a one-sided war because the Jews of Palestine, during three years of disturbances did not answer a single shot. This policy was called Havlaga, or self-restraint, and was dictated by high humanitarian principles of the Tolstoi or Gandhi type. What was the result? The British imposed the White Paper of 1939, sweeping away the decision of Lord Peel's Commission, and introduced Nuremberg laws into Palestine: Jews were barred from buying land there and were discriminated against in immigration; Arabs were free both to enter Palestine and to buy land there.

The Havlaga of 1936-39 was repaid with the White Paper, which contributed to the death of millions of people who were caught between the Nazi gas chambers and the British blockade of Palestine, their one haven.

The Arab world concluded erroneously that the Jews did not answer a single shot between 1936 and 1939 because they were weak and cowardly. The supreme motives that guided the Jews in acting thus were not understood.

* * *

When the Arab princes visit the White House they regularly bring a sword or a dagger as a gift for the President. When Prof. Chaim Weizmann, the first President of Israel, went to the White House he brought as Israel's gift to the President of the United States a scroll of the Bible. This is symbolic of Israel's striving for peace.

But if there is no other choice—Israel fights. And has fought so well that military experts have had to change their prognoses weekly, saying that a miracle of human nature not reckoned on by them has intervened: the indomitable spirit of Israel.





New York Post

MONDAY, JUNE 30, 1948

Oil—The Dictator

*The Slippery Master of American Policy Betrays
The People to Their Enemies for Profit*

By **OBSERVER**

The Nation Associates have submitted to President Truman and released to the public a secret report, written in Cairo last December by James Terry Duce, a vice president of the Arabian-American Oil Co, to W. F. Moore, the president of the company. If it is able to do so, the Administration is bound to refute the implication in this report that the foreign policy of this country is determined by the officers and major shareholders of oil companies and not by the Administration set up in Washington by the American electorate—or the Administration should give official sanction to this usurpation of the executive function.

It makes little sense to fight the poll tax, on the one hand, in order to extend the franchise, if, on the other hand, the vote of the American people has no affect on its foreign policy, if the Administration in Washington is a subsidiary of oil companies, and if the President of the United States is a captive of the international empire of oil.

* * *

This empire, especially because of the foreign sources of exploitation, knows no national barriers, as railways and the steel and coal industries do. It gives its allegiance to those countries where it can register its companies to avoid paying taxes to the United States. It develops oil even when and where it is against the strategic interests of the United States, as it is in the case of Arabian oil.

In the event of war with Russia, this oil, together with the costly installations, will be the greatest prize for the Russians, being at their very door. The companies in this empire prevail on the American Administration to spend enormous sums out of the Treasury for lend-lease to Arab potentates.

These sums actually are royalty paid by the American Treasury for the oil these private, foreign companies extract from American soil and sell to the United States Navy at a price greatly in excess of market value. No wonder the profit is fabulous. As foreign companies, they do not pay taxes; but as “American investment” they demand that the Government do everything, not excepting going to war, to protect their interests. The American Government spends billions of dollars of the taxpayers’ money to keep the Mediterranean route safe for them and their oil.

* * *

Since Arab oil has no market to place it, the oil companies support the Marshall Plan with the proviso that their oil should be bought for European consumption. This, of course, gives them the right to wear the pious face of altruists. Jewish blood may be bartered for this oil—this metaphor is already trite—but, after all, it is done to warm, in the future, the homes of the Europeans, and especially the poor Nazis, whose land needs rebuilding.

Does not the Gospel say to forgive your enemies? And besides, why a home for the Jews? The oil companies also have no home. They are cosmopolitan. They are above such things as homeland and patriotism. They wave the flag only when they can pump the national treasury in addition to the oil in foreign deserts.

* * *

When the United States voted partition of Palestine, the oil companies broke into hectic activity. The Nation, in its last issue, asserts that this activity has been a major obstacle in the way of implementing the will of the United Nations in Palestine, in the Arab states, in Washington, and at Lake Success.

The Arabian-American Oil Co. “undertook, first, to assure the Arab rulers and political leaders that they could count upon the active support of the oil companies and of the United States Government experts in their opposition to the Jewish State, and, second, to kill partition by advising the State Dept. of its dangers and reporting the views and proposals of the Arab leaders.”

The vice-president of the Arabian-American Oil informed last December the State Dept. from Egypt that “the red flag flies in Palestine along with the Star of David, and it is generally recognized that Jewish Palestine will be organized as a communistic state.”

The report of Mr. Duce contains a description of some of the maneuvers of the Arabian-American Oil Company in the field of foreign politics in opposition to the official policy of the United States of America. You may vote and elect a President and members of Congress, but foreign policy is not made by them; the State Department is only a wheel on the carriage of His Majesty Oil.

* * *

Would anyone support in Congress the idea that the atomic industry should be denationalized and made the business of private capital? Certainly not. The oil companies have assumed to interfere in the foreign policy of the United States, not only in Palestine but everywhere and in the most critical areas; may not this interference of the oil interests in the foreign policy of America finally open the eyes of the legislators and make them realize that oil, like the atomic industry, is too explosive in international relations and requires governmental ownership?

Oil may lead the country into war with Russia, not while and when the defense of democratic liberties requires this, but while and when the interests of the oil companies demand it. Therefore the people of America will defend their constitutional rights to decide their own destiny, if it will demand that the oil possessions of Americans abroad should become governmental property.

* * *

Gov. Dewey promised, if elected, a thorough cleaning of the Administration in Washington. If he is elected, he will have a job in which he was trained on a smaller scale when he broke the racketeer rings of the City of New York. A larger ship has larger sails. If the vote of the nation brings him to Washington, he will have on his hands the the biggest job of “busting” the oil racket.





New York Post

WEDNESDAY, JULY 2, 1948

Bevin Mucks It Up

*But British Middle-East Policy Goes Right On
– “If the Jews Have It, Britain Wants It”*

By **OBSERVER**

Look at the map of the world. See the space occupied by the British Commonwealth—12 million square miles, a quarter of the world, 1,200 Palestines. Look at the space occupied by the Arabs from Morocco, to Sudan, to Arabia, and Iraq—3 ½ million square miles, or 350 Palestines. Of Palestine, the State of Israel gets half; a half of this is the Negeb. The British are trying to amputate the State of Israel by taking away the Negeb.

The British, who, for a long time, threatened to leave Palestine, never really intended to do so. But when they were compelled to do so, they made up the following scheme: to prevent the population in the Arab part of partitioned Palestine from electing a government of its own choice; to occupy the country with the troops of John Glubb, a brigadier in the British service of the puppet Abdullah; to amputate the Negeb from the Jewish part of Palestine; to acquire extraterritorial rights in Haifa; and to annex Jerusalem, an international city by the decision of the United Nations, to the British protectorate as Abdullah's capital.

* * *

The Negeb is a desert; practically no Arabs live there. During the past twelve years Jews, who until then had only one experimental station, Ruhama, on the northern border of the Negeb, began to reclaim this land and established there more than 30 agricultural settlements. The settlers brought water from afar. They planted castor trees and the trees grew. Since the Negeb has no native population, the United Nations allotted it to the State of Israel since the allotted territory in the cultivated areas of Palestine is very small. The Egyptian Army was unable to penetrate these lonely settlements because of the determination of the settlers to remain there alive or dead.

The British may be interested in the Negeb for a military base in the vicinity of the Suez Canal, though their base on the island of Cyprus, favorably located, is only one or two hours' flying distance from the canal. Since the Israelis are opposed to giving up the Negeb, the British suspect that the Israelis must know some thing about buried treasure there, perhaps oil.

A member of the British Parliament gave loud voice to this suspicion. The British never really understood why the Jews came to Palestine, a country of malaria; why they cling now to the desert in the Negeb. The British hold more than a quarter of the globe in their hands, and they do not care for deserts. If the practical Jews are so eager to have a desert, there must be gold or oil or other riches there.

* * *

The cunning Jew does not say this; he makes believe that he intends to fulfill the prophets' words that deserts shall bloom. The British know of hundreds of millions of acres of desert. Nobody has wanted or wants to reclaim them. Is this idealism on the part of the Israelis? The British never heard of such fanaticism anywhere in the world. Surely there must be gold hidden somewhere in the Negeb. If so, then the British would like it for themselves.

The British look at the Israelis incredulously and wonder if they really try to live in the desert just because they want to.

* * *

The British are no dreamers, but practical men. In the Colonial Office there is no ledger in which to enter intangibles like idealism. The time of Richard the Lion-Hearted, who went on a crusade to free Jerusalem from the Moslems, is truly past. Today it is the British who do all the scheming to make Jerusalem, designated by the United Nations to be an international city for all the peoples of the world, a city under an Arab king, which it was not even when the Turks ruled over Palestine.

When the goal of Richard the Lion-Hearted was finally achieved and the Holy City, by the decision of the nations of the world, was proclaimed the City of Peace on Earth, the British shelled it for four weeks with field guns placed on the hills around the city—every foot of which is precious to all human hearts—in order to make it a capital for king Abdullah. Richard the Lion-Hearted must have turned over in his grave.

* * *

Ernest the Bovine-Hearted is today supreme in the British Isles. Stewart Alsop has commented in the Herald Tribune on Britain's Palestine policy: "The general British reaction to Bevin's policy [on Palestine] was recently summed up by one of Bevin's staunchest supporters, who remarked, 'Everyone knows that Ernie's making a proper muck of it, but every one's a hundred percent behind him.'"

A Shylock spirit lives in the Colonial Office and gangrene infects the British Isles. The historic Shylock, the prototype of Shakespeare's character in "The Merchant of Venice," was a gentile; his name Paolo Mari Sechi and he demanded a pound of flesh from the debtor, a Jew, whose name was Sansone Geneda. The story was told by Leti, *Vita Sixto Quinta*, Venice, 1587.





New York Post

THURSDAY, JULY 8, 1948

Now is the Hour

President Truman Will Be Judged By His Actions Toward Israel This Week—Not Yesterday's Words

By **OBSERVER**

The President said: "It was one of the proudest moments of my life at 6:12 P.M.; Friday, May 14, when I announced the recognition of the new State of Israel by the Government of the United States." This he wrote a few days ago, in a public message to the Zionist Convention in Pittsburgh.

If President Truman feels that way, he can treat himself to an even greater moment if he will declare, before the sun goes down today, that should the war in Palestine be resumed on Friday he will lift the embargo on arms for the State of Israel. Recognition of Israel is a pious declaration, the value of which depends upon whether or not the President takes the next step: Will he lift the blockade clamped down by the United States on the country invaded by Arab aggressor nations, or will he not?

The British, who keep vast stores of ammunition in the Middle East, have already announced that if fighting in Palestine is resumed they will go on supplying the Arab countries with arms of all descriptions. This, with the American embargo, and British money subsidies of Arab military establishments means simply that the aggressors are furnished arms on free delivery, while the defenders are denied arms even for cash. If this is the policy the President of the United States is inclined to follow, then he will lay himself open to the question whether he has acted in good faith in recognizing Israel.

* * *

He will not be able to avoid the conclusion by all fellow Americans either that his acts are not sincerely motivated or that his power in office is restricted by his own subordinates in the Administration and that he is a weak-willed individual.

In order that his fellow Americans should not be faced with such a choice, the President should issue a declaration lifting the embargo on arms to the State of Israel. Such a declaration will have the immediate effect of deflating Arab arrogance.

The Arab states are arrogant and uncompromising because they believe—and are supported in their belief by members of the Washington Administration—that the embargo will not be lifted and that their status as offenders against peace will not be pressed before the Security Council. Thus they enjoy a situation in which America supports Great Britain financially and materially and the British divert this help to the Arabs. Sanctions are actually imposed, but on the wrong party.

* * *

If the President really desires to help Israel, and yet allow his subordinates to thwart his will, he cannot escape the accusation that he is weak. This a President cannot afford to be. President Truman blasts Congress for acting on a number of occasions as it should not, but he has no power over the Republican Congress. On the other hand, he has presumptively full power over his Administration.

Tris Coffin has written in this paper from Washington that President Truman “works like a beaver” to straighten out the Palestinian problem and to defend the new-born State of Israel. Were you, the reader, the President of the United States for one single day, you could probably solve this problem that so wears down Mr. Truman. You would probably write a short note to your Secretary of State giving him a list of the names of a few gentlemen in his department who should be dismissed. You would also ask him to lunch that same noon, after that little task was done. You would not work like a beaver.

* * *

When Joe Louis prepared himself to defend his heavyweight crown the other night, he was careful to be in such shape that he did not weigh a pound too much or too little. He would not go into a fight with a stone tied to his neck. But this is what President Truman is doing. The millstones around his neck are certain gentlemen in the State and Defense Depts. They may even want President Truman to fail. Their interests are associated with oil and with Wall St. It is no secret that traditionally Wall Street is conservatively Republican. Israel is only a part of the international problem that has become so vital under Truman. Involved also is the principle of the defense of justice; the authority and very existence of the United Nations; and the foreign policy of the United States, whether it is to be determined by and for the people of America or by and for the oil concerns and all their beneficiaries.





New York Post

MONDAY, JULY 12, 1948

Britain's Bitter Fruit

*Anti-Semitism in the Middle East Fails to Produce
a Harvest—Except Perhaps for Egypt*

By **OBSERVER**

British intrigue against Israel bears better fruit, and there is much gall for all concerned to drink. All over the world the British are now regarded as enemies of liberty; a people who know no pity and who pursue refugees from death camps on the high sea; a people who have no piety and who shell the sacred city of the earth; a nation that breaks solemn obligations to those who side with her in her darkest hour and that is untrustworthy in a historical trust. The British have become the torchbearers of anti-Semitism in our day. In the intervals between their periodic requests for loans from this country—never to be repaid—they stage their little orgies of anti-Semitism and preach it from soap boxes, from pulpits and from the government seat in parliament. Israel-baiting is the latest pastime in London salons and saloons, as well.

* * *

The British gave up their mandate in dishonor. For three decades and especially during the past ten years, they have done everything that could be of hindrance to the Jewish national home. Before leaving the country, they made a deliberate plan to fight the Jews of Palestine, not with British soldiers, but with Arab soldiers, and not with British money, but with American money. They calculate that the Israelis would beat the Army of Liberation of the ex-Mufti. The British fear and mistrust the ex-Mufti and, in this manner, played against him, while on the surface they support his Arab Higher Committee.

Then they let loose on Israel the Legion of John B. Glubb Pasha, and did it with outright deceit in Parliament. Bevin had promised that this Legion, brought in the closing days of the mandate from Transjordan to Palestine for police duty, would be returned to Transjordan when the time came, but it was not. Later he promised that its British officers would be withdrawn—but they were not. The Legion numbers between 15,000 and 20,000 trained tribesmen. As long as it is intact, Transjordan is stronger than any other Arab country; if the Legion is defeated in its fight against Israel, the British reputation in Arab lands will be very low. Therefore the British organized the invasion of Palestine by five Arab states—Transjordan, Egypt, Syria, Lebanon, and Iraq—with two more states, Saudi-Arabia and Yemen, contributing.

* * *

The brunt of the fighting on the Arab side was carried by the Transjordan Legion. It was heavily mauled. It is probable that a third of Glubb's troops have been killed or wounded. Bevin exhorted Syria, Lebanon, and Iraq to provide more help and to take a greater part in the war. Lebanon lies practically at the mercy of Israel; the Syrian army has not been able to

penetrate the Israeli border. The Egyptian army, however, has made headway, entering Gaza in the Arab section of Palestine.

The Israelis surrounded part of the Egyptian army near Isdud. Then came the truce, requested by the British to save the army of Glubb Pasha from expending its manpower beyond the limit where it could no longer be a fighting force.

The British asked for an extension of the truce. Is it possible that they have become repentant of the injustice they did to Israel in the closing days of its statelessness and in the opening days of its statehood? No, there is something else. They miscalculated.

* * *

They counted on the Negeb as their own. Sooner or later they will have to leave the Suez Canal zone, as they left Egypt proper, and they are concerned about obtaining the Negeb for a strategic base facing Egypt and the Canal. With war and diplomacy, pressure and intrigue, they thought they would get the Negeb transferred from Israel to their puppet Abdullah. But now the cards in the game have become very mixed up. The queen of spades—the Negeb—has been dropped in the shifting from one player to another.

King Farouk of Egypt kissed Abdullah on his visit to Cairo, but told him that the Negeb should be Egypt's prize. What has Bevin won? Instead of a Negeb under President Weizmann, Professor at Manchester University and friend of Balfour and Lloyd George, a Negeb in Egyptian hands? This means no Negeb for the Suez Canal and for the "lifeline of the Empire."

Was it not written in this column on April 23 that Britain bets on the wrong horse? The wrong horse it is—Egypt and all the Arab League. And much gall will be left for the British to drink from the keg of their intrigue.





New York Post

WEDNESDAY, JULY 14, 1948

Outrageous 'Peace' Plan

*Jerusalem Would Be Turned Over to Arab Rule
if Count Bernadotte Proposals Win*

By **OBSERVER**

Count Bernadotte has revealed, we assume unknowingly, that he is a British tool, when he a fortnight ago made the following proposals:

1. That the State of Israel surrender the Negeb, the southern Palestine, to the Arab State;
2. That international Jerusalem with a large Jewish majority be turned over to the Arabs;
3. That the port of Haifa, belonging to Israel, become a "free" port;
4. That the airport of Lydda, belonging to Israel, also become "free";
5. That immigration to Israel be limited or suspended, depending on the desire of the Arabs in their neighboring state, after two years of free immigration.

Count Bernadotte expected the Israelis to surrender all this from the rights allotted to them by the partition plan of the United Nations. The Arabs (and the British, who are favored by all these concessions) are expected to trade Western Galilee, occupied by Israeli troops, for the larger Negeb. They were not asked to make any concessions from the rights allotted to them by the partition plan.

They are asked merely to recognize the State of Israel, which, according to the plan of the mediator, would no longer be independent, since he has envisaged economic union between the Arab and Jewish States of Palestine, a common defense or military union (under Glubb Pasha?), and dependence of Jewish immigration to Israel on Arab consent. Of course, the Israelis are expected to extend the same courtesy and recognize the Arab State in Palestine. It is a plan for federation in its worst possible form.

* * *

It is quite obvious that Count Bernadotte has not acted like a neutral mediator; all his points reveal the authorship of the British. This is the plan Bevin long tried to impose on the Jewish population of Palestine. Count Bernadotte must be utterly ignorant of the position of Jerusalem in Jewish sentiment.

When the Jews agreed to Jerusalem as an international city despite its Jewish majority they did so only because they realized that thus it could fulfill the role the prophets envisaged, the role of a city of peace for all nations.

Count Bernadotte must also be wholly unconscious of the fact that the Israelis have already gone all the way down the

road of compromise and can compromise no further.

The Arabs have not even started to make compromises; their counterproposal is a demand that all Palestine be made an Arab State, where the Jews, as a permanent minority, would enjoy the rights of second grade citizens. What it means to be a minority in an Arab country may be learned from the status of Jews in Iraq or Yemen.

* * *

It is precisely because they bore the stigma of minority in the countries of Europe and Asia that the Jews turned to their ancestral home. The Balfour Declaration offered them Palestine within its historical frontiers, and for that purpose the British obtained from the League of Nations a mandate over the land on both sides of the Jordan. But in the wording of the Balfour Declaration “creation of a Jewish National Home in Palestine,” the British saw a loophole and made their interests first in the trust. Interpreting the words “in Palestine” as a limitation, they cut off two-thirds of Palestine, entire Transjordan, a fruitful land, and there set up Abdullah as a subordinate Emir. In 1918 there were 300,000 Arabs in Transjordan; after thirty years the population is practically unchanged. West of the Jordan, however, the Arab population has doubled in the same period. The reason? The prosperity the Jews brought to the land. If not for the military budget supplied by the British and diverted from the Palestinian treasury, Transjordan would be a country without an income.

* * *

In order to unite Arab Palestine with Transjordan the British prepared a scheme and Count Bernadotte offered it:

“Since the original mandate was for greater Palestine on both sides of the Jordan, the first step is to reunite both countries, Palestine and Transjordan, which had been illegally separated. The second step is to divide greater Palestine anew, Abdullah acquiring Transjordan and the Arab part, generously carved out, in western Palestine.”

Basically, this is the only sound idea in Bernadotte’s plan. In order to add territory to Transjordan, the Mediator acknowledges that the original separation of Transjordan from the area under the Palestinian mandate was unlawful. But if this is so, then the figures which underlay the division of Palestine by the United Nations are no longer valid. The area of Transjordan constitutes two-thirds of greater Palestine. The Arabs in Transjordan and Cisjordan together do not make up more than two-thirds of the whole population of greater Palestine. Thus the logic of figures requires that the State of Israel be enlarged to embrace all the land west of the Jordan, leaving Transjordan alone to the Arabs.





New York Post

MONDAY, JULY 19, 1948

Oil and Camels

Fear That American Concessions in Arabia Will Be Canceled Entirely Unfounded

By OBSERVER

An Egyptian newspaper recently published the following item: Ibn Saud of Saudi Arabia told Abdullah of Transjordan that he loved his sons and Palestine more than royalties from oil, and that the oil concessions to the Americans may be canceled if the United States should demand sanctions against the Arab aggressors in Palestine.

Although this is a rumor received third hand, let us deal with it as though it states what was actually said by Ibn Saud when Abdullah came to him complaining that the king of the desert supports the Palestinian invasion neither with arms nor with money. Many promises, sincere and insincere, are made when two Arabs, who are no friends, meet.

Some indirect pressure, of course, may have been applied on American oil interests in Saudi Arabia, but it has not been done with any real intention of canceling the oil concessions. To Ibn Saud the oil and the dinars (dollars), that pour out for him as they do only in the tales of the Arabian Nights, are dearer to him than Abdullah, the British, and their intrigue in Palestine.

As for his sons, they do no fighting in Palestine. One thing is certain in the shifting sands of Arabia: Ibn Saud will not cancel the American oil concessions even if the sun should rise in the west.

* * *

In order to understand this, one must recall what Saudi Arabia was only a short time ago. The entire meager revenue of the country came from the export of camels to those few places where there is a demand for them. The United States does not import camels except for its zoological gardens.

Philip K. Hitti, professor at Princeton and the chief mouthpiece of the Arabs in the United States, wrote in his book, "History of Arabs," 11 years ago: "The camel is the nomad's nourisher, his vehicle of transportation, and his medium of exchange. . . He drinks its milk instead of water (which he spares for the cattle); he feasts on its flesh, he covers himself with its skin, he makes his tent of its hair; its dung he uses as fuel, and its urine as hair tonic and medicine. . .

"To quote the striking phrase of Sprenger, the Bedouin is 'the parasite of the camel.' Since the country has today no special mineral wealth, with the exception of salt in certain spots and the pearl fisheries of Uman and the Persian Gulf regions, the camel industry is one of the great sources of income."

* * *

At present Aramco (Arabian-American Oil Company) extracts 300,000 barrels of oil a day from its fields in Saudi Arabia. For this it pays 21 cents per barrel in royalties to Ibn Saud. There is no representative government in Saudi Arabia; the money goes directly into the private treasury of Ibn Saud.

It amounts to \$63,000 a day and it will grow in the future. To this add Aramco investments in installations and in wages paid to the subjects of Ibn Saud, and also the "lend-lease" of \$99,000,000 given to Ibn Saud by the Government of the United States on the suggestion of Aramco.

* * *

Can Ibn Saud, who struck a fabulous fortune, return to the milk and meat of the camels as his private and national income? Certainly not. Is he interested in the aggrandizement of Abdullah, whom he chased from Mecca together with the whole Hashimite family? No, indeed.

Therefore, when Ibn Saud weighs love for his sons against oil, it means nothing. He will not cancel his concessions. Can he exploit the concessions himself? No, he cannot. His kingdom is very primitive. Saudi Arabia did not even have a national anthem until a short while ago to say nothing of technical facilities.

When, in 1945, the Saudi Arabia delegation arrived at San Francisco for the organizing conference of the United Nations, they discovered that their country had no national anthem. According to New York papers, they hurriedly ordered the composition of an anthem by a Hollywood composer.

* * *

Would Ibn Saud give his concessions to the Russians? Only in a nightmare may it occur to him. To the British?

They would like to take the concessions from the Americans and much of their work in promoting Abdullah is designed in a vain effort to bring him back to Arabia and to the oil, but before the British achieve this, they will have to make war with the United States.

That this would happen is as likely as the Waldorf-Astoria Towers, where Prince Feisal, favorite son of Ibn Saud and his Foreign Minister, lives when in New York, flying on a magic carpet over the ocean.

* * *

It is much more comfortable at the Waldorf than in a camel-skin tent, and as Feisal flies in an elevator some forty floors up to his suite, he must feel some respect for American technical genius. He has probably written his father a wonderful description of America.

He could have mentioned that in New York there are more than two million Jews, and not even one molested him or any other Arab, and that therefore a Jewish State in Palestine may, after all, be a good idea, especially since the Koran expressly says that the Holy Land is given by the Lord to the Jews for their dominion.





New York Post

FRIDAY, JULY 30, 1948

The Unholy War Backfires

A Girded Israel Upsets Professors of Koran in Their Misguided Jiddah

By OBSERVER

The war against the present Jewish community in Palestine is not an Arab holy war. It is, instead, unholy, and up to now the Israelis have been the victors and the Arabs the defeated.

The Arabs could not believe that this could be; so they tried again, and in the 10 days following the end of the four-week truce they lost Nazareth, the capital of western Galilee, and Lydda with its airport, Ramleh and the plain that stretches from it toward Jerusalem, in central Palestine.

The Egyptian army encircled at Ashdod was annihilated. This is a rout. An unholy war it has been and a good rout it was.

In a dispatch to *The New York Times* of July 26, Clifton Daniel writes on the basis of military reports from the Middle East: "The Arabs . . . suffered . . . a substantial military defeat in the war in Palestine . . . The Arab military failure . . . is particularly astonishing in view of the fact that contingents of the regular armies of five sovereign states participated in the fighting."

These Arab states have a population 40 times greater than the Israeli population of Palestine.

An unholy war it has been, but a holy war for the Israelis who, as in the days of Moses, are called by history to the supreme task of surviving in a hostile world.

* * *

Soon after the General Assembly of the United Nations voted for the partition of Palestine, the Arab religious university at Cairo, el-Azzar, resolved to proclaim a holy war against the Jewish community in Palestine. On the day the British surrendered their mandate, seven Arab countries declared war against the State of Israel.

However, the professors at the Theological University forgot one thing: the content of most of the chapters of the Koran. And a holy war (jiddah) must be proclaimed in the name of the Koran.

The Koran is sacred to all Moslems. Whatever is written here is held to be true. It does not matter that Joshua son of Nun is confused with Jesus son of Mary and that Mary is identified as Mariam sister of Moses; that Korach is made into

Kroesus, and Haman is there the vizier of the Pharaoh of the Exodus. What is important is the spirit of the Koran and its intent, not the confusion of details.

A major number of the chapters of the Koran deal with the story of Moses and the Exodus of the Jews from Egypt. No other persons are mentioned nearly so frequently in the Koran as Moses and his adversary, the Pharaoh.

* * *

“Pharaoh and his people” (says the Koran)—“verily they are a people who act abominably.”

“And we wished to be gracious to those who were weakened in the earth, and to make them the models, and to make them the heirs; and to establish for them in the earth; and to show Pharaoh and Haman and their hosts what they had to beware of from them.”

“Pharaoh and his people were and abominable nation, and when they had annoyed us we took vengeance on them, and we drowned them all together, and we made them a precedent and an example to those after them.”

“But we saved the Children of Israel from shameful woe!—from Pharaoh, verily, he was haughty, one of the extravagant! And we did choose them above the worlds.”

“And we did give Moses to guidance; and we made the Children of Israel to inherit the Book, as a guidance and a reminder to those endowed with minds.”

“Moses said to his people: O my people! enter the Holy Land which God has prescribed for you; and be not thrust back.”

“And we said to the children of Israel: Dwell ye in the land; and when the promise of the hereafter comes to pass, we will bring you in a mixed crowd.”

* * *

The promise of the hereafter has come to pass. Farouk, King of Egypt, today sits on the throne of the ancient Pharaohs. His is a second-rate kingdom, not as it was in the days of the Pharaohs. But he imitates the Pharaohs of the past. We advise him to order the professors at el-Azzar to mark for him with a red pencil all the passages in the Koran that relate the story of the Pharaoh who opposed the Israelis going to Palestine to build there a state. Almost every page in the sacred book will be crimson flecked.





New York Post

THURSDAY, AUGUST 5, 1948

The Modern Amalekites

British Take On Role of Israel's Biblical Foe in Barring Him From Homeland

By OBSERVER

As one looks through the newspapers of this time a year ago, one wonders at the things that were possible in Palestine only 12 months back.

Dispatches then reported strict curfews imposed on cities and even entire areas of the country by means of which the population was placed under house arrest for weeks; sentences to the gallows and firing squads; exiles to Kenya without trial or even formal accusation; ships intercepted on the sea and rammed; and the High Commissioner's or military chief's summoning the heads of the Jewish Agency and speaking to them arrogantly.

Pictures in newspapers showed Jewish inhabitants of towns and farms corralled behind barbed wire. Today the jailer and the hangman are thrown out of the Holy Land. The barbed wire exists only on Cyprus.

A few days ago we read of the military parade in Tel-Aviv, when the city of 250,000 crowded the streets and the rooftops and thunderously cheered the Israeli fighters who came from the fronts of Negeb, and Saron, and Jerusalem, and Emek, and Galilee. A nation defended a little place under the sun.

* * *

It is not correct to say that the nation was born. The nation never died. When the boys and girls of Kfar-Etzion in the wilderness of Hebron sacrificed their lives that the gates of Palestine might be opened to survivors from Dachau and Oswieczim, no kin of theirs, or to immigrants, unknown to them, from Romania and Galicia, then, by the Almighty, they in Kfar-Etzion and in Oswieczim are of one nation.

There will come a day when new chapters will be written in the Hebrew Bible, chapters that will record the history of the wandering of the Jews among nations and of their life as a persecuted minority everywhere, and of their return to their homeland after a long nightmare.

* * *

The Hebrew Bible is the history of the Jewish people among the peoples of the world. The centuries of persecution for their faithfulness to their religion and to their past, their contributions to world civilization, their decimation in our day, and the return of "the remnants of Israel" to their homeland are biblical themes that await only the penmen to write them

and a conclave to include them in the Scriptures.

When Israel went out from Egypt, from the furnace of affliction, the Amalekites met him on his way to Canaan and blocked his path. The Amalekites fell upon the wanderers in the wilderness, the weary survivors of Egyptian racial persecution.

The 25th Chapter of Deuteronomy reads:

“Remember what Amalek did unto thee by the way, when ye were come forth out of Egypt. How he met thee by the way, and smote the hindmost of thee, even all that were feeble behind thee, when thou wast faint and weary, and he feared not God.”

* * *

In the cast of characters in the modern drama the Nazis with their death chambers played the role of Pharaoh and the Egyptians, but the role of the Amalekites belongs to the British. In the darkest hour of the long-suffering Israel the British kept the doors of Palestine closed, in spite of the fact that the White Paper of 1939 was pronounced an illegal document by the Permanent Mandate Commission of the League of Nation in its session of June 8-29, 1939.

The British branded those who tried to come to Palestine as “illegal immigrants,” though it was they and not the immigrants who acted illegally. The Royal Navy intercepted the Jews returning to the Promised Land on the desert of the sea and carried them into the barbed-wire enclosures of Cyprus.

Despite the indisputable decision of the Security Council of the United Nations that during the truce period on Palestine the age of the immigrants should not bar them from entering the State of Israel, and that only military personnel should not enter the land, a decision that was separately voted on and therefore cannot be misinterpreted, the British have condemned all males between 17 and 45 years of age, who were illegally seized and imprisoned on Cyprus—more than 10,000 persons—to further imprisonment.

* * *

The British jailer loves his work and feels lost if he has no prisoners behind his walls. At the same time he has presented a fat bill for keeping the kidnaped immigrants in the prison of Cyprus.

The British are inscribing themselves in the annals of humankind as breakers of international law. Being modern Amalekites, they have chosen the same place—the approaches to the Holy Land—and the same people—the eternal nation of Israel—as the object of their historic crime.





New York Post

WEDNESDAY, AUGUST 11, 1948

United You Stand

Haganah and Irgun Don't Differ in Aims; Merely in Methods

By OBSERVER

In the year 70 of the present era, Jerusalem was besieged by the legions of Vespasian and Titus. For 200 years and more, there was no power in the world that would contest the power of Rome. But little Judea rose in revolt and year after year fought against Roman tyranny. The inability of Rome to achieve a decisive victory could become a signal for revolt in other parts of the empire.

It was remarkable how small Judea defended itself against the legions of Rome, "the most powerful empire next to that of Heaven," in the words of its historian, Titus Livy. The legions of the Caesars, covering themselves with glory in all parts of the Roman world, were unable to capture Jerusalem.

* * *

In those fateful days besieged Jerusalem was defended by three groups of warriors: one was led by Simon bar Giora, another by John of Giscala, the third by Eleasar Ben Simon. However, they fought among themselves, and it was not until the position of Jerusalem became tragically desperate that they united their forces in the common defense. But the city fell, and 600,000 dead were buried beneath its ruins.

Rome was so impressed by its victory over Judea that Roman coins of that and following years bear the inscription: "Judea is captured." A grandiose triumphal arch was erected in commemoration of the return of Titus Flavius with his legions from the war in Palestine. This arch still adorns Rome; figures on it show vessels of the Jerusalem Temple carried by Roman soldiers and Jewish prisoners of war brought to Rome to perish there in the gladiators' arena.

* * *

The Israeli of our days have been able to withstand a formidable alliance. Take a piece of paper and draw up a balance sheet of respective forces. Here, on one side, put down the 700,000 Israeli of Palestine, bone of the bone and flesh of the flesh of 6,000,000 Jews tortured and murdered in Europe in recent years.

On the other side of the balance sheet write down the members of the hostile alliance. The Army of Liberation of the ex-Mufti's Arab Higher Committee, officered by German Nazis; the Arab Legion of Transjordan, equipped and led by the British; the Arab troops of Iraq, Lebanon, Syria, Egypt, supported by contingents from Saudi Arabia and Yemen, armed by the British "in honoring the existing contracts."

All these forces are politically protected and militarily directed by the British. The British Navy and Air Force kept a semi-blockade of the Palestinian shore. The American Treasury paid for British arms sent to the Arabs. The oil empire of the world has made the greatest efforts to flout the partition plan. International anti-Semitism also raised its voice. Israeli-phobes, from Bevin to the members of the Committee for Peace with Justice for Palestine, for the sheer pleasure of opposing everything that could contribute to the redemption of the Jewish people, beat their breasts and pose as apostles of Justice.

But the Israeli have stood up to this common front of seven Arab states, the British Empire, the oil empire, and International anti-Semitism.

* * *

During the first first truce period the hydra of fraternal dispute lifted its head. The ship, Altalena, carrying arms, was brought by the Irguns to the shores of Palestine in violation of the conditions of the truce arranged by the Mediator with the Israeli Government and the Arab states.

Since there were not and are not United Nations observers in the Arab countries and not one watches to see whether or not arms are imported there, Irgun thought it was justified in bringing arms to the State of Israel. The ship was prevented from landing by the Government of Israel, which meticulously observed the conditions of the truce. In the ensuing fighting there were casualties. The ship was burned in sight of Tel-Aviv.

Irgun, which fought for the existence of the Jewish State, cannot now fight against the State; therefore, after a few days of defiance, Irgun submitted to the authority of the State. However, many of them went to Jerusalem, outside the official borders of Israel. Since the Trusteeship Council of the U. N. did nothing to implement the decision of the General Assembly to place Jerusalem under international rule, and since Bernadotte has proposed to include the city in the Arab State, the Israeli of all parties demand its inclusion in the State of Israel.

There is no difference in the aims of Haganah and Irgun; there is only a difference in methods. The Government of Israel has proclaimed the new Jerusalem as occupied territory; but it is careful not to do anything that can be interpreted as defiance of the decisions of the U. N., though the U. N. itself has flouted its own decision.

* * *

In war the Arabs, assisted by the British, could not overcome Israel. But if Israel is divided and Jerusalem becomes the scene of fraternal war, it ma fall a prey to its enemies. The memory of that other time, when also three groups defended Jerusalem and fought among themselves, ought to be revived and kept vivid in the minds of those who today stand guard in Jerusalem. Eighty generations of exile was the price of that fraternal war.





New York Post

MONDAY, AUGUST 16, 1948

If I Forget Thee, Jerusalem

A Letter From One of the Defenders of Jerusalem

By OBSERVER

I have been severely reprimanded in a letter I received from Israel. The letter was from a young lady in her early twenties, who did post-graduate work at Columbia University and who went to Palestine two years ago. She has worked in bio-physical research at the Hebrew University in Jerusalem. After the phase of civil disorder came the phase of war of neighboring states against Israel. Then came the siege of Jerusalem, when the city was cut off from the outside world and shells from the outside world and shells from mortars and siege artillery burst every minute of the day and night. The University was closed. The boys and girls of Jerusalem performed miracles, fighting with dwindling food supply and with only a painful of water, and occupied the entire new city of Jerusalem. They tried to keep a foothold inside the old Jerusalem too, scaling its gigantic ancient walls, but in vain. This foothold inside the walls was necessary, not as a strategic position, but only as a symbol—a symbol of perseverance in the shadow of the ancient synagogues and, the most ancient of all of them, the Walling Wall, polished by time and by human hands and tears.

* * *

When the siege of Jerusalem was lifted, the young lady happened to read in the June 4 issue of their paper an article of mine entitled “Message to Lady Astor.” I quote from the letter of my correspondent, the real Lady:

“One thing was painful to read in your article, in the passage: ‘When British fliers in Egyptian bombers or Egyptian fliers in British bombers bomb the Israeli capital, children bask in the sun on the capital’s beach, paying little attention to the bombing!’ “

“In no way can I agree,” she goes on, “with your calling Tel-Aviv our capital city. Is it so simple and self-understood in your eyes? Well, this policy of international Jerusalem has lost its content, I think. If we assented to Jerusalem becoming an international city, then the United Nations, even without being required to do so, had to send an international force to rule there and to preserve peace there.

“Boys, so good and so dear, gave their lives to defend Jerusalem from being conquered by Arabs who did not heed the decision on Jerusalem as an international city. From the beginning it was wrong to make this concession, but now that we have fought for each house, there is no justification in requiring from us the cession of Jerusalem.

“Jerusalem ought indeed to realize the version of Isaiah ‘Concerning Judah and Jerusalem’: ‘And many people shall go and say, Come ye, and let us go the Mount of the Lord, to the house of the God of Jacob, and he will teach us of his ways.’

“But with this difference, that the nations of the world should flock there to learn from the Jewish people their way of life and hear their message; the nations should not come as motley police guards whose only care it will be to see that the Jews should not have a life without care. . . And may be the time did not yet come, and we are not the generation to have Jerusalem as our own. When, then, will the generation come that will redeem Jerusalem? Only a generation that will know how to defend Jerusalem will be worthy of possessing it; if we cede it—shame upon us—we shall not be worthy of it.

“All this policy of acquiescing and yielding is very, very painful. Therefore it hurts me to read in your article about ‘Tel-Aviv, our capital.’ So simple! Where is the heart, where is the reason? Just because, in the partition plan of the U. N., Jerusalem is not included in Israel, shall we take it out of our hearts? Did they also implement the partition—and not our youth? Do they not try to carve a piece here and a piece there and scheme to decrease our area—after we fought for it—and shall we accede to all decisions against us with such simplicity and such ease? So Observer already agrees to Jerusalem outside Israel! Even what they ‘gave’ us—and we fought for every foot of it and bled to defend it—they may give tomorrow to the Arabs.

* * *

“Are we the international force that must carry into effect the decision of the United Nations against members of this organization—the Arab countries and Britain? And as soon as those countries that flouted the Charter can sway others their way and obtain a majority, then will the U. N. command us, their ‘international force’ with these words: ‘We have changed our mind. Please clear the place’? What kind of monkey business is this? The peace offer of Bernadotte at the end of the first truce was a mighty joke—he offered us conditions of surrender, as though we had lost the war.”

* * *

I know the girl who wrote the letter. She is a most considerate and sincere person. I make a deep bow to her and salute her with this promise: “For Zion’s sake I will not hold my peace, and for Jerusalem’s sake I will not rest. . . If I forget thee, Jerusalem, let my right hand—this hand that writes—forget her cunning.”





New York Post

TUESDAY, AUGUST 24, 1948

Iraq's Decay and Its Remedy

An International Quiz; From Where Can Iraq Obtain New Immigrants?

By OBSERVER

Iraq, formerly known as Mesopotamia on the Tigris and the Euphrates, is a country of 175,000 square miles. Its population is estimated to be between three and four million, but the exact figure is not known, since no census has been taken.

Twenty-five centuries ago this country had a population of more than 50 million. The Iraqi peasants are destitute and illiterate, yet according to Strabo, Pliny, and other classical authors, the soil of Mesopotamia is the richest in the world, and in their day produced a 300-fold return.

Today the country's agriculture is undeveloped, and the peasant walks behind a plow drawn by a lean cow. Or he may even harness his wives to the plow. The earth yields meager return, and the peasants starve because of oppressive interest they have to pay in their loans—300 per cent—from the landowners. The landowners do nothing to improve the land, and the money extorted from the peasants is squandered in the stagnant air of the harems and on the boulevards of Paris.

The Iraqi Government drew up projects of land improvement, drainage and irrigation of vast areas that belong to the state, and reconditioning of old canals dating from Babylonian and Persian times. Marshes between the two great rivers were to be drained and the rich soil prepared for intensive agriculture. But the Iraqi Government did woefully little to realize this plan because of lack of money as well as of people, for the country is very much underpopulated.

The Government draws its income mainly from the Iraq Petroleum Development Co. (British, American, French interests), and is as sleepy and as inefficient as only an oriental government with a secure income from royalties can be. This income from oil royalties does not benefit the country or the poor, but only a few rich families closely connected with the Government.

* * *

The military weakness of Iraq was painfully brought to the fore by its war in Palestine. The Syrian and the Iraqi states, so vociferous in the United Nations, proved to be no military match for the new state of Israel, not even for a small part of its force, since the main troops of Israel were engaged by the Transjordan Legion and the Egyptian armies.

The military weakness of Iraq is the direct result of the policies of the inefficient government, the retardation and destitution of the Iraqi population, the backwardness of its agriculture, and the absence of industry. The Iraq Petroleum

Development Co., aside from paying royalties, also did nothing to develop the country.

Judged by Iraq, by its standard of living and education and sanitary conditions, by the appearance of its cities and its fields, and by its military impotence, civilization is regressing, not progressing. The very existence of this state depends on whether it will be able to make progress in the near future, develop its soil, build cities, and return the land to the path of progress. Maybe, you know from where Iraq can obtain new population.

* * *

At present, as a result of the war declared by the Arabs against the State of Israel, there are about three hundred thousand Arab refugees. These Arabs are of the same race, language and religion as the Iraqi peasants. Their homes were destroyed in battles, their fields are untilled, they drove their live stock away with them when they fled.

They are superior to Iraqi peasants, for in the course of two or three generations they have learned from their Jewish neighbors how to plant fruit gardens and irrigate them, and how to care for animals and for their own health. They were not expelled by the Israelis; they ran away from the war area to the neighboring Arab countries, who provoked them to leave the borders of Israel.

Now these Arab countries are impatient of get rid of them, but the Israeli Government will not re-admit them as long as the conflict continues and the truce is not replaced by peace; when they do return, they will be required to become Israeli citizens and to swear loyalty to the State of Israel.

* * *

Palestine is the only country from which the Iraqis may hope to acquire new population. If in the past it was undesirable, from the Arab national viewpoint, to decrease the Arab population of Palestine, the existence of an Arab minority in Israel cannot be a national Arab goal.

Ex-President Hoover, a few years ago, offered a plan for transplanting Palestinian Arabs in Iraq with international help.

Similar plans were made by other statesmen during the years between the two World wars. According to Hoover's plan the economy of Iraq would rise; the revenue of the state would increase; the strategic oil fields would be better secured in a country with an increasing population.

The present conditions of war in Palestine, the many Arabs being uprooted, and the exposed weakness of Iraq, all call for the realization of this plan. It can be coupled with the transfer of Jews from Iraq (Bagdad) to Israel.

Thus Iraq has the chance of its life to start again on the road to prosperity.





New York Post

THURSDAY, AUGUST 26, 1948

From Disraeli to Bevin

Should the Oldest Nation Be Excluded From the Conclave of Nations?

By OBSERVER

One day during the last century, when the British House of Commons was deliberating on a bill to abolish restrictions against Jews holding seats in Parliament, and when many influential members were demanding that the “Christian” character of that body be preserved, Disraeli, later Lord Beaconsfield, a builder of the British Empire, made a memorable speech; I read it years ago and I quote from memory.

“Honorable Gentlemen: I sincerely hope that their House will exist always. But I cannot omit to remind you that the Egyptian Pharaohs, the Assyrian kings, and the Roman Caesars are dead and their empires have vanished, but the Jewish people have outlived them all.”

* * *

These words came to mind on reading that Sir Alexander Cadogan has let it be known that Great Britain will oppose the admission of the State of Israel to membership in the United Nations. The British Delegate to the Security Council has indicated that Great Britain may use its power of veto to bar the admission of Israel to the conclave of nations.

The veto power in the Security Council belongs to each of the Big Five. There is some question as to whether this power can be used in this sort of case. It is also open to question whether a state that exists on subsidies is independent and morally free to use a veto power. It is certainly paradoxical that a country like China is among the Big Five.

Great Britain, under the leadership of Bevin, swiftly approaches the international status of the Heavenly Empire, now a “republic” under Chiang Kai-shek. These “Big Two” exist on subsidies.

* * *

The British Empire that grew under Lord Beaconsfield and Joseph Chamberlain, its two great builders, is in our theme what the Turkish Empire was at the end of the last century, “the sick man of Europe.” She has many possessions. But like Turkey in the past, she depends on others to defend them.

It is characteristic that the great statesmen of England—Beaconsfield and Chamberlain—the Great Joe—dreamed of a Jewish State even before there was a Zionist movement. Beaconsfield expressed his ideas in his novel **Tankred**; at the Berlin Congress of 1878 he vainly looked for an organization in world Jewry that would be willing and able to found a Jewish State in Palestine, for at that Congress the fate of Turkey was being decided. It was 17 years before the first

Zionist Congress.

In 1903 Joseph Chamberlain offered Uganda in Africa to Dr. Herzl as a refuge for persecuted Jews, where the Zionist Organization could build a State; he regretted that he could not offer Palestine, then in Turkish hands; but he was willing to let the Zionists have the adjacent Sinai peninsula.

In 1917 Lloyd George and Lord Balfour bound their government to create a Jewish National Home in Palestine.

But all this was in the days when Great Britain was in the ascendancy, and at its helm were men of unusual stature. Compare the state of Britain and the record of Lord Beaconsfield or Lord Balfour with the state of Britain and the record of Bevin, and you will realize how far the Empire has sunk: from the top of the world to the status of an empire on relief—like the old Turkey or present-day China—and a growing enemy of liberty to boot.

* * *

The idea of the United Nations and of international peace originated with the Hebrew Prophets. The nations “shall beat their swords into plowshares, and their spears into pruning hooks: nation shall not lift up a sword against nation, neither shall they learn war any more” (Micah 4:3).

The time is not yet come; but the purpose for which the United Nations—and the Security Council—were created and the idea underlying their existence were conceived by the Jewish people 2,500 years ago.

“When their ancestors were announcing eternal truths to humanity in the hills of Judea,” said Disraeli to the members of Parliament, “your ancestors, my dear Gentlemen, were wild herdsmen trotting behind herds of pigs in the hills of these isles.”

* * *

In the three years of its existence, the United Nations has done nothing to improve the position of millions of slaves in Africa. The war in China has not been ended. Relations between the United States and Russia have greatly worsened, and the “One World” has become definitely “two worlds.”

Nothing has been done to ameliorate the condition of the homeless millions in every part of the globe; nothing appreciable has been achieved in the field of public hygiene. In Egypt there was a large pogrom; the United Nations kept silent.

The oil empire has undermined the U. N. in Israel and the Arab countries, but the U. N. received a gift from an oil magnate—a plot of land on the east side of Manhattan—and we have not heard in the world organization much criticism of the international grab for oil and the political methods employed. The atom bomb race goes along unchecked, with every passing hour bringing humanity closer to its destruction.

I wonder if Israel should enter this organization. The Hebrew Prophets certainly had in mind a brotherhood of greater integrity.





New York Post

THURSDAY, SEPTEMBER 16, 1948

Everything's Going Your Way

Bevin's Curse, Like Balaam's, Is Changed Into a Blessing

By OBSERVER

A year ago Ernest Bevin would not agree to admit 100,000 Jews, or any substantial number of them, into Palestine. Had he agreed then, there would not be a state of Israel today; but he did not—and the state of Israel came into being.

The United Nations did not stand up to its duty and did not send a force to implement partition, to which it had committed itself. The Israelis themselves established their state without help from the outside. Had the United Nations enforced partition, the world would look upon Israel as an artificial and feeble nation, unable to defend itself. But as events turned out Israel grew in stature.

The Arabs refused to consent to a peaceful solution of the Palestinian problem. Their forces, gathered from seven countries, invaded Palestine. They could not conquer it. Had they not invaded Palestine, they would have lived under the illusion that the Israelis, like the Jews in the ghettos of Baghdad and Cairo, are at their mercy. But now they have invaded Palestine and have met resistance, they have respect for the Israelis.

The United States maintained an arms embargo on Israel while the British supplied Arab countries with arms. Israel has therefore developed in a very short time its own munitions industry, which is an asset during the truce period when the import of arms is forbidden by the Security Council. If the United States had not imposed an arms embargo when Israel was attacked, there would not be a war industry in Israel such as now is there.

* * *

When the 30-day truce expired, the Arabs thought that the truce had kept them from conquering all Palestine. So they resumed the war. In ten days they lost heavily in Galilee, in Saron, on the road to Jerusalem, and in the Negeb. If they had not resumed the war, they would have retained many areas; now they have lost them.

The British and the Arabs cut off Jerusalem from its water supply and the State of Israel from oil, thinking to starve the Israelis into submission. But the Israelis built a secret water pipe to Jerusalem that was ready on the very day the Arabs blew up the Latrun pumping station; now Jerusalem will have water even if the truce will end and the war resumed. And in Haifa the Israelis seized the refinery which is a British property and brought oil from outside in tankers for processing. Then the British practically went on their knees looking for an arrangement that the Iraqi oil should be again refined at Haifa.

Whatever was done against the Israelis has turned to their advantage. Since no one has helped them, they are not obliged to anyone. In view of all this one wonders whether the American loan will be needed when the Administration finally gets around to grant it.

To Britain not loans but subsidies are given; likewise to Greece and Turkey. But the Israelis have asked for a bank loan. Who knows? Maybe some private banks or industries, or the Netherlands, or Czechoslovakia, or some other country will come forward with the proposal of a loan in money or material, and America will lose an opportunity to acquire an economic position in an important area.

Since everything that was done against Israel has turned out favorably, one wonders what benefit may be in store for the Israelis from having 12,000 of their brothers held in the Cyprus death prison? The British had better let them go.

By suffering so much there, the Israelis have acquired special rights in the island. The British would be well advised to open the wire cages before it is too late and they are again the losers.





New York Post

FRIDAY, SEPTEMBER 24, 1948

The Amputation of the Negev

Pious Words Cover the Sly Plans of the British Colonial Office

By OBSERVER

As soon as the new plan of the late Count Bernadotte was published, and before there was time to read it twice, it was warmly endorsed by Bevin. This creates the impression that Bevin was familiar with the contents of the plan before it was released or even before it was put into writing. It would seem to indicate that the hand of the British was in the composition of this document.

The immediate support given by Gen. Marshall to the plan also leads one to believe that before the document reached Paris, its contents were considered in the State Dept. If this were not so, the Secretary of State would not have made such a hasty statement. His utterances are, to some extent, a trial balloon to test public opinion in the United States. He therefore did not say as much as Bevin, who endorsed it without reservation, but he accepted the plan as a good basis for negotiation.

* * *

It is not Bevin's hasty applause alone that reveals his participation in brewing the plan, but the contents of the plan as well, and the way in which it meets British interests in the area.

The interests of the British in Palestine are economic and military. The military interest centers on the proximity of the Suez Canal and on the desire to create a continental military base, in addition to the insular base on Cyprus—for the entire Middle East, rich in oil. Of all Arab potentates only Abdullah of Transjordan is a genuine puppet. His country, to all intents and purposes, is a British colony, although it is listed as a protectorate.

The transfer of the Negev, therefore, from the Israelis to Abdullah is equivalent to giving it to the British. Bernadotte further did not fail to recommend that the Arab part of Palestine be handed over to Abdullah and not to other Arab countries, though this is certainly a matter that should be settled among the Arabs themselves.

The Jewish State definitely does not gain by having a strong military base directly at its back. A country as small as the State of Israel cannot feel secure if under the guise of giving an arid region to Abdullah, a location is prepared for a large-scale military base for a power who should have nothing to do either in the State of Israel or in the Arab part of Palestine.

Certainly there will be opposition to such a plan on the part of Egypt, who would dislike having the British on the other side of the Suez Canal. Egypt realizes that neither Abdullah nor Glubb Pasha is a sincere ally of the Arab cause, but that

both are British agents. Egypt certainly will demand the area for itself, especially as its army holds part of it. This may suit the British even less than having the area in Israeli hands. If faced with the dilemma—Egypt or Israel—the British will hate to choose, but they will probably prefer Israel.

* * *

Economically, too, the British realize that the Negev may be of interest. It is not excluded that the British have some data leading them to believe that the area contains oil. At least they conjecture that the Israelis established settlements there because they know something about the hidden riches of the territory: the British would hardly believe that a nation would choose an arid area for agriculture.

The British should show their cards and play a clean game. It makes no justice to demand that the Negev—three quarters of the State of Israel—be transferred to Abdullah, as if Abdullah has not enough grazing land for his sheep in Bashan and Gilead, famous for that purpose since biblical times. He does not need empty and arid regions. But the Israelis do need it, for they intend to bring the survivors of their people from Europe, the scene of their great destruction; they need space for new arrivals and for internal growth.

How can this be done on a strip of land ten miles wide? Was Bernadotte so blind as not to see this? He saw it, of course, but he complied with the wishes of the British, regarding them as the most important and the most interested party in the dispute.

* * *

I have said that the Negev may be of economic interest; it is more correct to say that it is. The Dead Sea is in the Negev. This sea was never exploited until the Zionist movement produced farsighted men who decided to utilize the salts of the sea. When Novomeyski sought a concession for that purpose from the mandatory power, and in the early twenties the case was discussed in the British Parliament, the spokesman for the British Government supported the application, explaining that the sea is dead and will kill every attempt to revive it, but if the Zionists are foolish enough to risk their capital and their energy—let them try it.

Then the Zionists went to the hottest spot on earth—and revived the Dead Sea. The result is that the Dead Sea is now the greatest source to potash in the Old World. It contains untold millions of dollars of salt. If the Negev is cut off from Israel, the Israelis will have no part in the production they started.

* * *

The British cloak themselves as defenders of the Moslem faith, but actually they would like to take the Dead Sea and the Negev into their sole ownership.

For these reasons they have dropped their earlier idea of the economic unification of divided Palestine, by which they hoped to make the Jews keep the treasure chest of Abdullah full. They have recalculated, and consequently Bernadotte's plan does not mention economic unification.

Never did the Arabs occupy the Negev. The Jews built there scores of settlements and made the Negev bloom. The British make a plea of pious words in the name of justice and already paint the Negev on their maps with the color of the Empire.





New York Post

TUESDAY, SEPTEMBER 28, 1948

A Mountain Was in Travail

***2,500 Square Miles for Israel;
42,500 Square Miles for Abdullah***

By OBSERVER

A mountain was in travail. The United Nations, the so-called peace loving nations, the self-styled free nations of the world, for almost two years busied themselves with the Palestinian problem. Committees and commissions, the General Assembly and the Security Council, all labored heavily. This fall the mammoth organization swam over the ocean from the metropolis of the New World, New York, to the metropolis of the Old World, Paris, where it resumed its ponderous deliberations on Palestine.

The mountain was in travail. For twenty months great nations, world powers, exalted statesmen, shrewd diplomats, presidents of states made declarations before their nations, before parliaments and congresses, to the press and on the air, concerning Palestine, its partition, the granting of statehood to the most ancient nation on earth. If the ticker tape with all these words were stretched in a straight line, it would reach the moon. If the pages of the articles and books that were published on their subject, and the cables and wires that were sent, were placed side by side, they would extend to the sun.

Then came the time for delivery in this great travail. The Secretary of State of the mightiest country in the world stepped forward and mounted the rostrum to address the delegates of fifty-eight nations. The press of the world and the radio carried his words; and millions, indeed hundreds of millions of people read them and listened to them in all parts of the world—in the Western Hemisphere, in the Eastern Hemisphere, people of the white race, the yellow race, the black race.

* * *

Secretary of State Marshall supports the Bernadotte plan. This plan is actually the third partition of Palestine. The first partition was executed when Great Britain, without authorization, severed Transjordan—more than three-quarters of the land—from the territory of Palestine mandated to her by the 51 nations of the League of Nations for the creation of National Home for the Jews. This area Britain gave to an Arab emir, Abdullah, with the understanding that the land this side of Jordan should serve as the National Home.

The second partition took place with the vote of the United Nations Assembly on Nov. 29, 1947. The 11-nation commission that had been sent by the United Nations to investigate the Palestinian problem proposed that the remaining part of Palestine be divided between the Arabs and the Jews. The Jews were to receive about half, including the entire Negev; but before this proposal came to a vote in the General Assembly, part of the Negev was cut off and transferred to the Arab portion of Palestine. Under pressure of the desperate need of Jewish migrants from Europe, the Jewish community in Palestine, with the exception of the dissidents, accepted this sacrifice also.

The third partition is in the making with the late Count Bernadotte's recommendation that the Negev be amputated—a recommendation so generous that it chops off with the Negev a part of the land of Judah.

What, then, remains? What do the nations clamor? About what do the papers print headlines? It is the hour of delivery for the mountain that was in travail.

* * *

What remains is 2,500 square miles for the State of Israel. The State of New York can hold 21 such states as they offer for Israel; California has room for 63; Texas for 107 states of that size.

The Secretary of States is very generous. The President of the United States is exceedingly generous. The delegates of the nations are magnanimous. The freedom-loving nations of the world have an open hand.

Look at your common "gift." You gave it with a feeling of greatness of mind and elevation of soul, these 2,500 square miles from an original 45,000 or from the more than 10,000 square miles on this side of the Jordan. To Abdullah—42,500 square miles; and to Israel—2,500 square miles. You "gave" it. The boys and girls of Israel fought for it, for the Negev and for Jerusalem, too; on the beaches, on the roads in the hills, on the streets, and bled and died. You gave them not one single gun to defend themselves.

Bells ring triumphantly in our soul; the sky is filled with angels rejoicing at our bounty and munificence. We have indemnified the martyred nation; we made good our bigotry, our negligence, our callousness.





New York Post

TUESDAY, OCTOBER 12, 1948

Barter of Votes

*Egypt to Security Council, Franco's Spain
to United Nations*

By **OBSERVER**

On October 2, the United Press Correspondent in Paris sent the following dispatch to American newspapers:

“Arab delegations to the United Nations appointed a committee to seek support from other delegations in forming a solid pro-Arab voting bloc. The committee. . . will concentrate in recruiting Latin-American delegations to support the Arab view regarding Palestine. In return the Arabs would sponsor Spain's admission to United Nations.”

The Arabs have six votes in the United Nations, constantly supported by two Moslem, non-Arab countries. (Pakistan and Iran). Israel has no vote to cast. A tribunal in which one party in dispute votes and the other party has no right to vote is unfair. A tribunal in which one party has eight votes and the other none is very unfair. But a tribunal in which a part of the jury buys the votes of other members of the jury by overtly selling its own votes is a court of Sodom.

If the hope of mankind is placed in the United Nations, and the United Nations countenances such practices, then in what has mankind placed its hope?

* * *

During the month of June, when fighting was going on in Palestine, Mr. El-Khoury, the Syrian delegate to the eleven-member Security Council, sat as chairman of the Council. An elementary sense of propriety should have led him to surrender this position, but he did not. He also conferred by long distance calls with Count Bernadotte and instructed him that he might disregard the decision of the General Assembly on partition.

Syria also voted on Palestine in the Security Council, though Article 27 of the Charter, dealing with the vote in that body, forbids such practice: “A party to a dispute shall abstain from voting.”

Is Article 27 not clear? Or is it not clear that Syria is a party in the dispute about Palestine? I cannot figure out which of the two is unclear.

Syria voted in spite of the Charter and even sat as chairman. I have not found a similar incident in the annals of any tribunal. Thus the Security Council established a precedent in international law. However, possibly it was not a precedent.. I had no chance to investigate the practices in Sodom. That place, as you know, was burned by fire and brimstone raining from the sky, and the city was overturned and covered by the waters of the Dead Sea, and all its court

records were destroyed. The Security Council may therefore boast of being the first to introduce these practices, but it must explain why its practices violate its own rules, the provisions of the Charter.

* * *

The term of Syria as a member of the Security Council, with that of two other members, expired and worthy recipients of this honored position were selected from among the nations of the world for the next two-year term.

Article 23 of the United Nations Charter provides that the Security Council shall consist of eleven members, which shall include the Big Five as permanent members. The Article says: "The General Assembly shall elect other members of the U. N. to be non-permanent members of the Security Council, due regard being specially paid, in the first instance, to the contribution of members of the United Nations to the maintenance of international peace and security."

On Oct. 8 the General Assembly elected three new members to take the places of those retiring. Together with Norway and Cuba, Egypt was chosen. It follows that the General Assembly of the U.N. made this choice with due regard being specially paid to the contribution of Egypt to the maintenance of international peace and security.

I ask myself: Is Article 23 of the Charter unclear? Or are not Egyptian troops present on the soil of Palestine to obstruct by force the decision of the same General Assembly of the U. N. voted on Nov. 29, 1947? Have I alone read of bombs dropped by Egyptian planes on Tel Aviv and Rishon-le-Zion? Do not Egyptian field guns at this very hour shell Israeli settlements in the Negev?

* * *

On the same day, Oct. 8, the Herald Tribune carried the following dispatch from its correspondent in Paris:

"Fifteen of the 20 Latin American republics have organized a bloc in the U. N. General Assembly to support admission of Franco's Spain as a United Nations member."

How beautifully done! Egypt became a member of the Security Council. Now watch the Arab votes on the admission of Franco's Spain to the conclave of peace-loving nations.

It seems to me that the delegates at the Paris General Assembly are not aware that historians will record all this in their books, and the school children of the future will learn the names of the states and their deeds in the U. N. But if the delegates are aware of this, they do not care. What is history? Just so much bunk.





New York Post

THURSDAY, OCTOBER 14, 1948

Rift in the Arab Front

Abdullah and the British Are Isolated in the Middle East

By OBSERVER

Behind the Arab front there is a rift. The Arab League has set up a government in Gaza comprised of the followers of the ex-Mufti of Jerusalem. Abdullah of Transjordan has not recognized this government. Hilmi Pasha, who commanded the Arab forces on the Jerusalem front, was elected head of the Gaza government. Abdullah then stripped Hilmi Pasha of his authority as commander on the Jerusalem front and placed the Old City of Jerusalem under a new commander. The Gaza government is on the territory occupied by the Egyptian army.

Abdullah's legion has done more fighting than the forces of any other Arab state on Palestinian soil. Abdullah hoped to have the entire country for himself, but since Israel successfully defended its territory, he now counts on the annexation of at least the Arab part of the country to Transjordan. His rival is the ex-Mufti of Jerusalem. They are carrying on an old feud.

* * *

The British planned that Abdullah's legion—their own creation—should conquer all of Palestine for Abdullah, which means for them. So they supplied him with officers, money, ammunition and even spies.

The ex-Mufti planned that Abdullah should conquer the country for him. His own "Army of Liberation" under Kaukaji proved to be good only on the run.

Egypt is not at all interested in increasing the British sphere on its border; for many years the entire policy of Egypt has been directed toward getting rid of the British, in Egypt proper, in the Sudan, in the Suez Canal zone. The Egyptians think that if the British should dominate Egypt from the Negev, they would never leave the Suez Canal zone or the Sudan.

Egypt would therefore like to have southern Palestine for itself. Opposition to Zionism is artificially intensified; the Egyptians make war against Israel but they regard the British as their real enemy and Abdullah as a British stooge. Said one of the Egyptian delegates at the Paris Conference, quoted by the United Press correspondent in his dispatch of October 2: "Britain is now considered the Arabs' number one enemy."

* * *

Ibn Saud is a traditional enemy of the Hashemites—in 1924 he expelled el Hussein, the Hashemite, father of Abdullah,

from Mecca. Would he now build up Abdullah?

Syria is very much opposed to Abdullah, too. He has long dreamed and spoken of the “Greater Syria” that should embrace Lebanon, Syria, Palestine and Transjordan, all under his rule. The republics of Lebanon and Syria, however, have no desire to become part of a monarchy under the Hashemites and the British. Abdullah has so often spoken of the Greater Syria that in Amman, his capital, people say that as soon as he starts talking about it, his old pet cat yawns and leaves the throne hall.

Iraq is the only country besides Transjordan where Hashemites sit on the throne—Abdullah’s nephew as regent and Abdullah’s grandnephew as child-king. For a time it seemed that Iraq would side with Transjordan; but the hand of the ex-Mufti and of rabid nationalists generally is strong in Iraq, and the government probably fears that a revolution would break out if it sides with Abdullah who is accused of negotiating with the Israelis.

Secretary of States Marshall proposed to admit Transjordan as well as Israel into the United Nations. But the Arab states at present are as much opposed to the membership of Abdullah as they are to the membership of Israel.

* * *

Under these circumstances Abdullah is practically isolated. He has done most of the fighting and now other Arab states gang up against him. Together with him, the British are isolated in the Middle East. All their efforts to appear as protectors of the Moslems have gone the way of similar efforts by Mussolini. The British engineered the removal of the French from Syria and Lebanon; they planned the barring of Jews from Palestine; all this to keep the Middle East for themselves. And in the end they stand before a hostile Arab world.

Who will fight for the British in the Middle East? Abdullah refuses to fight the Israelis if the fruits of his efforts are to go to the ex-Mufti or to Farouk of Egypt. If he fights any more, he will lose the rest of his legion; then he will have no trump cards against Syria and Egypt, and will be defenseless against Ibn Saud, whose kingdom borders his in the east.

The British sold the idea to Bernadotte that the possession of the Negev by Abdullah is vital to the existence of the Empire, and the Count included this in his plan, namely, that the Negev, with the Arab parts of Palestine, should go to Abdullah; and Bevin offered the U. N. this plan to be accepted.

Now that the British have nobody to fight for them in the area, they will try to rekindle hostilities between the Egyptians and the Israelis, in the hope that the Israelis will push the Egyptians out of the Negev; then, by all kinds of pressure, they would turn the Negev to Abdullah.

Actually, under the cloak of a war with Israel, there is being fought out a bitter contest among the local interests in the Arab world. Abdullah wishes a Greater Syria and after that to return to Mecca; Egypt would like to dislodge the British from Sudan and the Canal Zone and occupy the Negev. Ibn Saud wants to exact better terms for his oil from the Americans and uses the Palestinian affair to play the insulted bride.

Britain is anxious to set up a base in Arab Palestine to dominate Egypt and the oil lands that slipped through her fingers. The ex-Mufti aspires to attain the Caliphate with the blood of Abdullah’s legion. And the Americans would like to gain all Jewish votes for each of the two major parties with empty promises to Israel, and all of Arab oil without leaving anything to the British and this as cheaply as possible.





New York Post

SUNDAY, OCTOBER 17, 1948

Two Letters

The Secret Weapon of Israel Is the Spirit of All Her People

By OBSERVER

Here is a letter written by friends of Jacob, a boy of 17 who fell fighting on the Latrun front. With his friends they were preparing to become farmers and to build a new agricultural settlement on the land of the Jewish National Fund, when they were called to defend their invaded country; in a single day the little group suffered the loss of nine members, and Jacob was one of them. It was on the day before the renewal of the truce; they were fighting for the water line to parched Jerusalem.

After a while the surviving friends wrote to the parents of the boy:

“Dear Parents of Jacob: A fortnight has passed since the somber day on which nine of the best members of our pioneer group fell in the battle on the road Ramallah-Latrun. At first we were speechless from the heavy blow; but we know for what they fell and therefore we stood up and decided to go on with our pioneer work. We organized our life anew in order to continue to prepare ourselves for pioneering, whatever may come.

“It is hard to believe, hard to absorb the great loss. Every one of those who died was a living part in our pioneering group, and the gap is great.

“Jacob, your son, was always one of the most active in the group—in the work in the field, and on the Sabbath his songs and little stories and his laugh did not cease.

“We shall try to find our comfort in the work for the land of Israel; find your consolation there too. Be proud of your son who died the death of the heroes, and look upon us, the members of Jacob’s pioneering group, as your children, and we shall look upon you as the parents of the group. Please always let us know and we shall be your help in all your needs as if we were your children. We shall help you, whenever need be, with working hands or in matters of money; you should not hesitate in such cases—we shall help you with joy, because great is our debt to you.”

* * *

Jacob’s parents answered his friends in a letter from which I quote:

“Our dear children: From your letter we learned how justified was the great love our only son Jacob felt for the group with which he intended to fulfill his dream of pioneering.

“Our dear boy fell. He never caused us pain or sorrow, and the greater is our sorrow now. But we knew: he could not go a different way—this was the road of a sincere and good boy, who believed in the work of reclaiming the wastes of this land, at any price, event the price of life and all.

“Your letter brought us comfort: we have many sons. And we wish that all our children—all of you—would come to us and we shall learn to know one another, and we shall receive you with love, with the same love with which we would have received our Jacob. And we ask this from you: come to us on every occasion when you need help, as children to parents, and we shall help you in all we can.

“We would love to keep in constant touch with you and to know of the progress of the group with which Jacob would have built the land and his own future. Go ahead and succeed.”

* * *

Encircled by the armies of seven states stand the youth, the manhood and womanhood of Israel, and behind the front lines are the children, the old, and the immigrants from the displaced camps.

A callous world stood by with unsoiled hands, expecting that the Arabs from as far as Iraq and Nejd and Yemen and Egypt would overrun Palestine and destroy Israel. But Israel was not destroyed. His chief weapon was his love for his country, the land under his feet, and his high ideals.

Jacob and his friend died near the road to Jerusalem. If one day you should travel to the City of Peace and pass the roadside, say a little prayer for Jacob and his friends, a prayer of thanks to them. And if you should hear, in the days of peace to come, a song of the harvesters in the fields of Judea, you will believe that Jacob sings with them.





New York Post

TUESDAY, OCTOBER 26, 1948

Truce of Attrition

Palestine Cease-Fire Calculated to Save Arabs From Complete Defeat

By OBSERVER

When, following the decision of the United Nations of Nov. 29, 1947, the Arab "Army of Liberation" from Syria and Iraq invaded Palestine, the Security Council raised the question of a threat to peace and sanctions against the aggressors. The British and Arab delegates, however, argued that it was "irregulars" who had invaded Palestine, and consequently no sanctions were imposed on the Arabs.

After the termination of the British Mandate on May 14, 1948, the regular troops of five Arab states invaded Palestine. Thereupon, the United States proposed in the Security Council that the action of the Arabs be declared a threat to peace, but again the British were opposed and defeated the United States resolution.

Instead, the British proposed that a mediator be sent to Palestine to see whether a settlement of the conflict could be achieved by peaceful means, the implication being that if the mediator could not succeed, the Arab invaders should then have to face stern measures on the part of the Security Council.

* * *

Count Bernadotte was appointed mediator. He succeeded in arranging a four-week truce, but he could not work out a proposal that would satisfy either side; when the time expired, he asked for an extension of the truce. The Arabs refused; the Israelis agreed. Then, on July 9, fighting began again. The Arabs miscalculated. The Israelis have driven them from the central plain and from western Galilee.

The Security Council, which did not vote sanctions against the Arabs and let them have the benefit of mediation, failed again to vote sanctions when the Arabs renewed the war. Neither did it permit the Arabs to suffer the full consequences of having renewed the conflict when a few more days would have been decisive in the struggle. Instead, it voted a threat of sanctions against any party—Israeli or Arab—who would not submit to an immediate truce. This resolution was supported by the British, for it was made to save the Arabs from being routed. The truce was renewed on July 19.

* * *

Since then more than three months have passed. The Israelis offered to negotiate directly with the Arabs; they refused. The mediator offered negotiation at a round table conference; the Arabs refused. They acted as though they were the victors. They did not begin to make even the smallest concession. They refuse to sit down with Israeli representatives

since they do not recognize an Israel state, large or small.

Then what purpose does the truce serve? It is imposed to protect the invaders from a rout. It is also actually a siege of Israel. Over 150 observers are stationed in Israel to watch that there should be no truce violation and that no arms should be imported; but there are only a few individual observers in all the Arab states and in the Arab part of Palestine, and there is practically no control of the importation of arms in Alexandria, Port Said, Suez, Beirut, Tripoli, and many other parts of Arab states on the Mediterranean, the Persian Gulf, the Red Sea.

The truce is also unjust in that it keeps able-bodied Jews from immigration. The Arabs have a reserve of millions of people for mobilization and they can draw on this reserve without limit. Under such conditions, is an extended truce equally just to both parties?

* * *

If it had been up to the mediator and the Truce Commission, the population of Jerusalem would have died of thirst.

If it had been up to the Truce Commission, the Jewish settlements of the Negev would have been starved out. The Israeli road to the Negev crosses the Egyptian supply road from the coast to Hebron and Jerusalem. Count Bernadotte ruled that every day for six hours the crossing should be open to the Israelis and for six hours to the Egyptians. But the Egyptians occupied strategic heights and did not allow the Israelis to use the road.

The new mediator, Dr. Bunche, and the Commission did nothing to enforce the ruling. The Egyptians constantly shelled the Israeli settlements in the Negev and only ten days ago we read that in one of such bombardments the young daughter of the Israeli military governor of Jerusalem was killed.

With the approach of the rainy season the Israelis sent a convoy of food to the Negev. The convoy was smashed by Egyptian artillery. Then the Israeli army took action and beat the Egyptian army from the strategic heights dominating the crossing. Who is the violator of the truce?

* * *

The truce was imposed for the purpose of negotiation, not for stalling; it was arranged to save the Arabs from having sanctions imposed against them as aggressors. The Arabs refuse to negotiate or even to recognize Israel as reality. Since the purpose for which the truce was established is rejected by the Arabs, the proper thing to do is to return the United States proposal in the Security Council to brand as aggressor nations the Arab states who invaded Palestine and to impose sanctions against them.

This is the logic of things; and their would be done if we were living in a more just world. But in a more just world the land of Israel would not have been an object of power politics among great powers.





New York Post

SUNDAY, OCTOBER 31, 1948

The Seven-Day War

The Egyptians are Weak with the Sword but Strong with Their Mouths

By OBSERVER

In the seven days of fighting between the southern army of Israel and the Royal Army of Egypt, the Egyptian troops have taken a beating on hip and thigh. The Israel have smashed the army of Farouk along the entire front, cut off the troops of Jerusalem and Bethlehem from every line of communication with Egypt, captured Beersheba and other strongholds, and slashed to ribbons the royal army on the coast.

On Oct. 21 the New York Times correspondent radioed that there were "signs of panic in the positions still held by the Egyptians." "The Israel army fought on with increasing success. . . The Egyptian troops remaining in the Negev were in a bad way, and the fall of Beersheba threatened those about Jerusalem with a similar fate."

On the same day and on the same page of the New York Times the Cairo correspondent quoted an official source of the Egyptian government as declaring that "there was good news from the front," and the Associated Press quoted Abdul Rahman Azzam Pasha, Secretary Gen. of the Arab League, that "the Egyptian army had emerged victorious from the current fighting in southern Palestine."

In a message to Arab delegations at the United Nations he added, "After a battle of seven days the Egyptian army has emerged victorious... We are looking to future battles with more confidence than we used to have before this experience. It has now become clear that the Egyptian army alone can repulse all Jewish forces and take the initiative."

* * *

The good news was sufficient to bring the Egyptian premier to Amman to beg help of Abdullah whom the Egyptians had snubbed only a fortnight before by declaring that he would have no authority over the Arab part of Palestine. At the desperate Egyptian S.O.S. the premier of Syria and the regent of Iraq also flew to Amman.

Rescue came, not from any Arab ruler or army, but from Dr. Bunche, who obligingly put a deadline on the fighting. He acted like a referee of a kind of game, and stopped hostilities just when the Arabs were on the verge of final collapse.

I wish this system were in effect elsewhere besides Palestine. For example, it might be an idea to have a United Nations mediator to tell the fighting forces in China and Greece when to shoot and when to cease fire; he would stand with a stopwatch in his hand and give the signals to start and stop. An unusual war under new rules!

That the Egyptians agreed to the cease-fire order is no wonder; it was their only salvation from utter destruction, from not being able to save a single soldier of their entire army. But that the Israelis submit to these rules that are nowhere else imposed is real testimony to their genuine desire for peace: no other people, well on the road to complete victory, ever accepted rules of warfare designed to halt them on their way.

* * *

On their visits to the capitals of the West, the Arabs appear with swords and daggers and pistols in their belts; and the tradition has grown up around them, supported by a reading of the Arabian "Thousand and One Nights," that they are a very warlike people, a precious ally in time of war. This notion is exploded. A Turkish diplomat said recently: "We have little respect for the forty millions who take a beating from half a million" (a ratio of one against eighty).

That the Arabs are not great military heroes can be excused. But that they should herald a victory when actually they are suffering a rout is reprehensible. This lack of candor is a dominant feature of their politics, too: Many pronouncements by their representatives in the United Nations and elsewhere are in the same category as calling a real rout a great victory.





New York Post

MONDAY, NOVEMBER 15, 1948

A Magician's Trick

Britain's Cadogan Pulls 2 Rabbits from his Hat and his Claue Insists they're Real

By OBSERVER

EDITOR'S NOTE: The following dispatch by Observer from U. N. headquarters in Paris was mailed just prior to receipt in Paris of the directive from President Truman to the American delegation, to withdraw from support of the British effort of impose sanctions on Israel and to push for a directly negotiated peace, using the partition plan of November 29, 1947, as the basis for discussion. Whether Britain will again, as she has so often in the past year, be able to assist the State Department in reversing the President's policy, remains to be seen. T. O. T.

United Nations, Paris, (By Mail). — From the day when, after the United Nations vote of November 29, 1947, Arab "irregulars" from Syria and Iraq invaded Palestine and stormed Jewish settlements, I have waited for the day when the British would succeed in branding Israel as an offender against the peace.

From the day when the British barred the United Nations Commission, charged with implementing partition, from entering Palestine, I have waited for the day when the British would say that the resolution of November 29, 1947, voted by more than a two-thirds majority of the General Assembly, is no longer valid.

I have lived to see both these things happen. British cunning and British delaying tactics have succeeded in the space of time required by our planet to travel once around the sun, in so twisting the legal situation that Sir Alexander Cadogan, pipe between his teeth, unblushingly offered a resolution that would make the Israelis offenders against peace and stated that the resolution of November 29, 1947 has long been invalid.

* * *

Cadogan had no top hat in front of him. But still he pulled out two rabbits. He needed a full year for this trick, but he did it with the air of a real magician. And, pipe between his teeth, he looked happily at his accomplishment.

"They are real rabbits," said the delegate from Syria.

"They are real rabbits," echoed the delegate from China. "We in China know what rabbits look like."

"Are they actually rabbits?" asked the delegate from Canada.

"They are, They are," chorused the gentleman of the Security Council. "Let us vote that they are real rabbits."

"Let me think it over until tomorrow," begged the delegate from Canada.

"No, no. Tomorrow the rabbits may disappear."

"Why should the rabbits disappear by tomorrow?" I asked myself. "Why such a rush in this honorable Council?"

"You see," a lady sitting next to me said, "by tomorrow the presidential train carrying Truman to Washington will be

back at the capital, and it is necessary to vote before the train gets back.”

“Are you sure?” I asked the lady.

“I am positive” she said.

Then the Security Council voted that Cadogan had produced two real rabbits. The learned Dr. Jessup of the United States concurred in this vote. He did make some minor changes in the Chinese-British resolution, but it is always useful to draw the attention of the audience away with some small talk when a trick is being prepared. Dr. Jessup lost his voice exactly when he had to say that the resolution of November 29, 1947 still stands, since only a two-thirds majority can vote down a resolution that the same body accepted by a two-thirds majority; and even then it is questionable whether a court can reverse its own decision. Because Cadogan does not like the resolution on partition, should it for that reason be annulled?

* * *

When Israel was invaded after Nov. 29, 1947, all the nations were under the obligation to send an international force to Palestine to enforce the decision of that date. It was not sent. At least a token force should have been sent. It was not sent. At least arms should have been sent to the Israelis. They were not sent. At least arms should have been sold to the Israelis. Instead, an embargo was put into effect. At least the United Nations Commission charged with implementing the partition should have been admitted to Palestine. It was not admitted. At least the Arab invaders should have been branded offenders against peace. They were not so branded. At least arms should not have been sent to Arab countries. They were sent. At least the Security Council should have acknowledged in shame its default in action, and congratulated Israel for saving Jerusalem and a large part of Palestine from these seven states which violated its decision on partition. It did not do even this.

* * *

Two monstrous rabbits were produced by the British with the assistance of the Chinese, worthy allies in political ethics. Some say that an American, a five-star general, acted as midwife. No wonder the rabbits look like dragons.





New York Post

FRIDAY, NOVEMBER 26, 1948

Genocide at Cyprus

By **OBSERVER**

TEL AVIV, NOV. 26 (By cable)—Cyprus is paradise and hell in one. Lofty mountains covered with trees, with many silver-toned springs, with a cool breezy summer—in one half of the island. A salty dry and dusty plain, with barely a tree, an oven for six months of the year—in the other half of the isle.

The British caught in the open sea those who in the days of the mandate over Palestine tried to come to their national and legal home; and when they caught them, they dragged them to the Island of Cyprus; and there they placed them in the barren plain of the salty desert; and they corralled them with barbed wire; and they kept them there summer and winter; and in the glowing oven of the unbroken 106 degrees Fahrenheit, in barracks of tin, and under tattered canvas, in view of the green mountains, with silver-toned springs, with shade trees and breezy winds.

* * *

The mandate is over. The British have nothing to say about Palestine and about immigration there. But they keep the human cargo of many vessels, 12,000 persons in thirst, in sickness, swarms of flies, without any legal right to detain these people. They caught free men and they enslaved them. They did not place the imprisoned on trial; did not accord them the right of habeas corpus, and they deprived them of liberty and of all other civil right. They gave them food of starches; they let them wait hours under blistering sun for a bucket of water in the summer. And now when the stormy rains tear the tattered canvas and thunder on the tin roofs of the barracks, the pirates' captives shiver in wind and rain.

Were it only a measure of impartiality on the part of the British who, unable to stop the hundreds of ships sailing to Palestine, to try to keep back these 12,000 who were luckless enough to be hunted down by the British Navy; were it only a measure of impartiality, then the British were obliged to let the detainees be guests of the crown in this crown colony, and they should have let them go free to Europe, whence they came.

* * *

But the intention is to avenge on these twelve thousand for the British failure in Palestine. And they chose a slow genocide. The Germans also for years kept their slaves behind barbed wire before they destroyed most of them morally or physically. The British are keeping men separated from their wives or unable to marry, with the intention of destroying their manhood. Women who did not leave their husbands and remained with them on the island must see their children die unprotected from flies, cold and heat. Those who protest are put into prison cells and put to hard work; and when on the Holy Day of Jewish New Year they refused to work they were punished by two weeks of additional hard labor.

Let American Congressmen go there. Let this nest of shame be erased. Let it be known that in the pirate isle of Cyprus

12,000 human beings, one hour's fight from Palestine, are kept bereft of all human rights.





New York Post

TUESDAY, NOVEMBER 30, 1948

The Arab Refugees

The Invaders Get International Help that May be Converted into Military Aid

By **OBSERVER**

(EDITOR'S NOTE: On Saturday the United States Delegation at Paris pledged a minimum of \$13,000,000 from the U.S. to the fund for Arab refugees in Palestine. While approving assistance for refugees, Arab, Jew, or gentile, anywhere, T.O. Thackrey, coeditor of the New York Post Home News, suggests that the \$13,000,000 available be applied as the first installment on the United States' promised loan to Israel. . . and that the \$13,000,000 for Arab relief be raised as follows: \$ 8,000,000 from Great Britain in place of the \$ 8,000,000 she paid Abdullah to invade Palestine this year, thereby causing the Arab refugee problem; say \$ 2,000,000 from King Ibn Saud of Saudi Arabia, also a Palestine invader, from his subsidy from the American-Arabian oil company: the remainder from Great Britain by eliminating the cost of maintaining Foreign Minister Bevin's 1948 Dachau at Cyprus!)

If you have visited one of the Arab countries, you certainly have seen Arab beggars—men, women and children—blind or decrepit—crying for alms. If you have watched them, you must have been impressed by the fact that almost no Arab gives anything, not even the smallest coin, to the poor; and you may have wondered. Why do they then ask for alms? An occasional foreigner, a European or an American, who passes along the street, may drop a coin; but an Arab who begs in the precincts of a mosque visited by Arabs only will not collect enough for a loaf of bread no matter how much he may display his infirmities.

* * *

There are hundreds of thousands of Arabs who, following the commencement of hostilities in Palestine, left their domiciles at the call of Arab leaders from outside. The case of Haifa is especially well authenticated. When the British prepared to leave the city, they practically suggested that the two sides contest for it. After a day or two of battle, the Arab leaders appeared before the British General with a request that he negotiate the surrender.

The conditions offered by the Jewish forces included full freedom and all civil rights for the Arab residents of Haifa; the Arabs who came from foreign countries to fight were to leave Palestine; and the surrender of only the German (Nazi) officers of the Arab "irregulars" was demanded. The Arab emissaries accepted the conditions transmitted to them by the British General.

A few hours later, however, they returned and, wiping the sweat from their brows, informed the General that they had received orders from abroad not to go through with the agreement and to alert the Arab population that they should hurriedly leave the city. An exodus followed.

* * *

Transjordan has, according to Arab sources, one hundred thousand refugees, and in all there are over three hundred thousand. You never can trust figures coming from an Arab source. According to the Egyptian and Syrian war communiqués, they have killed more Jews than there are in Israel. Neither can you rely on figures on refugees, especially if help from abroad is asked. But if there are one hundred thousand refugees in Transjordan, they must constitute a great burden on this country unless they are fit to work.

Abdullah approached Ibn Saud, the owner of the Arabian oil fields and the recipient of fabulous royalties from Aramco. In answer to Abdullah's appeal, Ibn Saud declared that he would donate \$50,000, a few hours' income from his royalties. Actually, Abdullah probably did not receive anything from Ibn Saud, for the promise did not specify whether the help would be given to the refugees in Transjordan or elsewhere.

Seven Arab countries that boast that hundreds of millions of Moslems throughout the world stand solidly behind them appeal to international organizations, private groups, and various governments, asking for help to care for the refugees from Palestine.

From Europe and America hands eager to help stretch toward the Arab refugees. But unless the distribution is placed in the hands of some organization, the food, clothing, and tents will not reach them. They will most certainly reach Arab armies; and just as certainly they will enrich some private pockets.

* * *

To lend a neutral character to the appeal, 7,000 Jewish refugees are included with the 300,000 Arab refugees. On this point I have my doubts. Are these Jewish refugees from pogroms in Cairo and Bagdad? There are no Jewish refugees in Israel who would accept help from international organizations. Will the help be delivered to the imprisoned Jews in Arab countries?

There are hundreds of thousands of Jewish refugees, since 1933, and since 1937 (Anschluss of Austria), since 1939, and since V-E Day in 1945. Jewish organizations have taken care of them as well as they could. They were not among their own people as the Arabs are, but among hostile, anti-Semitic populations.

Israel, a state that was born into war, manages to keep its entire able-bodied population mobilized and on the front; at the same time it brings within its borders every month ten thousand destitute refugees, mostly women and children. How can this be done? Only at the cost of great sacrifices, and only in the spirit of great cooperation. And only because Israel is really a nation: a people who do not leave their land in war; who share among themselves whatever they have.

* * *

The International Red Cross and other organizations that consider it their duty to alleviate suffering and right the wrong are invited to join the Committee for the Forgotten Million, Inc., to care for the imprisoned Jews in Arab countries—Yemen, Egypt, Iraq, and Syria in the first place—and to give help to the victims of pogroms.

The United Nations is invited to send investigation commissions into these countries, or at least to demand a report on existing conditions from the respective Governments.





New York Post

FRIDAY, DECEMBER 10, 1948

The Promised Land Fulfills its Promise

*By Sea and by Air Thousands of the
Children of Israel Come Home*

By OBSERVER

Tel Aviv (By Mail)

When, during the last war, President Roosevelt ordered that we admit some refugee into the United States, a shipload of uprooted persons of all faiths, not quite a thousand, was brought to this country and for security reasons was lodged in a camp near Oswego, N.Y. Since the United States has more than 140,000,000 persons and Jewish Palestine only 700,000, one thousand refugees for the United States are proportionately equal to five refugees for Jewish Palestine.

At present 15,000 refugees reach Israel each month, and the land absorbs them. This rate of immigration would bring 35 million newcomers to the United States in one year, or 10 million to the British Isles.

The land is small, and years of misery and years of compulsory idleness are sometimes the only baggage of these homeless ones; the country is at war and all available material reserves must be devoted to the struggle for survival. And still the refugees come, by sea and by air.

Never have vessels of the sea and planes of the air carried such a multitude of the destitute and home-seeking; planes and ships move in an unbroken line toward the East. No land is willing to receive these homeless ones save the Promised Land: the old, the young, the sick, the mother and the expectant mother—the land welcomes and absorbs them all.

* * *

The prophet Jeremiah had a vision (31:8ff.)

Behold, I will bring them from the north country, and gather them from the uttermost parts of the earth, and with them the blind and the lame, the woman with child and her that travaileth with child together: a great company shall return thither. They shall come with weeping, and with supplications will I lead them. I will cause them to walk by the rivers of waters in a straight way, wherein they shall not stumble: for I am a father to Israel.

The words of the prophet have become life. With weeping the children of Israel return to their country, and the gates of the land are opened wide before them, and the land takes them in and mothers them.

* * *

Economists will vainly seek the solution to this problem: How can so small a country, with all its resources devoted to its defense, take in all this multitude from the camps of the displaced?

The answer is not written in books. It is written in the hearts of people. No country in the world could do this. The Promised Land can and does.

It says: Come to me all you who are tired, all you who are persecuted; enter my gates; be my children; till my soil; and stretch your hand to those who come after you and bring them in, too.





New York Post

TUESDAY, DECEMBER 28, 1948

One Against Seven

This Time David is Victor over Seven Goliaths

By OBSERVER

As children you must have read how David brought down the giant Goliath. You may or may not believe this story, but you must believe the story to which you were witnesses: it occurred in your time. The Jewish Community of Palestine, seven hundred thousand people, defeated seven Arab states. The British Empire gave the Arabs arms; the oil empire gave them money; and both gave them political support. But all to no avail.

A few weeks ago Major Gen. Riley, Chief of Staff to the Mediator in Palestine, declared in Paris that the Israelis are the masters in the field and that the Arab armies hold their lines, not because of their military strength, but because of the protection of the truce.

This is obvious enough. And Dr. Bunche, the Mediator, told me in Paris on Nov. 4, the day sanctions were almost imposed on Israel: "If not for the truce, where will the war and the Jewish advance end? In Beirut and Damascus? Or even in Baghdad?"

* * *

In the first article in this column, which appeared thirteen months ago on Nov. 25, 1947, a few days before the partition resolution, your "Observer" wrote:

"In violation of the very principle on which the United Nations was created, the members of the Arab League proclaim that they will make war if the United Nations reaches a decision on Palestine contrary to their desires. Let us look at the potency of their threat. The truth of the matter is that the Arab states have military value only to the extent that they receive American and British. . . arms. The Hebrew population of Palestine, which played such a decisive role when the scales were evenly balanced at Alamein, could easily defend itself against the Arab nations if it had comparable equipment. The backwardness of the Arab people makes them poor contenders in modern warfare."

* * *

Last October one of the most illustrious of America's soldiers received in his office on a university campus a scholar in the field of history for a discussion on the Middle East, a discussion that involved reference to the maps before them. This soldier agreed that the war in Palestine demonstrated that the Arabs are not the military force they were supposed to be.

Only a few years ago, during the recent war, in March, 1944, another great soldier, also a five-star general, appeared before a closed session of the Senate Foreign Relations Committee to urge the rejection of the Taft-Wagner Resolution, then before both House of Congress. This resolution called for the free entry of Jews into Palestine and for the ultimate establishment of a Jewish Commonwealth there.

The Chief of Staff had inquired of our military attaches in the Middle East whether they thought the passage of their resolution would be detrimental to the war effort. On the basis of their replies he earnestly asked for the rejection of the Palestine resolution or its indefinite postponement. This great respect for Arab military power, shared by many others, contributed to the sacrifice of one million persons, Jews trapped in Hungary and Romania.

* * *

Today David is again the victor over Goliath. This time the victory was won, not in a Canaanite field from where the tidings came to the holy penman, but in fields where war correspondents from many countries were present.

David picked up a stone from the ground and won his battle with Goliath. But the main weapon, today as then, is the love of a people for its country; a love against which thousands of years of dispersion were powerless; and millions of Arabs are powerless; and all the dollars of the oil kingdom are powerless; and all the cunning of the British Empire is powerless.





New York Post

SUNDAY, JANUARY 2, 1949

If You Prefer Arms Be Ready for Defeat

*Arabs Chose to Fight;
Can they Write off a Licking?*

By OBSERVER

Sheikh Mohammed Ali Jabary, Mayor of Hebron and president of the Palestine Arab Conference at Jericho, read an open letter to King Farouk of Egypt over the Ramallah radio:

“Let the Arab Governments, including Egypt, raise their censorship for one day only; let the press tell the people that during six months of war the Arab armies occupied 10 small Jewish settlements while the Zionist flag flies over 14 large Arab villages. If such news got to the people, the masses would storm King Farouk’s palace, and you would see a revolution on a scale unknown in these parts of the world.

“On May 15 the Arab armies had hoped to defeat their enemy. However, the bitter truth is that it was we who were beaten and not the Jews. This is the sober truth: despite all official communiques issued daily by the Arab armies, which spoke of fresh victories, we have lost on all fronts and have been defeated on every single battlefield.”

Thus spoke the president of the Palestine Arab Conference at Jericho on Dec. 13. On the military front the Israelis emerged victors over the vaster Arab countries.

* * *

When the United Nations session in Paris closed, it again left the Palestine problem undecided.

It is regarded as a political victory for the Israelis that the Bernadotte Plan, proposing the severance of the Negev from Jewish Palestine, was not mentioned at all in the General Assembly resolution; and as a political victory for the Arabs that the partition resolution of Nov. 29, 1947, likewise was not referred to.

Actually, the second omission is also a political victory for Israel. The partition plan of Nov. 29 was accepted by Israel under duress, when the gates of the land were shut to the new immigrants desperately needing to come in. Since this plan was not put into effect by the United Nations and the Israelis had to defend themselves and go to war, there can be no justification and no reason why the frontiers that Israel accepted as a peaceful settlement should not be changed after the other party chose war and lost.

* * *

The Israelis could easily capture the rest of Palestine in a matter of a few weeks. When the Arabs realized this, they sought protection of that same political body whose authority they flouted one year ago by defying the will of the United Nations and rejecting partition.

The natural geographical division between the two parts of Palestine is the river Jordan. On the other side of the Jordan—in Transjordan—lie two-thirds of the land, and on this side of the Jordan, one-third.

Thus, should the State of Israel occupy all the land west of the Jordan, there would be a division marked by the land itself. If the Israelis are willing to leave the Jenin-Tul-Kerem-Nablus triangle west of the Jordan in Arab hands, they are generous enough.

* * *

You cannot wage a war with an insurance policy in your pocket. You cannot invade a country and shell its cities, and then, when you are thrown back and beaten, declare that the war was a trial on your part and now you would like to have all the advantages of a compromise that you rejected and violated by arms.

If you prefer arms, be prepared to accept defeat. Consequently, the borders of Israel as delineated in the partition resolution of Nov. 29, 1947, cannot remain unchanged. Blood of the best sons and daughters of Israel was spilled, and blood moves frontiers.

* * *

In the time of Hitler, under the then existing urgency, the Jews of Palestine would have agreed to a state with standing room only in order to save their brothers from annihilation. In 1947 they agreed to the partition plan so that the survivors could come in; they would have abided by this division. But the Arabs rejected partition and invaded the country. Today the Israelis have the right, as well as the power, to keep the land on which they were called to die in war.

By rejecting the partition resolution of Nov. 29, 1947, the General Assembly of the United Nations at Paris destroyed the document that served as an insurance policy for the Arabs when they declared war on Israel.





The Daily Compass

MONDAY, MAY 16, 1949

The Flying Carpet

By **OBSERVER**

In the south of the great Arabian desert there is a mountainous country, the Kingdom of Yemen. This archaic Arab kingdom is separated from most of the world by ocean and from other Arab countries by desert; if not for neighboring Aden, the British Crown Colony, Yemen would be like an island detached from the whole world. You do not know what is going on there—Yemen does not have a single newspaper. Yet this kingdom was accepted for membership in the United Nations. Its representative there—a swarthy prince enveloped in heavy robes and carrying in his belt a dagger the size of a saber—looked about him in New York and in Paris and could not apprehend what he saw. Those who observed him had the impression that a man out of a wilderness had been set down in civilized surroundings and his brain was working hard to guess what was the correct thing to do.

* * *

In the Kingdom of Yemen there is an ancient Jewish population. It is not known since when they have been living there, but it is admitted that they came there before the destruction of the Jewish State by the Romans and probably even six and a half centuries earlier at the time when the First Temple (the Temple of Solomon) was destroyed by Nebuchadnezzar of Babylon. For many centuries they had little or no contact with other Jewish communities in the world.

* * *

During the Renaissance, in the beginning of the sixteenth century, a prince of the Jewish kingdom in the south of Arabia, came to Europe to make an alliance against the invading Turks. He was David Reubeni, an adventurous messiah, who ended his days in a Spanish prison under the hand of the Inquisition. He spoke Hebrew.

Even today, Yemenite Jews speak Hebrew as well as Arabic. It was not necessary to teach those of them who migrated to Palestine the language of the Prophets—the language of the Jewish population of Palestine—they knew it after two and a half thousand years of living in a secluded corner of the world. As laborers they are industrious and peaceful, and they are happy in their old-new land.

* * *

The King of Yemen does not allow his Jewish subjects to leave the country. Nor did his father allow it long before the war of partition started. There was a time, long ago, when Jews were permitted to emigrate on condition they would surrender all their possessions; but they were forbidden to do so even under this condition. Today Jews who try to leave Yemen—where they have no civil rights and are kept in the status of slaves of the Crown—if caught, are condemned to death. Yet the idea that there is a “Jewish kingdom” in Palestine has too great a magnetic power to allow them to remain

in Yemen. Even twenty or thirty years ago, when there was no State of Israel, when Jews in Morocco, in Algiers and in Tunis did not think of migrating to Palestine, the Yemenite Jews went there. Now when migration goes on from China to Morocco, Yemenite Jews are certainly not held back.

* * *

If a Jew in Yemen read the *Thousand and One Nights* and dreamed of traveling on a carpet, where would he want to fly? To Israel, of course. But carpets do not fly in the sky. The poor Jew leaving Yemen crosses the frontier into Aden. If he is caught, he faces death. If he arrives at Aden, then—then he will find a magic carpet.

A Jew in Yemen is not permitted to ride on a donkey because he may meet an Arab afoot. But here a Magic Carpet—an airplane—awaits him. Yes, Magic Carpet is the name of the air lift by the boys of Israel, boys who were born in Israel, or who came there from Brooklyn, from Chicago, from London, from Vienna.

Over the great desert of Arabia, the great and terrible desert that takes a camel months to cross, the airplane zooms from morning till night or from night till morning. Yemenite Jews and their children look over the desert below, at the stars above, and wonder. But no, they do not wonder. They know: the messianic time is here.

Is it not said in the Prophets that when the Jews shall return to Palestine, they will travel *al canfei nesharim*—on wings of eagles?

The wings are of steel—of steel was also the 2,500 years' determination of these Jews to return to their Promised Land.





The Daily Compass

THURSDAY, MAY 19, 1949

Tangier And Jerusalem

By **OBSERVER**

Those who try to put stumbling blocks on Israel's road have renewed the issue of internationalization of Jerusalem. Not that they really desire an international regime in Jerusalem of the holy places; they want only to obstruct Israel, and they hoped (in vain) to bar Israel's entry into the United Nations by demanding that this problem be settled first. And since Israel does not oppose the internalization of the Old City of Jerusalem with its holy places, they, the begrudgers, demand that "Jerusalem with its surroundings" should be internationalized, which would place over 100,000 Israelis under a rule not their own.

What does the practice of international rule in other places show? The temporary division of Berlin into Russian, English and American zones, the permanent international areas in Shanghai, and the international regime of Tangier are examples, rather sad examples, of what mixed rule of an area or a city can achieve. And since a plan for an international regime for Jerusalem could come closest of all to the existing regime in Tangier, we should investigate this in some detail.

* * *

Tangier in Morocco on the Strait of Gibraltar was the first port of Morocco until it came under international rule. It suffered much from the jealousies of the European powers and it became downtrodden, neglected, impoverished.

* * *

Tangier—the city with its surrounding area totaling 225 square miles—is ruled under the charter of "permanent neutral internationalization." The legislative power is vested in an International Legislative Assembly of 26 members.

The decisions of the Legislative Assembly are subject to ratification by the Committee of Control. This Committee is composed of the consuls of the signatory powers; it has the right of veto as well as other powers.

The administration rests in the hands of an Administrator and two assistants, all of whom are of different nationalities; they carry out the decisions of the Legislative Assembly subject to approval by the Committee of Control.

The Sultan of Morocco retained his power over the Moorish and Jewish populations; he is represented by a Moorish minister—the mendoub. The Administrator's and Mendoub's spheres by necessity overlap.

Justice is administered in mixed courts by judges of different nations (in Tangier there are 50,000 Moslems, 7,000 Jews, 15,000 Spaniards, over 1,000 French, over 1,000 Britons, 4,000 others). The Moslem and Jewish subjects have their own courts. The mixed courts act on the basis of the statute of 1925. The United States and the Italian Governments did not

regard this statute as binding on their subjects and did not recognize any tribunal of Tangier as having jurisdiction over their citizens.

* * *

In 1927 Spain and France negotiated concerning changes in the rule of Tangier; in 1928 a convention was called to redistribute the representation in the international regime. Italy entered the regime on equal terms with Britain. Belgians were granted judgeships in the mixed courts.

Then came the Second World War. With the fall of France in 1940, Spanish troops occupied Tangier and Spain celebrated the event. But with the end of the war a conference was called in August, 1945, at Paris, and the United States, the USSR, France, and the United Kingdom ordered Spain to evacuate the zone. Spain announced that she had occupied Tangier in order that the armies of the Axis should not occupy it. The four powers also decided that a new convention should be called to regulate the international regime in Tangier and that the United States and the USSR should be invited to collaborate in the regime.

* * *

Does not the international regime in Tangier provide a good lesson? Tangier and its trade are stagnant, its population is bewildered between the French Administrator, Spanish or British Subadministrators, Moroccan Mendoub, the International Legislative Assembly, the consular Committee of Control, the mixed courts of many languages, the mixed police, the polyglot customs officers, all functioning in a chaos aggravated by ever repeated international conventions and diplomatic conferences, by changing statutes, by the uncertain future.

Would you want this curse laid on Jerusalem?





The Daily Compass

WEDNESDAY, JUNE 15, 1949

The Gilded Carriage of Queen Victoria

By **OBSERVER**

Same time in May the United Press correspondent sent this message from London:

“Queen Victoria’s gilded state carriage, packed in a huge wooden crate, left today for Baghdad to become the state coach of Prince Regent Abdul Illah of Iraq.” Then followed details concerning the route the crate would take (by ship to Basra on the Persian Gulf and thence to Baghdad), and the insurance value of the carriage.

I can see Abdul Illah of Iraq, the uncle of the boy king, traveling over the dust streets of Baghdad in the shiny gold carriage and the Arabs staring at him with bulging eyes and gaping mouths. Six horses at least will draw the carriage, and the dust will whirl high. Tarbooshed gendarmes will ride alongside and distribute blows with their whips to right and left.

Queen Victoria, who, at the age of 18, ascended the throne of England, went in her gilded carriage to the Parliament to read her royal speeches; in it she traveled to Windsor Castle; in it she showed herself to her people who loved the girl queen, the beautiful woman queen, and the widow queen: in this gilded carriage she rode when Disraeli made her Empress of an Empire. The 63 years of her reign were the years when Britain was queen among the nations.

If, on rummaging through the attic, you found your mother’s wedding gown, would you give it away or sell it? Of course not. But the British have lost all sense of propriety. The gilded coach of Queen Victoria, their great queen, soon will carry Abdul Illah, and donkeys and camels will look at it in amazement, though they never heard of Queen Victoria. Nor did the people of Baghdad hear of her.

Neither a chivalrous Disraeli nor a pious Gladstone could have conceived the idea of wooing an Abdul Illah with part of the regalia of his queen. But in the mind of Bevin, who was boss of the transport workers’ union before he became head of the Foreign Office, Queen Victoria’s gilded coach is a proper conveyance for Abdul Illah. There is an obvious desire to buy the heart of the Prince Regent of Iraq, especially since the treaty of Portsmouth between Great Britain and Iraq was not ratified in Baghdad and to Iraqi Prime Minister who signed it was chased out of the country. I have looked through the annals of Great Britain of the days of Victoria and in all 63 years of her reign I have found no similar instance of such sycophancy on the part of the British Government.

What Iraq needs are not gilded carriages but plows and tractors and people. The Iraqi Government has done nothing to absorb a substantial portion of the human material which drifts as Arab refugees in the Middle East. Neither has Great Britain done anything to help Iraq become again the breadbasket it was in the past when its population was 12 times larger and prospered; its fields were irrigated; and its trade embraced many countries. But that was long ago! Iraq today is far behind what it was 25 centuries ago.

The state treasury of Iraq is empty because the oil of the land does not flow to Haifa. Its fields are dry or swampy; they are not irrigated, not cultivated. Its peasants starve. Its army has shown itself to be impotent. It may be that all these deficiencies are the psychological reason for its Regent's desire to ride in the gilded carriage of the Queen who lent her name to an era.

"Tekel: Thou art weighed in the balances and art found wanting" (Daniel 5:27).

Were not these words spoken of that very country? And wanting it has remained until today.





The Daily Compass

THURSDAY, JUNE 23, 1949

Dean Acheson's Promise

By **OBSERVER**

Recent reports from Damascus inform us of a secret agreement between the ex-Mufti of Jerusalem and the Syrian dictator Zayim.

On Aug. 28, 1946, Dean Acheson, then Undersecretary and Acting Secretary of State, announced that the State Dept. was preparing a White Paper on the activities of the ex-Mufti, comprised of documents seized in Germany by the Allied armies. The White Paper was not published. Mr. Acheson stepped out of the State Dept.; others there remained silent as to the promise of the ex-Secretary and obviously disavowed it. During the war in Palestine, State Dept. officials would not publish the documents concerning the ex-Mufti; this failure to act was not explained.

It is now several months since Mr. Acheson has been back in the State Dept., this time as Secretary of State. Now, to fulfill the promise he made when Undersecretary, he does not need the consent of a superior in the department—he is the chief. He is therefore respectfully requested to release, as promised by him almost three years ago, a full account of the documents concerning the ex-Mufti seized in Germany.

If these documents prove that the ex-Mufti is a war criminal and a criminal against humanity, then holding them back casts a shadow on the silken curtain.

If a person must be tried at the place where he committed the crime the ex-Mufti ought to be brought to trial in Palestine where he and his henchmen in 1936-39 killed and wounded more than one thousand Jews from ambush and as many Arabs of rival families and a number of Britons, and from where, after hiding in a mosque, he fled in the garb of a woman to Syria. He ought to be tried in Syria where he was a spy on Mussolini's payroll and from where he fled to Iraq.

He ought to be tried in Iraq, the state which he, by intrigue and bribe, brought into the war against the Allies at the critical time when Nazi troops were entering Greece, Crete and Egypt, and from where, the rebellion having been quashed, he fled to Iran, but not before he had 400 Jews assassinated in a pogrom in Bagdad. On July 2, 1941, the Investigating Committee appointed by a new Iraqi Government declared: "The causes of the outbursts are Nazi propaganda emanating from (1) the German Legation, (2) the Mufti of Jerusalem and his henchmen who followed him to Iraq." Gen. Wavell's price on his head (\$100,000) is still valid. After hiding in the Japanese Legation in Iran, he fled to Rome. He ought to be brought to trial there: in his radio speeches from Italy he incited the Arabs to murder and cursed the American people.

Then to Germany, where he was the chief instigator of the annihilation of the Jews, a counselor of Himmler and Eichman, and a visitor of gas chambers. And to Yugoslavia where he, a British-Palestinian subject, formed the Bosnian Legion to fight the Allies. And to Hungary, from where, following his letter to the Hungarian Government, Jewish children were sent to Poland to be killed there; and to Rumania, where he did the same thing; and to North Africa, where he helped organize troops against the American forces; and finally to the French zone in Germany where he was caught with the

bags of gold he received from Hitler before the Führer reached the end of his rope.

* * *

Can it be that the documents seized at that time by the American Army in Germany exonerate the ex-Mufti? And to a degree that none of these trials should take place? Then they should certainly be made public to protect the good name of an innocent person, especially in view of the fact that he has embarked on new activity in Syria.





Ambi

Ambi in the el-Amarna letters is apparently Moab or the capital of Moab. It is referred to together with Sigata (EA 76), that I recognized as Succoth on the Jordan. The same story of rebellion against Jerusalem is found in II Chronicles 20. The assault on Jerusalem did not materialize itself when (II Chronicles 20:23) the children of Ammon and Moab stood against the inhabitants of Mount Seir. Mount Seir is the land of Seeri of the letter 288.



Desert of Wandering

The desert of the forty-year wandering was not the Sinai Peninsula, but a much larger area. The inclination of the historians is generally to deny the ancients long itineraries; Midian being the Medina of Moslem times, actually deep in the Arabian Peninsula, all indications in the Old Testament are for a deep penetration of the Arab Peninsula by the wandering Israelites who escaped the land of Egypt destroyed by the catastrophe in the mid-fifteenth century before the present era.

There are autochthonous Arab traditions about the wandering tribes led by Mosaikaia, his brother Arnran, and his sister Zeripha. These traditions have not been borrowed from the Old Testament or rabbinical tradition. From the Bible and Midrashim, the Arabs culled much of the content of the Koran, but they did not realize that their traditions about Mosaikaia (and the catastrophe that took place in his time) are of independent origin, though referring to the same persons and events.

All together indicates that the Israelites under Moses did not spend forty years in the small triangular Sinai Peninsula, but in the western regions of Arabia.



Ammia

Ammia is Ammon. Its capital Rabbath-Ammon (Deuteronomy 3:1) appears in the el-Amarna letters as Rubute or Rubuda.



Eden

Of Aden in South Arabia, Arab historians of the Middle Ages narrated from older traditions that it was an unusually fruitful land, well-watered. One who started on his travel upon the land on a donkey with an empty basket on his head found the basket full of fruit before he reached his destination. Then in a catastrophe (called “bursting of the dam”) apparently of global dimensions, this country became a desert.

Of ancient channels of great rivers in Arabia I brought references of modern explorers in *Earth in Upheaval*. The area Arabia Felix is today a forbidden land.

Marib was the city of the area, once so fruitful, according to legend.

On some pages I tried to follow the legend to the Arab autochthonous tradition of Moses (Mosaikaia), Aharon, and Miriam and the “Bursting of the Dam” ; it was not just the Dam—I offered a philological explanation—it was a cataclysmic event. Eden (Paradise) was located in Aden.



Arzenu

The reason for referring to Palestine, or a part of it, in the Egyptian texts as Arzenu (*Rezenu) is in the fact that the Israelites called it so, as can be judged by verses in Joshua 9:11; Judges 16:24; Psalms 85:10; Micah 5:4; The Song of Solomon 2:12, etc.

See the section “God’s Land and Rezenu” in *Ages in Chaos*, Vol. I, p. 170ff.



God's Land

In *Ages in Chaos*, in the chapters dealing with Queen Hatshepsut (Hashepsowe) and with Thutmose III, I could show that by God's Land (Divine Land) was meant the Holy Land of Biblical and post-Biblical times: It must have had that appellation since very early times.

If the description of Hatshepsut's travels left place to query the whereabouts of Divine Land (not after the publication of *Ages in Chaos* Vol, I), the war annals of Thutmose left no room for any other identification, but as Palestine.

Frankincense was grown there. Newer discoveries (like those of Mazar at Ein-Gedi) show that this was also the case on the shores of the Dead Sea.



Atlantis

The only source of the legend about Atlantis is found in Plato, who narrates the story heard by him through three intermediaries (his friend Critias, his grandfather Critias the Elder, and Solon, the friend of the latter) from an Egyptian priest.

The innumerable identifications of the site of Atlantis—wherever a legend of a submerged city is told or submerged walls are found, from Helgoland to Thera, to the Caribbean, to name only a few—are all baseless. Plato gave a definite description—opposite the Pillars of Heracles in the Ocean. This signifies the Atlantic Ocean, not far from Gibraltar.

When M. Ewing found submerged beaches near the Mid-Atlantic Ridge, he mentioned the Atlantis myth but, not to appear credulous, rejected it; nevertheless he claimed that the land must have sunk a thousand feet. From the Azores to the Mid-Atlantic Ridge is the location of Atlantis.

The cause of Atlantis' submergence was, as Plato transmits, in a disturbance effected by a celestial body passing close to the earth. The cause made land and sea change places in more than one area simultaneously: therefore many submerged cities and islands have been discovered in seas and oceans. Atlantis must have been a great colonizing power, as Plato asserts, and its disappearance could impress, as would a total submergence of Great Britain in the nineteenth century, at the apogee of its might.



Gozan

In referring to the place of exile of the tribe of Ruben and Gad and half of the tribe of Manasseh, the book of I Chronicles 5:26 states that “Pul ... and Tiglath-pileser king of Assyria carried them away... and brought them to Halah and Habor, and Hara and to the river Gozan.”

The text of II Kings 17:6 also speaks of Gozan is a river: “... the king of Assyria took Samaria and carried Israel into Assyria, and placed them in Halah and in Habor by the river Gozan and in the cities of the Medes”— similarly II Kings 18:11. In II Kings 19:12 Rabshakeh speaks in the name of Sennacherib: “How the gods of the nations have delivered them which my fathers have destroyed; (as) Gozan, and Haran, and Rezep and the children of Eden which were in Thelassar?” In this list are included countries, such as Eden (Aden) which were outside of Assyria.

In Isaiah 37:12 Gozan can be understood as a region or a people of a region. The correct translation of II Kings 17:6 and 18:11 is “in the confluence of the river Gozan.”

Biblical scholars looking for the place of exile of first, the 2½ tribes of Israel by Tiglath Pileser, and then of all the tribes of Israel by Sargon upon the fall of Samaria, decided that the river’s name was Habor and Gozan was the region. This is a violation of the texts. They identified Habor with the confluence of the Euphrates mentioned in Ezekiel 1:3, “The word of the Lord came ... unto Ezekiel” in the land of the Chaldeans by the river Chebar.

The spellings Habor and Chebar are different, and the river Khvoz (Chebar) is not Habor, and the latter is not a river at all.

When the exiles of Judah arrived in Babylonia ca. 138 years after the inhabitants of Israel were removed from their land, they did not find the Israelites in Chebar (Khvoz). It is also said that the Lord removed Israel out of his sight—or to a country far away and without communication with the motherland.

The Assyrians spread their dominion to the south as far as Ethiopia and Aden (Eden). The Assyrians crossed the Caucasus—this is known from Assyrian inscriptions themselves. In one of the Arab geographer-travellers of the Middle Ages I found confirmation of my view that the *Volga was the river Gozan*. The confluence of the Volga is where the equally wide Kama joins the Volga. Thus the “confluence of the river Gozan” was at the point where the city of Kazan is located. Not far on the Volga is also a city Samarra. This land had a Jewish kingdom of Khazars in the 6th to 12th centuries, which was visited by Benjamin of Tudela, the Spanish Jewish traveller. He claimed to have found the Ten Tribes. The region of Scythia and Sarmatia abounds in Assyrian relics of the seventh century B.C. E. The Khazars are supposed to have acquired their Jewish religion in the Christian era. However the names of the Khazar kings reveal names found among the Israelites in the days of the Jewish kings of the eighth pre-Christian century, not names of the later periods, like the Hellenistic or Roman (Matathiam, Hillel, Gamliel), It appears that Persian Jews in the Persian time established contact with the Israelites on the Volga.





Avaris

The identification of Avaris with el-Arish is detailed in *Ages in Chaos*, Vol. I, Ch. 2.

A plan to survey and dig on the site met an opposition on the part of Dr. Aviram, director of Antiquities in Israel.

It is quite probable that the Hyksos (Amalekites) hid their gold in the ground before the surrender. Therefore excavation may bring out important findings.

The river bed (of Wadi el-Arish) was the scene of fighting between the besieged and the Israelites under Saul in alliance with Kamose and Ahmose, the Egyptians.

The identification of Avaris with el-Arish goes together with the identification of the Hyksos with the Amalekites.



Gubla

In the el-Amarna letters Gubia is the capital of Rib-Addi; his other capital is Sumur, and it is almost permanently under siege, or in danger of being taken.

Gubla is identified by all historians as Byblos; however, a certain wonder is expressed (Albright), why it is called in the letter Gubla, whereas its name in other sources is Gebal (Gwal)

As I could show in *Ages in Chaos*, in the chapters dealing with the el-Amarna letters, Gubia was the name of the summer residence of Ahab, in the Scriptures given as Izebel (Jezebel), the initial “I” being a sign of ignominy.

In the Scriptures there is a direct indication that Jezreel was previously called by the name of Queen Jezebel. When her life ended ignominiously, dogs tore her flesh, “and the carcass of Jezebel [was] as hung upon the face of the field in the portion of Jezreel, about which they [should] not say, This is Jezebel.” (II Kings 9:37). *Ages in Chaos* I, p. 233.

The location of Gubla (Zebel) in the valley of Jezreel is not established. An indication of its distance from the sea is in the story of the prophet Elijah running all the way before the chariot of king Ahab from the Carmel outlook over the sea to (Je)zebel. From there the son and heir of Ahab tried to escape to Meggido. Archaeological work is needed to locate the place, originally the vineyard of Naboth.



Batruna

A few times the king of Gubia (identified as Jezebel, later called Jezreel) mentioned in his letters the city of Batruna, and it is identified as the ancient Botrys. (Dhorme, *Revue Biblique* (1908), 509f.) Weber, in Knudtzon *Die El-Amarna Tafeln*. p. 1165). However, Menander, a Greek author, quoted by Josephus (Against Apion 1, 116; Jewish Antiquities VIII, 1) says of Ithobalos (Ethbaal), the king of Tyre in the ninth century, that “it was he who founded the city Botrys in Phoenicia.” Having been built by the father-in-law of King Ahab, the city Botrys could be mentioned in the el-Amarna tablets only if the founding of the city preceded the el-Amarna age.

Al-Batrun is north of Byblos, which is north of Beirut.



Hittite Empire

The “discovery” of the Hittite Empire was made in the last quarter of the 19th century. In 1905 its capital was found in the village of Boghazkoi in Anatolia—with a rich archive.

In the volume dealing with the “Hittite Empire” I show in great detail that its history needs to be brought much closer to our time—its fixing in time was due to the war carried on by Emperor Hattusilis with Ramses II. But in my reconstruction of ancient history I show that Ramses II belongs to the very end of the seventh and the beginning of the sixth centuries. Hattusilis is the Chalcean name of Nebuchadnezzar. The Hittite Empire is but the Chalcean kingdom and the pictographic script is but the Chalcean script. The land of Hatti was a wide geographical term including Northern Syria and other lands west of the Euphrates.

Ur of the Chaldees, as Cyrus Gordon claimed, could well have been in the north, and not in the lower reaches of the Euphrates. It is also certain that the Chaldeans at some historical time migrated from the south to Anatolia; they conquered Babylon and proceeded to conquer Syria and Palestine, and for two decades contested with Egypt for these two countries. The Hittite Empire is shown as a non-existent thing; its capital Hattusas (Boghazkoi) was the capital of the Chaldeans.



Baw and Arinama and Mw-Sdt

Ramses II in describing the events preceding and following the battle of Kadesh told that when he with the division of Amon was already northwest of Kadesh, the division of Re that followed him crossed Msdt of the river Nrt. After these two divisions were “treacherously” attacked, he succeeded to fight his way back to the divisions of Ptah and Sutekh that idled “on the south of the city Aranami” (their officers were farther to the south in a place called Baw (Poem of Pentaur 11:17, 18; Breasted, *Ancient Records of Egypt* III Sec. 310).

In the section dealing with the position of Kadesh of the battle, it is shown that Kadesh was Carchemish; in the section dealing with the river (P)rnt it is shown that it was Prat, or Euphrates, and not Orontes.

Baw is today’s el-Bab on the road from Aleppo to Carchemish, Aranami or Aranima is Arima of today on the same road, north of el-Bab. Mw-Sdt is water (*mw*) of Sadjur, the confluent of the Euphrates that must be crossed on the same road before Carchemish is reached.

Ramses II referred to the “forest of Baw” . It is therefore of interest to read in the report of the excavations at Carchemish about the road from Aleppo to the site of the excavations:

The feature of the country which most strikes the newcomer is its treelessness. To the north and east the mountain regions still preserve something of their ancient forests ... But the land as a whole is bare and shadeless ... This was not always the case. An English traveller of the seventeenth century could lose himself in the interminable forests between Aleppo and Bab, where not a tree grows now.... There is no doubt that a vast amount of deforestation has taken place, and it is probable that in Hittite times the Carchemish country was a well-wooded one. (Wooley, *Carchemish*, Pt. 2,

Wooley wrote it with no intent to argue the site of the battle of Kadesh, or the identifications made here. These identifications further support the thesis of Kadesh of the battle being Carchemish. Various unsuccessful attempts have been made to locate Baw and Aranami or Aranima.



Jordan River

1) Thutmose I refers to a river in Palestine that “flows upstream.” Suggestions were made that it could be the Euphrates (or the Jordan), because these rivers flow in the direction opposite to that of the Nile.

The Jordan once flowed toward the north (and quite possibly entered the Mediterranean through the valley of Jezreel). When the Dead Sea was formed in the formation of the Rift (supposedly in the Tertiary, but according to Gregory, authority on the Great Rift, still in the memory of man), possibly in the days of the overturning of Sodom and Gomorrah, or even in the days of the Exodus (in the days of Abraham, it was a valley), the Jordan changed its direction.

The Sea of Reversed Water (Ramses III) is the Dead Sea.

2) The river Eridanus into which Phaeton fell was located in many places, the Rhone and the Po among them. The Jordan is the Eridanus of Phaethon’s legend. The vision of the day the sun stood still and the swarms of bodies that fell that day (Joshua) connect the Phaethon legend with this region.



Beth Shulman

In the el-Amarna letters #74 and #290 there is reference to a place read (by Knudtzon) Bet-NIN.IB. In *Ages in Chaos*, following Knudtzon, I understood that the reference is to Assyria (House of Nineveh). I was unaware of an article by Julius Lewy printed in the *Journal of Biblical Literature* 59 (1940) under the titles "The Sulman Temple in Jerusalem." He claimed that it was a place of worship (in Canaanite times) of a god found in Akkadian sources as Shalmi, Shulmanu, or Salamu. This correction of the reading of Knudtzon (who was uncertain of his reading) fits well with the chronological reconstruction of the period. In *Ages in Chaos* Vol. I (ch. 6,7,8) deal with the el-Amarna letters; there it is shown that the king of Jerusalem whose name is differently read Ebed-Tov, Abdi-Hiba, etc., was King Jehoshaphat (ninth century). It was only to be expected that there would be in some of his letters a reference to the Temple of Solomon.

In an article preceding that of Lewy, P. Haupt (OLZ, XVIII (1915) Cols. 71-72) translated the verse in the letter # 290: "Die Landeshauptstadt Names Jerusalem, die Stadt des Ninib-Tempels, die Königsstadt." Replacing Ninib by Shulman or Shalmi, we arrive at the conclusion that the sentence deals with Solomon's Temple.

Latest is an article in Hebrew in *Eretz-Israel*, Vol. IX (Jerusalem, 1969), by Tadmor and Kalai who read the ideogram as Beth-Ninurta and locate it in Beth-Horon. This is an error; but they have brought the pertinent literary references together.

The Septuagint has a final *n*, in the name of Shlomo (Solomon) but it appears that Lewy's reading needs to be corrected to a name without the final *n* (Salamu). Albright's remark to me that the name is not accompanied by a sign of divinity and therefore Lewy is mistaken, only supports my interpretations King Solomon was no deity.

The idea that the reference in EA 74 to Beth-Ninurta or Beth-

Shulman is to some other place is based on the erroneous location of Sumuru—it being not a Syrian coastal city, but nearby Samaria.



Kadesh Barnea

Out of the proverbial 40 years of Wandering in the Desert, almost 38 years were spent in Kadesh Barnea. Usually the place is looked for in the Sinai Desert, and the preferred location is about 18 miles south of el-Arish on the Mediterranean coast.

As I show in another chapter, “[The Great and Terrible Wilderness](#)” was the Arabian Desert; Midian also was not in the Negev or on the coast of the Aqaba Gulf, but where today is Medina—the place where Moses spent years as a political emigré from Egypt, prior to the Exodus.

The reason for the long stay of the Israelites at Kadesh Barnea was in the existence there of sources of water, while in the Desert most of the rare sources became bitter.

I am also helped in my identification of Kadesh Barnea with Mecca by what I believe is the Arab autochthonous (in distinction with stories in the Koran which were borrowed from Jewish teachings) tradition of the passage of the Sea and wandering in the Desert told in the story of Mosai-ka-ya and his brother (carrying a name similar to Aaron, and a sister resembling Miriam), The lay flocks of wanderers under the leadership of these three occupied Mecca.

Mecca was abandoned by the Amalekites following the catastrophe that also ruined Egypt, shortly before its occupation by the Israelites, after Mecca was shattered by earthquakes and plagued by an invasion of vermin (ants). Israelites occupied the abandoned place. The Amalekites, plagued also by a plague of insects, moved toward Palestine and Egypt, and soon also built at el-Arish their fortress-capital Avaris. The Israelites, who were unable to break through to Palestine from the south, reached the abandoned capital of the Amalekites. At Mecca there are sources of water, considered sacred and many legends are preserved about them. The water sources of Kadesh-Barnea and the legends concerning the springs of Mecca indicate that some water springs, not destroyed in the catastrophe, were the main

incentive for the Israelites to congregate there.

More than a score of years after I came to this conclusion and the Arab story of Mosai-ka-ya, Bar Broma, the author of *Negeb* published his view that Kadesh Barnea was in the Arab Desert (but quite north of Mecca) at Medain-Salib, formerly El-Hejr, about 450 km farther southeast from Petra, which place he identifies as Kadesh (not Kadesh-Barnea)—*Palestine Exploration Quarterly* July-December 1964. This view was left undiscussed as far as I know. As explained above, I identify it with Mecca, farther south.





Caphtor

The island Caphtor is named in the Scriptures. The usual identification is Crete, because the Keftiu bringing presents (vases) to Egyptian pharaohs are thought to be Cretans.

I prefer Cyprus as the biblical Caphtor and the Egyptian Keftiu.

If Caphtor is not Cyprus, then the Old Testament completely omits reference to this large island close to the Syrian coast. The phonetics of the name also point to Cyprus. Separately I show that Tarshish was the name of Crete.

It seems that the Philistines arrived in Palestine from Caphtor following the catastrophe that brought there the Israelites after their wandering in the Desert.



Kadesh in Judah

Kadesh is named first among the cities of Judah that Thutmose III subdued. The king of Kadesh was also the head of the opposing forces, first opposing the pharaoh at Megiddo. Suggestions were made as to the whereabouts of Kadesh: some placed it in Galilee; but the conquest of Thutmose III was limited to Judah, Israel having submitted without struggle (Thutmose III being Shishak of the Scriptures, or Sesostris of Greek authors).

In *Ages in Chaos* (Vol. I, ch. IV, section “Kadesh in Judah”) I have shown that Kadesh in Thutmose’s list is Jerusalem; I brought also many instances where the ancient Jews called it that way (in the Old Testament).

This Kadesh needs to be distinguished from Kadesh in Coele-Syria (Baalbek, or Dan) in Seti’s inscriptions and pictures, and from Kadesh of Ramses II’s inscriptions—this being Carchemish.



Carchemish

The Kadesh of the battle, described and illustrated by Ramses II was Carchemish. Details of this identification are found in the volume dealing with Ramses II and Nebuchadnezzar. There I show that Tell Nebi—Mend on the Orontes was not the Kadesh of the battle, neither was the Orontes the *(p)nr-t* of the battle. In the sections “The Fortress of Carchemish” , “The Plan of the Battle” , and “Carchemish the Sacred City” , I give an exhaustive proof, historical, topographical, and geographical to the thesis that Carchemish (the City of Chemosh) was the Kadesh of the battle. The identification of *(p)r-n-t* with the Euphrates and the identification of Baw as el-Bab and Aranimi as Arima of today and Mw (water) of *Sdt* as the Sadjur, all on the way from Aleppo to Carchemish, give additional support to my identification.

The history of Carchemish and the archaeological difficulties resulting from the wrong chronology are discussed by me in the same volume of *Ages in Chaos* (dealing with *Ramses II and His Time*).



Khalakh

The tribes of Israel were exiled by the Assyrians to three places; Halah (Khalakh), the confluence of the river Gozan and the cities of the Medes. The first two places are beyond the mountains of the Caucasus. Khalakh, of which it is some-times said that its location is unknown (Graetz) was Colchis, the south-eastern coast land of the Black Sea. To Colchis Jason sent the legendary Argonaut expedition to bring back the Golden Fleece.

A Jewish community lives there from ancient times, claiming descent from the exiled Ten Tribes. Also in the Georgian mountains live Mountain Jews with ancient customs, also claiming descent from the Ten Tribes. See about them Ben-Zvi, *The Exiled and the Redeemed*.

Caspian Sea comes from the Hebrew word *caspi*, or silvery. Rostov from *Rosh Tov* (good estuary), Don from Dan, also *Donai* (possibly also Dnieper and Dniester) all to memory of Dan, the holy city of the Ten Tribes. A large number of the Israelites were exiled by Sargon II over the Caucasian mountains to Southern Russia.



“Cities of the Medes”

Of the Medes the *Columbia Encyclopedia* says;

“Some scholars claim they were an Aryanized people from Turan.” Turan is in West Turkestan. The Bucharian Jews claim to be of the Ten Tribes, (see Ben-Zvi, *The Exiled and the Redeemed*.)

This may indicate that the “cities of the Medes” mentioned in II Kings 17:6 and 18:11 were in the region of West Turkestan. Cf. “Gozan,” “Khalakh.”



Tarshish

References to the ships of Tarshish and to a place of that name, in the Old Testament, beginning with the time of Solomon (10th century), to the time of the prophets of the 8th and 7th centuries, make me think that by this designation the Cretan navigators and Crete itself were meant. The Minoan civilization survived until the great catastrophes of the 8th century and it would be strange if it and its maritime activities remained unmentioned in the Old Testament.

The usual explanation puts Tarshish in Spain, though other identifications are offered, like Tarsus, in Asia Minor. One of the old names for Knossos sounds like Tarshish.



Dan

Dan is erroneously placed near the present-day Metuia, at one of the sources of the Jordan. The historical Dan was some 150 kilometers to the north, at Baalbek. The details of this explanation are written out by me since long ago.

It is important to observe also that the Image or Micah was at Baalbek and was still there when king Manasse occupied the place (following the advance of Seti) It is not known who built Baalbek (the platform). Its oracle was famous in Roman times when the Romans built there the temples to Venus, Jupiter, and possibly Mars or Saturn.

Thus the geography of Palestine, “from Dan to Beersheba” has its northern point at Baalbek, the place “as you go to Hamath”—or Dan.

Dunip (Tunip) of the el-Amarna letters and other ancient sources was Dan. It was also Kadesh of Seti’s conquest. Finally, the place is known as Yenoam (“Yahwe speaks”) which refers to the oracle.



Triton

In *Worlds in Collision*, Chapter VII, Section “Pallas Athene,” Diodorus Siculus and St. Augustine are quoted as claiming that a great lake named Triton disappeared in a great catastrophe connected with the birth of Athene. For this reason Athene was also called Tritogeneia or Tritonia. According to Augustine the catastrophe took place in the days of Ogyges, whom I identified as Agog, the same as Apop, the most powerful king of the Hyksos in the time following the Exodus.

In *Earth in Upheaval*, section “The Sahara,” I quoted modern authorities to the effect that neolithic implements indicate that the region was densely populated and richly watered. Egyptian rock designs show that such conditions still prevailed when Egypt was already a monarchy.

The Lake (or marsh) Triton occupied most of the region of the present Sahara. The sudden change of an agricultural land to a desert was caused, in my opinion, not only because of a change of elevation and the consequent sealing of the sources of water, but mainly because of the outpouring of naphtha of extraterrestrial origin. This means that deserts ought to be rich in petroleum. In 1938 rich petroleum deposits were discovered in Arabia, and much more recently in the Sahara—Algeria, Libya, and later also in the Egyptian part of the desert.



December 5, 1956

Dear Professor Hess:

I have read with vivid interest your paper on the guyots in the Pacific: I will continue here to think aloud. The size of the guyots is no argument against their volcanic nature. The truncated upper surface of a guyot nine miles wide is larger than the widest known crater on earth, yet certainly smaller than Mauna Loa in cross-section measured half way from the bottom of the ocean. I would not shrink even from thinking of them as gigantic mesas: some of the shapes in your drawings have this form. A great volcanic activity took place in the Pacific at an early age. Large stretches of lava in its bottom (Pettersson), and huge quantities of ashes indicate this. The moon with its large craters and dried seas of lava comes into mind (without agreeing with the theory of the origin of the moon from the bed of the Pacific).

Your idea of the guyots being islands submerged ca. 500 fathoms (3,000 feet) is well supported by the findings of M. Ewing in the Atlantic (sand beaches submerged 3 miles, or 15,000 feet).

The explanation of *isostatic* subsidence of the oceanic floor weighed with accruing sediment requires enormous amounts of this sediment and, I ask myself, whether the figures would hold this portion of the theory. You assume that the oceanic area would decrease because of submergence of the bottom loaded with the sediment and prisms of it along continental margins. Would not the oceanic area increase in such circumstances? The submergence would be more than compensated by the accrued sediment and the displaced water would encroach on the coasts.

I am not familiar with the calculations concerning loads in relation to isostatic subsidence. I assume that a layer of ten feet of sediment would not lower the bottom by the same amount of ten feet, and probably not even by a single one. An earth crust that is neither elastic (resilient) nor rigid, but only plastic, with magma underneath exerting only a minimal opposition to the pressure from above, would submerge a foot for a foot of load of the specific weight 2.5 (if the ocean does not change its horizontal area). Therefore 2,000 feet of sediment since pre-Cambrian time (Kuenen's figure) appear to me not enough to account for the rise of the sea level relative to the upper surface of the guyots by ca. 3,000 feet (p. 296).

Also the land on the bottom of the Atlantic Ocean cannot be accounted for by isostatic movement; Ewing found very thin layers of sediment where he expected hundreds or thousands of feet deposited. All of which indicates that some other causes lifted the crust in some places and depressed it in others.

I offer here those thoughts for whatever they are worth. Since 1947, when your paper was written, you may have thought of the guyots in the light of certain facts made known by Fethers-son's expedition. I assume that his finds support your ideas of volcanic origin and submergence of these formations discovered by you in 1942.

I accompany this letter with a list including seven questions which I would like to see included in the program of the International Geophysical Year. I shall be grateful to you if you will consent to offer their inclusion in the program (a carbon copy is for your files.) Should you wish first to discuss them with me, please give me a ring.

I liked the friendly atmosphere last Friday when I spoke in Guyot Hall.

Very sincerely,
(signed) Im. Velikovsky

MEMORANDUM

Tests and Measurements Proposed for Inclusion in the Program of the International Geophysical Year.

Immanuel Velikovsky

1. Measurement of the strength of the terrestrial magnetic field above the upper layers of the ionosphere. It is accepted that the terrestrial magnetic field — about one-quarter of a Gauss at the surface of the earth — decreases with the distance from the ground; yet the possibility should not be discounted that the magnetic field above the ionosphere is stronger than at the earth's surface.
2. An investigation as to whether the unexplained lunar librations, or rocking movements, in latitude and longitude coincide with the revolutions of the terrestrial magnetic poles around the geographical poles.
3. An inquiry into the magnetic orientation of the lavas erupted in the middle of the second millennium before the present era (e.g. in Thera-Santorin) may establish the recentness of the reversal of the magnetic field of the earth.
4. An analysis of the magnetic inclination (dip) in the clay of the pottery of the Old and Middle Kingdoms in Egypt may disclose substantial shifts, actually reversals of the magnetic field of the earth; similar tests could also be performed on various neolithic pottery.
5. An investigation of the direction of the spirals of fossil snail shells and of the windings of fossil vines which are now usually clockwise in one hemisphere and counter clockwise in the other, may reveal, with the help of radiocarbon analysis, the time of changes or reversals in the direction of the rotation of the earth.

6. Measurement of the gravitational constant within a Faraday cage with varying distances between the attracting bodies in order to exclude the influence of the atmospheric electricity on the obtained results, and thus to verify the inverse square law.

7. Tests in comparing the velocity of fall — and of the acceleration constant — of charged and neutral bodies.





January 2, 1957

Dear Dr. Velikovsky:

Your comments on guyots are acute. You have put your finger on most of the deficiencies of my hypothesis as it stood in 1946. Perhaps you would like some further explanation. When written

Kuenen's earlier estimate of the thickness of oceanic sediments agreed very closely to my needed 3000 ft. of submergence since the Proterozoic. Now the thickness has been reduced to 1/5 of the old estimate and the age of beginning of submergence also decreased to about 1/5. So I was off by a factor of 25. A more recent reprint which I am enclosing repairs the damage.

One km. of sediment on the ocean floor would cause sea level to rise one km. relative to some point on the original floor. The bottom would sink isostatically by .4 km. To get 1 km. of sediment on the sea floor means eroding 2.3 km. from the continents on the average. This looks as though the continents would be flooded but they rise most of the 2.3 km. isostatically and repeated mountain building thickens the crust about enough to leave sea level vs continent level relatively in the same place it was when the process started.

Ewing's sand at 15000 ft. is now largely explained by him as the result of turbidity currents rather than submergence.

With regard to paleomagnetism, Runcorn is very convincing but he completely neglects a most important phenomenon, that is self reversal which some iron minerals are known to go through dependent on composition and rate of cooling. Some or all reversals may be due to this phenomenon. Runcorn will lecture on his views in Guyot [Hall, Princeton] January 11th.

I will pass your ideas on f) Dr. Kaplan in the IGY organization. I take a rather gloomy view of IGY and doubt if anything of much interest will come of it. Fifty six million dollars will produce a lot of scurrying back and forth to the South Pole and an indigestible mass of random observations on everything. Scientific discoveries and ideas are produced by the intuition, creativeness and genius of a man. Dollars of themselves don't produce this, any more than they could be expected to produce another Mona Lisa. This is something which I believe you can readily understand.

I would like to thank you for coming to talk to us. The students were most appreciative.

Sincerely,
(signed) H.H. Hess





January 18, 1957

The Chairman
Department of Physics
Princeton University

Dear Sir,

A copy of a document is enclosed "Tests and Measurements Proposed for Inclusion in the Program of the International Geophysical Year," dated "Princeton, Dec. 5, 1956," and with the words "From Velikovsky via H.H. Hess" written at the end.

This document was handed to me for comment after passing through so many hands that its origin is completely obscure to me.

With reference to paragraph I, the measurement of the strength of the terrestrial magnetic field above the upper layers of the ionosphere is in the U.S. IGY program. At present five rockets are assigned to the experiment, and the third earth girdling satellite will carry magnetic equipment.

With reference to paragraph 2, a study of lunar librations with geomagnetic pole movements is not included in the IGY program, but may possibly be done later after the IGY magnetic data are available.

The other paragraphs 3 to 7 give suggested experiments which are not included in the U.S. IGY program. These experiments, except 6 & 7, are concerned with micro-magnetic analysis. Such experiments and ideas were quite familiar to our Panel on Geomagnetism, and as I recall were discussed to a considerable extent. We decided that they could be done by individual investigators, and did not require international cooperation. Therefore, they did not fall readily into the general character of work which was considered appropriate to IGY programs.

Yours very truly,
(signed) Edward O. Hulburt
Senior Scientist, USNC-IGY,
also Chairman,
USNC Technical Panel on Geomagnetism



March 15, 1963

Dear Velikovsky:

We are philosophically miles apart because basically we do not accept each other's form of reasoning — logic. I am of course quite convinced of your sincerity and I also admire the vast fund of information which you have painstakingly acquired over the years.

I am not about to be converted to your form of reasoning though it certainly has had successes. You have after all predicted that Jupiter would be a source of radio noise, that Venus would have a high surface temperature, that the sun and bodies of the solar system would have large electrical charges and several other such predictions. Some of these predictions were said to be impossible when you made them. All of them were predicted long before proof that they were correct came to hand. Conversely I do not know of any specific prediction you made that has since been proven to be false. I suspect the merit lies in that you have a good basic background in the natural sciences and you are quite uninhibited by the prejudices and probability taboos which confine the thinking of most of us.

Whether you are right or wrong I believe you deserve a fair hearing.

kindest regards.
(signed) H.H. Hess



September 11, 1963

Dear Professor Hess:

At our conference the day before yesterday I had the impression that you would welcome some suggestions on my part to the program of space investigation. Readily I have prepared a memorandum of four pages which I submit to you in your capacity as Chairman of the Space Board of the National Academy of Sciences. I have not elaborated on the reasons that make me in some selections, at least, follow an unexpected line of thought. In those tests where a condition or a fact is looked for, its finding, depending on the case, is anticipated as not impossible, probable, or even certain. All these experiments and tests spring from a common concept, basic to my theory of the structure of the universe and of its recent past. Should your Board wish oral or written explanations, I would gladly accept such invitation.

Would you also think it proper to submit the proposals contained in my memorandum to wider circles for possible criticism or for a start in exploring the problems it raises and would you consider to offer the memorandum as a paper for an early publication in the Proceedings of the National Academy of Sciences? With such idea in my view, I enclose my "Propositions for Inclusion in the Program of Space Probes for the rest of 1963 and the following years" accompanied by a carbon copy of it.

You will find here also a xerox copy of the recent letter by Prof. V.A. Bailey of the University of-Sydney. Hardly any addition to the staff of NASA could be of equal importance.

Cordially yours,
(signed) Im. Velikovsky

MEMORANDUM

Propositions for Inclusion in the Program of Space Probes for the Rest of 1963 and for the Following Years. Prepared by Immanuel Velikovsky, Princeton, N.J., and Submitted to H. H. Hess, Chairman, Space Board, National Academy of Sciences, Washington, D.C.

I. Magnetosphere

- A. mapping of the intensity of the magnetic field of the magnetosphere.
- B. measuring the reach of the magnetosphere on the day and night sides.

C. testing as to the over-all excess of positive or negative particles in the magnetosphere layers, and generally as to the positive or negative charge or neutral state of the globe with its ionosphere and magnetosphere.

D. synchronization observations as to the travel of the magnetic poles of the earth around the geographical poles (diurnal) and the daily latitudinal and longitudinal lunar librations.

II. Mercury

A. the cause of the precession of the perihelion should be re-examined in the light of the presence of a magnetic field of solar origin and solar plasma through which Mercury plows. An artificial satellite with a perihelion close to the sun could be tracked as to the precession of its perihelion.

III. Venus

A. high-altitude spectral analysis of the ashen light for hydrocarbons and organic compounds (especially carbohydrates).

B. temperatures of the dayside and nightside and of the terminator compared; the phenomenon of a highest temperature at the terminator and the lowest on the dayside can be verified by testing (radiometric) from the ground and from a balloon.

C. the temperature of the clouds measured at three year intervals; it is conceivable that a slow drop of the temperature of the Cytherian cloud surface will be observed.

D. the phenomenon of Venus (a planet with a weak magnetic field) shielding the Earth, at conjunctions, from protons of solar origin, should be evaluated as to a probable net charge of the planet.

IV. Mars

A. spectral analysis of the polar caps is possible at the time when they are melting and evaporating seasonally. Chances are that they are composed of the same organic molecules as the envelope of Venus.

B. in space probes and by balloon spectroscopy Martian atmosphere should be investigated with the intent of detecting the presence of neon and argon.

V. Jupiter

A. precise calculations should be made as to the effect of the magnetic field permeating the solar system on the motions of the planet which is surrounded by a

magnetosphere of [a radiating intensity], presumably, 10^{14} times that of the terrestrial magnetosphere. This is basic to the impending re-evaluation of electromagnetic effects in celestial mechanics.

B. the retrograde satellites of Jupiter should be compared as to their charges with the direct satellites. Experiments should be performed with positively and negatively charged metallic drop solutions revolving in a magnetic field.

C. spectroscopic analysis of the red spot should be performed as to the presence of iron and sulphur vapors, especially over the periods of conjunction with Saturn.

VI. Saturn

A. tests should be devised for detection of low energy cosmic rays emanating from Saturn, especially during the weeks before and after a conjunction of Earth-Jupiter-Saturn.

B. with Doppler effect data at hand. the velocity of revolution of the Saturnian rings, possibly in excess of the velocity of the axial rotation of the planet, should be plotted.

C. chlorine should be looked for in the Saturnian spectrum of absorption.

VII. Uranus

A. the polar magnetic intensity of Uranus, at the time when its axis points towards the earth, should be measured (Zeeman effect).

VIII. Pluto

A. the charge of this planet in relation to its mass is presumably very high, which would explain its perturbing power. Calculations should be made of the potential difference needed to account for the unaccounted perturbations of Uranus and Neptune.

IX. Sun

A. solar net charge should be made the object of intense investigation. Solar plasma winds should be tested as to the presence of electrons, besides protons, and to the direction of their flow (drift), whether sunward.

B. experiments should be devised to enlarge our knowledge of the behavior of very hot, charged, rotating bodies in a room of very rarefied atmosphere, close in temperature to absolute zero; of the magnetic field created; of the behavior of cold, or of graded temperature, bodies (conductors) suspended (in a planetarium fashion) at various distances from the larger central hot body.

C. the solar system should be investigated as to the existence of magnetic shells, especially at the orbital distances from the sun. Radar echoes may help to establish their presence, in matter of minutes or hours.

X. Moon

A. the reason for repeated failures in directing projectiles with moon as target should be explored also as to the deflecting action of the magnetic fields (terrestrial and solar) with magnetopause and solar winds intervening.

B. laboratory experiments with terrestrial rocks as to splintering and erosion should be performed, duplicating the thermal conditions of the moon suddenly immersed, when hot, into coolness of space, as it happens during lunar eclipses; the sharp outlines of lunar formations should be subsequently evaluated as to their age.

XI. General Relativity Theory

A. the influence of the moon (lunar tides in the upper atmosphere) on the rectilinear propagation of stellar light as observed from the earth should be checked at different positions, especially when the moon is new and at lunar eclipses; in the solar eclipses investigated as to the bending of rays of light passing near the sun, the role of the moon and of atmospheric tides caused by it is neglected. The bending of the rays by even stronger solar tides in the atmosphere should be reduced to a minimum by balloon examination of solar eclipses.

B. the influence of Jupiter on the rectilinear propagation of stellar light should be investigated; if found, a re-examination of a possible bending of light by a strong magnetic field should be instituted, and laboratorial 100,000 gauss strong fields applied.

C. bending of stellar light rays by solar plasma (in the corona) must be evaluated and taken into account.

XII. Special Relativity Theory

A. a direct comparison of velocity of light in relation to an observer in motion and in state of rest in relation to the source of light can be executed by comparing the velocity of light from a terrestrial source with that from the sun in the morning and in the afternoon. Details of the experiment upon request.

(signed) Im. Velikovsky





March 14, 1967

Memorandum to the Space Board of the National Academy of Sciences. Submitted to H. H. Hess, Chairman. On Radioactivity Hazards on Moon and Mars.

In view of the fact that landing of astronauts on moon is planned for only a few years from now, I submit this memorandum to draw the attention of the Board and also of NASA to a special condition the astronauts most certainly will meet on the Moon that may to a great degree invalidate the effort and its usefulness, and endanger the lives of the astronauts even if they succeed in returning. The cosmic rays hitting the Moon, solar plasma, and other incoming radiation are thought of, but one more source of radioactive hazard needs to be met.

Because of the intensity and multiplicity of the interplanetary bolts to which the Moon was subjected only 27 and 35 centuries ago (as described in *Worlds in Collision*) radioactivity must still be present on the surface of the Moon in quantity damaging to unprotected man or animal and by far exceeding any exposure regarded as safe.

Although the heat in the Moon's subsurface is mostly a residue of the effects of disturbance in the Moon's motions that occurred in the same historical periods, some of the heat is also of radioactive origin. The half-life of radium being 1580 years, enough radiation could be present on the Moon of this and other radioactive decays to prompt me to express this warning.

About four years ago, I drew the attention of Professor C. Pittendrigh to the danger of back-contamination, whereas then only the problem of micro-organic contamination of planetary bodies occupied the scientific advisers to space probes; not long thereafter the problem of back-contamination was discussed by Pittendrigh and others in committees and became a vital issue.

Everything that is said above of the radioactive perils to unprotected life on the Moon is applicable in the same degree to the future efforts to place man on Mars. Only on Mars, one should reckon with the probability of the presence of pathogenic, to man, micro-organisms, as well.

Of the many "craters" on the Moon, some — with raised rims and with no rills radiating from them — were in my understanding formed while, in cosmic disturbances, the surface of the Moon became molten and boiled (*Worlds in Collision*, p. 361). The subsequent discovery of domes or unburst bubbles confirms this understanding of the processes that created many of the craters.

“Craters” with rills radiating from them could be caused by infall of asteroids; granted that such a process also took place, I wish to stress that interplanetary discharges must have created a large number of such formations.

A landing of man on the Moon must be preceded well in advance by careful examination of the radioactivity on the Moon’s surface. The source described here is of equal importance, or possibly even of greater, than the effect of cosmic or other incurrent radiations on unprotected organic life. The required measurements must be made, not from orbiting space probes but by landing vehicles with instrumentation designed to detect various forms of localized sources of radiation.

(signed) Im. Velikovsky





May 19, 1969

Memorandum Submitted to H. H. Hess, Chairman, Space Board,
National Academy of Sciences, Washington, D.C., Concerning the
Forthcoming Landings on the Moon the First of Which is Scheduled
for the Summer of this Year.

The Moon was repeatedly heated and its entire surface melted less than 35 and 27 centuries ago. At the times the Moon's surface was molten in near approaches with other celestial bodies, it was enveloped in powerful magnetic Fields; if the surface cooled down below the Curie point before the magnetic fields were weakened and removed, then it is to expect that lavas on the moon (most of its rock is lava) still possess a high magnetic remanence.

Of the lunar ringforming formations a larger number resulted from bubbling activity; but some of the craters (especially with rays extending) resulted from interplanetary electrical discharges. Near such craters a strong, decidedly harmful, radioactivity must still linger and magnetic anomaly could exist. Large meteorites caused a third group of craters. Rocks removed by astronauts should be marked as to their position in relation to cardinal points and not pulverized.

In the mid-second millennium before the present era, Earth was drenched in hydrocarbons of exogenous origin. The Moon may well have hydrocarbons in the form of dried naphtha, bituminous rocks, asphalt, or waxes.

“River beds” on the surface of the Moon resulted not from water streams but from local flows of lava after the crust cooled off to a semi-viscous consistency, following the last in the series of paroxysms (27 centuries ago).

(Signed) Immanuel Velikovsky



July 2, 1969

Dear Harry:

In April I read to you my short memo concerning the Moon; on May 19 I left a copy with Dr. Otalara, your scientific assistant; next you assured me that this time I would be proven mistaken. The future landings, not necessarily the First one, will bring the answers.

When I maintain (see the way I expressed myself in my memo) that the rocks on the moon may be magnetic though the moon possesses hardly any magnetic field of its own, I suggest something that is not expected. Yet should the rocks be found magnetic, the explanation will be immediately forthcoming that this proves their meteoric nature. Therefore I have urgently advised — and I repeat it here — that the orientation of the rocks before their removal should be noticed and marked. Meteorites would fall at random and would not be all similarly oriented. You said to me that this simple task of marking the orientation is *not* included in the program; if it will be omitted you will have a question instead of an answer.

You expect ice under the upper layer of the crust. Some nine thousand years ago water was showered on Earth and Moon alike (deluge). But on the Moon all of it dissociated, hydrogen escaping; the rocks will be found rich in oxygen, chlorine, sulfur and iron.

Moon has no oceans and no marine life: water covered it only for a very limited time (following the deluge) counted in hundreds of years. Nevertheless I maintain bitumen and other hydrocarbon residues and derivatives will be discovered on the Moon, though not necessarily on the first landing: such discovery will be *followed* by the claim that rich marine life once existed on the moon. But my claim is based on the occurrence 34 centuries ago described in *Worlds in Collision*. Since the moon was heated and its surface became molten only a few thousand years ago, the temperature gradient under the surface crust will show, to some depth, a mounting curve.

In friendship,
(Signed) Im. Velikovsky



August 7, 1969

Dear Harry:

Yesterday evening I called in connection with the long telephone conversation we had the day before, in the morning about 10 a.m., when I called you at your office. At that time I told you of my article in NY Times of July 21st and asked very insistently that thermoluminescence tests should be performed. You told me that age testing of the lunar rocks is scheduled; I asked by what methods, you answered, for instance, by the potassium-argon method; to this I replied that I definitely expect neon and argon as inclusions in lunar rocks but their origin is from near contacts with Mars in the eighth and beginning of the seventh century before the present era and I was concerned that the presence of argon next to neon in the rocks of the moon would cause wrong deductions as to the time when the lunar surface was molten for the last time. You told me that when a rock is molten an argon inclusion would escape; I asked in reply whether the softening of the rock would suffice for the escape of neon and argon or a higher heat would be required: you have considered the problem and it was left undecided in your mind whether the duration and the temperature of the process as I visualize in these catastrophic events would have sufficed for the inert gases to completely escape.

I also reminded you at that conversation in the morning of Aug. 5, that in *Worlds in Collision* (1950) I claimed that neon and argon are chief constituents of the Martian atmosphere; that already in 1945 or 1946 I registered a lecture copyright on "Neon and Argon in Mars' Atmosphere": that I corresponded on the subject with H. Shapley and Walter S. Adams in 1946: in my book I also explained that Venus, earth, moon, and Mars had been at various times in near contacts; that Mars and the moon disturbed each other greatly, exchanged electrical discharges, and that Mars left some of its gases on earth and the moon.

When yesterday afternoon I read Wilford's dispatch from Houston in the morning NY Times concerning the find of neon and argon by Dr. Oliver A. Schaeffer who heated lunar dirt to 3,000 °F and by this released radioactive neon and argon (besides helium, krypton, and xenon) I called you and reached you by phone at supper time at your home.

About twelve days ago I wrote to Prof. A.W. Burgstahler, Chemistry Department, University of Kansas, the same concern of what will be the verdict concerning the time the lunar rock was lastly molten because of the inclusions of argon and neon in lunar rocks, the gases being of Martian origin. Dr. Schaeffer ascribes them to solar wind but admits that their participation in solar wind was not expected.

Next, I expect that neon and argon will be found as main ingredients of Martian atmosphere as I claimed for almost quarter of a century.

Cordially,
(signed) Immanuel





558 West 111th Street
New York 25, N. Y.

September 12, 1947

Professor Samuel A. B. Mercer
Newton Highlands, Mass.

Dear Professor Mercer:

Please excuse my delayed answer. Your letter was returned to me from Parksville, N. Y., and then, before answering you, I tried to investigate the question.

As you know, Weber and Knudtzon disagreed where to place Assuruballit. Weber let him reign already in the days of Thutmose IV, but also of Seti, because Seti was the Egyptian king who waged war against Merosar son of Subbilulima, and Merosar simultaneously waged war against Assuruballit in Harran. Mattiuza was also a brother-in-law of Merosar (Mursilis). But nobody could reign from the time of Thutmose IV, through the reign of Amenhotep III, Ikhnaton, Smenkhare, Tuthenkhamen, Aye, Haremhab, Ramses I and Seti. Therefore, Knutzon sounds more acceptable with two kings by the name of Assuruballit, one grandson of the other; but the second is not found in the lists.

Also the idea of Schnabel and Weber that Assur-nadin-ahhe, called "Abu" by Assuruballit was "nicht Vater sondern Vorfahre," is also a strained argument, because, according to the King-Lists, Assur-uballit was neither son, nor a grandson, nor a descendent of Assur-nadin-ahhe. Assur-nadin-ahhe II was a cousin of Eriba Adad I, and Assur-nadin-ahhe I had no offspring on the throne (JNES vol. II, the list of kings).

Thus, if there is no other synchronization of the 18th Dynasty in Egypt with the Assyrian kings, the case of Assuruballit, cannot be "a coup de grace". It was also stressed by M. Muller and Breasted (Records) that Subbiluliuma of the el-Amarna letters could not have been the grandfather of Hattusilis, or father of Merosar, because of the same chronological difficulty: there must have been minimum 105 years from some point in the reign of Subbiluliuma to some point in the reign of his grandson, which is regarded as unusual.

As to the other point in our discussion, the question of the Greek marks on the tiles of Ramses III, it cannot be settled in the frame of the conversational chronology. Your example of the Canterbury Cathedral and Pitman characters, is very similar to the example I used in my manuscript; but because the letter were incised before the tiles were burnt in the kiln, they cannot be regarded as an accidental find not belonging to

the tiles of Ramses III. The dating of Canterbury Cathedral is correct; therefore never Pitman signs will be found incised in the bricks (in the process of manufacturing among the bricks) of Cathedral's foundation.

I did not forget to quote Hamza, and I did it extensively in my manuscript; there I offered also a comparison of the signs he identified as Greek letters with their shape as figured in G. Möller, Hieratische Palaeography, esp. the letters MOC or T. There is not a bit of similarity. As I said Hamza, like Petrie before him, was misled by the fact that letters recognized as Greek on the tiles of Ramses III, in a more archaic form were found also on the tiles of Ramses II. In my reconstruction, this point is well understandable.

My Ramses III - Nectanebo identification is based on many points, and the tiles are only one of them. Compare, please, the description of Diodorus: they are identical even in smallest details.

I had a letter from Mr. Briggs, but as he forgot to write me his address, I answered to Newton Center, as I found on the post-stamp. Would you kindly let me know his address.

I repeat my sincere thanks, especially because you are engaged in preparation of a book for print, and, surely, are left without much free time. But I think that my reconstruction of history will prove to be of great import for the Oriental studies.

With cordial greetings,
Sincerely yours,
(signed) Im. V.





October 7, 1953

W. F. Libby
Institute for Nuclear Studies
University of Chicago

Dear Professor Libby:

In my work "Ages in Chaos" (Doubleday) I present a reconstruction of ancient chronology from the Middle Kingdom in Egypt to the advent of Alexander. I place the end of the Middle Kingdom in ca. -1500 (instead of conventional -1680): the time of the Hyksos from -1500 to ca. -1040 (instead of -1680 to -1580): the New Kingdom from then on. Accordingly the dates of the Middle Kingdom are reduced by about 200 years; and those of the Eighteenth Dynasty by ca. 500 years: the dates of the Nineteenth Dynasty by 650 years; and of Twentieth Dynasty by over 700 years. The Hittite Empire, contemporary with the Nineteenth Dynasty, is also reduced by almost 700 years.

In your radio-carbon analysis, Alisar III is reduced by 800 years which is very close to my dating. I also assume that if analyses of organic objects dating from the time of Hatshepsut, Thutmose III, Amenhotep II, III, or Akhnaton were made, the results will indicate a *reduction* by as much as 500 years from the conventional figures; and over 650 years for objects of Seti or Ramses II or Marneptah.

"Ages in Chaos" was repeatedly read by Prof. Robert H. Pfeiffer, Head of the Department of Ancient History at Harvard University, beginning with its first draft in 1942 to its final form, and he always gave me his encouragement. The first volume was published in 1952, covering the time from the end of the Middle Kingdom to the end of the 18th Dynasty (Akhnaton). Prof. E. Drioton, the renowned Egyptologist (Director of Louvre Egypt. Dept.) wrote me that in his opinion the chronology of Egypt and the ancient East will need a drastic revision in the light of my work. A copy of my book will reach you in a few days, and I like to hope that you will find time to look into it. The second volume is set, however not yet published.

At present I work on geological chronology and I anticipate that some of fossils ascribed to the Pleistocene Age will be found, like the roots associated with Pleistocene mammals of Tepexpan, in sediments only 3500 years old. However, I wonder whether the supplanting of organic carbon by lime carbon in fossil *hones* allows their radioactive dating.

Finally, I would suggest a radio-carbon analysis of petroleum; if it is of organic

origin, as generally assumed, and if some oil deposits are of a relatively recent dating, radio-carbon analysis may produce some unexpected results.

Very sincerely,

Immanuel Velikovsky





October 27,1953

Immanuel Velikovsky
4 Hartley Avenue
Princeton, New Jersey

Dear Dr. Velikovsky:

Since I know nothing at all about Egyptology or archaeology of any sort I feel constrained to return your book, because it is about as intelligible to me as if it were written in Greek. You understand that my role in the radiocarbon dating has been solely that of inventor and user of the method. I have gradually learned a little bit about Egyptology and archaeology, but it is miniscule in dimension.

We have dated several samples of petroleum. All of them have been of great antiquity. One sample reported from the Gulf sediments proved to be of measurable age. This is described in an article by Paul Smith in *Science*, about one year ago. I enclose reprints and a reference to a book which I published on radiocarbon dating. I am sorry that I have no copies of the book left. I remain

Very sincerely,
W. F. Libby



November 4, 1953

Robert H. Pfeiffer, Chairman
Department of Semitic Languages and History
Harvard University

Dear Professor Pfeiffer:

You may have read about the radio-carbon dating of archaeological objects of organic origin, as perfected by W. F. Libby and his associates of the University of Chicago. The method has some problematic features: in the case of fossil remains in which organic carbon is replaced by the inorganic, there can be no correct result. Libby also stresses that his method works only on the condition that cosmic radiation or terrestrial radioactivity remained unchanged in the last 20,000 years. As the first attempt to verify the method on an object of known age, pieces of wood from the Old Kingdom (Zoser and Sneferu), from the Middle Kingdom (Sesostris III) and from the Ptolemaic ages were analyzed. The pieces of Sesostris (three tests' average) showed the age of 3621 with an error margin both ways of 180 years, or 1720 before the common era, with the chance that Sesostris III's reign (or properly the time the tree was cut) can be brought as low as -1540. As you know I place the end of the Middle Kingdom at ca. -1500, and Sesostris III was not the last king of Middle Kingdom (there must have been also a succession of lesser known kings of the 13th Dynasty). In short, the date of the wood of Sesostris III is in good harmony with my chronology.

What is not found in Libby's analyses, is some object from the 18th, 19th, or 20th Dynasty—the New Kingdom—where my chronological scheme is five to seven hundred years out of line. I wonder whether the Museum under your care possesses a wooden coffin from one of those dynasties and would be interested to sacrifice a little piece for the purpose of the analysis. Actually all analyses made by Libby were performed on objects submitted by various scholars and institutions.

One object, though not from Egypt, showed a divergence by 800 years from the conventional chronology: it is wood from the foundation cribbing for a fortification wall of Alisar III. You will remember that the "Hittite" empire is recognized by me as 700 - 750 years younger than it is generally assumed. The analysis supports my dating.

At this occasion I would like to tell you that three weeks ago, on October 14th, at the invitation of the Forum of the Graduate Students of the Princeton University, I have addressed the students and professors before a capacity audience speaking on: "Worlds in Collision in the light of recent finds in archaeology, geology and astronomy: refuted or verified." From the Princetonian, the students newspaper, I

would like to quote (from Oct. 16th issue):

“After his lecture last night, he impressed all attending by his well-reasoned and well-documented answers to questions posed by experts in physics, geology and other sciences.” I would be glad—if there should be an opportunity—to meet also a comparable group of Harvard students and professors. Is there any Forum that you think could be interested to arrange such lecture (no fees)?

In archaeology, the work of Claude Schaeffer who established the occurrence of a very great natural catastrophe at the very end of the Middle Kingdom, and a few other similar events in historical times, served me very well.

With kind regards also from my wife, to you and Mrs. Pfeiffer,

Cordially yours,

Immanuel Velikovsky

P.S. The address of Libby: Research Institutes, the University of Chicago, 5640 Ellis Avenue, Chicago 37, Illinois. He admitted in his articles and his book (*Radiocarbon Dating*) that they are inclined to consider the accepted dates in their analyses as guides for selecting a date out of the range of uncertainty that sometimes is as high as 300 or 400 years. Therefore it would be good to have an object offered for analysis with a remark that two datings vie between themselves, and the analysis is requested to decide between these two datings.

I.V.





November 7, 1953

Dear Dr. Velikovsky:

Thank you for your good letter of the 4th. I was glad to receive it and to hear that the radio-carbon dating of Dr. W. F. Libby of the University of Chicago confirms some of your own new dates in Egyptian and Near Eastern history before the Persian Period.

I would be delighted to confirm your conclusions by sending to Dr. Libby some organic substance from an Egyptian object (such as an Egyptian mummy case) from the New Kingdom (18th to 20th dynasty) if I could find one in the Harvard Semitic Museum. Unfortunately we have nothing belonging to that period, most of our exhibits are much later or are made of non-organic matter.

At present I do not know of any group or Forum in Harvard University where you could discuss your conclusions with students and faculty of Harvard University. I shall make inquiries and if I can find some suitable way of your lecturing at Harvard I shall let you know immediately.

Mrs. Pfeiffer and I send to Mrs. Velikovsky and yourself our kindest regards and best wishes.

Yours cordially,

Robert H. Pfeiffer



February 23, 1954

Frederick Johnson
Robert S. Peabody Foundation for Archaeology
Cambridge, Massachusetts

Dear Professor Johnson:

I have read the Chapter, "The Significance of the Dates for Archaeology and Geology" written by you and included in Libby's *Radiocarbon Dating*. I would like to inquire: Whether any objects dating from the New Kingdom in Egypt (Dynasties 18, 19 and 20) were tested by the radio-carbon method? If so, did not the method indicate a discrepancy with the accepted chronology and a need of a radical reduction of age for this period in history? The data published by Libby concerning Egypt have not even one case of New Kingdom. You, however, refer to "puzzling exceptions" and cases "when a valid radiocarbon date disagrees radically with an archaeological date." Are objects from Egypt or from the Middle or Near East in this category?

A second question: Did it occur that the method revealed a late date (say, 3500 years ago) for the survival of animals like mastodon or mammoth?

I would appreciate it very much if you could give me the required information.

Very sincerely,
Immanuel Velikovsky



March 12, 1954

Dear Dr. Velikovsky:

It is impossible for me to give an intelligent answer to the questions concerning Egypt in your letter of February 23rd because I know very little about Egyptian archaeology. I suspect that no dates for objects from the New Kingdom in Egypt have been determined. The material that I do know of was presumed to be the oldest obtainable which, at the same time, could be dated fairly accurately in other ways. As I understand the situation, the radiocarbon dates from Egypt agree, at least in general, with some of the more widely accepted ideas concerning chronology as determined by archaeological and other methods.

I do not have Libby's book at hand at the moment, but I believe that my reference to "puzzling exceptions" and so on refers more specifically to American archaeological problems. A number of dates were determined which were not at all compatible with ideas concerning age at the time. Work, particularly in the middle west, has produced a number of inferences concerning age and these were believed to have some validity. The radiocarbon dates were reason for questioning this. Later work has revealed the probability that the radiocarbon dates are more nearly correct and that previous interpretations need revision. The situation is not yet completely clear, but it seems possible that the difficulties will be resolved before long.

The major difficulty, not only in America, but all over the world, has been to secure samples which have not been "contaminated". In the early stages of development it was difficult to describe contamination. The difficulty still remains, but the definition of it is becoming clearer as work proceeds. I do remember some unfortunate cases where samples, even from the old world, were either taken from "fake" specimens in museums or which were otherwise not what they were supposed to be. These matters have as far as we know been clarified, but originally they caused some confusion.

This is not a very good answer to your questions, but I hope that in some measure it indicates the situation as far as it is known to me.

Sincerely yours,

Frederick Johnson



January 21, 1955

Immanuel Velikovsky

Dear Sir:

The seemingly irreconcilable difference in dating this period [New Kingdom] caused me to inquire whether any chronology had been substantiated through some means other than by philological or archaeological research. Therefore, I wrote to Mr. William C. Hayes, Curator of Egyptian Art of the Metropolitan Museum of Art, asking him if he knew whether any artifacts from the Eighteenth Dynasty, particularly of the Reigns of Hatshepsut or Menkeperre had been dated by the radio-carbon or carbon 14 method and if so, what the results were. He replied that he knew of none that had been tested in this way and that "in the light of the very complete knowledge we have on this tightly dated and closely recorded period, it would serve no useful purpose to have this done ". . .

Very truly yours,
Francis J. Asip
Long Island, New York



February 7, 1955

Dear Mr. Asip:

Would you please accept my apology for a somewhat retarded reply to your letter of January 21st. In that letter you have put the very proper question, could not the radiocarbon analysis settle the chronological problem raised by "Ages in Chaos" ?

I have spent various efforts in this direction, up till now without success. Professor Robert Pfeiffer of the Semitic Museum of Harvard University, always very sympathetic to my work, answered that his Museum has no suitable material from the New Kingdom in Egypt. Professor Frederick Johnson, Chairman of the "Committee on Carbon 14" of the American Anthropological Association and the Geological Society of America, a committee that selects samples for analysis, answered with a letter that made me think that he did not grasp the problem: he said something to the effect that their paradoxical dates, as far as he can remember, relate to American prehistory; Libby himself answered that he knows practically nothing of Egyptian chronology; Professor Etienne Drioton, Curator of the Louvre Museum, who wrote me very encouragingly after reading the first volume of "Ages in Chaos" did not answer my letter on the subject of last December.

Maybe, you could do some additional tries, writing to various magazines, daily press, or members of the Committee on C 14. . .

Very sincerely yours,
Immanuel Velikovsky



March 15, 1955

Dear Professor Pfeiffer:

You may know that until now no radiocarbon test has been performed on any organic relic of the New Kingdom in Egypt—the period under investigation in “Ages in Chaos.” In the light of the evidence presented there, you may agree on the importance of a laboratory test of the chronological datings of that period of the past. In the last years I made a few unsuccessful attempts to induce Chemists and historians to perform this analysis. Even independent of my theory, this important period of the past should not be excluded from the carbon test to which many periods of various local cultures all over the world were subjected.

Recently I received a letter from a gentleman (F. J. Asip, Long Island, of Jan. 21. 55 answered Feb. 7. 55) who suggested the test to Hayes, Metropolitan Museum, before writing me. Hayes answered him that there is no need for a test of the New Kingdom datings: they are secure. This induced me to see Hayes.

After I have spent all my persuasive talent, I achieved that Hayes agreed that if I should bring him a letter from you (under the letterhead of the Semitic Museum) he would select three pieces—of the 18th, 19th, and 20th Dynasties—for a test on their radiocarbon. So important seemed to me this prospect that first I thought to travel to you to Cambridge. Then I decided to write to you and to ask to write a letter to Hayes and address it to me. I will bring it to him—I believe you would not refuse to write it and make it persuasive—together with a copy of “Ages,” which he did not yet read.

It may interest you that Professor Einstein, in the last sixteen months, gave much time to studying with me the implications of my theory for geology, astronomy, and natural sciences in general—in exchange of letters and in a series of long sessions that usually run to midnight. - My “Earth in Upheaval” (geological aspect of the theory) is presently scheduled for the fall.

With kind regards, also from Mrs. Velikovsky, to Mrs. Pfeiffer.

Cordially yours,

Immanuel Velikovsky

P.S. In Hayes’ opinion the tests should be performed at the request of institutions, not private scholars, like myself. His full name is William Christopher Hayes.





April 16, 1955

My dear Dr. Hayes:

You are undoubtedly familiar with the startlingly revolutionary revision of ancient chronology before Cyrus the Great, which Dr. Immanuel Velikovsky has suggested as correct in his volume, *Ages in Chaos*.

For students of ancient history, ancient civilization, ancient art, it is manifestly of capital importance to know whether Ramses II or Nebuchadnezzar are separated by about six centuries, according to the standard chronology, or are contemporaries, as Dr. Velikovsky is striving to prove.

The matter should be settled, if possible, once for all. It is so vital for all students of ancient history to have all doubts removed that the application of the radio-carbon test seems to be most desirable.

You would render us all an immense service if you submitted some objects of the 18th, 19th, 20th, 30th dynasties of Egypt and possibly some datable objects from Mesopotamia and other ancient countries to the Libby test. Even though such a test has a margin of error, it probably would settle the matter once for all.

Thanking you in advance for your help, and with my kindest regards,

Yours faithfully,
Robert H. Pfeiffer



May 25, 1955

Dear Dr. Hayes:

I am writing to you at the request of Dr. Immanuel Velikovsky and because, as the secretary to the late Professor Einstein I feel that I should inform you of the following matter.

During the course of the last eighteen months Professor Einstein had several discussions with Dr. Velikovsky—with whom he had friendly personal relations—about the latter's work. The last such discussion took place on April 8th. In the course of this conversation Professor Einstein said that he would write to you and suggest that you should give Dr. Velikovsky an opportunity to have his theory subjected to a radiocarbon test.

As I was present at this discussion I can assure you that Professor Einstein did intend to write that suggestion to you and but for the lateness of the hour the letter to you would have been written then and there.

Yours sincerely,

Helen Dukas

Secretary to Albert Einstein



June 3, 1955

Dear Dr. Hayes:

Following our conversation earlier in the spring I have mailed you a copy of "Ages in Chaos," vol. 1. My intention in doing so was to give you the opportunity to judge for yourself my method and evidences in offering a reconstructed time table of ancient history. Although you have agreed to submit to a radiocarbon test a few samples dating from the 18th, 19th, and 20th dynasties, if a scholar representing some scientific institution should support my request—and we had in mind Professor Pfeiffer—I thought it proper that first you should know my published volume.

If you have turned to the pages 26-31 and compared the passages from the Papyrus Ipuwer in Gardiner's translation and from the King James version of Exodus, Chs. 7-12, you, most probably, became interested in the rest of the book. The entire work is built on collation of texts, in conventional chronology regularly separated by over five centuries. The second volume of the work is presently in galleys. It covers the time from the end of the 18th Dynasty to the advent of Alexander.

In case you have not yet found incentive strong enough to familiarize yourself with the first volume of "Ages," the attached here photostat of a letter by Etienne Drioton—with his immediate reaction as expressed upon reading the first volume—may still induce you to follow his example.

I assume also that you have received a letter from Miss H. Dukas, secretary to the late Einstein. Since November 1953 Einstein spent many hours in discussing with me various aspects of my theories; at our last meeting, on April 8th, he was very emphatic in his desire to help me that a radio-carbon test should be performed to check on my chronology.

As promised, I enclose a letter from Professor Pfeiffer of the Semitic Museum of Harvard University. Since 1942 he closely followed the progress of my work on ancient history, and also read it in manuscript, in the first draft, in interim versions, and in its final form. Excerpts from his letters and statements, authorized by him, were printed on the dust jacket when the first volume was published in 1952. Yet he must not be considered as siding with me in my reconstruction.

Finally I enclose here a short chapter from the second volume of "Ages," dealing with the stele of Maunier. Should you be interested to see how I bring my reconstruction to conclusion, I would gladly let you see the second volume in page proofs.

As to the tests, I would suggest that three objects, one dating from the 18th Dynasty, the second from the 19th Dynasty, and the third from the 20th Dynasty, all as far as possible excluding the chance of “contamination” should be subjected to radiocarbon analysis. As you know, this method of dating may be not as secure for absolute dates as it is for relative dating. Therefore I would ask the inclusion of some object of the Ethiopian (or Libyan) period in Egypt: For the control purpose an object of the Ethiopian period would be very good, since there is no disagreement in my scheme as to the dating of this period when compared with the conventional scheme.

Finally I lodge with you a statement of what I expect as a result of the required tests.

Faithfully yours,
Immanuel Velikovsky

P.S. It would be very desirable, if permissible, for complete objectivity, that the laboratory should know the samples as 1, 2, 3, and 4, and their dating from the 18th-20th dynasties should be known presently only to you and your colleagues in the Museum.





June 22, 1955

Dear Professor Pfeiffer

Replying to your letter of April 16th, which I have just this minute received, I think we may have some small organic samples datable to the New Kingdom which I can let you have in your official capacity as Curator of Harvard University's Semitic Museum. I assume that the request is made in behalf of Harvard University, as we do not, of course, hand out material to private individuals for their own uses. Upon assurance from you that this is the case I shall see what I can do about finding the material.

Since I am leaving within a few days on a rather prolonged vacation and since during the summer we operate on a skeleton staff it will not, in any case, be possible to rout the material out of storage until the Fall.

I should also doubt very much if we have anything later in date than Dyn. XVIII, most of our later material having been acquired, not from our excavations, but through purchase, a circumstance which makes it unlikely that it includes expendable organic samples.

Sincerely yours,
William C. Hayes:

[Handwritten note in margin:] Dear Dr. Velikovsky: Sorry about this. With all good wishes. Yours cordially, [signed] Robert H. Pfeiffer.



June 30, 1955

My dear Mr. Hayes:

Thank you for your letter of the 22nd, which was forwarded to me in Nantucket.

I had written you in April to find out whether you could make the radio-carbon test on some ancient Egyptian objects known to come from a given dynasty.

It is very good of you to offer me such objects, but unfortunately they would be of no use to me. I have no facilities for making such a test, and I could easily obtain such objects from Dows Dunham at the Boston Museum of Fine Arts.

Under the circumstances you need make no arrangements to have such objects sent to me in the fall. Thanking you for your courtesy and with kindest regards,

Yours faithfully,
Robert H. Pfeiffer



July 11, 1955

Dear Professor Pfeiffer:

You were kind to mail me a carbon copy of your reply to Dr. Hayes of the Metropolitan Museum. I believe that there is a little misunderstanding, for which I am prepared to take the blame, since I have, apparently, not explained the situation in a proper way.

For a long time I have made efforts to have a radiocarbon test of some relics of the 18th, 19th, and 20th Dynasties of Egypt as to their antiquity. Once I have written to you, too; at that time you have informed me that your Museum has no organic material from Egypt. Continuing my efforts, I met Dr. Hayes at the Metropolitan Museum, and as I have written to you after that meeting, he agreed to supply a few objects for the analysis. But he made a condition: the request should not come from me, a private person, but from an official institution, like a museum; we agreed that I will supply him with a request from you.

Your kind letter to Dr. Hayes of April I gave him only much later; one of the reasons was my desire that he should do what he intended in a belief that it is worthwhile, and therefore I have mailed him a copy of my "Ages" that he should read it before he sees your letter. When finally I have mailed him your letter with an expose [a statement] of what I expect from the analyses, he answered you that he is prepared to search for the required material after the vacation and then to place it to your disposal.

Neither you nor he is a physicist; the analyses should be made in, most probably, the Univ. of Chicago laboratory, where Dr. W. F. Libby developed the radiocarbon test. I do not think that Hayes had in mind that you would do the analysis. He apparently preferred that the request for the test should come from you, and that he would only supply the material.

In your answer to Hayes, you have written that he does not need to send the material to you and that you can obtain such objects from Dows Dunham at the Boston Museum of Fine Arts, If this is so then the matter is simplified. Do they have in the Boston Museum of Fine Arts suitable objects of their own digging, where no doubt of the origin of the objects exists? Hayes stressed in his letter to you this point.

I would be very much obliged to you if you could arrange that the Boston Museum sacrifices a few objects of the mentioned dynasties together with some objects of the Ethiopian and 30th Dynasties—for a comparison test. As the things now stand I cannot expect that Dr. Hayes would go on with his promise conditioned on your

request.

The laboratory of the University of Chicago performs the tests on objects submitted by scholars in different fields and then publishes, once or twice a year, the results of all tests made. They have a committee for selection of tests from those submitted, and at the head of the Committee on Carbon 14 associated with Libby's laboratory stands Professor Frederick Johnson, of one of the scientific institutions in Massachusetts.

I believe, I made now the issue clear. There is such a simple method to "disprove Velikovsky," who has a large following. So why not to make the test? From your letter to Hayes, I see that you are able to obtain necessary objects in Boston.

Therefore, I feel assured that the tests will be made. As I have written, I believe, the radiocarbon analysis has only a relative value—its absolute dating may be mistaken, but its relative dating must be a good criterion. Here is a case where an honest science must put its chronology, and mine, on the scales. With all good wishes, also for Mrs. Pfeiffer,

Immanuel Velikovsky





August 13, 1955

Dr. Dows Dunham, curator
Department of Egyptian Art
Museum of Fine Arts
Boston, Massachusetts

Dear Dunham:

We have had some requests to have a radio-carbon test made of some ancient Egyptian objects of certain dynasties, to see if the new dates proposed by Dr. Immanuel Velikovsky are valid.

Some “expendable” organic (wood, cloth, etc.) objects of the following dynasties are needed: Dynasties 18, 19, 20, 25, 30.

If the Museum of Fine Arts is willing to sacrifice some bits of material of these dynasties and if it can arrange to have these tests made, we are willing to bear the costs—provided they are not beyond our means.

With my kindest regards and best wishes,

Yours cordially,
Robert H. Pfeiffer



August 16, 1955

Dear Pfeiffer:

I have your letter of August 13 with regard to the possibility of supplying expendable organic material of the 18th, 19th, 20th, 25th or 30th Dynasties for radiocarbon tests in connection with Dr. Velikovsky's new ideas about dating.

We have very little material of a suitable nature of the periods mentioned although we have plenty of wood of the 12th Dynasty from excavations at Bersheh. The only material I can think of would be chips of ivory from our excavations at El Kurru of which we have a number of fragments which are useless to us. These are presumed to be slightly earlier than the 25th Dynasty (see my publication of *El Kurru*). If a few samples of these would be useful to you for your purposes I should be glad to put them at your disposal if the Semitic Museum wants to have the tests made. Personally I am rather skeptical about its being worthwhile and am not inclined to take the time to do much about it as we are short-handed and over-loaded with more important matters,

Please let me know if you want some samples of this ivory which was excavated by us at El Kurru, the provenance of which is certain,

With all best wishes and hoping that you are not finding the heat of Cambridge too trying,

Sincerely,
Dows Dunham



August 24, 1955

Dear Dr. Velikovsky:

Here is Dows Dunham's letter; please do not return it to me you wish me to ask him for some objects.

If you wish I shall ask him for ivory fragments from *El Kurru* (slightly earlier than the 25th Dynasty) and send them to you. I have no way to use them for the radio-carbon dating test and you are able to arrange the matter. At most the Semitic Museum would contribute part of the expense.

With my kindest regards,

Yours cordially, Robert H. Pfeiffer

P.S. If you write, please use my *home* address.



September 1, 1955

Dear Professor Pfeiffer:

There is no luck to my trying to have a radiocarbon test performed on objects dating from the New Kingdom. The Boston Museum of Fine Arts has no suitable objects; the Metropolitan Museum, after the exchange of letters the earlier part of the summer will be reluctant to renew their promise made to me once. As I have explained, they do not do the tests; neither does any other museum. The radiocarbon laboratories of the Chicago University, of Columbia and of Geological Survey in Washington, D.C. as I understand, do not require any fees for the tests: but only such tests are made which are of scientific value.

Apart from my books, it is difficult to understand that no objects of 18th or 19th Dynasty were submitted to the analysis, when very many trivial things were dated by this method. What can I do? In the Foreword to the second volume of *Ages* (spring 1956) I will explain the delay of the book as the result of my wish to see the test performed, and will challenge the archaeologists to provide the material for the analysis. Actually I will do it already earlier: in my forthcoming (November, by Doubleday), "Earth in Upheaval."

If some new idea shall come to you, as to who. University, Museum, or private source, would sacrifice the necessary pieces of organic material, you will certainly keep me informed. In the meantime, have my many thanks for your trials on my behalf. At the final count, it will be on the behalf of archaeology, which will either get rid of a nuisance such as Velikovsky's theory, or will have a new chronology.

Very cordially,
Immanuel Velikovsky



October 7, 1959

Lynne O. Ramer
Royal Oak, Michigan

Dear Mr. Ramer:

This is in reference to yours of September 30th concerning Carbon-14 Dating in the Near East. I'm completely puzzled by Professor Velikovsky's claim that there is intentional skipping of carbon-14 dating of certain periods. We, ourselves, have a Radiocarbon dating laboratory here working on long term chronology for the Near East and we have a great many dates for all periods. Together with several other laboratories in the world, we are also trying to coordinate on a firm chronology for Egypt. There are many serious problems in the Carbon-14 method and we know of many Libby dates now in error. Certainly there is nothing we know of now in all periods which reflects the catastrophes of Velikovsky's theory. By and large the hundreds of dates we now have from Carbon-14 confirm fairly closely the chronologies worked out by the archaeologists.

Several years ago we here at the Museum discussed preparing an answer to Velikovsky's claims and we all decided it was not worthwhile. At this late date in archaeology, there is not much point in tilting at windmills.

Very best wishes,
Froelich Rainey
Director, The University
Museum
University of Pennsylvania
Philadelphia



July 16, 1960

Dear Dr. Velikovsky:

And now I must say what is in my heart. Although I believe a prolonged and strongest possible effort should be made to bring about the tests, I fear that this effort will be doomed to failure. The trouble is that everyone concerned really "knows" you are right and are actually resisting actively in a most effective way, by surrounding you with silence and nothingness. You have carefully divided up your discoveries into separate compartments, but they are not deceived for a moment. They didn't say a word about *Oedipus and Akhnaton* but not for the sake of the thesis of that book. If they let you in on any front, all hell might break loose. If you break through in the chronology question, *Worlds in Collision* is only a step away. You are like a building inspector who has just found out that the Empire State Building must come down; it is unsafe. The careers and books of celebrated men are in danger of being reduced to meaninglessness and there is a cruelty and sadness in it. They will resist perhaps even at the risk, when all is said and done, of doing so lunatic a thing as refusing to take a piece of wood from some museum into the laboratory and finding out how old it is, falsifying results or declaring them to be invalid on one pretext or another.

I am not joking when I say that I think that you, single-handed, probably severely limited the extent of radiocarbon dating in the Middle East by placing terrible psychological obstacles in the way of investigators.

All this may be imaginary. I hope it is.

Very truly yours,
Theodore Lasar
Fort Lee, New Jersey



July 22, 1960

D. J. Wiseman
The British Museum
London

Dear Dr. Wiseman:

Almost two years ago I had your favor and help in obtaining some photographs of several tiles of Ramses III. I wish I could know whether, per chance, there exists among the tiles of Ramses III in the Museum one that would show the name (or figure) of Ramses III on its face and a 'Greek' letter (preferably alpha) on its back.

My next book, "The Peoples of the Sea" will deal with the period of Ramses III. At this occasion I observe that, strange as it is, but from the entire period of the New Kingdom in Egypt (and of the Late Period as well) there are no radiocarbon datings: Libby published three datings relating to the Old Kingdom, one to the Middle Kingdom, and the next one of the Ptolemaic period. Thus over 1200 years of conventional history are not yet tested; and I am not aware whether any RC dating from -1580 to -332 was ever made on any sample from any other country of the Ancient East.

Would you think that the British Museum could be interested to have some datings performed by this ^method? Possibly you are acquainted with my thesis ("Ages in Chaos") that a synchronization of the histories of Egypt and of other lands of antiquity requires a drastic shortening of the Egyptian history. Would it be possible to sacrifice some organic relics from the 19th and especially from the 20th Dynasty for such analysis'?

I have asked my publisher in London, Sidgwick and Jackson, to mail you a copy of my last book, "Oedipus and Akhnaton."

Very sincerely yours,
Im. Velikovsky



11th August, 1960

Immanuel Velikovsky

Dear Sir,

Your letter of July 22nd addressed to Dr. Wiseman has been referred to me. . .

There has been so far as I am aware no radiocarbon dating of objects from the New Kingdom. I do not think that such a test, given the necessary measure of tolerance which must be allowed, is likely at the moment to give a chronology for the New Kingdom which is any more certain than a chronology deduced by historical methods.

Yours faithfully,

A. F. Shore, Assistant Keeper

Department of Egyptian

Antiquities

The British Museum



August 18, 1960

Mr. A. F. Shore

Dear Sir:

I thank you for your letter of August 11th. You regard RC tests as superfluous since these dates were secured by historical methods, more exact than the RC method.

If this is the case, then a radiocarbon test of some relics dating from the New Kingdom is even more desirable for the purpose of testing the test itself. When Professor W. F. Libby devised the method, he felt the need to check it on some well established data, three to five thousand years old, before offering it as a generally reliable method of dating. For that purpose he tested an acacia beam from the tomb of Zoser at Sakkara, a cypress beam from the tomb of Sneferu at Meydum, and wood of the funerary ship from the tomb of Sesostris III.

It is agreed among the Egyptologists that the dates of the Old and Middle Kingdoms are not so certain as the dates of the New Kingdom, even if the long chronology of Flinders Petrie is no more in discussion. I assume that having been asked to submit material of established dates you would have preferred to select a relic of the 18th, 19th, or 20th Dynasty. By now the margin of error of the test is much narrower; but the prime objective to check the method on a known date was never fulfilled. I am writing to Mr. Wiseman and mailing him a copy of this letter.

Very sincerely,
Im. Velikovsky



August 18, 1960

Dear Dr. Wiseman:

I still like to hope that I shall be able to include in the forthcoming sequel volume to *Ages in Chaos* some results of RC dating. An absolute dating is less certain by RC than a comparative dating. From the first volume of *Ages* you may know that I brought arguments for a synchronization of Shalmanessar III and Ahab with the kings of the closing 18th Dynasty. If it could be arranged that several Assyrian and Babylonian objects from -860 down to the end of the Neo-Babylonian kingdom could be compared by RC with the dates of the New Kingdom, I would expect some surprising results, with Egyptian and Hittite Empire relics showing a contemporaneity with much younger Assyrian and Neo-Babylonian objects. I would be greatly obliged, and I think the studies of the Ancient East would profit, if such comparative dating were performed. I even expect a greater discord in the datings of Ramses II and Merneptah (also Seti 1) of the 19th Dynasty and Ramses III of the 20th Dynasty than I believe to have shown for the 18th Dynasty.

I receive many letters with this very inquiry, also from some places of learning and I have to answer that no radiocarbon tests pertaining to the problems raised in *Ages in Chaos* were ever performed, thus leaving 1200 years of conventional history untested. Could you be of help?

Very sincerely,
Im. Velikovsky



16th September, 1960

Immanuel Velikovsky

Dear Sir,

Your letter of August 18th has been referred to me by my colleague, Mr. Wiseman.

As Chairman of the Radio Carbon Dating Advisory Screening Committee of this Museum I have had some connection with the experiments carried out in the Research Laboratory of this Museum. Some day we hope to be able to conduct experiments on well dated material of the New Kingdom, but for some time to come I fear that our efforts must be directed to endeavouring to determine the dates of the earlier periods. These experiments will cover a wide area of the Middle East and the results will be available in the *American Journal of Science* and the *British Museum Quarterly*.

Yours faithfully,

I. E. S. Edwards

Keeper

Department of Egyptian

Antiquities

The British Museum



September 29, 1960

Dear Dr. Velikovsky:

I'm not sure whether I told you that I was referred by Dr. Frederick Johnson of Phillips Academy to a Dr. Robert Heizer of the University of California for what information I might be able to get from his file on radio-carbon datings. I wrote to Dr. Heizer. He was away in Europe and another member of the Department of Anthropology answered his letter and gave me the information that he had checked the Eighteenth, Nineteenth, and Twentieth Dynasties of Egypt and found no references to C-14 dates from any of these files. He suggested that I write to Professor Jacob J. Finkelstein in the Department of Near Eastern Languages for any information that might be more-recent than what he had on file. From that department I had an answer from the Assistant Professor of Egyptology, Dr. Klaus Baer. This short letter I quote in full.

“As far as I know there are no radiocarbon datings of any objects from the New Kingdom. However, since the chronology of ancient Egypt is quite closely fixed by astronomical evidence from the Eleventh Dynasty onward, in part, to the nearest year. radiocarbon, with its substantial margin of error, could hardly add anything to our knowledge of the chronology of the New Kingdom. Hayes, *The Sceptre of Egypt*, Vol. II, dates Rameses III to 1192-1160 B.C., and this date is not likely to contain a margin of error greater than about five years each way.”

This letter is no doubt intended by Dr. Baer to close the matter. I cannot very well re-open it without betraying the fact that I have serious doubts about his “astronomical evidence.” Where do we go from here?

Sincerely yours,
Rev. Benjamin N. Adams
Trinity Presbyterian Church
San Francisco



November 3, 1960

Professor I. E. S. Edwards

Dear Sir:

“One of the first questions which occur to the mind of anyone looking at the ancient monument is its date. In the case of Egyptian monuments it is often difficult, and sometimes impossible, to answer the question in terms of years before the beginning of the Christian era, because our knowledge of Egyptian chronology, especially in the early periods, is still very incomplete. . . An exact chronology will not be possible until the discovery of material of a different and more precisely datable character than anything found hitherto.”

When in 1947 you have written these lines and opened with them your book on The Pyramids of Egypt, the radiocarbon method of dating was not yet worked out. Since 1948, however, in twelve years very many samples of all kinds of origin and date were tested, but not a single one dating from between the end of the Middle Kingdom and the time of the Ptolemies, more than twelve hundred years, a period so long and important of a country so dominant in ancient history. Although the margin of error of the method makes it hardly suitable for finer datings, it could be of decisive value where the chronological problem involved is in excess of that margin of inexactitude.

Tombs near Tell el Yahudieh were assigned by LI. Griffith to the 12th century and by E. Naville of the same expedition to the Hellenistic age: the difference is of ca. 800 years or even more. Do you possess at the Museum anything from this excavation that could solve the problem?

Not only Egypt of 1680 to 332, but the entire Ancient East is left out of RC analysis and testing. At Carchemish, Sir Leonard Woolley was baffled by young objects in old tombs, six to seven centuries intervening. Also the Herald Wall is very differently dated by Woolley and Güterbock. Should not some organic object from the tombs of Carchemish be tested in RC count?

The British Museum must be especially interested to clear the name of A. S. Murray who was accused of ignorance (Enkomi) for finding Assyrian objects of the seventh century in tombs contemporaneous with the 13th century Egypt.

Why not to test by RC the old dispute between Dörpfeld and Furtwängler as to the relative age of the Geometric and the Mycenaean ware (Olympia)? Or the age of the temple in the megaron of the Tiryns palace-is it Greek or Mycenaean? Or to

investigate the relative age of Gordion tumuli and of Hittite relics of the Empire period? I could enlarge the list by many other cases. (Ahiram's tomb dated to 13th, 10th, and 7th centuries is one of such cases. Ivory of the 9th century [Samaria] and, presumably, of 14th century [tomb of Tutankhamun] , also of Nimrud and Megiddo is a very suitable material for tests).

Is not the find of a piece of wood from under Alisar III fortress wall that came out 800 years too recent (W. F. Libby, *Radiocarbon Dating*, 1952, pp. 71 and 102) by itself an invitation to undertake a survey of all debated and unsolved chronological problems where datings differ by centuries?

The problem of the so-called Dark Ages in the Near East, for five centuries following -1200 could be greatly illuminated, also the question of the true interval between the Mycenaean and the Greek Ages, and the Homeric question tied to it.

This morning the radio announced that W. I. Libby was awarded the Nobel prize in chemistry. With this letter I make one last effort to convey to you that problems of great importance and urgency should not be left undecided and waiting, their turn for the Carbon test till after the determination of dates of the earlier periods from a "wide area of the Middle East." as you put it in your letter to me on September 16th.

Very sincerely yours,
Im. Velikovsky





15th November, 1960

Immanuel Velikovsky

Dear Sir,

Thank you for your letter of November 3rd.

I should like first to assure you that I am in complete agreement with your views about the desirability of conducting as many tests as possible on material from Egypt of all dates and not merely the earliest periods.

We in this Museum, however, are faced with two difficulties. The first and greater is the smallness of the scale on which we can conduct our tests, and the second is the lack of really safe, uncontaminated material. If I mention that during the past six months it has only been possible to complete four tests you will understand how slow progress must be. Furthermore, the claims of European archaeology, to say nothing of the Far East are as pressing as those of the Middle East.

I feel sure that the Middle Eastern tests will be carried out but the work must be spread over the various laboratories which are now able to undertake Carbon 14 tests. It cannot all be done in this Museum.

I shall pass on your letter to my colleagues in the Department of Greek and Roman Antiquities. Perhaps they will be able to suggest some suitable material for settling the questions relating to their fields.

I had not noticed that Professor Libby had been awarded the Nobel Prize. I feel it is a very meritorious award and I am grateful to you for informing me about it.

Yours faithfully,

I. E. S. Edwards



18th November, 1960

Immanuel Velikovsky

Dear Sir,

Your letter to Mr. Edwards of 3rd November has been passed to this Department for our observations on the sections, which concern us. Murray's reasons for believing the Mycenaean period to have immediately preceded the Orientalizing were reasonable enough in 1900 when he wrote, but later excavations and research have shown that there was an interval of some centuries between these two periods.

I regret that we have no material in this Department from either period suitable for Radiocarbon analysis,

As for the building overlying the Megaron at Tiryns, the position (as outlined in Nilssen. *Minoan-Mycenaean Religion*, pp. 475 ff.) is indeed unsatisfactory. But it seems to me most unlikely that there is any material from it suitable for Radiocarbon examination.

Yours truly,

R.A. Higgins

Assistant Keeper

Department of Greek and

Roman Antiquities

The British Museum



Jan. 30, 1961

Rev. Warner Sizemore
East Whiteland Presbyterian Church
Malvern, Pennsylvania

Dear Mr. Sizemore:

Your letter of Jan. 16 has been referred to me for reply. We have never received any request from Dr. Albert Einstein for material from our Egyptian collection for use in Radio Carbon analysis. We did, however, in 1947 provide samples from various periods of Egyptian civilization, including the New Kingdom, for analysis by Dr. Willard Libby and his colleagues of the Institute for Nuclear Studies at the University of Chicago.

As I understand it, the contamination which has occurred in the process of handling, exhibiting and storing Museum objects does not allow for an accurate reading of their date in Radio Carbon tests.

Sincerely,
Virginia Burton
Curatorial Assistant
Department of Egyptian Art
Metropolitan Museum of Art
New York City



April 4, 1961

Dear Miss Burton:

Some time ago I wrote your museum inquiring if Dr. Einstein had ever made a request for samples of the New Kingdom in Egypt to be subjected to radiocarbon tests and if the request was ever granted, Your letter (a copy of which is enclosed) indicates that the Museum never received such a request. In a technical sense this is correct but I have been able to obtain a photostat of a letter written by Dr. Einstein's secretary making the request in his behalf shortly after his death. I am not out to "prove" anything one way or the other but I am greatly interested in this period of history and it is strange that in over 15 years (since the method of carbon dating was developed) few if any tests have been conducted on samples dating from that period, whether from your Museum or from others. Also enclosed is a photostat of the letter written by Miss Dukas.

With kindest regards,
Warner Sizemore



Apr. 20, 1961

Dear Rev. Sizemore:

I find in our Departmental files a letter from Dr. Velikovsky written on June 13, 1955 requesting objects from the Egyptian collection for Radio Carbon dating. There is also a letter from Professor Robert Pfeiffer, Curator of the Semitic Museum, Harvard University written in behalf of Dr. Velikovsky and also requesting objects. Dr. Hayes, Curator of the Egyptian Department replied to Dr. Pfeiffer that we could possibly provide organic samples datable to the New Kingdom if the request was made in his official capacity as Curator and in behalf of Harvard University as we are not allowed to give material to private individuals. Since I find no reply from Dr. Pfeiffer, I gather that the matter was dropped there.

Over the years during which the Radio Carbon method has been developed, all excavations in Egypt have been under the jurisdiction of the Egyptian Government and no objects have been released to foreign institutions with the result that datable material for Radio Carbon tests has been virtually nonexistent. . .outside of Egypt. And I do not know whether the Egyptian Department of Antiquities has conducted any tests. Excavated material from the earlier years when foreign excavators were allowed to take home 50 per cent of the finds is most often contaminated from handling, storing, exhibiting, etc., and it is not worth chancing the destruction of valuable objects only to produce valueless readings. In our particular case material from the Egyptian Expedition, which was conducted between 1906 and 1936, was given to the Institute of Nuclear Studies in 1947.

In the last two years the Egyptian Government has begun to offer excavation concessions to foreign countries in connection with the flooding which will occur when the new High Dam is completed at Aswan. If, then, there is a resumption of excavation activities, there is a good chance that reliable tests could be made not only in the period in which you are interested, but in all periods of Egyptian history. I hope the above will clarify the situation.

Sincerely,
Virginia Burton



January 23, 1961

David W. Baker
Philadelphia, Pennsylvania

Dear Dr. Baker:

I appreciate your intention to be of help in radiocarbon testing of some pivotal dates of Egyptian history.

Miss Elizabeth K. Ralph of the Physics Department of the University of Pennsylvania published in the October 15th issue of *Nature*, a British weekly, a report of the work done in Philadelphia. Following facts are stressed: The margin of error is much smaller (case of a royal tomb of Gordion of the last quarter of the eighth century) and sometimes is plus-minus 30 years only; the period 2000 to 4000 years before the present era gives very erratic readings (I would understand this by the fact that at that time cosmic ray influx was at a different rate, and by another fact that following great combustions of fossil fuel-esp. oil, and many volcanic eruptions, the ratio of Carbon 14 to Carbon 12 was very different); the Middle Kingdom dates are 180-250 years younger than accepted, which conforms with *Ages in Chaos* chronology ace. to which the Middle Kingdom ended after -1500, not -1680 or -1780; the only analysis of an object from the New Kingdom (a beam of Seti I) is ca. 200 years younger, and this on the assumption that the beam was not a reused one, a possibility not excluded by Ralph; this case is therefore disturbing to her because she relies on historians who regard the date of Ramses I, father of Seti I, as fixed by astronomical means. Apparently many samples were rejected after the test was performed, because of a larger difference between the accepted and the carbon dates, under a suspicion of contamination.

If you wish to do something, here are several suggestions. First, to find out whether there were made more tests of the objects of the New Kingdom; how large was the difference before it was decided that the specimens were "contaminated" ; I have the suspicion that the so-called contaminated specimens in many cases reflect correct chronology; therefore it is good if I could know which objects were tested and rejected and how large was the discrepancy in age.

The Museum of the University of Pennsylvania has certainly many objects good for testing; but I would appreciate best some object of the 20th or 21st Dynasty; there I expect a difference of over 700 years; the period is also under discussion in my next book, *The Peoples of the Sea*, The Oriental Institute of the University of Chicago made extensive digging in Medinet-Habu, near Karnak, where Ramses III's palace was explored; yet I would not know whether they have found any amount of datable

(by cartouche) organic objects. In the Cairo Museum is the mummy of Ramses III (Twentieth Dynasty, rewrapped under the Twenty-first Dynasty) -a few cubic centimeters of the body of the mummy or of the wrapping would suffice; but Dr. Selim Hassan, Director of the Museum, must be willing to cooperate. . . Miss Ralph actually appealed for datable samples of the New Kingdom, because of the divergence of the results (case of Seti I, and of the unpublished, yet hinted at, tests), and expressed the surmise that because of the date of Seti having been fixed astronomically the method must be reevaluated. under the suspicion that cosmic ray influx was different in ages past. As you realize, there are two different cases of discrepancy: in some cases the results of natural catastrophes and the change of the cosmic ray influx are the cause; in other cases, there is no error, and the result reflects a true but not accepted chronology. In the case of Ramses III who in my understanding lived three centuries after the last global catastrophe, we have the best possible case to bring out the error of the conventional chronology. An attempt at Chicago and another at Cairo, and much luck to you.

Very sincerely yours,
Immanuel Velikovsky





April 17, 1961

Claude F. A. Schaeffer
Chaire d'Archeologie de l'Asie Occidentale
College de France

Dear Friend, Professor Schaeffer:

My last letter of February 25th raised once more the question: What is the result of the radiocarbon test on your Merneptah specimen? I have not heard from you. Here is an issue on which we agreed long ago to test the accepted chronology. You first wrote me in July 1956, five years ago almost, and these are your words:

“I offer you gladly the material I have from dated Ras Shamra levels of the time of Amenophis III, IV (Akhnaton), and Ramses II. I could send it over to you for analyses by radiocarbon or, better, you come to collect it in Paris. Your dating could thus be proved or disproved. The lowering of the accepted chronology by 5 to 7 centuries is perhaps not impossible, but seems at the present state of our knowledge improbable. But tests as you suggest (*Earth in Upheaval*, p. 278) would decide.”

Since then I have not left you in peace. Even from my hospital bed in Haifa after surgery I wrote you reminding you your spontaneous offer you made me upon reading my Forum Lecture before the Graduate College of Princeton University, printed as a supplement in *Earth in Upheaval*, with the challenge that radiocarbon on New Kingdom in Egypt should be performed.

Finally in July and August of 1960 you let me know that material is being processed in Philadelphia. You expected the answer by the end of the year (1960). I have not heard from you save in the letter of February 10th that there is no answer yet from Philadelphia. In the meantime it transpired that more than one sample dating from the New Kingdom was examined—also in Chicago—and no test was ever published, apparently under pretext of a suspicion of “contamination” by carbon of other epochs. It [would be] a great service to science if all these “contaminated” cases were made public and thus subjected to scrutiny: Is not a single pattern in the age-displacement?

As long ago as 1950 the Metropolitan Museum of Art sent to Dr. Libby specimens of the New Kingdom; but in eleven years a period of 1350 years in conventional history (-1680 to -330) remained excluded from published results of radiocarbon. Lately, one strange case with a cartouche of Seti I was made known.

Here is a case for you to go to the roots of the issue. Then also you may know whether Velikovsky was right or wrong in a problem that cannot be foreign to you. . .

One of the most amazing spectacles that I have observed is this: Those very men who observed and described the great catastrophes fall back and defend the theory of uniformity with even greater jealousy than their colleagues who never wavered and never were even tempted to question the ever harmonious run of centuries. Here is the case of Professor F. Rainey, presently with the University of Pennsylvania; him I quoted on p. I of “Earth in Upheaval” and please look up: “Wide cuts, often several miles in length” are sliced by giant machines in Alaska; “This ‘muck’ contains enormous numbers of frozen bones of extinct animals such as the mammoth, mastodon, super-bison and horse” (Rainey).

I am in the possession of a letter by Prof. Rainey, whom I just quoted, and it was written to one of my readers. But how different from his own observations. The idea of great catastrophes is entirely strange to him and he asserts that Velikovsky was completely disproven by radiocarbon especially in Egyptian chronology which was proven very exact and many times so in their laboratory and in many other places. Do you know why such proofs were not made public? According to Rainey, the idea they had at the Museum (Penn. University) to write a collective work against Velikovsky is no more necessary, and was dropped. . .

Don’t let the people at Philadelphia pass on another test without a public report or even a report to you. Although in my lecture I did not deal with Ages in Chaos and with the problem of chronology, but it is a high time to disclose the results of radiocarbon tests on objects dating from the New Kingdom.

A ‘pseudoscientist’ demands, now for eight years, a laboratory test of his theory: the true scientists evade the issue supplying instead personal evaluations of their opponent. . .

Cordially,
Immanuel Velikovsky





26 IV (April) 1961

Immanuel Velikovsky

Dear Friend,

Thank you for your letter of April 17th. As the Univ. of Pennsylvania Dept. of Physics has informed me on Feb. 16th that the Ras Shamra samples have accidentally been contaminated with tritium, I have got another lot of samples prepared which will leave in a week or so by ship. On the other hand, there is now a French laboratory going into operation and I have given them a parallel collection of samples. Both results can then be compared later.

I repeat my promise. You will be the first among those who get the information before my publication. Don't worry and be patient. In any case I certainly will not hesitate to publish the results whatever they may be. Because I am not concerned with opinions and chronological schemes, but only with the advance of our knowledge. . . Go on with your research, keep in good health, don't shorten your life by working too strenuously. The truth needs time to sink in. And so we must be in a position to wait.

Cordially yours,
Claude F. A. Schaeffer



Immanuel Velikovsky
78 Harley Avenue
Princeton, New Jersey

December 8, 1961

Dear Mr. Wiseman:

In the Sunday, November 26th, issue of New York Times, p. 139, I found a report (rather garbled) of a rich caché discovered in Nimrud by David Oates, dating from the time of Shalmanassar III. This was good news because I expect that the synchronical scheme of *Ages in Chaos* will find there its validation. Although the newspaper's report omits to reveal the 'period' of Egyptian art presumably imitated in ivory and other material, I am quite confident that the finds must point to Amenhotep III and Akhnaton. Cf., please, *Ages in Chaos*, esp. pp. 320-3 and 327-32.

I shall be very thankful to you if you could inform me where I could gather more information on the found caché and also, if you would wish, to draw the attention of the finder to the circumstances that would made superfluous the assumption of 'fake' and 'imitation' filling large store rooms in the headquarters of the Assyrian army.

The ivories of Nimrud and Samaria will, if I am right, be of the same radiocarbon age as the ivories from the end of the 18th dynasty. The British Museum certainly has—or can procure—specimens for such comparison. It is admitted (letter of A. F. Shore of your Museum, dated August 11, 1960; *Radiocarbon*, volume 3, for 1961, publ. by the *Amer. Journ. of Science*) that the New Kingdom in Egypt and the contemporary Ancient East were not submitted to radiocarbon test; the period from the end of M. K. to the Ptolemies covers over 13 centuries in accepted chronology. Is not such test made now mandatory after the discovery of the 'Egyptian' ivories in Nimrud?

Very sincerely,
Immanuel Velikovsky.





February 13, 1962

Dear Dr. Baker:

May I burden you with a task of importance for the scientific progress? Could you obtain from the Museum, University of Pennsylvania, in an urgent manner, a list of all tests made on objects of the New Kingdom in Egypt (Dynasties 18, 19, and 20) and the radiocarbon results obtained? With the exception of one case (a beam with the name of Seti I of the 19th Dyn.) no result was ever published by the Museum or elsewhere: but it is known that many tests were made on objects dating from the New Kingdom and the results being not in agreement with the accepted chronology were discarded under the assumption of 'contamination.' Such was also the case with a sample of Pharaoh Merneptah of the 19th Dyn. sent to Phila. from Paris by Prof. Claude Schaeffer (excavator of Ras-Shamra-Ugarith). The reply mailed to him read: the object became contaminated in the laboratory. A new portion of the same sample was sent by Prof. Schaeffer more than six months ago and this week Prof. Schaeffer informed me that he has yet no answer.

In my understanding, objects from the New Kingdom must show a younger age, by full 540 years (18th Dyn.), 700 years (19th Dynasty, thus also Merneptah) and even more so in the case of the 20th Dynasty.

A list of all 'unsatisfactory' results covering the New Kingdom in Egypt (in the accepted chronology -1580 to -1140) may happen to suit well the revised chronology (Ages in Chaos). . .

It is certainly most unusual that until today a very important segment of history was left without announced results as to radio-carbon dating.

I wish also to draw your attention to my letter to you on the same subject of January 23, a year ago. If, Dr. Baker, you do not feel that the task offered here can be tackled by you or by your relatives, Family Pew, during the next fortnight, would you kindly let me know so that very precious time should not be lost; then I shall inquire of other possibilities and there will be no overlapping of efforts. I can only assure you that behind this request there is a complex of scientific problems the importance of which cannot be overemphasized. With kind regards,

Very cordially,
Immanuel Velikovsky



April 2, 1962

Dear Dr. Velikovsky:

Please excuse my delay in sending you this report of my inquiries concerning radiocarbon dating of New Kingdom Egyptian materials at the University of Pennsylvania. Due to the absence from Philadelphia of several key people I was delayed in making my inquiries. Afterward I tried to contact you by telephone so as to give you a very prompt report, but was unable to reach you. Then I was taken out of town for several days. And all in all, a much longer period of time has elapsed since our initial discussion of this project than ever I anticipated. However, a sound and successful approach has been made. And I shall not hesitate to return again and again, fully assured of the greatest kindness, helpfulness, and understanding on the part of the University. So perhaps the delay has not been without value.

Mutual friends secured for me a most favorable introduction to Dr. Froelich Rainey, Director of the Museum of the University of Pennsylvania. Dr. Rainey is a vigorous, enthusiastic, obviously very well informed, courteous gentleman in his late middle years. At no time was your name brought up by me or by anyone else at the University. I told Dr. Rainey that I was interested in the latest findings that have bearing on the date of the Exodus. My position as a professor of religion in Ursinus College and a long-time interest in the matter had prompted my quest for information in this area. . .

“The dating of Egyptian history,” said Dr. Rainey, “is one of the most controversial matters in the whole realm of Archaeology today. On the basis of radiocarbon dating we have come up with a very serious difference of 600 years between the old chronology and the radiocarbon evidence! We do not know how to account for it. It seems to extend throughout Egyptian history, but the earlier dates are off more than more recent ones. Fortunately we have an astronomical fix in the time of Seti I, so we are pretty sure of his date, but before him we are in real trouble. Right now our Museum, the British Museum, and the University of Leiden are working furiously to try to find out the cause of the discrepancy.

“Until now, we have had no real radiocarbon yardstick. But lately we have found a special kind of old pine tree in Arizona which we are pretty sure is at least 4200 years old, and we are in the process of taking serial samples of this tree, correlating it with the tree rings, and getting a workable standard. There is some talk of attempting to set up a standard for the radiocarbon dating of that whole area by gathering together and correlating all the radiocarbon dates and tree ring evidence we can obtain from every possible fragment of wood in Ancient Egypt—cedars of Lebanon, and so forth.”

“Is it your opinion then,” I asked Dr. Rainey, “that we may expect some very drastic changes in the dates of early Egyptian history in the next few years’?” He replied: “Yes. And not only in Egypt, but in the dating of the entire Ancient World, especially the Near East.”

Dr. Rainey then called Miss Elizabeth K. Ralph who is in charge of the Radiocarbon Laboratory of the University of Pennsylvania. This laboratory is located in marvelous quarters in the basement of the new Physics Building. A special guide took me to Miss Ralph.

Miss Ralph is a deeply serious, dedicated scientist, whose whole life is bound up with her work. She received me most kindly, was in no wise hurried in answering my inquiries, and most willingly answered all my questions and gave me access to all the information she had!

In addition to confirming everything that Dr. Rainey told me, she furnished me a wealth of other information. She did not seem to be aware of the *600 year* discrepancy, as such, and knew not of the work of the British Museum and the University of Leiden in conjunction with the University of Pennsylvania. She suggested that it must be in connection with a radiocarbon lab not operated by the University of Leiden but located in the Netherlands, for that is the only lab capable of doing such research there.

However, Miss Ralph was insistent on the wide gap between the so-called archaeological dates of Egyptian history and those derived from radiocarbon dated materials. In almost every case the radiocarbon dates are significantly younger. Today, they feel they can date to within an accuracy of 25 years in some instances. I found her working on a huge graph on which she had entered every reported item of radiocarbon Egyptian evidence, plotted against the archaeologically determined dates for the same materials. This graph shows a very unmistakable trend throughout Egyptian history in the interest of younger dates. She is trying to ascertain what the cause may be. This is proving to be a very difficult task. For one thing all the data are not of equal purity, nor of equal value, due to lab errors. The methods of undertaking radiocarbon dating have not been standardized. She said that the Bureau of Standards had re-determined the half-life of Carbon-14 and suggested a revised figure of 5800 years. She said she felt that a more accurate figure would be between that and the old figure of 5568 years.

She too mentioned the pine tree. The tree in question is the Bristle Cone Pine, *pinus aristata*. This tree shows a very small annual growth—quite unlike the giant redwoods. And there have been found to be 6 years per century when no ring of growth is formed. This introduces an error of 6%. But they are hopeful, and still working. . .

Miss Ralph said that everything that she has tested of Egyptian materials has been published. “We would be only too glad to test such material, but it simply has not

been given us. The present Egyptologist at the University is not much interested. In the future it may be different.” . . .

Very sincerely yours,
David W. Baker





January 21, 1963

Ilse Fuhr
Munich, West Germany

Dear Mrs. Fuhr:

Possibly you would be able to perform an important task while you are later in February in Cairo. Prof. Butrus Abd al Malik of Princeton University (Arabic) wrote yesterday to Dr. Zaki Iskander Hanna, the Chief Chemist of the Egyptian Museum (Cairo Museum) that you will visit him. He wrote that a friend of his (he purposely did not mention my name) is interested to perform radiocarbon test on a piece of the mummy of Ramses III for an important work on chronology. (In case it is impossible for him to supply us with a little piece of mummy, then we will need to acquiesce in a piece of wrapping from the mummy—the mummy was rewrapped under the 21st Dynasty.) Prof. al Malik is a friend of Dr. Hanna. . .

In the meantime I may visit in Philadelphia and see whether it will be possible to arrange the test there. The University Museum in Philadelphia (University of Pennsylvania) is the central place for analyses on Egyptology by radiocarbon. Generally it would be preferable that the specimen travel by air from one museum to another in order to avoid later any discussion of contamination.

It would be a great achievement should I be able to include in my forthcoming Peoples of the Sea a section on radiocarbon (performed) test.

Tomorrow I have a meeting with my British publisher (at the office of my American publisher)-they are very eager to have the manuscript of Peoples of the Sea. The lack of any test covering the period was one of the reasons why I have been so slow in producing the manuscript. . .

Cordially,
Immanuel Velikovsky



Jan. 26, 1963

Translated from the German

Dear Dr. Velikovsky,

Yesterday I received your letter, which worries me a good deal: what do you believe / can do for you in this matter, if *Prof. Butrus Abd el Malik* is unable to get something from museum to museum for the purpose of a radiocarbon test? What do you imagine I can do for you? Urge Dr. Zaki I. Hanna to intercede in this matter with the Director of the Cairo Museum? Do you really trust me to be the right person for a matter of such importance? It goes without saying that I wish to help you as far as it lies within my very modest capabilities; only you must indicate to me much more precisely what I am to discuss with Dr. Zaki I. Hanna. I would have to have your letter in my hands by Feb. 16 at the very latest.

The study group we are touring with has changed its plans, in order not to run into the too-hot season at Abu Simbel. As a result only one day is scheduled in Cairo at the beginning of the trip for visiting the pyramids and the necropolis. Only at the end of the trip, from March 12 through March 15, will we be back in Cairo, and then it would be possible to look up Dr. Zaki I. Hanna ...I should call your attention to the fact that *all* letters are censored there—friends of mine who wrote in some detail had the experience that their mail never reached the addressees! -so that you would only be able to give me instructions couched in quite general terms, which I would nevertheless surely understand. Better to write me while I am still in Munich and outline in detail *what* I am to discuss with Dr. Zaki I. Hanna. He will surely be able to speak English, and I do have enough self-confidence for that.

Is the mummy of Ramesses III the only object from the period in question from which something should be requested for C-14 testing? I can imagine that it is considered so inviolable by the Museum officials that they will say no in advance. Are there mummies of his officials or officers which would satisfy the same requirements? Perhaps you could discuss this possibility with Dr. Federn, so that I could at least try to let the University of Pennsylvania have something from one of the less precious pieces. Isn't there anything in any of the other museums that might yield you the desired result if Cairo turns out to be a failure-e.g. British Museum, Louvre, New York? . . .

Ilse Fuhr



February 8, 1963

Dear Mrs. Fuhr:

I am sorry that my last letter caused you some worry. This Tuesday I was in Philadelphia and spoke to Miss Elizabeth Ralph, the head physicist of the Radiocarbon Laboratory of the University of Pennsylvania. I knew her from her published works only: she is a very pleasant person. I was previously reluctant to contact her directly, since the director of the Museum of the University (under whom she works

, Dr. Rainey, is unfavorable toward my theory.

Dr. Ralph is prepared to perform the carbon test on the mummy of Ramses III or on its wrappings. Of the wrappings she would need 20 grams, but of the mummy 50 grams, since the latter material has less carbon per gram. Probably in Cairo they would be sooner prepared to sacrifice some wrapping of this mummy than a piece of itself. But who knows?

Dr. Ralph is reading now my "Ages" and "Earth." She knows Dr. Zaki Iskander Hanna (here they know him as Dr. Zaki Iskander); he spent some time in her laboratory during his stay in the States last year (he brought the Tuth-ankh-Amon exhibition). So if you see Dr. Iskander Hanna you may tell him that Dr. Ralph is rather eager to undertake this test (there is also a test-on the mortuary boats that he asked her to perform). You have had a mistaken impression that there is some difficulty or refusal to have one Museum send the samples to the other Museum; it was not yet asked.

I met Prof. Butrus Abd al Malik, who teaches in Princeton, and who is a friend of Dr. Zaki Iskander Hanna: and al Malik wrote the letter that I have mentioned to you in which he asked on behalf of a friend and for a test of an important problem in chronology that he should, if possible, give you either a piece of mummy or of the wrappings. But, of course, Hanna may send the samples by mail (airmail) and he knows also how to wrap them. It is important that there should be later no suspicion of contamination. Therefore, it is even better if Hanna mails the samples directly to Dr. Ralph: only it is necessary that he does not postpone to do it: later he may forget. Dr. Ralph also told me that in this case there would be no fee charged because she is interested in the results.

Actually this is a fundamental test not only for my work but even more so for the testing of the test. . .

Have together with your husband a very enjoyable time on your excursion to Egypt. I will be very careful in view of the Egyptian censorship; and probably there will be no occasion for me to write to you there. But should there be such occasion, I shall be very conscious of the situation.

Should Dr. Hanna (or Dr. Iskander, if this is his last name) be willing to give you from the mummy of one of the officials of Ramses III instead of the king's, we will have to accept. I do not know how Dr. Hanna stands toward my work, and whether he knows it. If he will demand to know the name of al-Malik's friend, you may tell him. . .

I am certain that the voyage will be very impressive to you because of your interest in the land and its monuments, in art and nature, in history, and the warm climate will do you and your husband good. Much luck to you.

Cordially,
Immanuel Velikovsky





March 20, 1963

Translated from the German

Dear Dr. Velikovsky,

This morning we got back safely, and first on the list will be to write to you, for you will certainly have been waiting eagerly for news.

To enter straightway *medias in res*-a C-14 test can be made in Philadelphia! To be sure, for reasons presently to be explained I failed to get something from the period you mentioned, but got something instead from an absolutely sure source in a reign *after* your key-figure Hatshepsut, namely, from the tomb of Tutankhamun. And now a short chronological report. After failing to meet Dr. Zaki Iskander at first, because he had always just left the place where he was supposed to be, I was able to see him the day before last in Cairo itself. He was exceedingly pleasant. Prof. Malik's letters from Princeton must have opened all the doors, for from the start I perceived his readiness to give me something. We talked at length about the mummy of Ramesses III, about the mummies of officials of his time and their discovery, the rewrapping with mummy-bandages during the XXII Dynasty (not the XXI Dynasty) etc., and I learned to my surprise, and I suppose yours too, that it is by no means certain that the mummy passed off as the mummy of Ramesses III is in fact his. At the time when the discovery was made (so he said) such an indescribable confusion prevailed, and the removal from the pit took place with so little discipline, that afterwards there was no longer any possibility of ascertaining from which coffin which mummy had been taken, not to mention the fact that already before, at the time of the XXII Dynasty, no order could have prevailed at the reburial. So Dr. Zaki Iskander thought that a test of any material from this pit would have to reckon with an improbability figure of about 300 years from the outset, apart from the uncertainty factor that attaches to every analysis of this kind anyway.

I was greatly perplexed and prepared to believe that this was equivalent to a downright refusal. But then Dr. Z. Iskander led me into an adjoining room which contained fragments from tombs in long rows under glass. He looked around for almost half an hour and finally led me to two pieces. One was a black lump of resin from the tomb of Merneptah, the oilier consisted of wooden fragments from the tomb of Tutankhamun. I was so to speak being asked to decide myself what to take, and was quite uncertain what to do. Finally I asked Dr. Z. 1. what *he* would prefer for the most unobjectionable test, and he said at once: the wood. When I asked why (since he might be less willing to give the resin bandages away) he explained to me that inside this lump of resin there were fragments of bandages and of other substances which might be considerably more ancient than the dead ruler himself, and that particularly

the oil for anointing and the resinous substances might come from a more distant past, as for royal embalmments preferably the most precious, most ancient ingredients were used: for this reason, then, a radiocarbon analysis would be liable to some degree of uncertainty from the outset, which could hardly be the case with the wood from the tomb of Tutankhamun, for he would pick out for me pieces which belonged to trees which at the time they were felled could not be old he spoke of an age of about 30 years!—so that on this basis a successful date might best be established.

Unfortunately there was not enough available from one tree, or rather from one kind of wood (i.e. 20 grains) but after some searching 25 grams were collected, which are made up as follows: 1) a larger piece is cedar wood, *Cedrus Libani*, 2) two smaller pieces are Sididar wood, *Zizyphus spina Christi*-and from (1) he selected a piece with more widely separated annual rings which therefore come from a later period of growth of the cedar: to all three pieces Dr. Z. 1. gave a date not older than 30 years at the time they were used. He assured me several times that from these pieces a sure guarantee for dating could be obtained.

So I decided then for the wood. What Dr. Zaki Iskander said about the age of oils for anointing and essences, and the uncertainty factor that is *a priori* present through the differing ages of the various substances inside the lump of resin, made sense to me. Moreover, Hatshepsut can definitely be considered to be the key figure in your rearrangement of the chronology: once the dating of these pieces of wood establishes the incorrectness of the age of the reign of Tutankhamun, until now thought to be certain, in my opinion the chronology of the later rulers too *must* shift in the sense your views require.

Dr. Zaki. Iskander then showed me through the museum, handed me a short historical survey of Egypt's past which comes from his pen, with a dedication, and was, I should like to emphasize again, exceedingly pleasant. I mentioned your name to him, and also brought up whether he would be interested in your book: he said neither yes nor no. merely that only during boat-trips to Luxor, Abu Simbel, etc. does he find time for reading anything oilier than what directly concerns his work: thus I should like to leave it to you or to Dr. Ralph to thank him in some way.

Without more for today, and awaiting your reply on how I am to ship the precious 25 grams of wood, I am

Yours,
Ilse Fuhr





March 27, 1963

Dear Mrs. Fuhr:

I wish I could plant a kiss on your forehead: not just for your achievement in bringing from Cairo a sample of wood that was found in Tutenkhamen tomb, but even more so for the eagerness and the sense of responsibility with which you pursued tile task and which were evident from your letters.

Miss Elizabeth Ralph left during last week or the one before for Rome and I understand that she will have work and rest there. . .It is only on August 1st that Ralph will resume the work in the Lab of the Museum of the University of Pennsylvania. I will write to Mr. Robert Stuckenrath, her assistant, and inquire how we should proceed with the sample and whether tests will be made in Ralph's absence,

In no case would I like to have the wood sent to me. Since I am an interested party, I must be left out of contact with the sample. In the meantime, please, keep it well protected from contamination, which is understood. . .

I feel that you and your husband enjoyed very much the visit to Cairo and that your interest in Egyptology prepared you to view the monuments intelligently, always with a set of two time-tables in your mind. Thanks again!

Cordially yours,
Immanuel Velikovsky

P.S. I have thought of a piece of mummy or of a piece of linen: the latter is usually of recent origin and is derived from a one-year plant; wood can be of an old tree, and the lumber could have been reused, because of the scarcity of trees in Egypt. Lebanon cedars are very old trees. But after having had a start with Dr. Iskander lie may be helpful also in the future. The time of Tutenkhamen is certainly affected by an error of chronology and in my estimate instead of -1350 we should expect -820, before a correction due to the age of the tree. In the case of Ramses III we are much closer to our time (in my estimate the first half of the fourth century-an alterego of Nectanebo 1), and the difference, besides, is almost 800 years between the two schemes. Also my next book will deal with Ramses III. On the other hand, the reading public heard more of Tutenkhamen.



August 4, 1963

Robert Stuckenrath, Jr.
Department of Physics
University of Pennsylvania

Dear Mr. Stuckenrath:

Mrs. Ilse Fuhr wrote me that on June 20th she had mailed 3 pieces of wood (*Cedrus Libani* and *Zizyphus spina Christi*), given to her by Dr. Zaki Iskander Hanna of the Cairo Museum, to you by registered airmail (parcel post). It is possible that you are in the process of testing these samples,

According to Dr. Iskander these pieces of wood are from the tomb of Tutankhamon of the 18th Dynasty. The conventional dating of Tutankhamun places him ca. 1358 before the present era. He reigned for seven or eight years.

In my "Ages in Chaos," a work of a reconstruction and synchronization of ancient history I derived a much more recent timeschedule for the 18th Dynasty, and the time of Tutankhamun—ace. to this chronology—falls into the ninth century, the difference being 540 or 530 years, I have left with Dr. E. Ralph a copy of "Ages in Chaos" and I would like to mail you a copy of this work if you wish to have one. The entire work will comprise three, or possibly, four volumes, and a volume dealing with the 20th Dynasty will soon be given to my publisher.

My original purpose was to have radiocarbon test performed on a mummy, or on wrappings of a mummy, dating from the 20th Dynasty. Wood could be old when cut down and, besides, it could be re-used in a tree-scarce country that Egypt is and was. The great conflagrations that accompanied global upheavals could introduce fossil carbon into the atmosphere. To my understanding, the 20th Dynasty was well removed by several centuries from the last chance of such contamination. But Dr. Iskander chose wood from a well authenticated source (grave of Tutankhamun). My interest in the results of your tests is easily understood.

Mrs. Fuhr will be back to Munich in a few days (August 8th). Ace. to your letter Dr. Ralph is expected back from Europe about this time. Please give her my regards.

Very sincerely,
Immanuel Velikovsky



August 7, 1963

Dear Dr. Velikovsky:

We have received the wood samples sent by Mrs. Ilse Fuhr, but have not dated them yet. We are still in the midst of a long series of samples from the Arctic, and the various Egyptian samples already accepted are scheduled for the late autumn.

As to the new samples from Mrs. Fuhr, we must have the approval of the Director of the University Museum before dating them. I shall bring the matter to his attention when he returns to the Museum after September 1st.

Very truly yours,

Robert Stuckenrath, Jr.



November 6, 1963

Henry Fischer
Associate Curator in Charge
Department of Egyptian Art
The Metropolitan Museum of Art
New York, New York

Dear Mr. Fischer:

As you may possibly know, the Radiocarbon Laboratory of the University of PA is about to start the Egyptological series tests. Its programme on tree-rings completed the next few weeks will be dedicated to testing relics from Egypt. You may also know that for many years I have tried to have certain tests performed in order to check on the accepted timetable and on my revision of it. Dr. Elizabeth Ralph graciously agreed to have a number of samples included in the series which should clarify the issue.

As I see it, the relics of the 18th and 19th dynasties will not disclose their absolute dates by Carbon-14 method, and this because of the effects of a disbalance in the C14-C12 ratio due to catastrophic events with subsequent invasion of fossil carbon from conflagrations into the atmosphere: yet for the purpose of checking on synchronisms, suitable specimens from these dynasties could be compared with Assyrian specimens five to six centuries more recent ace. to the established chronology; should the views expressed in *Ages in Chaos* vol. I have substance, organic relics from these two countries may divulge contemporaneity where no such synchronism is expected.

It is different with the specimens dating from the 20th Dynasty; I assume that absolute dating is possible by the means of carbon tests and I expect substantially more recent dates than the 12th century.

Three little pieces of wood from the tomb of Tutenkhamen will be tested by Dr. Ralph and should some specimens of the time of Shalmanessar III be included in the test there would be a way to check on the accepted dates.

Dr. Ralph agreed to make the tests without a fee since the need was felt in checking Egyptological chronology on the carbon method and vice versa.

I write to you in the hope that the Metropolitan Museum of Art will show interest in exploiting the offered facilities and that you would be willing to select some organic specimens, if the Museum possesses them, of the 20th Dynasty; a piece of mummy

would be a very suitable object, though as Dr. Ralph told me, because of the limited quantity of ash resulting, a little more of a mummy would be necessary than of wood or linen. Linen of the 20th (or 21st) Dynasty would be also a good object because it is derived from a one-year harvest, whereas a tree may have been reused, or its provenience from inside of a trunk or from an outside part of it-or branches, may reflect on the results.

Should you be agreeable to have the Museum part with a few specimens, each of a well determined age as to the dynasties and rulers, please direct them to Dr. Ralph who starts the series test in a matter of a week or so-and please instruct me of your decision.

Very sincerely,
Immanuel Velikovsky





December 10, 1963

Dear Dr. Velikovsky,

As an old friend of Miss Ralph and a former staff member of the University Museum, I am sorry to say that we cannot supply your needs for the series of carbon-14 tests that she is about to undertake. The enormous amount of material that this department has disposed of during the past ten years, through a series of sales to other museums and to the public, has depleted our reserves to the point that we are no longer in a position to supply adequate samples of well-dated wood or linen such as you describe.

Sincerely yours,
Henry G. Fischer



[On **February 25, 1964**, Dr. Ralph wrote to Velikovsky, informing him of the following results*:

| U. of Pa. Lab. No. | Name | Age Calc. with 5568 Half-Life | Age Calc. with 5730 Half-Life |
|-----------------------|--|----------------------------------|----------------------------------|
| P-726 | Wood from coffin of Tutankhamun, 18th Dynasty | 1030 ± 50 B.C. | 1120 ± 52 B.C. |
| P-725 | Pieces of wood from Cheops Boat | 2600 ± 60 B.C. | 2740 ± 62 B.C. |

She noted that the dates calculated with the 5730 half-life are the preferred ones, and that, according to Zaki Iskander, the historical date for P-726 is 1343 B.C. She further wrote that “Since we prefer to release only series of C-14 dates rather than one or two isolated ones, I have included a list and a graph of other C-14 dates for samples from Egypt which have been published previously.”]

**The letter is not reprinted here owing to the objection of the author.*



March 2, 1964

Dear Mrs. Fuhr:

I received from Dr. Elizabeth Ralph the long awaited report and I send you a photocopy. As you see the carbon age is half-way between the orthodox (14th century) and the revised (9th century) dates for Tutenkhamen. In her estimate Miss Ralph did not take into consideration the age of the timber at the time of its use for the tomb. I inquired of her whether or not the two kinds of wood were tested separately. Anyway, the result is in the desirable direction and the adherents of the conventional time table have to explain why the age of the trees is younger by centuries than the presumed date of Tutenkhamon's entombment. . .

If you are going to write to D. Wiseman, let him know the results of the now performed test. You have played an important role in obtaining the samples. All of it reads like a very adventurous tale.

Cordially,
Immanuel Velikovsky



March 2, 1964

Dear Dr. Ralph:

I need many words to express to you my thanks; not to be effusive, I shall say only that the test now performed and reported by you is to me the first achievement in many efforts that span more than a decade, the goal of which was to have the New and Late Kingdoms of Egypt checked by RC.

The answer I usually received was an assertion that the error-margin of the method exceeds by far any uncertainty in historical datings and that therefore the tests are not needed for the period I was concerned with. Now it is clear that the conventional dates for this period, too, are by centuries out of conformity with carbon dates whereas the uncertainty of the method is counted only in decades.

The date you have obtained for the wood from the tomb of Tutenkhamen (either 1030 or 1120, or a figure in between) lies half-way between that of the conventional chronology (-1343) and its revision (ca. -840) as offered in *Ages in Chaos*. But you have not incalculated the age of lumber at the time it was used. Dr. Iskander Hanna said to Mrs. Fuhr that he thought the lumber's age could be 30 years.

Would you kindly tell me: 1) whether the specimens of the two different trees (*Cedrus Libani* and *Zizyphus spina Christi*) were tested separately or summarily, and if separately, what was the carbon age of each of the fragments,

2) whether generally the wood from the inner and the outer rings and from the trunk and the branches show the same carbon age and if not, whether the differences reflect the age of formation (rings)'?

Very cordially,
Immanuel Velikovsky



March 2, 1964

Dear Friend, Professor Schaeffer:

I enclose here a copy of the letter that I have received from the University Museum in Philadelphia. As you see, the carbon age of Tutenkhamon's tomb is ca. 250 years younger than its historical age and is placed half-way between 1360 (Iskander: 1343) and 840 where the reconstruction ("Ages in Chaos") would place it. But one obvious factor is not incalculated in Ralph's figures—the age of wood when used. Dr. Iskander giving the three little pieces of wood to Mrs. Fuhr told her that in his opinion the wood had been not more than 30 years old when used: but how could he know?

First alternative—it is assumed that the wood was over 140 years old when used. 1030 minus 50 (margin of error) minus 140 (age of the wood) = 840 before the present era.

Second alternative—it is assumed that the wood used for the tomb was grown over 171 years after Tutenkhamon's death. 1120 plus 52 (margin of error) plus 171 = 1343 before the present era.

The assumption for the first alternative is reasonable. In Egypt, even stone, less precious, was often re-used. The assumption required for the second alternative is unreasonable.

As you see the result of the Tutenkhamon's probe practically disqualified the result of Seti's specimen. Already when first published, it was supplied with Ralph's cautious remark as to the probability that the branch with Seti's name was most probably re-used. The specimen you have supplied is not entered in Ralph's catalogue of Egyptian specimens because, most probably, there was not more than circumstantial evidence as to its dating in the reign of Merneptah.

There are no valid arguments anymore why the period in the Egyptian history from the end of the Middle Kingdom till the time of the Ptolemies should be excluded from most exhausting and repeated tests. Could you use your authority and influence in persuading the Louvre Museum to participate in such a program. To obtain results that would exclude the possible effects of global catastrophes (change in the influx of cosmic rays, invasion of fossil carbon into the atmosphere) and to tackle the chronological problem—the conventional and the reformed time-tables—some objects from the 9th century Assyria should be compared with the age of the Tutenkhamen's wood. I have also some other plans and I am going to write about them to Professor John Wilson at the Oriental Institute of the University of Chicago. Let us persist!

Cordially yours,
Immanuel Velikovsky





March 3, 1964

Dear Mr. Fischer:

I thought that your answer of December 10 to my letter of November 6 would need no sequel. But I should not withhold from you the yet unpublished result of the carbon test of ca. 25 grams of wood from the tomb of Tutenkhamen. I enclose a copy of the letter I received from Miss Ralph.

I hope that the span of 1680 to 300 B.C.E. in conventional chronology will be submitted to more tests and I wish to believe that the Metropolitan Museum will not keep itself out of this effort only because of having disposed of large quantities of archaeologically suitable material to private hands and other museums, as you have explained in your letter.

Tutenkhamen could have been put to rest in seasoned limber but the wood used for his tomb could not have grown centuries after his death in the 14th century. Some ideas as to future tests are found in my previous letter.

Very sincerely,
Immanuel Velikovsky



March 3, 1964

Dear Friend, Reverend Sizemore:

The attached is a copy of the report sent by the Museum in Phila. The age of the timber when put to use is taken for zero, though it must have been well seasoned, especially because of the purpose for which it was employed.

The adherents of the conventional chronology may claim catastrophes and a subsequent effect on carbon dates; thus they stand before the choice of accepting at least one of my theses—either of Worlds in Collision or of Ages in Chaos.

The effect of the catastrophes—increase in cosmic rays and an invasion of fossil carbon into the atmosphere (from conflagrations) of which the former would tend to decrease the carbon age and the latter to increase it—it can be followed up through a planned program of tests. . .

Very cordially,
Immanuel Velikovsky



March 5, 1964

Dear Dr. Velikovsky,

Thank you for your letter of March 3rd and the enclosed information on carbon tests. I did not mean to imply, of course, that we are unwilling to accord Miss Ralph the same opportunity that we gave other institutions who benefited from our sale of surplus material. The difficulty is simply that the surplus is now exhausted.

Sincerely yours,
Henry G. Fischer



April 6, 1964

Dear Dr. Ralph:

Your kind letter of March 5 made it clear to me that we need to subtract from the date 1030 + 50 B.C., or resp. 1120 + 52 B.C., not only the years that have passed from the day the trees were cut to the day they were used for the tomb but, what is even more significant, also the years from the formation of the rings in the examined samples till the cutting of the trees. In the case of Lebanese cedar, famous for its longevity, no saplings would have been cut for export.

More tests on suitable objects from the New Kingdom are needed, preferably hide, mummy, grain, papyrus, or linen. How good it would be if the Cairo Museum would agree to sacrifice a little piece of the mummy of Ramses III: it is a dream, but it could solve fundamental questions in Egyptian chronology . . .

A correspondent from overseas drew my attention to a paper by H. S. Smith in *Antiquity* (vol. 38, March 1964, pp. 32-37) in which the author-Egyptologist underlines the agreement between the radio-carbon and the "historical" dates back to 2000 B.C.. and the "generally satisfactory sequence of dates before that. . ." It was printed about the time you let me have the results of Tutenkhamon's test.

In an earlier issue (vol. 37, 1963, pp. 213-219) *Antiquity* reprinted Libby's article in *Science* (April 19, 1963). Libby claimed agreement in historical and carbon dates for the New and Late Kingdoms, a period of over twelve hundred years, on the basis of one single test, that of Seti's wood; you have, however, in your report counted with the possibility that the wood had been re-used by Seti; even so, there was some disagreement between the carbon and the accepted dates; to it comes also the element of uncertainty connected with the age of the tree-rings.

Libby counted with the possibility that "the whole historical Egyptian chronology is interlocking and subject to possible systematic errors."

The statement by Smith creates the impression that the radiocarbon analysis decided for the accepted dates, especially for the period under discussion in my work of reconstruction ("Ages in Chaos"), namely (in conventional chronology) from 1580 (or even 1680) to 330 before the present era, and that, therefore, my work is proven wrong. Under those circumstances I, of course, am desirous to see the result of the test on Tutenkhamon's wood made known.

May I inquire for when is the publication of the result planned? Would you possibly

consider communicating it to *Science* before it is printed in the *American Journal of Science (Radiocarbon)*”

Very cordially,
Immanuel Velikovsky





January 3, 1973

To the Editor of *Pensée*
Portland, Oregon

In the May 1972 issue of *Pensée* (page 29) you mentioned a radiocarbon date of palm kernels and reeds from Tutankliamen's tomb. Unfortunately you did not mention the literature reference. We looked at the British Museum data in Radiocarbon but could not find it. We should be very glad if you could give us the exact reference

Yours truly,

G. W. van Oosterhout
Department of Chemistry and

Chemical Engineering

Delft University of

Technology

Delft, The Netherlands



January 29, 1973

Dear Dr. van Oosterhout

Stephen Talbott, the editor of *Pensée*, has referred your letter of January 3 to me for reply. I am the coordinator of a Carbon 14 project which is sponsored by the Foundation for Studies of Modern Science. Inc. The project is being conducted by the Applied Science Center for Archaeology of the University Museum of the University of Pennsylvania. They have been working along with the British Museum in obtaining data for the project.

Enclosed you will find a copy of a letter dated April 6, 1971, from Dr. I. E. S, Edwards, the keeper of Egyptology at the British Museum, addressed to Dr. Henry N. Michael at the University Museum, University of Pennsylvania. You will note the reference on page 2 to the samples #BM-642A and #BM-642B in which you expressed interest. I have for some time been quite curious as to why these results had not been published. "Radiocarbon." In a conversation which I had last October (will) Mr. Burleigh, the director of the laboratory of the British Museum, he stated that he expected that the results would be published "shortly." Upon further questioning, he admitted that results which deviate substantially from what is expected are often discarded and never published. It is my personal opinion that that is what happened in this case.

Just for your further information, the #BM-658 and #BM-659 results differed from the University of Pennsylvania results from the same samples by more than three sigma.

I hope the enclosed information answers your questions. I would be most pleased if you would send me your reaction to the above information.

I travel to the Netherlands quite frequently. Perhaps we could meet sometime for a discussion, if you think that that might be profitable.

Sincerely yours,

A. Bruce Mainwaring



April 19, 1973

Dear Mr. Mainwaring

Thank you very much for your letter of January 29th, 1973 on radiocarbon dates of material from Tutankhamun's tomb. In the mean time we got an answer from the British Museum: "Dear Sir: With reference to your enquiry of 3rd Jan. this laboratory has made no measurements on material from the tomb of Tutankhamun. Yours faithfully, H. Barker."

Apparently Mr. Barker does not know what's going on in his laboratory, to say it kindly. This is much worse than what you said. Deviating results are not only not published, it is even denied that they have been found. . .

Sincerely yours,
G. W. van Oosterhout



University of Glasgow
The Hunterian Museum

August 31st 1973

Dear Dr. Velikovsky,

Having said in my article in the New Scientist last January that the dating of mammoths was one example of a prediction of yours which did not appear to have been born out by subsequent discoveries—most C-14 dates for mammoths being earlier than about 10000 B.C.—I feel a strong obligation to bring to your attention three C-14 dates which have just been done on mammoth bone from Bavaria. They appear in Radiocarbon 15 (1973), 1, p. 114. (Kiel university laboratory).

The site is Tettenhausen, Bavaria, Germany and the dates were done on fragments of a tusk found in a pit near that town. The dating of a bone should of course date the death of the animal concerned. The dates are: —

| | |
|------------|----------------|
| KI.358.031 | 1620 ± 70 B.C. |
| KI.358.041 | 2080 ± 80 B.C. |
| KI.358.041 | 2120 ± 60 B.C. |

If one uses the tree-ring calibration of Suess the dates fall near the end of the 3rd millennium B.C.--perhaps soon after the end of the Old Kingdom? If not they would be coeval with the Middle Kingdom. The dates seem to me a truly remarkable vindication of one of your more controversial ideas. There was not eve a comment in Radio, that the dates might be contaminated in some way and therefore too young. Perhaps I should write a letter to Pensée and draw attention to them. Alternatively you might like to ask Steve Talbott to mention them?

I was glad to see the two new issues of the magazine, which seems to get better all the time, ad particularly glad to hear both that you had recovered well from an illness and were to receive an honorary degree. The latter is surely long overdue but, as you said, understandable to some extent.

There is no need to reply to this.

All good wishes to your wife and yourself.

Yours sincerely,





University of Glasgow
The Hunterian Museum

February 26th 1975

Dear Dr. Velikovsky,

I expect someone has already drawn your attention to my letter in the New Scientist of last April about mammoth dates but I enclose a copy in case no-one has. For some reason I missed it myself at the time.

We are trying to for the nucleus of a society over here for those devoted to studying your ideas rationally. I would like it to be called the Whiston Society after your 17th century predecessor. It is too early yet to tell whether it will get off the ground but our campaign of advertisement has hardly started yet. I have hopes.

I do hope that all is well with you and your family and that you are allowing yourself abundant time for finishing your books. Everyone interested to whom I speak asks when we are to see some more!

With kind regards,

Dr. I. Velikovskky
78 Hartley Avenue,
Princeton,
New Jersey,
USA.

Euan MacKie

[enclosure]

New Scientist, 4 April 1974, p. 39

Velikovsky

Sir,—Regarding your Washington editor's article "Velikovsky in chaos" (7 March, p. 624) may one hope that readers interested in this potentially revolutionary topic will follow the rational advice implied in your accompanying editorial comments and read Velikovsky's works even though this may involve the grave risk of being likened by Mr. Chedd to a guru's acolyte?

The article gives me an opportunity to point out that the example I selected in "A challenge to the integrity of science?" (New Scientist, vol. 57, p. 76) to show that some of Velikovsky's claims have been disproved has turned out since to be not suitable for that purpose. The subject was the time of the final extinction of the mammoths and I noted then that radiocarbon dates for mammoth remains had all turned out to be many thousands of years earlier than the 15th century BC, one of two eras selected by Velikovsky as a possible time for their extinction (the other being the 8th century BC).

However in the journal Radiocarbon (vol. 15, p. 114, 1973) there are published three dates for the bones of a mammoth found in Bavaria which turned out to be ± 70 , 2080 ± 80 and 2120 ± 60 BC (KI 358), an average of about 1975 BC.* Even if they are corrected by the tree-ring calibration these dates still apparently show that mammoths were alive in Germany in late Neolithic times, towards the end of the 3rd millennium BC and not many centuries before the time Velikovsky claimed.

Euan W. Mackie

29 Banavie Road
Glasgow G11 5AW

*misprint = 1940 b.c.





24 April, 1975

The Director, THE BRITISH MUSEUM

Dear Sir:

The above is a photocopy of p. 19 (and the immediately preceding portion of p. 18) from the Winter 1973/74 issue of PENSEE, from Portland, Oregon.

I emigrated from Britain in 1952, but like many other emigrants I retain a great affection and respect for British institutions — especially the most stalwart ones like The Bank of England and (of course) The British Museum.

That the Museum would knowingly suppress facts or knowingly impede progress in its own line (as it were) is quite unthinkable — or should I say ‘WAS’ unthinkable?

I hope you will be able to reassure me that the matter has been rectified -that you have had the courage to “publish and be damned”. You might just as well with the cat out of the bag anyway, and what a nasty smelly fur-bearin’s critter it turns out to be!

Can you imagine an H. M. Bateman cartoon of the Egyptology Department in a state of shock!!!

Yours faithfully,
J. D. H. Iles, M. D.

P. S. If no reply is received, it will have to be assumed, alas, that none is possible. O tempora! O mores!



9 May, 1975

Dr. J. D. H. Iles,
44, Fairfield Road,
Toronto, Ontario

Dear Sir,

I am writing in answer to your letter of 24 April.

The British Museum radiocarbon dating laboratory publishes results only when it is satisfied that both the scientific measurements and the archaeological provenance of the material being measured are impeccable. The measurements identified by numbers BM 642A and BM 642B were of material from the Museum's own collections which could not reliably be associated with Tutankhamun's tomb. The samples were included in a programme of measurements of Egyptian materials of interest both to the British Museum and to the University of Pennsylvania partly because it was hoped that the measurements would finally resolve the question whether they came from Tutankhamun's tomb or not. On the basis of the datings it was decided that the samples did not come from the tomb and, as no other attributions could be suggested and there was no detailed information as to archaeological context, it was decided that the results should not be published. The datings were given in confidence to the University of Pennsylvania where Mr. Mainwaring saw them. Mr. Mainwaring appears to have misunderstood Mr. Burleigh (who is one of the senior staff of the Laboratory but not its head); it is not the case that results which do not conform to a preconceived theory are suppressed but there are, as I expect you know, many problems in the radiocarbon dating of Egyptian material. Mr. Barker's letter to Mr. Van Oosterhout was, therefore, strictly accurate.

Yours faithfully,

G. B. Morris

Secretary



May 14th, 1975

Mr. G. B. Morris
Secretary
The British Museum
London WC1B 3DG

Dear Mr. Morris,

Thank you for taking the time and the trouble to answer my letter about radiocarbon dating of putative XVIIIth Dynasty material. Are you not, however, begging the question rather than resolving it? As I understand it, Tutankhamun's tomb had never been disturbed, by robbers or anyone, until it was discovered; presumably all the precious contents were most carefully catalogued. Surely, then, you either knew or you did not know, already, whether those palm kernels (etc.) came from the tomb; the question of their origin - if it was really in doubt - quite obviously could not be resolved by dating. Contemporaneity would be the utmost that radiocarbon dating — or any other method, indeed — could possibly prove.

I suggest that there were no serious doubts about the origin of the material UNTIL the results of radiocarbon dating.

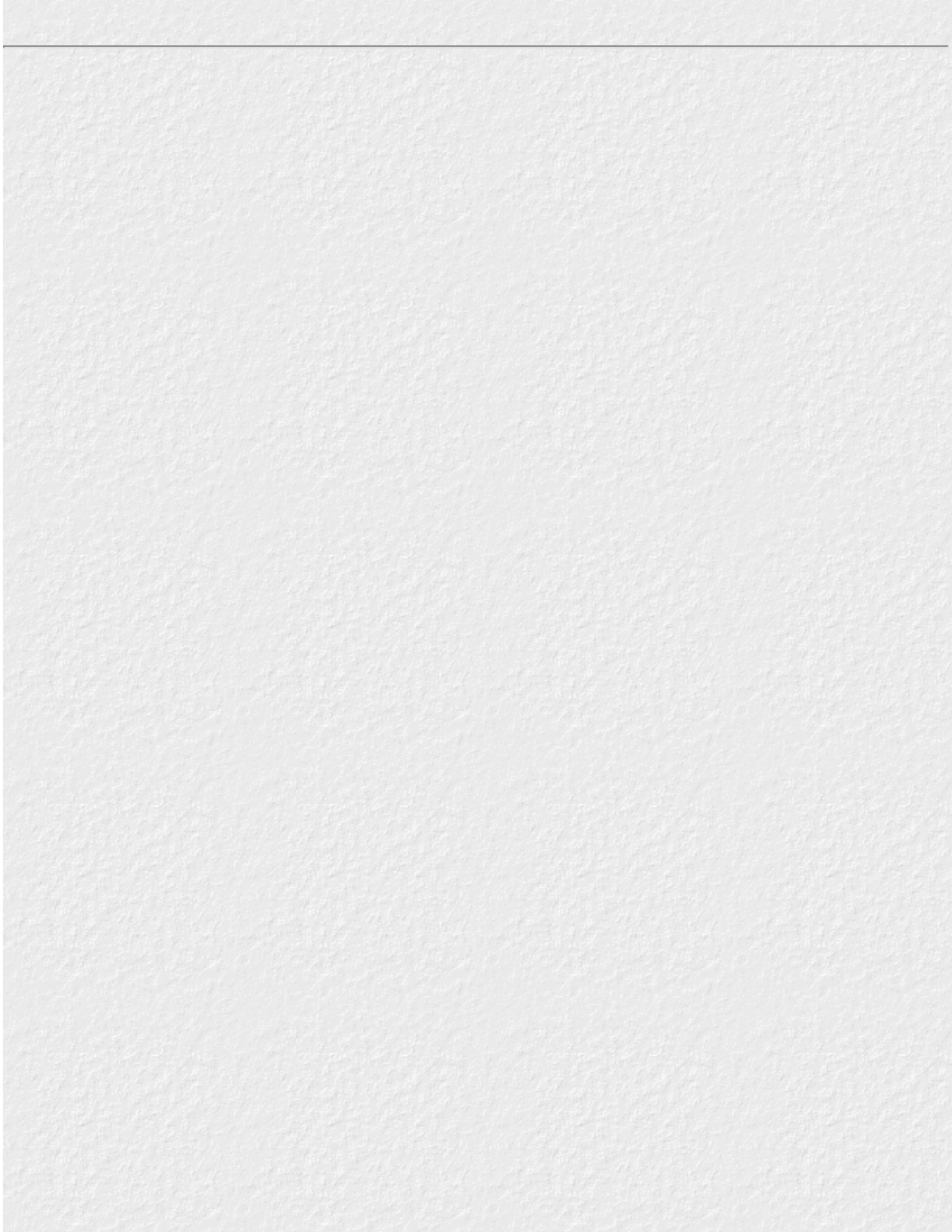
One can only suppose that so much painstaking scholarship and so many reputations are bound up with accepted ancient Egyptian chronology that the archeological Establishment will go to almost any lengths to preserve it intact; anything that doesn't fit — palm kernels or whatever — is quickly jettisoned.

But what about those chips of Cedar-of-Lebanon from Tutankhamun's casket? As you are no doubt aware, radiocarbon dating showed that the wood could not have started to grow as a sapling for at least two centuries after Tutankhamun's death. On the other hand, if Tutankhamun actually died about 850 B.C. — and was buried with the palm kernels —, the Cedar-of-Lebanon used for his casket could easily have been two centuries old or more at that time.

I'm afraid I still think suppression is rife in this field, but the truth cannot be suppressed indefinitely.

Yours faithfully,

J. D. H. Iles, M. D.





17 June, 1975

Dear Dr. Iles,

Thank you for your letter of 14 May.

I am afraid that you have been misinformed about the state of Tutankhamun's tomb. Not only was it entered by thieves in antiquity but, as a result of the collapse of a later tomb from above, there is a strong possibility that some of the material found in the tomb was of more recent date. It is consequently wrong to assume that all the material from the tomb must date from the same period. Furthermore, if any material is to be used as a means of checking on the date of Tutankhamun's death it is necessary to demonstrate that there is no possibility of its being accidentally mislabelled or confused with other Egyptian material during the interval between the opening of the tomb and the time when the material was submitted for dating. The material dated by the Museum's Research Laboratory did not meet these requirements and was dated in order to settle the doubts. Mr. Harold Barker, Keeper of Conservation at the British Museum, having read all the correspondence in *Pensee* concerning the fragments of wood measured by Dr. Ralph, suggests that this material too is by no means sufficiently firmly documented to satisfy these same criteria.

Yours sincerely,

G. B. Morris

Secretary

(Dictated by Mr. Morris, and
signed in his absence)



August 5th, 1975

Dear Mr. Morris,

Thank you for your letter of June 17th.

It suggests that, from the standpoint of conventional Egyptian chronology, the set-up is neat, watertight, and the very embodiment of heads-I-win-tails-you-lose:—

If an object is unquestionably XVIIIth dynasty in origin there would be no point in testing it; the result would be a foregone conclusion because the date is already KNOWN — it would, moreover, be a futile waste of time, energy and precious material! It follows that any object that is submitted for radiocarbon (or other scientific) testing MUST *ipso facto* be of doubtful origin. One is left wondering how long the Establishment can keep it up.

Yours sincerely,

John D. H. Iles, M. B., B.CH.



July 25, 1955

Dear Dr. Velikovsky:

It is pleasant to have a note from you and to realize that you are as active as usual.

Before answering your questions may I presume to suggest that it would help you greatly to read a few chapters in a simple textbook in physics dealing with the production of a spectrum. This would enable you to predict what elements might be expected possibly to occur in the relatively cool atmospheres of the planets.

To recall a few simple facts: a solid body cannot give out a spectrum of lines; if heated sufficiently it will give out a continuous spectrum, but with no lines. Gases, however, when sufficiently heated or energized give out a spectrum consisting of a pattern of bright lines, each element showing its own characteristic pattern. These lines, however, become dark when the light from a continuous spectrum of higher temperature, like the body of the sun, for example, shines through the gases.

The planets, which are relatively cool and give out no light of their own, act like mirrors, reflecting the sunlight to the observer. If a planet, like Mercury, for example, has no atmosphere, its spectrum is merely that of sunlight. If a planet does have an atmosphere, however, the situation may be slightly different. Both the atmosphere and the surface of the planet reflect the sunlight so that the solar spectrum is still the dominating feature, but the light which reaches the surface and is reflected to the observer has traversed the atmosphere twice, once from the sun to the surface, and once from the surface to the observer.

As we all know some of the best-known elements occur as gases even at low temperatures, hydrogen, oxygen, nitrogen, and others which are less abundant. The elements exist in the form of molecules, because the temperatures of the planets are too low to break them up into atoms, and usually show a strong affinity for combination with other elements. So we have H_2O , CO_2 , N_2O , etc. They are also capable of absorbing out of the sunlight a pattern of lines, each characteristic of the molecule concerned. They are called molecular spectra, as distinct from atomic spectra, and provide us with all the spectroscopic evidence we possess about the presence of certain gases in planetary atmospheres. The lines and bands of these gases usually are found in the red or infrared part of the spectrum.

Now to apply these facts and considerations to your questions:

1. The presence of chlorine in Saturn is improbable. It is not an abundant gas,

shows great affinity for chemical combinations, and so far as I know has never been identified with certainty even in the sun or stars.

2. Water or water vapor might be present in the atmosphere of Saturn, but would be completely frozen at the temperature, and hence unobservable.
3. Ionized iron and sulphur could not possibly be present in the atmospheres of Jupiter and Venus, because their spectra are atomic and would require very high temperatures for their production.

You realize, of course, that these negative results apply only to the atmospheres and not the bodies of the planets. It is probable that the latter contain much the same elements as does the body of earth, but in somewhat different relative proportions. Spectroscopic methods can give us no information regarding this question because no spectrum is formed at these comparatively low temperatures.

Sincerely yours ,

Walter S. Adams





The Baker-Velikovsky Correspondence

David W. Baker

[Velikovsky to Baker](#)

[January 23, 1961](#)

[Baker to Velikovsky](#)

[February 13, 1962](#)

[Velikovsky to Baker](#)

[April 2, 1962](#)





ZIONIST ORGANIZATION OF AMERICA

41 EAST 42nd STREET
NEW YORK CITY

Palestine Department
Dr. S. Bernstein, Director

January 22, 1942

Dr. Immanuel Velikovsky,
526 West 113th Street
New York, N.Y.

Dear Dr. Velikovsky:

A few days ago I sent you a reprint of an article of mine and in the meantime before you received it, I got your reprint "[The Dreams Freud Dreamed](#)" which you were kind and thoughtful enough to send me.

I cannot tell you how thrilled I was by this most remarkable contribution of yours. I even sent the copy to my friend, Judge Morris Rothenberg, an admirer of Freud's, and I know he will greatly enjoy it. Let me tell you that if you would have accomplished in New York the publication of this work only, your stay in America would be worthwhile, for that reason alone. Articles like this very seldom appear in the English branch of this field, and I desire to congratulate you upon this unusual achievement of yours. I read it about three days ago and I am still under its spell. If I had some more copies, I would have distributed them among some of our friends who surely would appreciate this Kiddush Hashem.

With kindest regards, I am

Sincerely yours,

(signed) Dr. S. Bernstein

SB: tf





January 18, 1977

Dear Dr. Velikovsky,

One of my hobbies is the geology of the area I live in: north central Washington. While exploring lava flows along a canyon wall, I found these pieces of wood which I am sending in this package. The wood was found beneath a Basalt flow where it rested on a thin layer of sediment. The wood horizon lies beneath 8 basalt flows that total 1200 feet of basalt. The age assigned by geologists to this flow is upper Miocene, or about fifteen to twenty million years BP

As you see, some of the wood is semi-carbonized. But I wish to draw your attention to the pieces that are still brown in color and whose cell structure seems to be intact. I found that this wood will burn when two or three matches are applied to it.

It would be interesting if some of this wood could be radiocarbon dated. I have read that after forty to fifty thousand years there isn't enough Carbon 14 left to give a significant reading. Obviously if this wood were twenty million years old, no sizable reading should show up. But I believe a sizable reading could be obtained.

I found the wood in a place called Douglas Creek Canyon where it joins the Moses Coulee. I enclose two maps of the area. The wood can be found all along the canyon at the contact zone of the lava flow and the sediment horizon.

Sincerely

Mark Buitron

[Note to reader: In June 1977 I sent Dr. Velikovsky details about the C14 dating of the wood samples which I had done at the University of WA. While I have no existing copies of these letters sent to him, the details which I sent about the wood samples can be found at <http://www.geocities.com/CapeCanaveral/Launchpad/8641/page11.html>

—MB, June 11, 1999]



University of Arizona
TUSCON
STEWARD OBSERVATORY

May 29, 1952

Professor Robert H. Pfeiffer,
Department of Semitic Languages and History,
Harvard University,
Cambridge 38, Massachusetts.

Dear Professor Pfeiffer:

In the May number of Harper's Magazine, on page 107, is an advertisement of the Doubleday Company for Velikovsky's new book, "Ages in Chaos." This advertisement quotes you as follows regarding the author's claims in this hook:

"His conclusions are amazing, unheard of, revolutionary, sensational. If his findings are accepted by historians, all present histories for the period before Alexander the Great must be discarded, and completely rewritten. If Dr. Velikovsky is right, this volume is the greatest contribution to the investigation of ancient times ever written."

Read carefully, this quotation is completely non-committal. It could even have "been lifted from a condemning criticism of the book. But, detached in this way from whatever associated context that it may have had, it is clearly intended *by the publishers* to indicate that there is a reasonable likelihood that these "unheard of, . . . sensational" conclusions *will* be accepted by competent historians. Will you please tell me whether you really intended to give this likelihood the weight of your own professional judgment? Or is the publishing industry continuing to live down to the same standard of ethics which characterized its promotion of the same author's preceding book?

I ask this question because, as you surely must know, all competent reviewers have condemned the validity of the same author's antecedent book, "Worlds in Collision," and many have denounced the integrity of its scholarship. Such reviewers include not only scientists but also distinguished scholars of your own field. I refer you to the review in ISIS by Neugebauer, of the Institute for Advanced Study, and to the review in THE AMERICAN JOURNAL OF SCIENCE by a group of Yale faculty members.

I suppose you were not consulted by the publishers regarding any other content of

their advertisement. I invite your attention particularly to the statement at the top of the advertisement to the effect that the book “Worlds in Collision” *rocked the scientific world*. It did not rock any scientific world. It was never even advertised, by either of its publishers, Macmillan or Doubleday, in *any* scientific journal or magazine that I have been able to find in our University Library. On the contrary, the sales promotion was conducted only in publications usually accessible to the scientifically uninformed. The only world that was rocked was the publishing world, because of the ethical nadir to which it descended.

If you wish any confirmation of the opinions expressed in the foregoing paragraph, I take the liberty of suggesting that you might consult either Professor F. L. Whipple, Chairman of your Department of Astronomy, or Dr. Payne-Gaposchkin, Phillips Astronomer in the Harvard. Observatory, both of whom have taken the trouble to express themselves publicly regarding that book.

I have personally been very much interested in the social and ethical phenomena associated with these two publications, and I should appreciate very much your answer to the inquiry of my third paragraph.

Yours very sincerely,

Edwin F. Carpenter (H '22)
Director,
Steward Observatory





July 18, 1955

Dear Professor Cohen:

In your published interview with the late Einstein you refer to the great passion with which he spoke of my book. The reader may conclude that with great passion he opposed my work.

In the last eighteen months of his life, Einstein spent not a few long evenings with me discussing my work, exchanged long handwritten letters with me, read repeatedly my book and also several, some of them extensive, manuscripts, supplied them with marginal notes, in short, showed great interest in my ideas and gave me very much of his time. On a manuscript containing the history of my first book, he wrote what he exactly thinks of “Worlds in Collision”—he wrote it in the very week you have seen him; it is in great disagreement with what I read in your interview. In a letter of March 17, 1955 he made very clear what he thought of my adversaries and their methods of combating my book; and on margins of the pages containing copies of letters confidentially written by some scientists to my publishers with expressions similar to those you ascribe to him, he marked: “miserable.”

I assume that with great passion he spoke against my opponents and their campaign. This does not mean that he agreed with my theories on all points: after many gradual agreements, there remained between us a large area of disagreement, but our debate, orally and in writing, was carried on in the spirit of mutual respect and friendliness. Our last long conversation took place on April 8th, five days after your interview, and nine days before his death. He was rereading my “Worlds in Collision” and he said some encouraging sentences—demonstrating the evolution of his opinion in the space of 18 months.

I assume that the expressions that you mention were not used by Einstein in the meaning you have unintentionally given to them. I think that upon searching your memory you will find that the predominant feature of his in speaking of my book was positive and not negative, sympathetic and not hostile. Would you like to write down a more complete version of that part of your conversation? I believe you would like to have a chance to rectify yourself.

Einstein appears from the portion of your interview dealing with me as

unkind and cynical—and these features were very far from him. And certainly he was not two-faced. It appears to me that the scene you describe is in a final count more damaging to Einstein's memory than to me.

Is not an historian of science, even more than any other scientist, kept under scrutiny by future members of his guild? There can be no greater mishap to an historian of science as when he unwittingly becomes the cause of a distortion of history at its source.

If I understand right, you have not yet made up your mind conclusively as to my position in science as it will find its evaluation by a future generation (see also the advance abstract of your lecture before the Amer. Philos. Soc., April 1952). So why not to learn about a dissident from close? When in Princeton, you are welcome to visit me and read the letters Einstein exchanged with me, his notes on my manuscripts, or any other material that may interest you. You are really welcome.

Immanuel Velikovsky





Nof Yam, Feb.23, 1959

Dear Dr. Velikovsky,

I am just running again through some of the book-excerpts which I made in Paris. There are quite a few with remarks: "to discuss with Dr. V." I know that I wrote you from France, but I have no copies of these letters and I do not know whether you remember the things which you received during your stay in this country. Therefore, to be on the safe side, I shall copy it out:

Père de Vaux: Titres et Fonctionnaires Egyptiens a la Cour de David et de Salomon. Revue Biblique XLVIII (1939), pp. 394-405 Organization the exact parallel of that in Egypt during the XVIII Dyn.

S. Rosenblatt: A Reference to the Egyptian God Re' in the Rabbinic Commetaries on the O. T. Journ. Bibl. Lit. LX (1941), pp. 183-185 Wichtig für A.i.C. I).

F. Petrie: The Making of Egypt. London, 1939 On Plate LXII (pp. 124) he compares Egyptian finds with those from Russia and the Caucasus which are ascribed to earlier periods as they are found together with mammoth bones (refers to an earlier period, 3rd millennium, but may point to some newer sources). XIIth dyn. Many portraits wrongly ("in an irresponsible manner") assigned. p. 142: Hittite and Hyksos.

I. Rabinowitz: Aramaic Inscriptions of the 5th cent. B.C. from a North-Arab Shrine in Egypt. The treasure is in the Brooklyn Museum, New York. It was found in Wadi Tumilat (Biblical Goshen), wo der Planet Venus angebetet wurde (5th cent!). Journ. Near East. Studies XV (1956), pp. 1ff.

B. Bruyère: Rapport sur les Fouilles de Deir el Medineh. Many publications. Time: XVIII dyn. Many Semitic names. In FIFAO XX (1948) p. 69: from the Greek-Roman period one comes immeidately directly to the XVII-XX Dynasties (without interfereing periods!). FIFAO XX, III p. 149: Le dieu Ched. B. thinkgs that a *political event* preceded this introduction of a new god!.

John A. Wilson: The Burden of Egypt. Chicago 1951. Very good chapter on Echnathon!

Raymond Weill: XIIe Dynastie, Royauté de Haute-Egypte et Domination Hyksos. IFAO, T. XXVI, Le Caire, 1953.—speaks about a change of the calendar between the XII and XVII dyn. (p. 157) for unknown reasons. "La th0orie sothiatique est ruiné pour les périodes anciennes"—remains only for Greek-Roman period. Interesting

details about Sethi I (p. 161). Quotes: Sethe; Sethos I und die Erneuerung der Hundesternperiode. Aeg. Z. 66 (1931) pp. 1-7—change of calendar. W. mentions a still unpublished list of Assyrian kings from Khorsabad (eventually published, in the meantime? Partly published: Weidner Archiv f. Orientforschung XIV (1944). Poebel: Journ. Near Eastern Studies I (1942), pp. 247-306, 460-492, II (1943) pp. 56-90. List of Abydos with Semitic names (p. 197).—Borchardt (quoted p. 205): Ein Stammbaum memphitischer Priester. Sitzungsber. Pr. Akad. d. Wiss. XXIV (1932) (list of 60 generations of Memphite priests with occasional mention of the Pharaoh). From *Horemheb* up 11 generations to Ahmes (Weill, p. 207). *There does not remain a single year for Ramses IV-XI!!* (p. 209)

More highly interesting lists see pp. 219ff, 224 ff.—In connection with our sea-captain it might interest you that Sham-gar is composed of two synonyms: Shema=étranger, voyageur (Weill p. 189) and the same meaning has our Hebrew/Canaanite “ger”. Weill wants to bring the XIIth dyn. closer to the XVIII and moves the XII down considerably, though he is less revolutionary with the XVIII, which he moves for 25 years only.

Very interesting in *R. Weill: Bases, Méthodes et Résultats de la Chronologie Egyptienne*, (Original: Paris, 1926) Compléments. 1928—the resistance of the Egyptians to any change in their calendar, according to the Greeks (p. 47 of the ‘compléments’).

Last not least: Richard A. Parker: *The Calendars of the Ancient Egypt*. Chicago, 1950. He comes to the conclusion that prior to the fourth cent. B.C. there is no evidence that any other method than observation was used to begin the month. Very important quotation from *H.E. Winlock: The Origin of the Ancient Egyptian Calendar*” Proceedings of the Amer. Philosoph. Society LXXXIII (1940) pp. 447-64) (quoted p. 39) No trace of a fixed calendar of the ancient Egyptians has been found (so Winlock). P. is against Weill, Sethe etc. p. 52 (Parker) “The civil calendar...was not tied to Sothis but... to some yearly occurrence which was variable...”

There has been an expedition to Sardis, in 1958, which touched Lydian strata (BASOR, Dec. 1958).

I am afraid that is all that I know about these things.

Now comes my problem, in which I should ask your Egyptologist: In case that you are right, and it was Thutmos III who sacked the Jerusalem Temple—and in case that the Tenach is right and he did not touch Israel (I personally believe, that both statements are correct)—the fight can never have taken place at Megiddo, Israelite fortress and far too much to the North. Rehoboam could never have used Megiddo as a foothold. I am inclined to read the name as Makeda (Joshua X, 10,16,17ff; XV,41) a fortress in Judah, which has not yet been localized. As a matter of fact, I remember how disappointed I was when I rode, by car, for the first time through Wadi Ara to Megiddo, as this Wadi is a rather broad valley which does not fit the Annals

description at all! Where can I find the best translation of these Annals? I then shall start to find Makeda!

O, I got my first acknowledgement by an Israeli expert! Braslavsky, who has no University reputation to risk, wrote me a most appreciating letter—it was nice.

Most sincerely yours,

Eva Danelius





SERVICE DES ANTIQUITÉS

LE DIRECTEUR GÉNÉRAL

Le Caire, le 29 mai 1952

Cher Docteur,

Vous avez eu la bonté de me faire envoyer votre beau livre “Ages in Chaos”, que j’ai reçu ce matin, et que j’ai déjà lu presque en entier, tellement il est passionnant et attachant.

Certes, vous bousculez, et avec quel entrain!, beaucoup de nos positions historiques que nous pensions acquises. Mais vous le faites avec une absence totale de préjugés et une information impartiale et complète, qui sont des plus sympathiques. On pourra discuter pied à pied vos conclusions: qu’on les admette ou ne les admette pas, elles auront posé à nouveau les problèmes et obligé à les discuter à fond à la lumière de vos nouvelles hypothèses. Votre beau livre aura été, de toutes façons, très utile à la science.

Je vous remercie chaleureusement de me l’avoir envoyé et je vous prie d’agréer, cher Docteur, l’assurance de mes sentiments de cordial dévouement,

Etienne Drioton

TRANSLATION

Department of Antiquities
General Director

Cairo, May 29, 1952

Dear Doctor,

You have been so kind as to have sent me a copy of your fine book, *Ages in Chaos*, which I received this morning and by now have read almost in its entirety, so stirring and fascinating it is.

You certainly overturn—and with what zest!—many of our historical assumptions, which we have considered established. But you do it with a total absence of prejudice

and with impartial and complete documentation, all of which is most sympathetic. One might dispute your conclusions point by point: whether one admits them or does not admit them, they will have posed the problems afresh and obliged us to discuss them in depth in the light of your new hypotheses. Your fine book will have been in every way very useful to scholarship.

I thank you warmly for having sent it to me and I beg you to accept, dear Doctor, the assurance of my sentiments of cordial devotion.

Etienne Drioton





July 31, 1953

Dr. Immanuel Velikovsky
4 Hartley Avenue
Princeton, N. J.

Dear Mr. Dyen:

The time speeds and before I noticed it the month declined to its end, and I have still before me your letter of July 8th.

From the section "Ahab or Jehoram" you may see that I gave much thought about the letters of Rib-Addi and their authorship. "Was their author the scriptural Ahab or Jehoram, Ahab's son?" I ask there. The arguments for my conclusion are given in that section. You defend the autorship of Jehoram. One of your arguments is that Rib-Addi speaks of "my fathers"; however, it is possible that Omri was related to the royal house. For instance Jehu who replaced the dynasty of Omri is named in Shalmanessar's inscription as of the house of Omri. Kings had many descendants- Ahab who had seventy wives in Samaria, must have also left many children, possible pretenders if left alive by Jehu.

Your other argument in equaling Ramaja to Jehoram, I cannot check at this moment since I have not the Letters of El Amarna before me. But if the king is called persistently in cuneiform Rib Addi, why should he be called there differently? Would it not indicate, if Ramaja was really Jehoram, that he was different from Rib Addi? You have probably noticed in "Ages" that Addi means Ab in Hebrew and Rib means the elder brother or the elder son.

But certainly you are justified in having your interpretation of the events and personalities of that age. Why should you not try and publish your essay, that, in this case, I would suggest to concentrate on this theme: Ahab or Jehoram, as author of El Amarna letters.

I wish that more scholars would have read my book with the same attention. I reciprocate and before I wrote you my first letter, I read your paper twice, and many portions, which I marked by rand notes, a third time.

Very sincerely yours,

Im. Velikovsky





THE VELIKOVSKY CORRESPONDENCE

1922

| Date | Description |
|-------------------------|---|
| | |
| <u>January 15, 1922</u> | <u>Sigmund Freud to Immanuel Velikovsky</u> |
| | |





THE VELIKOVSKY CORRESPONDENCE

1924

| Date | Description |
|----------------------------------|---|
| | |
| January 23, 1924 | Chaim Weizmann to Immanuel Velikovsky |
| | |





THE VELIKOVSKY CORRESPONDENCE

1927

| Date | Description |
|----------------------------------|--|
| | |
| 1927 | Immanuel Velikovsky to Chaim Weizman |
| January 19, 1927 | Immanuel Velikovsky to Chaim Weizman |

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THE VELIKOVSKY CORRESPONDENCE

1931

| Date | Description |
|-------------------------------|--|
| | |
| June 24, 1931 | Sigmund Freud to Immanuel Velikovsky |
| | |



THE VELIKOVSKY CORRESPONDENCE

1932

| Date | Description |
|-----------------------------------|--|
| | |
| February 26, 1932 | Sigmund Freud to Immanuel Velikovsky |
| | |



THE VELIKOVSKY CORRESPONDENCE

1933

| Date | Description |
|----------------------|---|
| | |
| <u>April 6, 1933</u> | <u>Sigmund Freud to Immanuel Velikovsky</u> |
| | |



THE VELIKOVSKY CORRESPONDENCE

1940

| Date | Description |
|--------------------------------|---|
| | |
| March 10, 1940 | Immanuel Velikovsky - The Macmillan Company |
| March 20, 1940 | The Macmillan Company (L. D. Cole) to Immanuel Velikovsky |



THE VELIKOVSKY CORRESPONDENCE

1942

| Date | Description |
|---|--|
| <u>January 22, 1942</u> | <u>S. Bernstein to Immanuel Velikovsky</u> |
| <u>July 22, 1942</u> | <u>Robert H. Pfeiffer to Harry A. Wolfson</u> |
| <u>August 18, 1942</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>August 24, 1942</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>September, 1942</u> | <u>Immanuel Velikovsky to Walter Federn</u> |



THE VELIKOVSKY CORRESPONDENCE

1943

| Date | Description |
|---------------------------------|---|
| | |
| March 12, 1943 | Immanuel Velikovsky to Robert H. Pfeiffer |
| April 14, 1943 | Immanuel Velikovsky to Robert H. Pfeiffer |
| April 17, 1943 | Robert H. Pfeiffer to Immanuel Velikovsky |
| J[une 15, 1943] | Alan Gardiner to Immanuel Velikovsky |



THE VELIKOVSKY CORRESPONDENCE

1944

| Date | Description |
|---|--|
| | |
| <u>January 10, 1944</u> | <u>Immanuel Velikovsky to H. T. Hatcher</u> |
| <u>March 17, 1944</u> | <u>Immanuel Velikovsky to H. T. Hatcher</u> |
| <u>July 6, 1944</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>July 12, 1944</u> | <u>Robert H. Pfeiffer to H. T. Hatcher</u> |
| <u>July 17, 1944</u> | <u>Immanuel Velikovsky to H. T. Hatcher</u> |



THE VELIKOVSKY CORRESPONDENCE

1945

| Date | Description |
|--|--|
| <u>June 29, 1945</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>July 2, 1945</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>July 16, 1945</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>October 11, 1945</u> | <u>Roger L. Scaife to Immanuel Velikovsky</u> |
| <u>October 15, 1945</u> | <u>W. S. Ferguson to Roger L. Scaife</u> |
| <u>November 25, 1945</u> | <u>Immanuel Velikovsky to W. S. Ferguson</u> |
| <u>November 25, 1945</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>November 27, 1945</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>December 6, 1945</u> | <u>W. S. Ferguson to Immanuel Velikovsky</u> |



THE VELIKOVSKY CORRESPONDENCE

1946

| Date | Description |
|---|--|
| <u>April 20/21, 1946</u> | <u>Walter Federn to Immanuel Velikovsky</u> |
| <u>May 22, 1946</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>May 30, 1946</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>June 13, 1946</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>July 8, 1946</u> | <u>Albert Einstein to Immanuel Velikovsky</u> |
| <u>July 16, 1946</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>September 19, 1946</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>October 8, 1946</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>December 7, 1946</u> | <u>Walter Federn to Immanuel Velikovsky</u> |
| <u>December 9, 1946</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>December 11, 1946</u> | Walter Federn to Immanuel Velikovsky |



THE VELIKOVSKY CORRESPONDENCE

1947

| Date | Description |
|------------------------------------|--|
| February 6, 1947 | Walter Federn to Immanuel Velikovsky |
| February 13, 1947 | Immanuel Velikovsky to Walter Federn |
| February 21, 1947 | Walter Federn to Immanuel Velikovsky |
| March 31, 1947 | Immanuel Velikovsky to Harlow Shapley |
| May 21, 1947 | Walter Federn to Immanuel Velikovsky |
| June 27, 1947 | Immanuel Velikovsky to Walter Federn |
| June 30, 1947 | Robert H. Pfeiffer to Immanuel Velikovsky |
| July 13, 1947 | Walter Federn to Immanuel Velikovsky |
| July 14, 1947 | Walter Federn to Immanuel Velikovsky |
| July 16, 1947 | Immanuel Velikovsky to Robert Pfeiffer |
| July 30, 1947 | Walter Federn to Immanuel Velikovsky |
| August 4, 1947 | Immanuel Velikovsky to Walter Federn |
| August 8, 1947 | Walter Federn to Immanuel Velikovsky |
| September 12, 1947 | Immanuel Velikovsky to Samuel A. B. Mercer |
| September 27, 1947 | Walter Federn to Immanuel Velikovsky |
| September 30, 1947 | Immanuel Velikovsky to Walter Federn |
| October 23, 1947 | Lawrence S. Kubie to Clifton Fadiman |
| November 4, 1947 | Walter Federn to Immanuel Velikovsky |





THE VELIKOVSKY CORRESPONDENCE

1948

| Date | Description |
|---|--|
| | |
| <u>January, 1948</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>January 8, 1948</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 21, 1948</u> | <u>Ted O. Thackrey to Immanuel Velikovsky ('Observer')</u> |

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THE VELIKOVSKY CORRESPONDENCE

1949

| Date | Description |
|-------------------------------------|--|
| | |
| <u>Spring 1949</u> | <u>Robert H. Pfeiffer to The Macmillan Co.</u> |
| <u>May 6, 1949</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>May 13, 1949</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |





THE VELIKOVSKY CORRESPONDENCE

1950

| Date | Description |
|--|---|
| | |
| <u>January 18, 1950</u> | <u>Harlow Shapley to The Macmillan Company (Editorial Department)</u> |
| <u>January 24, 1950</u> | <u>The Macmillan Company (James Putnam) to Harlow Shapley</u> |
| <u>January 25, 1950</u> | <u>Harlow Shapley to The Macmillan Company (James Putnam)</u> |
| <u>February 1, 1950</u> | <u>The Macmillan Company (George Brett) to Harlow Shapley</u> |
| <u>February 13, 1950</u> | <u>E. M. Thorndike to Macmillan Co.</u> |
| <u>February 14, 1950</u> | <u>C. W. van der Merwe to The Macmillan Company (H. B. McCurdy)</u> |
| <u>February 14, 1950</u> | <u>Clarence S. Sherman to The Macmillan Co.(H. B. McCurdy)</u> |
| <u>February 17, 1950</u> | <u>The Macmillan Co. (George Brett) to C. L. Skelley</u> |
| <u>February 20, 1950</u> | <u>Harlow Shapley to Ted O. Thackrey</u> |
| <u>March 7, 1950</u> | <u>Ted O. Thackrey to Harlow Shapley</u> |
| <u>March 8, 1950</u> | <u>Harlow Shapley to Ted O. Thackrey</u> |
| <u>April 10, 1950</u> | <u>Ted O. Thackrey to Harlow Shapley</u> |
| <u>June 6,1950</u> | <u>Harlow Shapley to Ted O. Thackrey</u> |
| <u>June 27, 1950</u> | <u>Fulton Oursler to McLaughlin</u> |
| <u>July 25, 1950</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>July 28, 1950</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>July 31, 1950</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>November 10, 1950</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |

November 16, 1950

Robert H. Pfeiffer to Immanuel Velikovsky

December 1, 1950

Abraham Tulin to Immanuel Velikovsky

December 6, 1950

Immanuel Velikovsky to Robert H. Pfeiffer





THE VELIKOVSKY CORRESPONDENCE

1951

| Date | Description |
|--|--|
| <u>January 5, 1951</u> | <u>Albert Einstein to Immanuel Velikovsky</u> |
| <u>January 27, 1951</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>June 28, 1951</u> | <u>Abraham Tulin to Immanuel Velikovsky</u> |
| <u>July 3, 1951</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>August 31, 1951</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>September 7, 1951</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>October 13, 1951</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>October 19, 1951</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |



THE VELIKOVSKY CORRESPONDENCE

1952

| Date | Description |
|---|--|
| | |
| <u>February 5, 1952</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>April 10, 1952</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>May 1, 1952</u> | <u>Harlow Shapley to Robert H. Pfeiffer</u> |
| <u>May 29, 1952</u> | <u>Edwin F. Carpenter to Robert H. Pfeiffer</u> |
| <u>May 29, 1952</u> | <u>Etienne Drioton to Immanuel Velikovsky</u> |
| <u>June 6, 1952</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>August 26, 1952</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>August 27, 1952</u> | <u>Albert Einstein to Immanuel Velikovsky</u> |
| <u>September 10, 1952</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>December 4, 1952</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |



THE VELIKOVSKY CORRESPONDENCE

1953

| Date | Description |
|---|--|
| | |
| <u>July 31, 1953</u> | <u>Immanuel Velikovsky to Samuel Dyen</u> |
| <u>August 21, 1953</u> | <u>Immanuel Velikovsky to Samuel Dyen</u> |
| <u>September 28, 1953</u> | <u>Walter Federn to Immanuel Velikovsky</u> |
| <u>October 6, 1953</u> | <u>Walter Federn to Immanuel Velikovsky</u> |
| <u>October 7, 1953</u> | <u>Immanuel Velikovsky to W. F. Libby</u> |
| <u>October 13th, 1953</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 27, 1953</u> | <u>W. F. Libby to Immanuel Velikovsky</u> |
| <u>November 4, 1953</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>November 7, 1953</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>November 30, 1953</u> | <u>Walter Federn to Immanuel Velikovsky</u> |
| <u>December 13, 1953</u> | <u>Immanuel Velikovsky to Walter Federn</u> |



THE VELIKOVSKY CORRESPONDENCE

1954

| Date | Description |
|---|--|
| <u>January 6, 1954</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>February 19, 1954</u> | <u>Immanuel Velikovsky to Lyman Spitzer</u> |
| <u>February 23, 1954</u> | <u>Immanuel Velikovsky to Frederick Johnson</u> |
| <u>February 26, 1954</u> | <u>Lyman Spitzer to Immanuel Velikovsky</u> |
| <u>March 12, 1954</u> | <u>Frederick Johnson to Immanuel Velikovsky</u> |
| <u>April 29, 1954</u> | <u>Immanuel Velikovsky to the brother of Walter Federn</u> |
| <u>May 21, 1954</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>May 22, 1954</u> | <u>Albert Einstein to Immanuel Velikovsky</u> |
| <u>June 16, 1954</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>September 17, 1954</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |



THE VELIKOVSKY CORRESPONDENCE

1955

| Date | Description |
|--|--|
| <u>January 11, 1955</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>January 21, 1955</u> | <u>Francis J. Asip to Immanuel Velikovsky</u> |
| <u>February 2, 1955</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>February 7, 1955</u> | <u>Immanuel Velikovsky to Francis J. Asip</u> |
| <u>March 7, 1955</u> | <u>Immanuel Velikovsky to Albert Einstein</u> |
| <u>March 15, 1955</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>March 17, 1955</u> | <u>Albert Einstein to Immanuel Velikovsky</u> |
| <u>June 3, 1955</u> | <u>Immanuel Velikovsky to William C. Hayes</u> |
| <u>June 8, 1955</u> | <u>Walter Federn to Immanuel Velikovsky</u> |
| <u>July 11, 1955</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>July 18, 1955</u> | <u>Immanuel Velikovsky to I. Bernard Cohen</u> |
| <u>July 25, 1955</u> | <u>Walter S. Adams to Immanuel Velikovsky</u> |
| <u>August 24, 1955</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>September 1, 1955</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>December 20, 1955</u> | <u>Abraham Tulin to Immanuel Velikovsky</u> |





THE VELIKOVSKY CORRESPONDENCE

1956

| Date | Description |
|---|--|
| <u>April 20, 1956</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>May 29, 1956</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>September 16, 1956</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>September 28, 1956</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>November 6, 1956</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>July 23, 1956</u> | <u>Claude Schaeffer to Immanuel Velikovsky</u> |
| <u>December 5, 1956</u> | <u>Immanuel Velikovsky to Harry H. Hess</u> |



THE VELIKOVSKY CORRESPONDENCE

1957

| Date | Description |
|--|--|
| | |
| <u>January 2, 1957</u> | <u>Harry H. Hess to Immanuel Velikovsky</u> |
| <u>February 26, 1957</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>March 8, 1957</u> | <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> |
| <u>March 13, 1957</u> | <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> |
| <u>April 16, 1957</u> | <u>Walter Federn to Immanuel Velikovsky</u> |
| <u>July 9, 1957</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>August 5, 1957</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>August 19, 1957</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 5, 1957</u> | <u>Immanuel Velikovsky to Walter Federn</u> |



THE VELIKOVSKY CORRESPONDENCE

1959

| Date | Description |
|--|---|
| <u>January 7, 1959</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>January 20, 1959</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>February 23, 1959</u> | <u>Eva Danelius to Immanuel Velikovsky</u> |
| <u>March 16, 1959</u> | <u>Immanuel Velikovsky to Eva Danelius</u> |
| <u>August 30, 1959</u> | <u>Eva Danelius to Immanuel Velikovsky</u> |



THE VELIKOVSKY CORRESPONDENCE

1960

| Date | Description |
|---|---|
| <u>April 10, 1960</u> | <u>Immanuel Velikovsky to Mrs. Frank E. Siple</u> |
| <u>April 18, 1960</u> | <u>Mrs. Frank E. Siple to Immanuel Velikovsky</u> |
| <u>April 24, 1960</u> | <u>Immanuel Velikovsky to Mrs. Frank E. Siple</u> |
| <u>July 16, 1960</u> | <u>Immanuel Velikovsky to Theodore Lasar</u> |
| <u>July 22, 1960</u> | <u>Immanuel Velikovsky to D. J. Wiseman</u> |
| <u>August 11, 1960</u> | <u>A. F. Shore to Immanuel Velikovsky</u> |
| <u>August 18, 1960</u> | <u>Immanuel Velikovsky to A. F. Shore</u> |
| <u>August 18, 1960</u> | <u>Immanuel Velikovsky to D. J. Wiseman</u> |
| <u>September 16, 1960</u> | <u>I. E. S. Edwards to Immanuel Velikovsky</u> |
| <u>September 29, 1960</u> | <u>Benjamin N. Adams to Immanuel Velikovsky</u> |
| <u>November 3, 1960</u> | <u>Immanuel Velikovsky to I. E. S. Edwards</u> |
| <u>November 15, 1960</u> | <u>I. E. S. Edwards to Immanuel Velikovsky</u> |
| <u>November 18, 1960</u> | <u>R. A. Higgins to Immanuel Velikovsky</u> |



THE VELIKOVSKY CORRESPONDENCE

1961

| Date | Description |
|---|--|
| | |
| <u>January 23, 1961</u> | <u>Immanuel Velikovsky to David W. Baker</u> |
| <u>April 17, 1961</u> | <u>Immanuel Velikovsky to Claude Schaeffer</u> |
| <u>April 26, 1961</u> | <u>Claude Schaeffer to Immanuel Velikovsky</u> |
| <u>December 8, 1961</u> | <u>Immanuel Velikovsky to D. J. Wiseman</u> |



THE VELIKOVSKY CORRESPONDENCE

1962

| Date | Description |
|--|--|
| | |
| <u>February 13, 1962</u> | <u>David W. Baker to Immanuel Velikovsky</u> |
| <u>April 2, 1962</u> | <u>Immanuel Velikovsky to David W. Baker</u> |
| <u>April 14, 1962</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>May 7, 1962</u> | <u>Immanuel Velikovsky to Zvi Rix</u> |



THE VELIKOVSKY CORRESPONDENCE

1963

| Date | Description |
|------------------------------------|---|
| January 21, 1963 | Immanuel Velikovsky to Ilse Fuhr |
| January 26, 1963 | Ilse Fuhr to Immanuel Velikovsky |
| February 8, 1963 | Immanuel Velikovsky to Ilse Fuhr |
| March 15, 1963 | Harry H. Hess to Immanuel Velikovsky |
| March 20, 1963 | Ilse Fuhr to Immanuel Velikovsky |
| March 27, 1963 | Immanuel Velikovsky to Ilse Fuhr |
| April 24, 1963 | Zvi Rix to Immanuel Velikovsky |
| April 29, 1963 | Immanuel Velikovsky to Zvi Rix |
| May 7, 1962 | Immanuel Velikovsky to Zvi Rix |
| August 4, 1963 | Immanuel Velikovsky to Robert Stuckenrath |
| August 7, 1963 | Robert Stuckenrath to Immanuel Velikovsky |
| September 11, 1963 | Immanuel Velikovsky to Harry H. Hess |
| October 25, 1963 | Immanuel Velikovsky to Zvi Rix |
| October 30, 1963 | Zvi Rix to Immanuel Velikovsky |
| November 4, 1963 | Immanuel Velikovsky to Zvi Rix |
| November 6, 1963 | Immanuel Velikovsky to Henry Fischer |
| December 10, 1963 | Henry Fischer to Immanuel Velikovsky |
| December 18, 1963 | Immanuel Velikovsky to Zvi Rix |



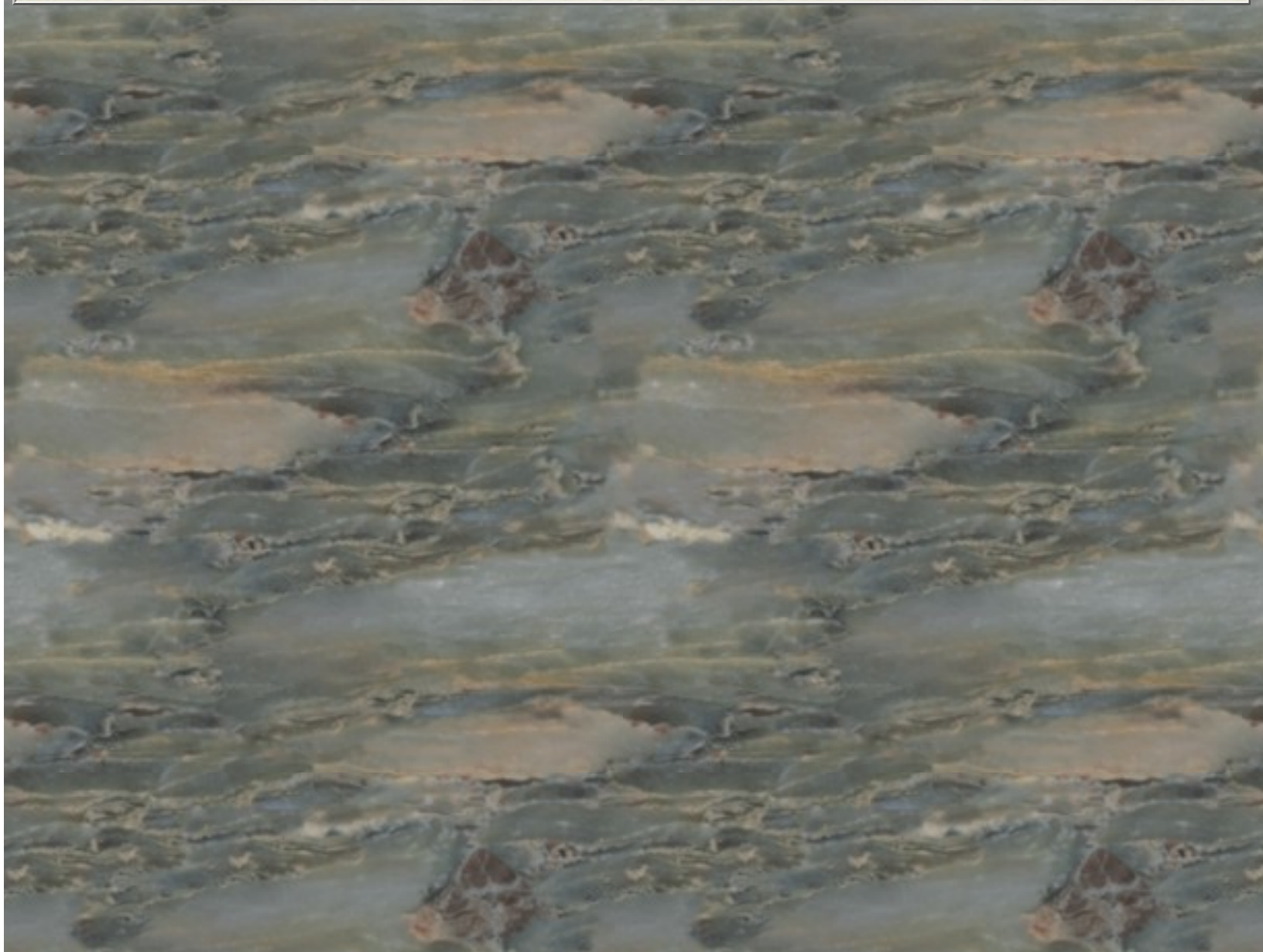


THE VELIKOVSKY CORRESPONDENCE

1964

| Date | Description |
|---|--|
| | |
| <u>January 2, 1964</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>January 7, 1964</u> | <u>Immanuel Velikovsky to Zvi Rix</u> |
| <u>January 19, 1964</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>February 1, 1964</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>March 2, 1964</u> | <u>Immanuel Velikovsky to Ilse Fuhr</u> |
| <u>March 2, 1964</u> | <u>Immanuel Velikovsky to Elizabeth K. Ralph</u> |
| <u>March 2, 1964</u> | <u>Immanuel Velikovsky to Claude Schaeffer</u> |
| <u>March 3, 1964</u> | <u>Immanuel Velikovsky to Henry Fischer</u> |
| <u>March 3, 1964</u> | <u>Immanuel Velikovsky to Warner B. Sizemore</u> |
| <u>March 4, 1964</u> | <u>Immanuel Velikovsky to Zvi Rix</u> |
| <u>March 5, 1964</u> | <u>Henry Fischer to Immanuel Velikovsky</u> |
| <u>March 18, 1964</u> | <u>Immanuel Velikovsky to Zvi Rix</u> |
| <u>March 31, 1964</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>April 6, 1964</u> | <u>Immanuel Velikovsky to Elizabeth K. Ralph</u> |
| <u>April 7 1964</u> | <u>Immanuel Velikovsky to Zvi Rix</u> |
| <u>April 12, 1964</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>June 17, 1964</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>June 22, 1964</u> | <u>Walter Federn to Immanuel Velikovsky</u> |

| | |
|---------------------------|---|
| <u>June 25, 1964</u> | <u>Immanuel Velikovsky to Zvi Rix</u> |
| <u>June 26, 1964</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>June 30, 1964</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>July 1, 1964</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>August 3, 1964</u> | <u>Immanuel Velikovsky to Zvi Rix</u> |
| <u>August 18, 1964</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>September 15, 1964</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 11, 1964</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>December 11, 1964</u> | <u>Immanuel Velikovsky to Walter Federn</u> |





THE VELIKOVSKY CORRESPONDENCE

1965

| Date | Description |
|----------------------------------|--|
| | |
| December 5, 1965 | Immanuel Velikovsky to Walter Federn |
| | |





THE VELIKOVSKY CORRESPONDENCE

1967

| Date | Description |
|--------------------------------|--|
| | |
| May 26, 1967 | Zvi Rix to Immanuel Velikovsky |
| March 14, 1967 | Immanuel Velikovsky to Harry H. Hess |
| | |



THE VELIKOVSKY CORRESPONDENCE

1968

| Date | Description |
|-------------------------------|---|
| | |
| March 9, 1968 | Betty Hill to Immanuel Velikovsky |
| | |
| | |
| | |



THE VELIKOVSKY CORRESPONDENCE

1969

| Date | Description |
|---------------------------------------|---|
| <u>May 19, 1969</u> | <u>Immanuel Velikovsky to Harry H. Hess</u> |
| <u>July 2, 1969</u> | <u>Immanuel Velikovsky to Harry H. Hess</u> |
| <u>August 7, 1969</u> | <u>Immanuel Velikovsky to Harry H. Hess</u> |





THE VELIKOVSKY CORRESPONDENCE

1972

| Date | Description |
|-----------------------------------|---|
| 1972 | Immanuel Velikovsky to Zvi Rix |
| August 14, 1972 | Bruce Fraser to Immanuel Velikovsky |
| August 23, 1972 | Kimball S. Erdman to Immanuel Velikovsky |
| August 26, 1972 | Frederic B. Jueneman to Immanuel Velikovsky |
| August 30, 1972 | John Nation to Immanuel Velikovsky |
| November 17, 1972 | Zvi Rix to Immanuel Velikovsky |



THE VELIKOVSKY CORRESPONDENCE

1973

| Date | Description |
|--|--|
| | |
| <u>April 12, 1973</u> | <u>J. Oshiro to I. Velikovsky</u> |
| <u>April 30, 1973</u> | <u>I. Velikovsky to J. Oshiro</u> |
| <u>August 31, 1973</u> | <u>Euan W. MacKie to Immanuel Velikovsky</u> |





THE VELIKOVSKY CORRESPONDENCE

1974

| Date | Description |
|-----------------------------------|--|
| | |
| April 20, 1974 | Zvi Rix to Immanuel Velikovsky |
| July 3, 1974 | Immanuel Velikovsky to Zvi Rix |
| July 9, 1974 | Zvi Rix to Immanuel Velikovsky |
| December 19, 1974 | Zvi Rix to Immanuel Velikovsky |



THE VELIKOVSKY CORRESPONDENCE

1975

| Date | Description |
|--|--|
| | |
| <u>January 23, 1975</u> | <u>John Holbrook, Jr. to Immanuel Velikovsky</u> |
| <u>January 29, 1975</u> | <u>Immanuel Velikovsky to David Talbott</u> |
| <u>February 26, 1975</u> | <u>Euan MacKie to Immanuel Velikovsky</u> |

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THE VELIKOVSKY CORRESPONDENCE

1976

| Date | Description |
|--|---|
| | |
| <u>February 23, 1976</u> | <u>Walter Kaufmann to Immanuel Velikovsky</u> |
| <u>February 26, 1976</u> | <u>Lynn E. Rose to Immanuel Velikovsky</u> |
| <u>March 29, 1976</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |





THE VELIKOVSKY CORRESPONDENCE

1977

| Date | Description |
|---|---|
| <u>January 18, 1977</u> | <u>Mark Buitron to Immanuel Velikovsky</u> |
| <u>January 20, 1977</u> | <u>Zvi Rix to Immanuel Velikovsky</u> |
| <u>February 7, 1977</u> | <u>Immanuel Velikovsky to Mark Buitron</u> |
| <u>March 10, 1977</u> | <u>Milton Zysman to Immanuel Velikovsky</u> |
| <u>April 14, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>May 2, 1977</u> | <u>E. R. Langenbach to Editor of New York Times</u> |
| <u>May 5, 1977</u> | <u>Christoph Marx to Lynn E. Rose</u> |
| <u>May 5, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>May 6, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>May 9, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>May 11, 1977</u> | <u>Immanuel Velikovsky to Lynn E. Rose</u> |
| <u>May 16, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>May 17, 1977</u> | <u>Immanuel Velikovsky to Dieter Curths</u> |
| <u>July 19, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>July 20, 1977</u> | <u>C. Leroy Ellenberger to Immanuel Velikovsky</u> |
| <u>July 25, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>August 6, 1977</u> | <u>Jan Sammer to C. Leroy Ellenberger</u> |
| <u>August 30, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |

| | |
|--|--|
| <u>October 16, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>October 20, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>October 23, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>October 24, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>November 1, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>November 8, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>November 21, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>November 22, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>November 22, 1977</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>November 28, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>November 30, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>December 8, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>December 14, 1977</u> | <u>Jan Sammer to Christoph Marx</u> |
| <u>December 22, 1977</u> | <u>Lynn E. Rose to Elisheva Velikovsky</u> |
| <u>December 26, 1977</u> | <u>Christoph Marx to Jan Sammer</u> |
| <u>December 27, 1977</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |





THE VELIKOVSKY CORRESPONDENCE

1978

| Date | Description |
|--|--|
| <u>January 9, 1978</u> | <u>Jan Sammer to Christoph Marx</u> |
| <u>January 10, 1978</u> | <u>Jan Sammer to Lynn E. Rose</u> |
| <u>January 22, 1978</u> | <u>Christoph Marx to Jan Sammer</u> |
| <u>January 29, 1978</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>February 12, 1978</u> | <u>Jan Sammer to Christoph Marx</u> |
| <u>February 20, 1978</u> | <u>Christoph Marx to Jan Sammer</u> |
| <u>March 1, 1978</u> | <u>Elisheva Velikovsky to Christoph Marx</u> |
| <u>March 1, 1978</u> | <u>Jan Sammer to Christoph Marx</u> |
| <u>March 12, 1978</u> | <u>Christoph Marx to Elisheva Velikovsky</u> |
| <u>March 13, 1978</u> | <u>Christoph Marx to Jan Sammer</u> |
| <u>March 23, 1978</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>March 26, 1978</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>April 13, 1978</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>May 17, 1978</u> | <u>Jan Sammer to Christoph Marx</u> |
| <u>May 23, 1978</u> | <u>Christoph Marx to Jan Sammer</u> |
| <u>June 6, 1978</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>July 14, 1978</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>October 22, 1978</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |

October 30, 1978

Edwin Schorr to Immanuel Velikovsky

October 30, 1978

Edwin Schorr to Jan Sammer

December 22, 1978

Christoph Marx to Immanuel Velikovsky



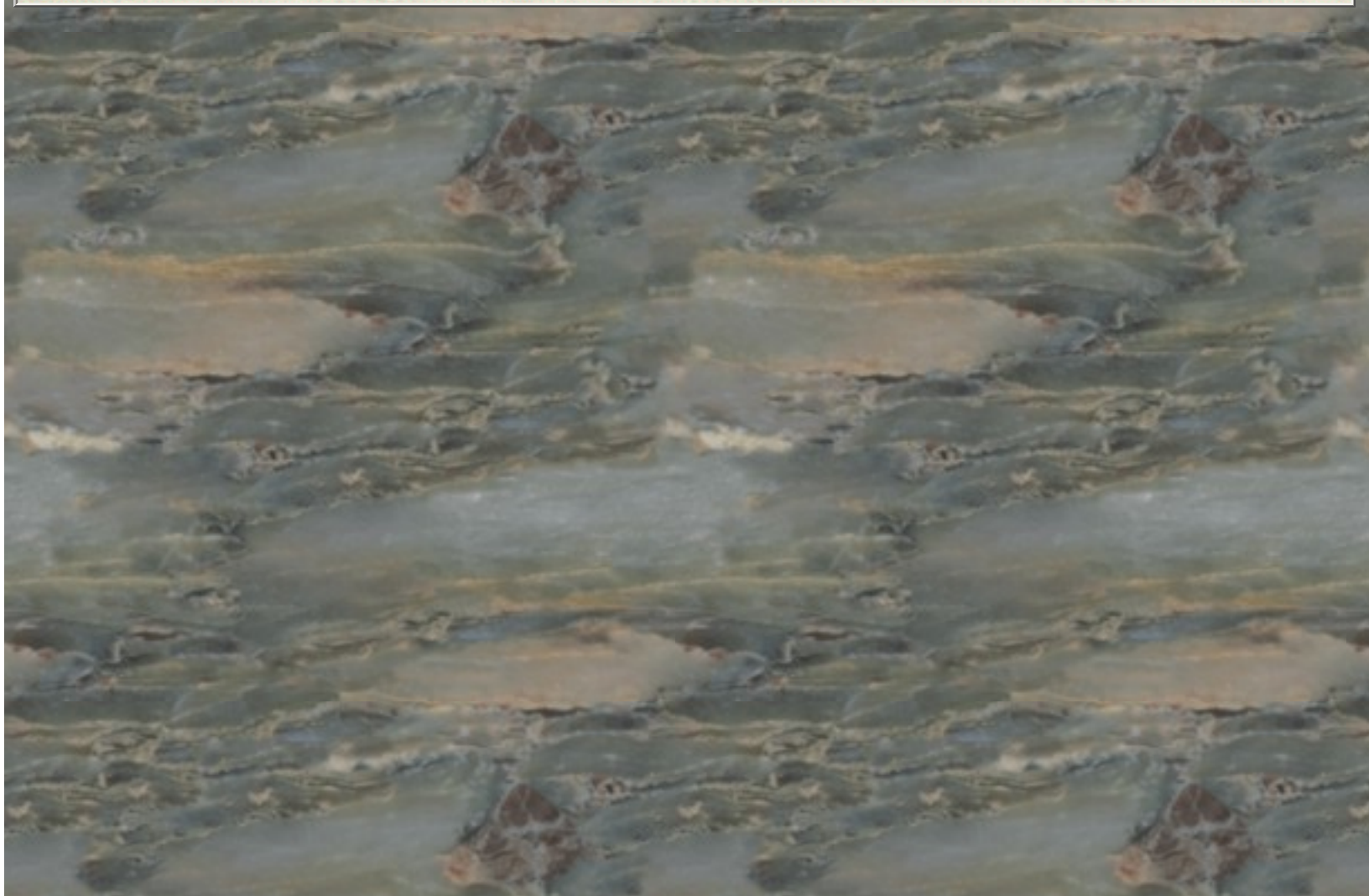


THE VELIKOVSKY CORRESPONDENCE

1979

| Date | Description |
|----------------------------------|---|
| | |
| January 14, 1979 | Immanuel Velikovsky to Jan Sammer |
| January 15, 1979 | Christoph Marx to Immanuel Velikovsky |
| March 9, 1979 | Lynn Rose to Immanuel Velikovsky |
| March [15], 1979 | Immanuel Velikovsky to Jan Sammer |
| April 16, 1979 | Edwin Schorr to Immanuel Velikovsky |
| April 17, 1979 | Christoph Marx to Immanuel Velikovsky |
| April 18, 1979 | Edwin Schorr to Elisheva Velikovsky |
| June 1979 | Christoph Marx to Immanuel Velikovsky |
| June 7, 1979 | Immanuel Velikovsky to Christoph Marx |
| June 9, 1979 | Christoph Marx to Immanuel Velikovsky |
| June 20, 1979 | Immanuel Velikovsky to Christoph Marx |
| June 28, 1979 | Immanuel Velikovsky to Christoph Marx |
| June 28, 1979 | Christoph Marx to Immanuel Velikovsky |
| July 9, 1979 | Christoph Marx to Immanuel Velikovsky |
| July 25, 1979 | Christoph Marx to Immanuel Velikovsky |
| August 15, 1979 | Immanuel Velikovsky to Christoph Marx |
| August 24, 1979 | Christoph Marx to Immanuel Velikovsky |
| August 25, 1979 | Christoph Marx to Immanuel Velikovsky |

| | |
|---|--|
| <u>September 5, 1979</u> | <u>Immanuel Velikovsky</u> |
| <u>September 7, 1979</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>September 7, 1979</u> | <u>Immanuel Velikovsky to Christoph Marx</u> |
| <u>September 14, 1979</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>September 23, 1979</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>October 25, 1979</u> | <u>Christoph Marx to Immanuel Velikovsky</u> |
| <u>November 7, 1979</u> | <u>C. Leroy Ellenberger to Immanuel Velikovsky</u> |
| <u>November 11, 1979</u> | <u>Immanuel Velikovsky to Dieter Curths</u> |
| <u>November 12, 1979</u> | <u>Lynn E Rose to Malcolm Lowery</u> |
| <u>November 22, 1979</u> | <u>Dieter Curths to Immanuel Velikovsky</u> |
| <u>December 4, 1979</u> | <u>Christoph Marx to Lynn E. Rose</u> |





THE VELIKOVSKY CORRESPONDENCE

1980

| Date | Description |
|---|--|
| | |
| <u>January 15, 1980</u> | <u>Lynn E. Rose to Christoph Marx</u> |
| <u>January 22, 1980</u> | <u>Christoph Marx to Lynn E. Rose</u> |
| <u>March 21, 1980</u> | <u>Lynn E. Rose to Christoph Marx</u> |
| <u>April 3, 1980</u> | <u>Warner Sizemore to Christoph Marx</u> |
| <u>April 6, 1980</u> | <u>Christoph Marx to Lynn E. Rose</u> |
| <u>April 11, 1980</u> | <u>Christoph Marx to Warner Sizemore</u> |
| <u>June 20, 1980</u> | <u>Christoph Marx to Elisheva Velikovsky</u> |



The Edwards-Velikovsky Correspondence

I. E. S. Edwards

| | |
|---------------------------------------|------------------------------------|
| Edwards to Velikovsky | September 16, 1960 |
| Velikovsky to Edwards | November 3, 1960 |
| Edwards to Velikovsky | November 15, 1960 |
| | |



36 Hamilton Ave. Apt. 1-R
St. George, NY 10301
July 20, 1977

Dear Dr. Velikovsky,

In the course of searching for reviews of works dealing with your theories, I started looking up the reviews mentioned in the SIS Review, The Times Literary Supplement's June 25, 1976 review by John North of *Velikovsky Reconsidered* mentioned Abraham Sachs' criticism of your use of Mesopotamian materials made during a 15 minute talk in 1965 or thereabouts, there being no specific reference. You were allegedly present at the talk and according to North never answered Sachs. None of the letters to the editor that were published took North to task on the Sachs commentary.

North's version of the talk seems very damning, just as so many other "authoritative" debunkings of your works have the appearance of correctness which disappears upon closer scrutiny by knowledgeable persons. I suspect this would be the case with Sachs' comments if all the details were available. So, I write you requesting references on this matter. Could you send me any information that would elucidate this incident?

I know that you gave not been formally answering critics as actively as you did in the 1950's, but if you could send me any information such as copies of notes, correspondence, a draft rebuttal, a brief recollection of the event and the issues or whatever, I would appreciate it very much. Naturally, any reference to published material would be satisfactory, and I would not be overly surprised if some account of this has appeared in print.

Thank you for your help.

Respectfully yours

C. Leroy Ellenberger





August 23, 1972

Dear Dr. Velikovsky;

I have just returned home from what is surely one of the highlights of my academic career, participation in the symposium at Lewis and Clark College as an Invited Scholar.

Most likely you will remember me as the biologist in the last session, Friday evening, who brought up some problems relative to the biological implications of your overall theory. Because of the limits of time, I did not have the opportunity to explain clearly enough the points I raised. I am afraid that some, perhaps even you, may have misunderstood.

For many years I have been very disenchanted with the current theories of evolution as well as those dealing with fossilization, extinction, geological processes, etc. Other biologists have argued at length with me basing their position on the claim that there is no other possible alternative. They, of course, object to individual special creation, and catastrophic evolution hardly ever enters into the discussion as a real possibility.

The point I was trying to make in my comments at the symposium was this. Since your theory embraces catastrophe as a major celestial and geological phenomenon, it must of necessity include a catastrophic evolution of species. As I said at the Symposium, I do not expect you to provide the details of such evolution. However, such must be supplied if your theory is to stand validated. Astronomical and geological evidences as well as historical evidences are not enough. Nor are the gaps in fossil records, and the sudden appearance of new groups of organisms enough. Your theory must be supported with demonstrations that there are genetic mechanisms which would allow rapid transformation of species within one to a few generations. Frankly the explanation in *Earth in Upheaval* is inadequate as is every other explanation proposed to date by others. I was trying to convey at the Symposium that the biological aspects of your theory have been passed over too slightly. . . at the Symposium for example there was little time or comment devoted to this area. I felt it essential that those attending the meetings should be aware of the problems in the biological area. Sooner or later a biologist especially one well trained in genetics, needs to carefully explore the whole genetic basis of current evolutionary theory. Although I have some background in genetics, I hardly feel adequate to the task, at least at the present. I am by training a plant taxonomist-ecologist and deeply involved in a long term study of the natural areas of Pennsylvania. However, I do plan to continue with what spare time I have to investigate the biological implications of your theories.

Most sincerely,
Kimball S. Erdman
Professor of Biology
Slippery Rock State College
Pennsylvania





The Fischer-Velikovsky Correspondence

Henry Fischer

| | |
|---------------------------------------|-----------------------------------|
| Velikovsky to Fischer | November 6, 1963 |
| Fischer to Velikovsky | December 10, 1963 |
| Velikovsky to Fischer | March 3, 1964 |
| Fischer to Velikovsky | March 5, 1964 |



August 14, 1972

Dear Dr. Velikovsky:

Last minute pressures of work prevent me from participating in the Symposium which I consider to be a landmark in the history of science. I would like to convey to you my appreciation for your invitation to participate which was forwarded by the President of Lewis and Clark College.

In replacing so many of the basic paradigms in the humanities and the sciences with a single new, empirically supported scheme of things you have exacted reaction among scholars second to none. I remain one of those lesser minds that has been tremendously stimulated by the scientific validity of your approach as well as by the import of your research. I trust that the Symposium will mark a significant turning point in recognition of the authorship of your ideas and their overt discussion in the literature. My best wishes.

Yours sincerely,
Bruce Fraser, Chairman
Department of Biological Sciences
Selkirk College
Castlegar, British Columbia



The Freud-Velikovsky Correspondence

Sigmund Freud

| | |
|-------------------------------------|-----------------------------------|
| Freud to Velikovsky | January 15, 1922 |
| Freud to Velikovsky | June 24, 1931 |
| Freud to Velikovsky | February 26, 1932 |
| Freud to Velikovsky | April 6, 1933 |



The Fuhr-Velikovsky Correspondence

Ilse Fuhr

| | |
|------------------------------------|----------------------------------|
| Velikovsky to Fuhr | January 21, 1963 |
| Fuhr to Velikovsky | January 26, 1963 |
| Velikovsky to Fuhr | February 8, 1963 |
| Fuhr to Velikovsky | March 20, 1963 |
| Velikovsky to Fuhr | March 27, 1963 |
| Velikovsky to Fuhr | March 02, 1964 |



Upton House
Wonston, Nr. Winchester
Hants

15th J[une 1943?]

Dr. Immanuel Velikovsky

Dear Sir

The typescript of your book has reached me just at the moment when I am changing house, and at perhaps the most difficult time which Great Britain has undergone for centuries. It is wholly impossible for me to pay attention to your work, and I cannot say I feel pleased at having it thrust upon me without a word of previous warning.

Yours faithfully,

Alan H. Gardiner



DR. IMMANUEL VELIKOVSKY

526 WEST 113TH STREET, NEW YORK, N.
Y.

PHONE: MONUMENT 2-2225

January 10, 1944

Mr. H. T. Hatcher
Oxford University Press
114 Fifth Ave.
New York, N.Y.

Dear Mr. Hatcher:

Looking through a copy of the MS 'Ages in Chaos', I find in the first chapter two mistakes that change sense.

On the p. 2, line 14, instead of 'Cheops' should be read 'Phiops',
On the p. 44, line 15, instead 'natural catastrophe' should be read
'national catastrophe'.

The new ideas might seem so strange and provocative to the reader whom you may trust the reading of the MS, that he may have an urge to discuss it with his colleagues. May I ask you, therefore, to kindly explain to the reader that he should not neglect the usual rule of discretion. If he has some questions, he may put them in writing and I shall be glad to give explanation, addressing my answer to your office. He may also freely debate a problem with Dr. Pfeiffer, Director of the Semitic Museum of the Harvard University (if not by chance he himself is your reader).

Very sincerely yours,

Im. Velikovsky



The Hess-Velikovsky Correspondence

[Harry H. Hess](#)

| | |
|--|---|
| <u>Velikovsky to Hess</u> | <u>December 5, 1956</u> |
| <u>Hess to Velikovsky</u> | <u>January 2, 1957</u> |
| <u>Hess to Velikovsky</u> | <u>March 15, 1963</u> |
| <u>Velikovsky to Hess</u> | <u>September 11, 1963</u> |
| <u>Velikovsky to Hess</u> (Memorandum) | <u>March 14, 1967</u> |
| <u>Velikovsky to Hess</u> (Memorandum) | <u>May 19, 1969</u> |
| <u>Velikovsky to Hess</u> | <u>July 2, 1969</u> |
| <u>Velikovsky to Hess</u> | <u>August 7, 1969</u> |



953 State Street
Portsmouth, N.H.
March 9, 1968

Dear Dr. Velikovsky,

Since 1950 I thought that some day I would write to you, for at that time I discovered your "Worlds in Collision." At that first reading, my emotional experience was one of shock, but I accepted your theories quickly, for they answered many of my own questions: If man has been in existence for so many ages, where has he been and what has he been doing? These theories helped me to solve this riddle.

Also it seemed to me that mankind has a fear of the world coming to an end. My father told me that when he was a young boy he saw Halley's comet, but the thing that surprised him was the reaction of the people in the small country town in which he lived. Some people went up the highest hill in the area and prayed to be saved. Others went to bed and stayed there waiting for "the end." Many crowded into churches. My grandfather, who was a school teacher, went among the people and told them that their fears were only superstitions.

Today we find many people who are afraid of watching the skies. They tell us that they never look up; several months ago some atmospheric tests were done which created large moon-size "lights" in the sky. Although many people watched them, others refused to look and hurried to their homes.

Your "Worlds in Collision" had the most profound effect on me of any book I have ever read. Almost daily something will occur in my life that reminds me of some part of this. Also in later years, it has been a source of strength to me, in that you "dared" to differ with the popular thinking of the times. Since my husband and I had our experience in 1961—we are the subjects of the book, "The Interrupted Journey," published by Dell—I have questioned every scientist we have met about your book. It makes my task easy now that your paperback is on the market. Five years ago I had difficulty finding anyone who was acquainted with this, but now everyone is reading this. So I have been having fun with many of the scientific community, in the hopes that I might stimulate some of their thinking. Several have met you, or have attended your lectures. And some have asked me why I defend your thinking, when they know that you do not believe in UFOs, which actually has no bearing on your theories.

I do not know if you are acquainted with our book or not; or your opinions about this. And it is not important really. You might be interested in knowing that on our trip, we

visited an area called the Devonian Sea area and picked up some fossils. When we had our experience, they were on the front seat of the car, and we wonder if any interest was shown in them.

Another purpose of writing is to acquaint you with the works of Charles Hapgood, if he is not known to you now. He teaches at Keene Teachers College in N.H., but he is known for his research of maps. He is the author of “Maps of the Ancient Sea Kings,” published by Chilton Books. His theory is that an advanced civilization existed thousands of years ago that was almost as advanced as ours today—as evidenced by their superior methods of mapmaking and that they mapped all the continents including the Antarctic when it was still free of ice; and that this advanced civilization was suddenly destroyed. This is another book I recommend to our scientists.

Recently we were filmed by British Broadcasting for a documentary. At that time I introduced the producer to your books and also Charles Hapgood’s. He seemed very interested, but of course, we can not predict their decision, but it is my personal opinion that it would be a tremendous documentary.

Today I completed reading “Earth in Upheaval” and now I am seeking “Ages in Chaos,” but I assume this is not in paperback yet. We receive tons of letters from students requesting reading suggestions about UFOs, so I always include your books on the basis that one must understand the past in order to understand the future. Undoubtedly classrooms are being upset all over the country, by these two controversies.

In conclusion, I thank you for broadening my thinking and making new ideas more acceptable.

Sincerely,
Betty Hill





JOHN HOLBROOK JR • 3010 CAMBRIDGE PLACE NW • WASHINGTON DC • 20007

January 23, 1975

Dear Dr. Velikovsky,

Enclosed are the two items which you requested: the galley proofs of the piece which I prepared for Pensee; and the Notes which you jotted down many years ago. Regarding the notes, the xerox copy which I possess is poor, so I am afraid that the quality of the enclosed copy is miserable. Also, in places I had some difficulty in reading your handwriting; and consequently I wrote a translation between the lines. Forgive me if you find them distracting.

As always, you and Mrs. Velikovsky were most hospitable on Sunday; and I enjoyed seeing you again very much. Henceforth I shall try to keep in touch more regularly.

Affectionately,

John

[enclosure]

The traditions of people everywhere throughout the world refer to a series of world ages, each terminated by a natural catastrophe of cosmic dimensions, in which raining fire and stones, tidal waves, volcanic eruptions, earthquakes, thunderbolts, etc., contributed to the general destruction of the earth and its inhabitants. These traditions refer to actual events which occurred not in the dim past, but well within recorded history.

The first of these events of which any remembrance remains occurred at the end of a period during which the terrestrial sky was dominated by a celestial body which the ancients called Uranus. Although the

body in the terrestrial sky. (The following names were applied to Jupiter by the ancients: Zedek [Hebrews]; Amon, Isis, and Horus [Egyptians]; Ishtar, Marduk, and Ball, the last of which was inherited from Saturn [Assyrians and Babylonians]; Zeus [Greeks]; Jupiter [Romans]; Shiva [Hindus]; Mazda [Persians]; Odin [Icelanders]; and Wotan [Germans].)

Soon after the explosion of the nova, Jupiter commenced accumulating the debris which had been ejected by Saturn throughout the solar system; and during the following millennia its mass continued to increase.

exact nature of this event is unknown, this body lost its dominant place in the terrestrial sky—it may have become the planet which we now call Uranus; and Saturn took its place. (The following names were applied to Saturn by the ancients: Khima [Hebrews]; Osiris [Egyptians]; Baal [Assyrians and Babylonians]; Chronos [Greeks] and Saturn [Romans].)

The period which followed this event was called the Age of Chronos by the Greeks. Saturn was far more massive than it is now; and it probably moved much closer to the earth than it does now. Possibly Saturn and Jupiter formed a binary system of dark stars; and/or the earth orbited Saturn rather than the sun. During this period, it never rained on earth; men were vegetarians; and dinosaurs still moved about the globe.

The Age of Chronos ended somewhere between 9000 and 6000 B.C. Perturbed by the close approach of Jupiter, Saturn became a nova. It underwent atomic fission (or fusion?) and exploded. The terrestrial experience of this event commenced with the appearance of a brilliant light, which lasted seven days (“the light of the seven days” to which Isaiah referred) and outshone the sun. Then the globe was deluged with clouds of warm and salty water which reached this planet in the company of two comets. The earth was shrouded in darkness, a product of the clouds of moisture arriving from Saturn and the clouds of volcanic debris erupting from the earth. Many species of terrestrial life perished; and the cosmic rays of the nova produced numerous mutations among those species which survived.

The appearance of Saturn in the terrestrial sky was greatly altered by this cosmic cataclysm. It apparently lost its satellites, giving rise to the Greek legend that Chronos had devoured his children; and it acquired its rings or bands, giving rise to

In the third millennium B.C., another cosmic event occurred, the exact nature of which is also unknown. Mercury, commencing either as a comet or as a satellite of Jupiter, was whisked by the latter swiftly past the earth and into its present orbit about the sun. During its near encounter with the earth, an electrical discharge occurred between the two celestial bodies which caused amnesia among whole portions of the terrestrial population. A memory of this event is contained in the story concerning the destruction of the tower of Babel; and the appearance of Mercury during this event is symbolized by the Caduceus of Hermes.

Several centuries later, another cosmic event occurred, marking the end of the Old Kingdom of Egypt and causing the destruction of Sodom and Gomorrah, the overturning of the plain which is mentioned in the Book of Genesis, the birth of the Dead Sea and the Great African Rift (or its greater expansion). Although the exact nature of the event is unclear, it seems to have included an electrical discharge between Jupiter and the earth and to have been accompanied by the deposit upon the latter of gold-bearing gravel and brimstone (sulfur—possibly resulting from the fusion of two oxygen atoms in the presence of the electrical discharge).

The era which followed this cosmic event was that of the Middle Bronze Ages I and II (the time of the Middle Kingdom of Egypt, during which occurred the seven years of famine which is mentioned in the Book of Genesis and in the annals of either Senusert III or Amenemhet III). This era was terminated by another cosmic catastrophe of major proportions.

As a consequence of its continually increasing mass, Jupiter became unstable and broke into two unequal portions. The larger portion remained in a planetary orbit about the sun and is the Jupiter which we

the Greek legend that Zeus had put Chronos in fetters and to the Egyptian legend that Isis had swathed Osiris. (From the latter notion arose the Egyptian practice of swathing mummies.) Lastly, Saturn's stature was greatly diminished; and Jupiter became the dominant celestial

see today; the smaller portions, which we now call Venus, entered a cometary orbit about the sun which intersected the orbit of the earth. During the 15th century B.C. there commenced that series of catastrophic encounters between Venus and earth which is described in *Worlds in Collision*.



The Johnson-Velikovsky Correspondence Frederick Johnson

[Velikovsky to Johnson](#)

[February 23, 1954](#)

[Johnson to Velikovsky](#)

[March 12, 1954](#)



August 26, 1972

Dear Dr. Velikovsky,

At the Symposium in Portland a biologist, whose name I cannot recall, questioned some of the precepts of mutation you had described. You had reiterated that heat, radiation and chemical agents may be individually or in concert responsible for mutation of species. Later I chatted with the biologist and described another agent which, up to now, may not have been seriously considered, and which I feel is of primary importance.

Undoubtably chemical and radiation activity could be responsible for the generation of mutations, which may or may not result in a new species. I would prefer to consider how selective wide-spread radiation might incur a mutation by absorption of various, but selective wavelengths. This, by statistical relationship, would give a distribution of mutations that may be somewhat gaussian, whereby only those in the main sequence would survive while those at either extreme have been subjected to unregenerable damage. Similarly, organisms which have been exposed to potentially toxic chemicals, or to pathogenic microorganisms, may develop mutagenic strains.

We must, however, be cautious in descriptions of mutations in absolute terms. The current definition of a species rests on the principle that it can viably reproduce generation after generation. But it should also be noted, and in very strong terms, that the species of mankind is made up *of mutations*.

We can viably reproduce, begetting offspring who can repeat the cycle, while on occasion begetting mutations which cannot survive or reproduce. Yet, the difference between individual members of the human species lies in the fact that we have a genetically inherited xenophobia — in no case, except identical twins, have organs been successfully transplanted. Even with blood transfusions a temporary stopgap is performed until the body can replenish its own supply. Thus each individual stands alone as a mutant, whose very life is limited by the number of cycles the cell-reproducing functions can continue.

In regard to heat as a mutagenic cause, I would relegate this means to the category of radiation, as heat nominally is induced by infrared or microwave radiation as a by-product of their effects. And unless the radiation is discriminatory the heat produced will prove damaging to an organism in the majority of cases.

Therefore, in the example of the strange, new species observed in the bomb craters in London, I can think of two possible explanations. Either the seeds or spores were carried to the site by the bomb or were uncovered by the blast, *or* the mutations were

caused by the acoustical effects of the detonation. Both the thermal and acoustical effects are transient factors, achieving high temperatures or pressures in an extremely steep gradient, but the thermal effect would tend to be degenerating while that of the shock wave would be one of displacement.

In the literature shock wave forming of complex metal parts is well known, where complicated topologies are formed which are stress-free. I have even performed an experiment by detonating a charge within an enclosed space to observe the effects on a crystal slurry of magnesium carbonate; the crystals, under the microscope, showed peculiar displacements of the structure which also appeared to be stress-free and there were selective fragmentations of a given crystal.

By congruency, I would expect that acoustically induced shock fronts would be responsible in a large part for selective mutations, which could also be of a new species. As explosive shock waves contain large energy potentials, these wavefronts are also made up of various frequencies and their harmonics. For mutagenic effects to take place, which most likely are on a molecular level, there would be a selective absorption of energy from a rather narrow band of frequencies depending on the geometry of the molecule being affected. Displacements would occur near instantaneously, and may affect the whole or only part of an organism, dependent on its size and composition.

Now, if the theophany of which you spoke included shock waves of sufficient magnitude to be world wide in scope then it is within reason to expect that mutations should occur planet-wide, and may also in some measure add to the psychological trauma to which you referred.

So, I submit that the three agents are radiative, chemical, and acoustical.

Sincerely,
Frederic B. Jueneman
Director/Research
Innovative Concepts Association
San Jose, California





DEPARTMENT OF PHILOSOPHY
1879 HALL
PRINCETON, NEW JERSEY 08540

February 23, 1976

Dear Dr. Velikovsky:

I'll put this in writing, but bring it to you with the correspondence you lent me.

Your "Theses" of 1945 I have read with admiration and amazement; the correspondence about the Cornell University Press volume, with distress and frustration. The file you lent me contains most, though not all, of the letters from July 30, 1973, to February 5, 1976.

Few writers in any age have any comprehensive vision—much less one as detailed and vast as yours. I had not known how early you had spelled out these 284 theses, of which many are familiar to me from your still unpublished printer's proofs. I still feel, as I did fifteen years ago and told you then, that publishing this vision is incomparably more important than giving lectures or responding to your detractors. Most of the scientists who have treated you shabbily will be forgotten soon or remembered chiefly for the roles they played against you.

You have always carried yourself, in every way, with imposing dignity. I only wish that in your mind you could come closer to ignoring all these scientists. It seems right in retrospect that Freud paid little heed to his detractors and continued to spell out *his* vision. Nietzsche did the same. Your case differs from both—as they do from each other—but what is common to all three is the irrational resistance to what is felt to be threatening.

Punish these men with contempt; outrage them by going your own way, publishing the two volumes of *Ages in Chaos* that are virtually finished. Do you know Goethe's poem "Kläfer"? It has eight lines and ends:

Und seines Bellens lauter Schall
Beweist nur, dass wir reiten.
And all his noisy barking proves
No more than that we ride.

About the problem with Cornell I can state my feelings briefly.

Obviously, you have been treated unfairly. That started before the Symposium took place, and the people who arranged it have no mind to treat you fairly now in the forthcoming volume. But I believe Milton Konvitz when he says in his letter of June 6, 1975, that he “can see no chance for any substantial modification of the plan.” The Press evidently did not originate the features of the book that are unfair; but the Press wants to publish this book, preferably with your contributions but, if necessary, without them. And some of the other contributors would never agree to any fairer treatment for you. Your choice has to be made within this framework.

I would find it tempting to tell them to go to hell. But your lecture of February 25, 1974, shows how superbly you can handle even a format beset with absurd restrictions of space or time. Even so, a contribution to this book would not be worth a month of your enormously valuable time. But if you can write a powerful piece of not more than 6,000 words in the next two or three weeks, why not? As the crowds cheering Truman put it: “Give ’em hell” But, if possible, get all this out of your system. Or is that simply impossible?

I see no point in arguing further with Cornell University Press. A few pages more or less don’t really matter *in the long run*. Nor will this book matter one-tenth as much as another volume of *Ages in Chaos*.

I understand that, having waited this long, you find it very hard to return to these volumes. But you may not realize how much that is clear in your mind—ever since 19451 or even longer—is unknown to others. Your version of ancient history is strengthened immeasurably by what you have not published yet. *Ages in Chaos*, volume I, was merely the lion’s paw. Show them the whole majestic animal! Open up your second front! Here the establishment cannot hide behind esoteric calculations. Here your opponents do not have the prestige of astronomy. They are weak and may cave in. You have pulled your punches. You have allowed your enemies to think that you could not make good on what you promised them in volume 1. You scored to be stuck. Show them how wrong that is! Your vision and revision of ancient history should not be kept under wraps!

Alfred de Grazia, Ralph Juergens, and Livio Stecchini have done and can do a splendid job showing up your detractors—but only you can spell out your vision.

It may seem immodest of me to offer advice like this, but you will understand that it is prompted by admiration, friendship, and a concern for what you—and only you—can offer.

Your

Walter Kaufmann

I phoned John Thornton, New American Library, had a long talk with him about your work, & he promised to phone you.





LAWRENCE S. KUBIE, M.D.
7 EAST 81ST STREET
NEW YORK 28, N.Y.

BUTTERFIELD 8-5230

October 23, 1947

Mr. Clifton Fadiman
104 East 37th Street
New York City

Dear Kip,

Here is all the information I have been able to get a hold of about Velikovsky.

Dr. Lewin: "Only knows that he wrote some articles on Freud, either for the Psychoanalytic Review or the American Imago."

Dr. Federn: "Knows him well. A genius—a great man. Excellent psychoanalyst. An M.D., member of the Palestine group. Some revolutionary scientific ideas that some people think are crazy, but he is a genius. Would not consider him for a teacher; but as an analyst have sent him some of my most difficult cases." There is no reason why you should not approach Dr. Paul Federn of 239 Central Park West. He is a venerable old fellow, and he will tell you all he knows.

Cordially,

(signed) Larry

Lawrence S. Kubie, M.D.

LKS: jmm





NINETEEN CHAUNCY STREET
CAMBRIDGE, MASSACHUSETTS 02138

May 2, 1977

The Editor
New York Times Book Review
229 W. 43rd Street
New York, N. Y. 10036

Dear Sir:

For over 40 years I have relied upon the New York Times Book Review for fair, accurate, well written and informative reviews of current books. I am dismayed now to find such reliance is no longer justified.

The article entitled "Velikovsky Lives Again" which appeared in the April 17 issue, meets none of those criteria. It is a calculated insult to an 81 year old scholar; an arrogant, scoffing criticism which contains inaccuracies in every paragraph.

Presumably, you selected Dietrick E. Thomsen, physical sciences editor of Science News to write the article (I avoid the word "review" intentionally as the article does not review either of the books listed.). If the purpose of selecting Mr. Thomsen was to make sure that Dr. Velikovsky would be subjected to a grossly unfair criticism of the lowest order, the choice was perfect.

The suggestion in the headline that Dr. Velikovsky has just (some back to life indicates the ignorance of the person who wrote it as to what has been going on in recent years with respect to Dr. Velikovsky and his works. Obviously he is unaware of the fact that Dr. Velikovsky's four books published prior to this year have gone through innumerable printings in both hard cover and paper back (twenty-five for *Worlds in Collision*); that his sixth book is undergoing the process of final editing before publication; that he has written three more books which are almost ready for publication; that during the last ten years he has been in great demand as a lecturer at many colleges, universities and scientific meetings (including NASA in California in August 1972, and NASA in Hampton, Virginia in December 1973); that nearly twenty scholarly articles written by him have appeared in *Pensée* and *Kronos* since May, 1972; that many colleges and universities around the country offer courses based on his work, in most of which his books are required reading (see list of twenty-seven such courses in *Pensée*, Winter, 1973, pp. 37 and 38); that his work has been the principal subject discussed at numerous symposia attended by large, enthusiastic audiences of scientists, scholars and students, including, but not limited to, those

sponsored by the *American Philosophical Society* (Philadelphia 1962), *Lewis and Clarke College* (Portland, Oregon, August, 1972), *The American Association for the Advancement of Science* (San Francisco, California, February, 1974); *McMaster University* (Toronto, Canada, 1974) and the *University of Lethbridge* (Canada, 1974). In addition to all of this, Dr. Velikovsky has carried on his exhaustive research work for his books and articles and an extensive correspondence with scientists, scholars and admirers all over the world. Books about his theories, and their reception by the scientific establishment, include *The Velikovsky Affair*, edited by Alfred DeGrazia (University Books, 1966); *Velikovsky Reconsidered*, by the Editors of Pensée (Doubleday, January 1976) and *The Age of Velikovsky*, by C. J. Ransom (Kronos Press, 1976). Obviously, Dr. Velikovsky (and his theories) have not only been alive, but extraordinarily lively throughout the last sixteen years. Since his fourth book, *Oedipus and Akhnaton* was published in 19[60], his theories have been under constant and growing consideration and discussion, and his ideas and predictions, which were contrary to the beliefs of the establishment scientists and scholar have again and again been confirmed.

A less applicable title for the article could hardly have been chosen. To reflect the substance and tone of the article it should have been “Velikovsky Is Still Alive, So Let’s Do Him In This Time.”

The combination of the two unrelated books. *Subdue the Earth* and *Peoples of the Sea* for joint review is inexplicable. Apparently Thomsen, or one of your editors, read the publisher’s blurb on the back cover of the first book, stating that it “is a provocative extension of Dr. Immanuel Velikovsky’s cataclysmic-formation-of-the-world theory,” and thought that that misstatement of Velikovsky’s theory justified coupling the book with *Peoples of the Sea*, apparently not realizing that the latter deals with ancient history, from the time of Akhnaton to that of the Ptolemies. It is not at all clear that Thomsen read anything more of *Subdue the Earth* than that blurb and the table of contents. Nothing in his article indicates that he did.

The article is in fact just a continuous attack on Dr. Velikovsky as a scholar and writer, and gives the reader practically no information concerning the purpose and content of *Peoples of the Sea*.

Thomsen starts off by indicating that the name of Immanuel Velikovsky “makes scientists go purple in the face.” Apparently Thomsen does and did react in that fashion. He goes on to say “The books seem intelligent and scholarly”... (meaning that they are neither) and that “Book length treatises have been written in refutation.” Presumably he’s talking about Dr. Velikovsky’s books, although they are generally recognized as intelligent and scholarly by many eminent scholars and scientists, whether they agree with him or not. If Thomsen knows of *any* book length treatise which refutes *any* book by Velikovsky, he ought to let us in on the secret, because that’s *his* secret.

Thomsen also says that “science is not done (sic) by adopting a *parti pris* and then

marshalling facts, speculations and downright imagination in support of it.” Of course, that’s not the way that Dr. Velikovsky writes his books, but it certainly is the method followed by Thomsen in writing the article under discussion.

The second paragraph of Thomsen’s article is such a mixed up hodge-podge that to try to sort it out and make sense out of it would not be worth the time and space it would take. It is apparent, however, that Thomsen does not realize that growing numbers of his uniformitarian peers are quietly abandoning the Darwinian theory, which he is so staunchly, but confusedly defending.

Thomsen takes issue with Dr. Velikovsky’s identification of Hatshepsut with the Queen of Sheba, apparently not realizing that this appears in *Ages in Chaos* (1952) and not in *Peoples of the Sea*. In Chapter III of the earlier work. Dr. Velikovsky presents a very impressive, convincing, and heavily annotated case for this identification. The evidence presented is much too strong to be disregarded and dismissed by Thomsen so flippantly.

Thomsen accuses Dr. Velikovsky of cabalistic reasoning, of “relying on correspondences of sound, such as Pereset and Persian.” This statement is a pure fabrication—some of that “downright imagination” of which Thomsen disapproves. Dr. Velikovsky points out (p. 35) that “in the hieroglyphic texts of the Persian era... Persia is always called P-r-s” and that in the Canopus Decree, cut in stone, in 238 B. C., the Persians are referred to as P-r-s-tt. (There were no vowels in the alphabet.) The Canopus Decree is written both in Egyptian and in Greek. In Egyptian it describes the carrying off of the sacred images of Egypt by the *Pereset* and in Greek it tells of them being carried off by the *Persians*. But Dr. Velikovsky did not limit his identification of the Pereset as Persians to this evidence, although it would have been enough for a less careful and exacting scholar. In addition, he compares the clothing, armaments and appearances of the Persian soldiers and officers, as they are depicted in the bas reliefs in Persepolis and Nakhsh-e-Rostam, with those of the Pereset as depicted in the murals of the temple at Habnet Habu. The striking similarities are unmistakable. Finally, Dr. Velikovsky compares, step by step, the events described in annals left by Ramses III of his war with the Pereset and the Peoples of the Sea, with the descriptions by Diodorus of Sicily of the details of the war of Nectanebo I against the Persians and the Greek mercenaries. This comparison is made in such meticulous detail that the only logical conclusions are that both were describing the same war; that the Pereset and the Persians were the same people and that Ramses III was the Pharaoh whom the Greeks called “Nectanebo I.” Incidentally, Dr. Velikovsky, quoting E. Wallis Budge, *The Book of Kings* (London 1908) Vol. II p. I, points out that one of the “Horus names” of Ramses III was Nectanebo (Nekht-a-neb).

So much for Tomsen’s accusations of cabbalistic reasoning and making “archeology out of anomalies.”

The Velikovsky presentation is one of “correlations painstakingly assembled from a multitude of sciences” as Thomsen says it should be. If Thomsen had read *Peoples of*

the Sea carefully, or if he had remembered what he had read, he could not have made the accusations contained in the article under discussion.

I believe that a few other opinions of the nature and quality of Dr. Velikovsky's scholarship are in order.

In 1955, the late Dr. Robert H. Pfeiffer, when he was Chairman of the Department of Semitic Languages and History at Harvard University, wrote that "Dr. Velikovsky discloses immense erudition and extraordinary ingenuity. He writes well and documents all his statements with the original sources... ."

In *Harpers*, October 1963. Professor Lloyd Motz, Columbia University Astronomer, who did not agree with some of Dr. Velikovsky's astronomical theories, said, nevertheless, that Velikovsky's ideas, as presented in his books, "Should be considered by responsible scholars and scientists as the creation of a serious and dedicated investigator... His writings should be carefully studied because they are the product of an extraordinary and brilliant mind, and are based upon some of the most concentrated and penetrating scholarship of our period..."

In his article entitled *Proofs of the stability of the solar system*," published in *Kronos* II.2, November 1976, Robert W. Bass, Professor of Physics and Astronomy, Brigham Young University, a specialist in celestial mechanics, pointed out (p. 44) that "Three of the greatest contemporary mathematical celestial mechanics have stated explicitly and recently that nothing known to them forbids Velikovsky's hypothesis." He concluded his article with the following;

"The life's work of a sincere and dedicated scholar, who has published all of his sources for critical scrutiny by everyone, should not be dismissed hastily upon mere 'group consensus' about the validity of obsolete ideas, which true experts have long ago dismissed as illusions."

None of *these* scientists "went purple in the face" when Velikovsky was mentioned. Nor did the late Walter S. Adams, former director of Mount Wilson Observatory, nor the late Albert Einstein, both of whom became friends and admirers of Dr. Velikovsky and unselfishly offered him their advice and assistance. Nor did the *sixty* scholarly participants in the McMaster University Symposium who signed a statement, prepared by Professor Lynn Trainor, of the Department of Physics of Toronto University, in early 1974, which ended with the following;

"...we would urge the scientific community, in the best traditions of free inquiry, to pursue with open mind the challenge presented by Velikovsky."

Finally, I believe I should point out to you that some editors of the *New York Times* have an entirely different opinion of Dr. Velikovsky and his theories than you and Thomsen have evidenced. In 1969, at the request of the Editor (Science Editor?) of

the *New York Times*, Immanuel Velikovsky wrote an article for its “*Man Walks on the Moon Issue*.” It was entitled “Are the Moon’s Scars Only Three Thousand Years Old?” It was published in the City Edition of July 21, 1969. In that article Dr. Velikovsky correctly predicted, contrary to then currently accepted scientific opinions, that the moon had a weak magnetic field but that its rocks and lava would be found to be rich in remanent magnetism; that digging below the surface should reveal a steep thermal gradient; that carbides should be found in the composition of the rocks; and that localized radioactive areas should be found. All of these predictions were confirmed by the Apollo 11 and 15 flights, much to the surprise of the scientific world.

Some editors recognize and respect genius, as do some scientists.

I seriously suggest to you and Mr. Thomsen that you owe Dr. Immanuel Velikovsky an apology and a retraction.

Sincerely,

E. R. Langenbach

ERL:mjv





The Libby-Velikovsky Correspondence

W. F. Libby

[Velikovsky to Libby](#)

[October 7,1953](#)

[Libby to Velikovsky](#)

[October 27,1953](#)



The Macmillan Co. & Related Correspondence

| | |
|--|-----------------------------------|
| Velikovsky to The Macmillan Co. | March 10, 1940 |
| The Macmillan Co. (L. D. Cole) to Velikovsky | March 20, 1940 |
| Harlow Shapley to The Macmillan Co. (Editorial Department) | January 18, 1950 |
| The Macmillan Co. (James Putnam) to Harlow Shapley | January 24, 1950 |
| Harlow Shapley to The Macmillan Co. (James Putnam) | January 25, 1950 |
| The Macmillan Co. (George Brett) to Harlow Shapley | February 1, 1950 |
| E. M. Thorndike to Macmillan Co. | February 13, 1950 |
| C. W. van der Merwe to The Macmillan Co. (H. B. McCurdy) | February 14, 1950 |
| Clarence S. Sherman to The Macmillan Co.(H. B. McCurdy) | February 14, 1950 |
| The Macmillan Co. (George Brett) to C. L. Skelley | February 17, 1950 |
| Harlow Shapley to Ted Thackrey | February 20, 1950 |
| Ted Thackrey to Harlow Shapley | March 7, 1950 |
| Harlow Shapley to Ted O. Thackrey | March 8, 1950 |
| Ted O. Thackrey to Harlow Shapley | April 10, 1950 |
| Harlow Shapley to Ted O. Thackrey | June 6,1950 |





The Marx - Velikovsky Correspondence

Christoph Marx

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|---|----------------------------------|
| Immanuel Velikovsky to Christoph Marx | April 14, 1977 |
| Christoph Marx to Lynn E. Rose | May 5, 1977 |
| Christoph Marx to Immanuel Velikovsky | May 5, 1977 |
| Immanuel Velikovsky to Christoph Marx | May 6, 1977 |
| Immanuel Velikovsky to Christoph Marx | May 9, 1977 |
| Dieter Curths to Immanuel Velikovsky | May 12, 1977 |
| Christoph Marx to Immanuel Velikovsky | May 16, 1977 |
| Immanuel Velikovsky to Dieter Curths | May 17, 1977 |
| Immanuel Velikovsky to Christoph Marx | July 19, 1977 |
| Christoph Marx to Immanuel Velikovsky | July 25, 1977 |
| Immanuel Velikovsky to Christoph Marx | August 30, 1977 |
| Christoph Marx to Immanuel Velikovsky | October 16, 1977 |
| Christoph Marx to Immanuel Velikovsky | October 20, 1977 |
| Immanuel Velikovsky to Christoph Marx | October 23, 1977 |
| Christoph Marx to Immanuel Velikovsky | October 24, 1977 |
| Christoph Marx to Immanuel Velikovsky | November 1, 1977 |
| Immanuel Velikovsky to Christoph Marx | November 8, 1977 |

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| <u>Immanuel Velikovsky to Christoph Marx</u> | <u>November 21, 1977</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>November 22, 1977</u> |
| <u>Immanuel Velikovsky to Christoph Marx</u> | <u>November 22, 1977</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>November 28, 1977</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>November 30, 1977</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>December 8, 1977</u> |
| <u>Jan Sammer to Christoph Marx</u> | <u>December 14, 1977</u> |
| <u>Christoph Marx to Jan Sammer</u> | <u>December 26, 1977</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>December 27, 1977</u> |
| <u>Jan Sammer to Christoph Marx</u> | <u>January 9, 1978</u> |
| <u>Christoph Marx to Jan Sammer</u> | <u>January 22, 1978</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>January 29, 1978</u> |
| <u>Jan Sammer to Christoph Marx</u> | <u>February 12, 1978</u> |
| <u>Christoph Marx to Jan Sammer</u> | <u>February 20, 1978</u> |
| <u>Elisheva Velikovsky to Christoph Marx</u> | <u>March 1, 1978</u> |
| <u>Jan Sammer to Christoph Marx</u> | <u>March 1, 1978</u> |
| <u>Christoph Marx to Elisheva Velikovsky</u> | <u>March 12, 1978</u> |
| <u>Christoph Marx to Jan Sammer</u> | <u>March 13, 1978</u> |
| <u>Immanuel Velikovsky to Christoph Marx</u> | <u>March 23, 1978</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>March 26, 1978</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>April 13, 1978</u> |
| <u>Jan Sammer to Christoph Marx</u> | <u>May 17, 1978</u> |
| <u>Christoph Marx to Jan Sammer</u> | <u>May 23, 1978</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>June 6, 1978</u> |
| <u>Christoph Marx to Immanuel Velikovsky</u> | <u>July 14, 1978</u> |

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| Christoph Marx to Immanuel Velikovsky | October 22, 1978 |
| Christoph Marx to Immanuel Velikovsky | December 22, 1978 |
| Christoph Marx to Immanuel Velikovsky | January 15, 1979 |
| Christoph Marx to Immanuel Velikovsky | April 17, 1979 |
| Christoph Marx to Immanuel Velikovsky | June 1979 |
| Immanuel Velikovsky to Christoph Marx | June 7, 1979 |
| Christoph Marx to Immanuel Velikovsky | June 9, 1979 |
| Immanuel Velikovsky to Christoph Marx | June 20, 1979 |
| Immanuel Velikovsky to Christoph Marx | June 28, 1979 |
| Christoph Marx to Immanuel Velikovsky | June 28, 1979 |
| Christoph Marx to Immanuel Velikovsky | July 9, 1979 |
| Christoph Marx to Immanuel Velikovsky | July 25, 1979 |
| Immanuel Velikovsky to Christoph Marx | August 15, 1979 |
| Christoph Marx to Immanuel Velikovsky | August 21, 1979 |
| Christoph Marx to Immanuel Velikovsky | August 24, 1979 |
| Christoph Marx to Immanuel Velikovsky | August 25, 1979 |
| Immanuel Velikovsky | September 5, 1979 |
| Immanuel Velikovsky to Christoph Marx | September 7, 1979 |
| Immanuel Velikovsky to Christoph Marx | September 7, 1979 |
| Christoph Marx to Immanuel Velikovsky | September 14, 1979 |
| Christoph Marx to Immanuel Velikovsky | September 23, 1979 |
| Christoph Marx to Immanuel Velikovsky | October 25, 1979 |
| Immanuel Velikovsky to Dieter Curths | November 11, 1979 |
| Dieter Curths to Immanuel Velikovsky | November 22, 1979 |
| Christoph Marx to Lynn E. Rose | December 4, 1979 |

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|---|----------------------------------|
| Lynn E. Rose to Christoph Marx | January 15, 1980 |
| Christoph Marx to Lynn E. Rose | January 22, 1980 |
| Lynn E. Rose to Christoph Marx | March 21, 1980 |
| Warner Sizemore to Christoph Marx | April 3, 1980 |
| Christoph Marx to Lynn E. Rose | April 6, 1980 |
| Christoph Marx to Warner Sizemore | April 11, 1980 |
| Christoph Marx to Elisheva Velikovsky | June 20, 1980 |





August 30, 1972

Dear Dr. Velikovsky:

I apologize for being so long in reporting on the planetarium program that we have been doing on your theories. In short, the program "Worlds in Collision: The Theories of Immanuel Velikovsky," has had the best reception of any done by this institution. Attendance has surpassed all previous programs. On Sunday afternoons, for instance, we have had at least three full-house programs, with an occasional fourth, compared to the two that we generally do on that day. Weekdays have also been fully attended. Comments have been very favorable. Many persons have inquired where they may get the book; others have simply expressed their enjoyment ... The program was also presented in an exclusive showing to the Fort Worth Astronomical Society. Dr. Ransom was on hand to answer questions afterward. and the reports on the meeting were again most favorable

In summary, it has been a distinct pleasure to produce this program. I would like to thank you for giving us the opportunity to do so.

Cordially,
John Nation
Director of Astronomy
Fort Worth Museum of Science and History
Fort Worth, Texas



April 12, 1973

Dr. Immanuel Velikovsky
78 Hartley Avenue
Princeton, New Jersey 08540 U.S.A.

Dear Sir:

The Senate of the University of Lethbridge recently voted to accept the unanimous recommendation of our General Faculties Council that you be awarded the degree of Doctor of Arts and Science; the degree to be conferred at the Spring Convocation in 1974. The presentation of your name stressed the quality of your life as a humanitarian, a humanist and a scientist. Many supporters among the faculty in the Humanities, the Social Sciences and the Sciences came forward to speak on your remarkable books and your teaching generally. You were seen as embodying our tradition of humane values, of intellect, of aesthetic sensitivity, personal ethics and of the transcendental dimension of scholarship.

The University wishes to confer this degree on you at its Spring Convocation in 1974, a year from now. We try to make decisions on the awarding of Honourary Doctorate degrees well in advance of conferring them. I will admit that we usually delay contacting the recipients until rather close to the Convocation at which the degree will be conferred. In your case we wanted you to know of the award at the earliest possible time, particularly as we are pleased at the prospect of honouring you and we are convinced that you have not been properly honoured in the past. Would you let me know whether you are prepared to accept the award of our Doctor of Arts and Science, and whether, all being well, you contemplate coming to Lethbridge to have the degree conferred on you in the Spring of 1974.

I enclose a calendar of our University and some general information brochures to give you some familiarity with us.

Sincerely,

J. Oshiro, M.D.
Chancellor,
[University of Lethbridge](#)



The Reader's Digest
Pleasantville, N.Y.

June 27th, 1950

Hotel Navarro
112 Central Park South
New York 19, N.Y.

Dear Professor McLaughlin:

I appreciate the long and thoughtful letter that you wrote me although I find some parts of it difficult to understand.

One part has to do with the pride you express in the pressure of scientists against the house of Macmillan to discontinue publishing the Velikovsky book. This procedure horrifies me; some of the details of which I have been told are witch hunting tactics. Is not this book burning by intellectuals? And isn't that a matter for shame rather than pride? This, above all in your letter, I cannot understand. . .

Again you state that my review applauds dishonesty. Do you consider that remark an example of objective scientific observation? To use your own words, that comment of yours is "mere rubbish and a flagrant intellectual fraud." Because you know perfectly well that my review does not applaud dishonesty. . . . I mention it here only to point out that a serious discussion should be conducted in less extravagant and emotional terms.

You go on to say that scientists admit the limitations of their knowledge but are aware of *which* sections are certain, *which* are only probable and *which* extremely uncertain. That, I take it, is a statement much more sweeping and infallible than you can possibly have intended. All the tragic history of the self-sufficiency of experts in every field contradicts it. . . .

Another unscientific attitude on your part is indicated when you discuss the "probability" that I rose to the "bait" of scientific proof of the Bible. Here, my dear Professor, you indulge in mind reading. . . .

You are quite right in saying that you talk to me like a Dutch uncle and I am sure you will not deny me the privilege of talking back to you like an American uncle. Therefore I must point out to you that when you ask me to believe that Velikovsky's "science" vitiates the Biblical miracles, you are very far from the truth. Let me

remind you of your own remarks to beware of a man who claims to know everything. Aren't you dangerously near to doing that at this point? There is nothing in Velikovsky's theory that removes the miraculous intervention of God at just the right time, in full accord with the Biblical position; at least that is the point of view of some of the theologians with whom I discussed the matter.

I am sufficiently interested in what you say to take your letter to Dr. Velikovsky and hear what he has to say about it. It is well worth exploring but only so long as it can be done in a dignified atmosphere without the shrill note that I detect in the voices of some of his critics.

Sincerely yours,

Fulton Oursler

Senior Editor

P.S. Is it true that this agitation among scientists originated with Professor Harlow Shapley? If so, I am bound to regard these hysterical attitudes and attempts at book-burnings in a light even more dubious.





The Pfeiffer - Velikovsky Correspondence

[Robert H. Pfeiffer](#)

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| <u>Harry A. Wolfson to Robert H. Pfeiffer</u> | <u>July 22, 1942</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>August 18, 1942</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>August 24, 1942</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>March 12, 1943</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>April 14, 1943</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>April 17, 1943</u> |
| <u>Immanuel Velikovsky to H. T. Hatcher</u> | <u>July, 1944</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>July 6, 1944</u> |
| <u>Robert H. Pfeiffer to H. T. Hatcher</u> | <u>July 12, 1944</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>June 29, 1945</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>July 2, 1945</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>July 16, 1945</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>November 25, 1945</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>November 27, 1945</u> |
| <u>Immanuel Velikovsky to Robert H. Pfeiffer</u> | <u>September 19, 1946</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>October 8, 1946</u> |
| <u>Robert H. Pfeiffer to Immanuel Velikovsky</u> | <u>June 30, 1947</u> |

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|---|-----------------------------------|
| Immanuel Velikovsky to Robert H. Pfeiffer | July 16, 1947 |
| Robert H. Pfeiffer to The Macmillan Co. | Spring 1949 |
| Immanuel Velikovsky to Robert H. Pfeiffer | May 6, 1949 |
| Immanuel Velikovsky to Robert H. Pfeiffer | May 13, 1949 |
| Immanuel Velikovsky to Robert H. Pfeiffer | July 25, 1950 |
| Robert H. Pfeiffer to Immanuel Velikovsky | July 28, 1950 |
| Immanuel Velikovsky to Robert H. Pfeiffer | July 31, 1950 |
| Immanuel Velikovsky to Robert H. Pfeiffer | November 10, 1950 |
| Robert H. Pfeiffer to Immanuel Velikovsky | November 16, 1950 |
| Immanuel Velikovsky to Robert H. Pfeiffer | December 6, 1950 |
| Robert H. Pfeiffer to Immanuel Velikovsky | January 27, 1951 |
| Immanuel Velikovsky to Robert H. Pfeiffer | July 3, 1951 |
| Robert H. Pfeiffer to Immanuel Velikovsky | August 31, 1951 |
| Immanuel Velikovsky to Robert H. Pfeiffer | September 7, 1951 |
| Robert H. Pfeiffer to Immanuel Velikovsky | October 13, 1951 |
| Immanuel Velikovsky to Robert H. Pfeiffer | October 19, 1951 |
| Robert H. Pfeiffer to Immanuel Velikovsky | April 10, 1952 |
| Immanuel Velikovsky to Robert H. Pfeiffer | June 6, 1952 |
| Robert H. Pfeiffer to Immanuel Velikovsky | February 5, 1952 |
| Harlow Shapley to Robert H. Pfeiffer | May 1, 1952 |
| Edwin F. Carpenter to Robert H Pfeiffer | May 29, 1952 |
| Immanuel Velikovsky to Robert H. Pfeiffer | December 4, 1952 |

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| Immanuel Velikovsky to Robert H. Pfeiffer | November 4, 1953 |
| Robert H. Pfeiffer to Immanuel Velikovsky | November 7, 1953 |
| Immanuel Velikovsky to Robert H. Pfeiffer | March 15, 1955 |
| Immanuel Velikovsky to Robert H. Pfeiffer | July 11, 1955 |
| Robert H. Pfeiffer to Immanuel Velikovsky | August 24, 1955 |
| Immanuel Velikovsky to Robert H. Pfeiffer | September 1, 1955 |
| Immanuel Velikovsky to Robert H. Pfeiffer | March 8, 1957 |
| Robert H. Pfeiffer to Immanuel Velikovsky | March 13, 1957 |
| Matilde Pfeiffer to Immanuel Velikovsky | May 16, 1958 |





The Ralph-Velikovsky Correspondence

Elizabeth K. Ralph

[Velikovsky to Ralph](#)

[March 2, 1964](#)

[Velikovsky to Ralph](#)

[April 6, 1964](#)

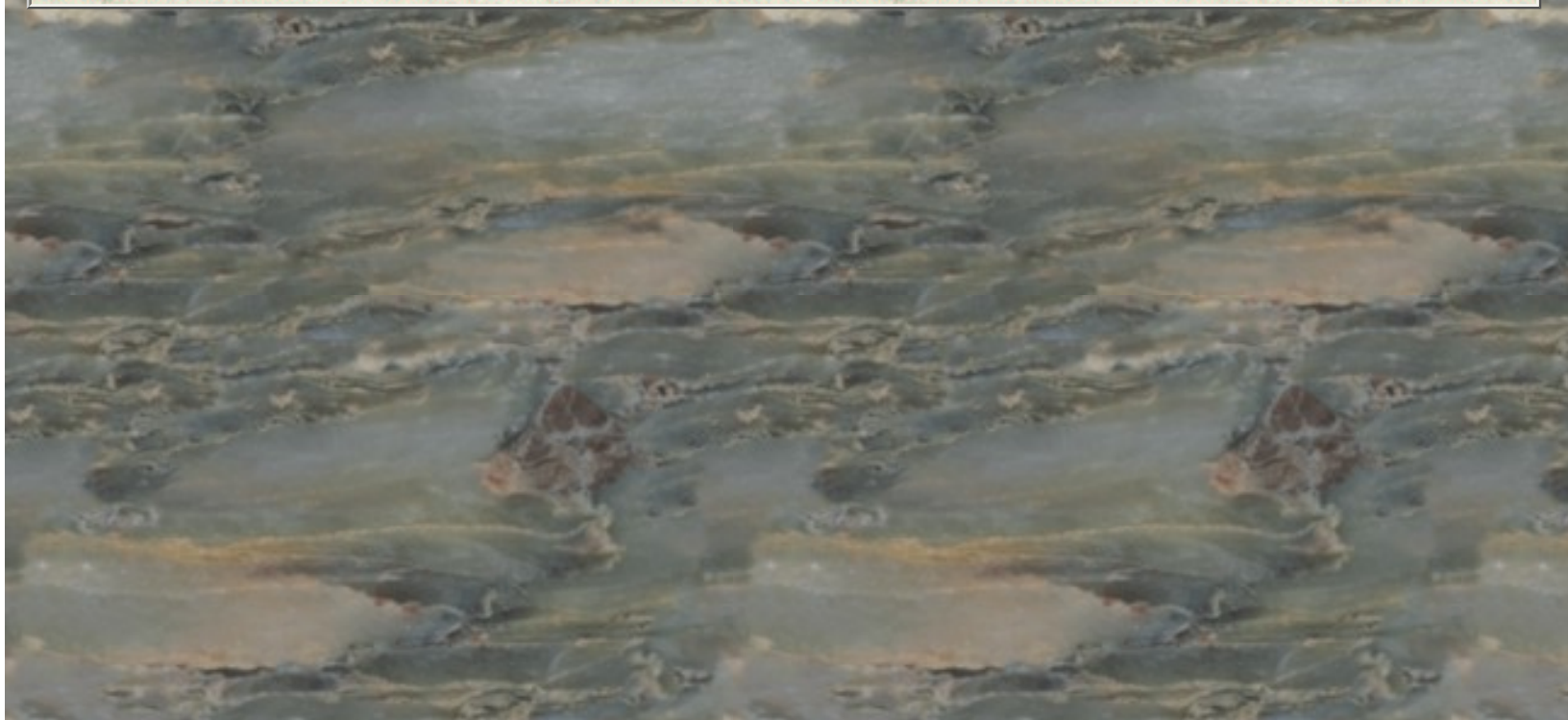


The Rix-Velikovsky Correspondence

Zvi Rix

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|-----------------------------------|-----------------------------------|
| Rix to Velikovsky | April 14, 1962 |
| Velikovsky to Rix | May 7, 1962 |
| Rix to Velikovsky | April 24, 1963 |
| Velikovsky to Rix | April 29, 1963 |
| Velikovsky to Rix | October 25, 1963 |
| Rix to Velikovsky | October 30, 1963 |
| Velikovsky to Rix | November 4, 1963 |
| Velikovsky to Rix | December 18, 1963 |
| Rix to Velikovsky | December 27, 1963 |
| Rix to Velikovsky | January 2, 1964 |
| Velikovsky to Rix | January 7, 1964 |
| Rix to Velikovsky | February 1, 1964 |
| Velikovsky to Rix | March 4, 1964 |
| Velikovsky to Rix | March 18, 1964 |
| Rix to Velikovsky | March 31, 1964 |
| Velikovsky to Rix | April 7 1964 |
| Rix to Velikovsky | April 12, 1964 |
| Rix to Velikovsky | June 17, 1964 |
| Velikovsky to Rix | June 25, 1964 |

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| Rix to Velikovsky | June 30, 1964 |
| Rix to Velikovsky | July 1, 1964 |
| Velikovsky to Rix | August 3, 1964 |
| Rix to Velikovsky | August 18, 1964 |
| Rix to Velikovsky | May 26, 1967 |
| Velikovsky to Rix | 1972 |
| Rix to Velikovsky | November 17, 1972 |
| Rix to Velikovsky | April 20, 1974 |
| Velikovsky to Rix | July 3, 74 |
| Rix to Velikovsky | July 9, 1974 |
| Rix to Velikovsky | December 19, 1974 |
| Velikovsky to Rix | January 28, 1976 |
| Rix to Velikovsky | March 29, 1976 |
| Rix to Velikovsky | January 20, 1977 |





The Rose - Velikovsky Correspondence

Lynn E. Rose

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|---|-----------------------------------|
| Lynn E. Rose to Immanuel Velikovsky | February 26, 1976 |
| Immanuel Velikovsky to Lynn E. Rose | May 11, 1977 |
| Lynn E. Rose to Elisheva Velikovsky | December 22, 1977 |
| Lynn E. Rose to Immanuel Velikovsky | March 9, 1979 |
| Lynn E Rose to Malcolm Lowery | November 12, 1979 |



Jan Sammer 781-38th Avenue Lachine, Quebec, Canada K6T 2C2

January 10, 1978

Dear Lynn:

With the publication of *Ramses II and his Time* in April and of Velikovsky's article "From the End of the Eighteenth Dynasty to the Time of Ramses II" in *Kronos* before the end of March, the whole *Ages in Chaos* scheme will be presented; and I think this is a good time to take stock of all the remaining unpublished books, and plan how each might be brought to completion.

Let me start with *The Assyrian Conquest*. I retyped the manuscript almost entirely, to include Velikovsky's many corrections and additions, which he made in pencil on the mns. The new mns. includes two or three brief new sections, and some existing sections receive a fuller treatment. At the very beginning, instead of "The End of the House of Akhnaton" I put the article on Akhnaton which Velikovsky once wrote for the *Encyclopedia Britannica*, but which was never published. I followed the suggestion of a pencil note on the mns. of the *Conquest*: Velikovsky, however, has not definitively agreed to this change. I thought "The End of the House of Akhnaton" was not very good because it tried to cover too much ground too briefly, and assertions were made (such as the claim that Smenkhkare and Tutankhamun killed each other in a duel) which had not been proven in *Oedipus and Akhnaton* and did not really add anything to the reconstruction. The "Akhnaton" article, on the other hand, is very well written, more restrained in the claims it makes, gives a fuller treatment to the period, and does not lean so obviously on the Oedipus-Akhnaton parallel, building only on the Egyptian evidence. I think the Oedipus-Akhnaton identification should be mentioned, but perhaps only in a footnote; it need not be stressed for the purpose of *Ages in Chaos*. The only problem with including this article is that it starts with the reign of Amenhotep III and Tiy, and *Ages I* stops near the end of Akhnaton's reign. Still, it would be good to tell the story of the end of the 18th Dynasty in *Ages*; the first volume concentrates on the events in Asia. So with a short introduction, explaining that we go a little back in time, the article could serve as the first chapter. The section on "The Radiocarbon Age of Tutankhamun" I suggest to omit: the story was told before, and our argument should be based on all available dates, not just a selected few. There is to be an article on this in the forthcoming *SIS Review* special issue on *Ages I*. After the end of the 18th Dynasty should be a section on evidences from art, literature and religion re: the sequence of dynasties. It would be similar to what will be in the *Kronos* article, but in greater detail. So far written is 1) a section on the "Three Early Saite Tomb Reliefs," discussed by Cooney in his article in *JNES* of 1950. However Eddie objected (and I believe with good reason) that Montuemhat,

together with Psamthek, belong into Persian time, and therefore we are still comparing reliefs some 4 to 5 centuries apart. 2) The section on the Dream Stela of Thutmose IV is good. 3) One more section on ‘religion,’ Aton worship in Libyan times, was written, but this I had to change quite a bit, because looking up the reference I found it refers to a text., and not an actual picture of the Aton disc. But there is quite a number of other evidences—I collected a whole file, using various leads from Velikovsky’s notes; now some writing needs to be done. The comparisons between 18th Dynasty and Libyan art are especially convincing.

Velikovsky wanted to include at this point a few “follow-up” sections to *Ages I*, such as “The Ivory of Fort Shalmaneser,” the escape of Nikmed to Greece, the discoveries at the Cadmeion, and a few others. These are mostly already written, e.g. in the essay which you may have seen on “Some Additional Evidence for the Period From the Exodus to the end of the 18th Dynasty.” The chapter on ivory needs some research on detailed comparisons (articles and reports are generally published in *Iraq*; the actual report of Mallowan is a two-volume work from 1965 or 1966). The discoveries at the Cadmeion raise the problem of the proper placement of the Kassites: seals of Kassite kings were found there. Thus archaeological evidence would seem to point to a later placement of the Kassites, who would therefore not be identical with the Hyksos. But this of course raises a host of other questions. At this point there should be some description of the later reign of Shalmaneser III, the Great Revolt, the reigns of Adad-Nirari III and Sammu-rammat, etc. On the Egyptian side Velikovsky wanted to write about Osarsiph and the priest Osorkon. Some research needs to be done here: it is a question of comparing the texts in Josephus and the Osorkon texts, newly translated by R. Caminos, and published in the *Analecta Orientalia* series of monographs (ca. 1957 or 1958). The parallels of expulsion, and some kind of return of the priest, and his cruelty and unpopularity, are obvious. In the next chapter, on Pharaoh So, Velikovsky wants to give an alternate solution, beside the one which he now has, namely, to say that So may be Sabaka: the Hebrew actually has Sua, and the Assyrian annals, referring most probably to the same king, have *Si’be*; so it is not implausible, and many Egyptologists formerly held this view, except now So is Zoan, despite the grammatical difficulty. But the identification with Sosenk accounts rather neatly for Sosenk’s Palestinian campaign reliefs on the Bubastite gate at Karnak. As a minor point, I think the spelling should be Shoshenk—because this is what it is in Egyptian.

The section on Harsiese I omitted from the Kronos article, and would suggest to omit in the book for the following reasons: 1) Harsiese is generally accepted to have been a *god* in the Haremhab coronation text (see Gardiner’s article in *JEA* ca. 1958), and not a person. This I would not dispute, because the *neter* sign shows this. 2) Harsiese was a very common name: there were several in Persian time, and in the time of Assurbanipal. To use this evidence would be to employ the same method which Kitchen used to support the conventional scheme, .

The other sections on Haremhab are good; the “Three Little Riddles” is replaced with separate short sections, each presenting one “riddle”: 1) the tomb of Petamenophis, published in UI for 1936 (if my memory serves me correctly), where a cartouche of

Haremhab was found, yet von Bissing, the excavator, wonders why there is no indication of a date in this Ethiopian tomb: Haremhab's cartouche is the missing date. 2) Haremhab and the prince Sheshonq; this is based on an article in *Annales du Service* of 1956 by Labib Habachi, who reproduces a portrait of Haremhab in this Libyan tomb; the problem is that Haremhab wears the Ureus, and the representation must be dated very early in Haremhab's career (end of Libyan times). One could say that the royal insignia were added later—this is what is generally said about his tomb at Memphis. 3) The third evidence comes from a publication by De Rouge in the last century: Haremhab and Tirhaka are shown together on a pylon at Karnak (I believe it is the so-called Ethiopian Pylon). Haremhab is acting as a priest: thus one would say that this dates the time before Haremhab went over to the Assyrian side—but this raises the problem of when did Tirhaka begin to reign. Generally it is thought that he succeeded Shabteka in -689, and Velikovsky uses this fact as an argument when he tries to bring out that there were two campaigns of Sennacherib into Palestine: Tirhaka participated, but he could not have done so in -702, since he was not king then. The idea occurred to me that the only other time that Haremhab and Tirhaka could be shown together celebrating a ceremony (the priest Haremhab proclaims among other things “nous n'aimons pas les rois d'Asie”) would be after Tirhaka's campaign of -687, when Haremhab was defeated together with Sennacherib. Which brings me to the next point about Haremhab fleeing to Argos as Danaus, This I find chronologically impossible. Danaus was one of the earliest kings of Argos. But Haremhab's wife, Twosre (Thuoris) was said by Manetho to have reigned at the time of the Trojan War. The two things cannot be reconciled, and there is no more reason to trust Manetho for Danaus being Haremhab than for Osarsiph being Moses, The rest of the mns. reads well and has few problems. The chapters on Seti's wars in Syria could be elaborated—they are not well synchronized with Assyrian events. At the very end Velikovsky wanted a supplement on the Library of Assurbanipal at Nineveh, to deal mostly with the astronomical texts found there, ancient eclipses, etc. I don't know to what extent he wants now to pursue this idea: it seems rather extraneous to the whole scheme, and is not written yet; perhaps it could be put together from the debate with Stewart and other writings. On the whole, then, the book is written, and within two months could be prepared for print. I have already had some illustrations made.

The *Dark Age of Greece* is about 100 pages typed—not enough for a book, What could be done (and Velikovsky did not oppose the idea when I mentioned it to him) that the book should consist of these 100 pages, plus an annotated bibliography prepared by someone else—I was thinking of Eddie Schorr—to take account of the vast amount of material available, and research done. A hundred pages of text might be enough—the 500 year problem can get monotonous, but for scholars a large annotated bibliography would be the best approach,

Now a few words about Test of Time. It is now about ten years old and in need of updating. This can be done by other people, such as Ralph or Earl Milton. Some newer sections exist, I remember typing about four or five. Besides, for “Venus” and “Moon” Velikovsky's articles in *Pensée* could be made use of. The chapter on the

moon is actually pre-Apollo. Perhaps we should try to update just one volume—on astronomy—over the next year. This can only be done if other people will help. For a start I made one corrected version (bringing together the corrections of Ralph, Earl, and Velikovsky on one copy), of “Sun,” xeroxed it on 14” sheets to leave space for footnotes and additions, and sent a copy to Earl. As you know, *Test of Time* is under the Doubleday contract, so there should be no problem about finding a publisher.

There seems to be a consensus that the next book should be *Mankind in Amnesia*. Now as you probably know, this book was given to Bradbury to read in the fall of 1976, as you edited it, and he wrote a letter with his opinion of it. Besides the preface, which he thought was “apologetic” he wrote that the book does not have any kind of climax, that it is too “chopped up.” We discussed this again briefly when I was at his office a few months ago with the galleys of *Ramses II*. He then suggested that several of the sections, especially those in the chapter “Chronicle of Our Time” would find a better place in Velikovsky’s autobiography—as would the whole Einstein book, but more on this later, I tend to agree with Bradbury and in fact the book could be fairly small. This is also what Velikovsky has been saying lately. It should be small, tightly organized, and it should not go in all directions; e.g., the 52 and 700-year cycles need much elaboration. In fact only the mid-fourteenth century is written of the 700-year cycles, and while the projected “At the Cradle of Christianity,” and the section on the rise of Islam would be most interesting and would fit well into the scheme, their absence makes the whole 700-year cycle not very convincing. So perhaps it would be better to leave out the cycles altogether. Two sections are missing, and this was noticed by many people. A short explanation of the actual cause of the traumas in the catastrophes—this is never explicitly stated—and an explanation later on that war is a desire for repetition of the experience: this again is never actually said, and it should be. I feel that these two points can be made into the two climax points of the book. As to the arrangement of the chapters, Velikovsky liked yours except for the fact that he wants the later sections on war and violence to center around the Second World War: thus, this part would start with the Freud-Einstein correspondence, continue with Wells, then the Chosen People of Hiroshima, then Jung’s Testament.

So *Mankind* really needs some good editing.

There are other manuscripts I worked on, for instance *Shamir*: this mns. is quite short, and it is not very likely that it can be made into a book. But I retyped the whole thing; there are sections on “Sanverin,” which means hypnosis in the Old Testament; on various electrical phenomena connected with Moses and Elijah; on diamonds; and of course on “Shamir” the radium of King Solomon. I suppose it could only be published in combination with something else.

Next is “The Secret of Baalbek”: the title essay, as you know, is on the location of Dan: this essay I retyped, to include various pencil corrections of Velikovsky, and I looked up and filled some missing footnotes. In the same book belongs “The Desert of Wandering” where Kadesh Barnea is identified with Mecca, and a detailed comparison between the Arabic traditions of Mosai-ki-ya and the Hebrew traditions

of the wandering in the desert is made. The third part of the book, as I see it, would be a kind of glossary of geographical sites which receive a new identification. I think you have a copy of the notes in alphabetical order which Velikovsky wrote, and I thought that if he does not expand on them they could be published as they are in alphabetical order, even if there is some overlap with the longer essays. Actually one other longer essay belongs in this book, the one on the exile of the Ten Tribes into Southern Russia, for which I read somewhere a title "Behind the Mountains of Darkness." This essay Velikovsky told me a few weeks ago only, should be taken out of the Assyrian Conquest Volume. In that mns. it broke off about half-way, and I was able to reconstruct an ending from a very early version of the same story which I found in the archive. So now it is complete, a fairly lengthy essay. I corresponded on this with Eddie last fall, and he had objections—but none actually fatal to the scheme, and I still think it is plausible. So there you have it: three essays plus a historical-geographical glossary, and it would be a book,

I retyped the book on Einstein, *Before the Day Breaks* almost in its entirety and with a little editing it has gotten in such form that sometime in September, I believe, it was sent to Mr. Wyeth, chief editor at Harper & Row. Returning it three weeks later, Mr. Wyeth wrote that he found the personal story fascinating, but could not understand the part on science. But that, of course is the core of the book; Velikovsky would not write simply about his friendship with Einstein. As I said, Bradbury suggested an abbreviated version of the book for Velikovsky's autobiography.

My own view is that it should be a separate book, as it was written. Parts of the flashback are missing; otherwise it is nearly complete. But this is one book that can wait for its time to arrive when the issues discussed become important in the public mind. The two publishers who saw it think that it is not a big enough story—this is how I would interpret their reactions. (Sam Vaughn, the chief editor at Doubleday is now reading the mns.) Maybe not yet.

I regard the planned volumes on the earlier catastrophes as the most important of all, with the possible exception of *Mankind in Amnesia*. You have the old version as it stood in 1946. In addition to that Velikovsky wrote a little more, I believe in the early 1960s, and the following are the new sections: "Khima," "The Light of the Seven Days," "Seventeen," "Nova," "Description of the Deluge in Rabbinical Sources," and "The Salts of the Oceans." I enclose xerox copies. I also enclose in xerox my notes from some recent research that I did (during December) on Saturn, to give you an idea of the amount of material that might need to be taken into account when the book is finally written. I would like to hear from you how this book might be put together, assuming that Velikovsky will not work on it any more, but will give direction and advice. My own idea was that possibly additional material, which really needs to be included, could be written in italics to distinguish it from the main text. Because of the momentous nature of the events described the documentation must be full; still, we must preserve the authenticity of the parts written by Velikovsky, and any additional material should be so marked. Please look over the enclosed material and let me know what you think can be done.

x/c Mrs. Velikovsky

Yours,

Jan





HARVARD UNIVERSITY PRESS
Office of the Director
38 Quincey Street, Cambridge 38, Mass.

October 11, 1945

Dr. Immanuel Velikovsky
526 West 113th Street
New York 25, New York

Dear Dr. Velikovsky:

I have received your letter of October 9th and am writing just this note to tell you that your manuscript is still in the hands of our reader. Just as soon as we have been able to give it the necessary consideration, we shall let you have our decision. We shall make every effort to hasten the matter.

Sincerely yours,

Roger L. Scaife



The Schaeffer-Velikovsky Correspondence

[Claude Schaeffer](#)

| | |
|--|---------------------------------------|
| <u>Schaeffer to Velikovsky</u> | <u>July 23, 1956</u> |
| <u>Velikovsky to Schaeffer</u> | <u>April 17, 1961</u> |
| <u>Schaeffer to Velikovsky</u> | <u>April 26, 1961</u> |
| <u>Velikovsky to Schaeffer</u> | <u>March 2, 1964</u> |



The Schorr - Velikovsky Correspondence

Edwin Schorr

| | |
|---|----------------------------------|
| Edwin Schorr to Jan Sammer | October 30, 1978 |
| Edwin Schorr to Immanuel Velikovsky | October 30, 1978 |
| Edwin Schorr to Immanuel Velikovsky | April 16, 1979 |
| Edwin Schorr to Elisheva Velikovsky | April 18 , 1979 |
| | |
| | |



March 31, 1947

Dear Professor Shapley:

May I ask a few questions? Is the sun a charged body? Is the red line dominant in the spectrum of the solar hydrogen? Do charged particles arrive from the sun?

Does the sun rotate? Does a rotating charge body create a magnetic field?

Is the earth a charged body? Is at least its ionosphere charged? How does a charged body behave in a magnetic field? Revolving like planets around the sun?

Is the magnetic field of the sun too weak? How does it come that some of the disturbances on the sun are registered in the ionosphere as soon as they are seen? Is this not, possibly, an indication that the earth is embedded in the electromagnetic field of the sun?

Is the cause of the magnetic field around the earth in its charge? Would not a charge interfere with the movement of the earth? And since the sun is charged, should not the earth, charged or neutral, be affected in its movement by the charge of the sun?

Does a charged body fall with the same velocity as a neutral body? How do we know it? Do we measure the ascent time and the descent time separately, or do we satisfy ourselves with counting the swings of a pendulum? (p.16)

I send you a synopsis "Cosmos without gravitation". I was not unaware of the implications of my historical cosmology ("Worlds in Collision"), about which you wrote to Kallen: "Dr. Velikovsky's claim that there have been changes in the structure of the solar system during historical times has implications which apparently he has not thought through; or perhaps was unable to convey to me in our brief conversation... Then the laws of Newton are false."

In the first part of the synopsis I bring some twenty-five exceptions from the law of gravitation. It is possible that some of them can be explained. But can a physical law, like a grammatical rule, exist with exceptions? Is not one exception out of twenty-five sufficient to discredit the law? Why is the sun round and not oblong, though it rotates and though its gases are under a very weak pressure?

What I am afraid of is not to be disputed but to be dismissed without being read. I compressed my "Cosmos without gravitation" into a short synopsis, and thus I replied to your challenge. The greater a scholar, the more a public figure he is; and this

makes me think I am entitled to write to the bearer of the name Harlow Shapley.

Very sincerely yours,

(signed) Im. Velikovsky





HARVARD COLLEGE OBSERVATORY
Cambridge 38, Massachusetts

February 20, 1950

(Not for publication. HS)
Mr. Ted Thackrey
The Compass
New York City, New York

Dear Ted:

Somebody has done you dirt. They got you to republish Larrabee's article from the January Harper's Magazine. Collier's also has given this crank a great run, and several other presumably reputable publications have handled the stuff with a flat pen.

In my rather long experience in the field of science, this is the most successful fraud that has been perpetrated on leading American publications. To me the article seems so transparent that I am surprised that Harper's and Macmillan would handle it. I am not quite sure that Macmillan is going through with the publication, because that firm has perhaps the highest reputation in the world for the handling of scientific books.

A representative of Max Ascoli's magazine. The Reporter, called me up a few weeks ago and asked me to write a refutation or comment. My colleague Mrs. Cecilia Payne-Gaposch-kin has written such a paper for The Reporter, and I suppose it will be forthcoming soon. I enclose a copy. It occurs to me that The Compass might like to republish (with permission) this comment from an American astronomer of the highest standing.

A few years ago this Dr. V. sent me a copy of his pamphlet "Cosmos Without Gravitation." I filed it away with the other crank literature that comes to a scientific laboratory. We could dig out several equally plausible writings, mostly published at the author's expense. We have the publications of the Flat Earth Society—desperately sincere. We have the theories on the origin of the solar system by the Fuller Brush man of Florida. We have the writings of the men who unfortunately were unable ever to go to school, but have herewith overthrown the theories of Einstein (as Dr. V. has overthrown Darwin and Newton and all the rest).

A number of astronomical groups have talked about this business, and their sad conclusion generally is that we are in an age of decadence where nonsense stands higher than experiment and learning.

Of course one should not pay any serious attention to these matters, and I certainly would not have done so if The Compass had not reprinted, apparently with a straight face, the Larrabee article.

This man Dr. V. came to me in New York several years ago and asked me to endorse his work so that he could get it published. I pointed out to him that if he were right then all that Isaac Newton ever did was wrong. Nevertheless we seem to have built up a civilization, and the hotel in which we were standing, on account of the contributions of Newton and others of his kind.

You know, of course, that I personally am a sympathetic friend of the thwarted and demented, and have no high respect for formalism, and none at all for orthodoxy. But this "Sun stood still" stuff is pure rubbish, of the level of the astrological hocus-pocus, except that Dr. V. has read widely as well as superficially and can parade a lot of technical terms which apparently he has not mastered. But if he had mastered them, who would want to publish his stuff!

Sincerely yours,

Harlow Shapley





The Shore-Velikovsky Corresp

ondence

A. F. Shore

[Shore to Velikovsky](#)

[August 11, 1960](#)

[Velikovsky to Shore](#)

[August 18, 1960](#)



The Siple - Velikovsky Correspondence

[Frank E. Siple](#)

[Velikovsky to Siple](#)

[April 10, 1960](#)

[Siple to Velikovsky](#)

[April 18, 1960](#)

[Velikovsky to Siple](#)

[April 24, 1960](#)



The Spitzer - Velikovsky Correspondence

Lyman Spitzer

[Velikovsky to Spitzer](#)

[February 19, 1954](#)

[Spitzer to Velikovsky](#)

[February 26, 1954](#)



The Stuckenrath-Velikovsky Correspondence

Robert Stuckenrath

[Velikovsky to Stuckenrath](#)

[August 4, 1963](#)

[Stuckenrath to Velikovsky](#)

[August 7, 1963](#)



January 29,1975

Dear Dave:

As soon as I received your typescript sent to me by Steve, I read it, spending most of the day to do so. Under the first impression I wrote down a quite extensive evaluation; I also expressed my amazement at the great effort you put into pursuing your theme and typed five single spaced pages without yet completing it; then I put it aside; several other tasks demanded my attention. Now I will try to put my evaluation and criticism into a somewhat more concise form.

Your work consists of three theses. The first deals with the worship of some deity located in the North. You cull from many references in the existing literature. I admit to not having paid much attention to this fascination with the North and to me, if I would have been asked what it is about, I would have referred to the short section "Tao" in *W.in C.* - By the way, you should have paid some attention to this religious philosophy that centered its interest on the North, but you omitted to do so. - The fear that the terrestrial axis may change its direction - and in historical times it did change — was, in my view, the reason for preoccupation with the North Star as you can also read in some of the American Indian legends quoted in *WiC.*

Your second thesis deals with Saturn referred to in ancient sources as "sun." Nobody who studies the mythology of Saturn could have missed this peculiarity and in my old notes, dating from the 1940's I have many quotes that escaped your attention. On the other hand, you have many references that are not in my files. I had my explanation for Saturn being called "sun" ; I shall return to this.

Up to this point the merit of your work is mainly bringing together an impressive array of references in literature with the expressed intention to demonstrate a physical basis for them. Your own original idea is in Thesis #3, namely that Saturn referred to as a northern star was a "Night Sun" immovable over the Polar North. To this last thesis references are much more scarce. I wished to look up the reference from de Santiilana and von Dechend (I possess -the book though have not read in it) but you do not indicate the page in the book; would you let me know? You also do not quote verbatim the note in the second volume of Cook's *Zeus*, - and I had no occasion yet to look it up in the Library. Acc. to you it refers to a statement in one of the Neo-Platonics. Now it seemed to me that your construction depends to a great extent on the untraced quote. Neo-Platonics of late Antiquity would be regarded by themselves as secondary sources; but possibly, if you should trace the reference, it may contain a mention of earlier authorities.

It appears that Thesis #3 is not as firmly established as the manuscript may suggest to a reader already much impressed by the rich evidence brought together for Thesis #2.

The physical model of what you suggest escapes me. If somebody, possibly Juergens, comes with a model, I would like to be told. In the solar system, neither the case of Uranus with its axis in the plane of the ecliptic (nearly so) - but not pointing toward the sun, not the case of the Moon with the same face towards the Earth, are fitting models for what you suggest. Whether a satellite could steadily point with its coinciding geographical and magnetic poles towards a magnetic pole of a primary is not probable but this is the only remote possibility of a model that I would envisage. You can, however, not with good grace, offer the physicists to follow a historian of folklore, if you stop abruptly where some discussion of a model is being expected. But possibly your mailing your work to many readers has this purpose of evoking some model from those who wish to go a step farther.

Your removal of the Sun from any role in mythology goes, in my view, a little too far. It is true that in late antiquity and especially since Macrobius almost all mythology was made to represent the Sun, a vogue very much in mode at the beginning of the 19th century (Goethe's time) but also later - see my references in the first chapter of *Oedipus and Akhnaton*; but if there was a Day Sun besides a Night Sun, it could not escape having some role in mythology. The question why Helios or Shemesh were assigned secondary roles in the mythology of ancient peoples, I solved as reflecting the visual concept of what was going on the celestial screen at various celestial near contacts with the Earth: It was Mars that made the Sun retreat or to hurry down to setting, Mars (in other instances Venus, or Jupiter) being the great warrior, the Sun almost a frightened creature - and this very thought permeates the mythology of primitive peoples whether American Indians or Pacific races (Mau mythology).

To your thesis #1 you could add the reference to Baal-ha-Zafon (pronounced Tzafon) - the Lord of the North - referred to as a geographical point (probably a temple) in the description of the Passage of the Sea (Book of Exodus).

Reading your opus made me think that unduly I have not thought before of the role of the Polar Light in mythology. Neither you have thought of it. Considering that the catastrophic events of the past strongly activated the charge of the Earth - and of other celestial bodies, the Polar Light must have been observed much more spectacular than in our days, and also at lower latitudes. Such phenomenon (immovable, though the sheets of light stream and make a phantastic display) could not have left no trace in mythology.

The other idea that came to me reflecting on your work, is that at some time in the past the north Polar Star, could have been one of the presently brilliant stars of the South, either Sirius or Canopus. The worship of these stars in Egypt and in other lands, is possibly of significance in connection with the former role of one of them, or possibly of each of them at different times, as Polar Star of the Northern Hemisphere.

To Thesis #2, as said before, I have my explanation and it is found also put in type by Pensée when a short article by John Holbrook, Jr. was contemplated for printing but dropped later at my request. Statements unsupported by the material as collected and presented by me in the 1945 (or earlier) version of earlier catastrophes, may appear bizzare and lead to attacks; is not the case of Venus erupting from Juniter, clearly spelled out in WiC as the theme of a separate volume, became the favorite target of attack by my detractors among astronomers? Or the case of the not published volumes of Ages, known only from the Theses, being the theme for attack by historians, believing free to select the target in what they assume is in the unpublished volumes.

The article by Holbrook was read by you, in galleys, I assume. In it I explained why Saturn was considered a "sun" . Already in the manuscript of Saturn and the Flood (1940's) I understood that Saturn disturbed by Jupiter, exploded as a Nova, and its light outshone the Sun by far.

Later, and the idea was expressed by me in several instances (it is also found in Holbrook's article who, by the way, discussed with me the theme quite a few years ago, as did also some others) I started to think that quite possibly, though not certain, that at the age of Kronos, the planet Earth could have been a satellite of Saturn. None of them was on their present orbit. I will not expand on the reasons for such a hypothesis. But this would be the second reason for referring to Saturn as "sun" .

I was interested to see where your ideas would bring you to, and also to learn how close you would come to my ideas, you and the other few who, with less devotion (at least as to days of work involved) but still pursue the problem of the mythology of Saturn brought to this by my telling so much and no more about my unpublished work.

The idea of Saturn as a Night Sun is yours and I have no part in it. However, at various occasions, also at Symposia and lectures, I disclosed more about Saturn than you credit me in the first paragraph of your work the footnote to which is deleted. I have many times referred to my unpublished book, *Saturn and the Flood*, identifying Saturn as the cause of the Universal Flood. My early claims that Saturn consists mainly of water and has molecular or atomic chlorine were confirmed and Steve has the xerox of the facsimile letter by W.S.Adams written in 1955 - very skeptical of chlorine on Saturn, since then discovered. For my thesis that Saturn became a nova, I offered at the occasion of several lectures a new advance claim that Saturn may still emit cosmic rays of low intensity, the nova explosion itself having taken place between five and ten thousand years ago. See Ferté in Pensée, May 1972. In 1976 Pioneer X and then XI will pass Saturn and we may have the confirmation. Certainly no stranger prediction was made among all my advance claims.

I am interested to know who besides myself, to your knowledge, brought together Saturn and the Universal Flood. This subject of my book so much delayed in

publication, is dropped by you in a few words on the last page of your typescript. Or who identified Osiris with Saturn? It is quite possible that somebody besides myself came upon this identification but I observed that A.H. Gardiner in his last book, "Egypt of the Pharaohs," and even with more perplexity in an article, excerpts from which are in my files, wondered at what the historical meaning of Osiris, that so dominated the spiritual life of the Egyptians, could have been. Was he an ancient king or what? Through five decades of work in Egyptology, Gardiner could not solve the problem. But Osiris is Saturn.

I wrote, as I see, again at a greater length than I intended, but I think I did not waste typewriter's ink. No question, you have the fire that is a precondition of great discoveries. And you have also the ability to write persuasively building your case with a mounting suspense: but a discovery of a new land in the distance and a mirage can convey similar sensations. Nevertheless, what counts is that you rose in my eyes as a courageous and infatigable thinker, a dedicated hunter after source material, and this independent of whether there is truth in your theses. I wish you luck.

With friendly feelings,

Im. Velikovsky





New York Post
FOUNDED IN 1801
THE HOME NEWS

MAIN OFFICE: 75 WEST ST., NEW YORK 6

DOROTHY S. AND T.O. THACKREY
Editors and Publishers

Oct. 21, 1948

Dear Observer:

God be with you and yours always—and particularly on this journey.

Your fight for justice and idealism cannot fail. Your friendship and counsel means much to me and those others of us who believe in and with you.

A successful mission—and a speedy return.

Sincerely,

Ted O. Thackrey



The Tulin-Velikovsky Correspondence

Abraham Tulin

[Tulin to Velikovsky](#)

[December 1, 1950](#)

[Tulin to Velikovsky](#)

[June 28, 1951](#)

[Tulin to Velikovsky](#)

[December 20, 1955](#)



January 23rd, 1924

Dr. E. Welikowsky,
P. O. Box 194
Tel-Aviv, Palestine

Dear Dr. Welikowsky:

Many thanks indeed for your letter and the two books which you were good enough to send. I was very pleased to have them. They are extremely well done and it pleased me tremendously to see the first scientific books of modern times in Hebrew.

With kind regards,

Yours very sincerely,

Ch. Weizmann



THE COMMODORE

FORTY-SECOND STREET AND LEXINGTON AVENUE
GRAND CENTRAL TERMINAL
PERSHING SQUARE
NEW YORK

JOHN MC E. BOWMAN
PRESIDENT
GEORGE W. SWEENEY
VICE PRES. & MGR.

January 23rd, 1924



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The Wiseman-Velikovsky Correspondence

D. J. Wiseman

[Velikovsky to Wiseman](#)

[July 22, 1960](#)

[Velikovsky to Wiseman](#)

[August 18, 1960](#)

[Velikovsky to Wiseman](#)

[December 8, 1961](#)





March 10, 1977 *Received March 18 – I.V.*

Dr. Immanuel Velikovsky,
78 Hartley St.,
Princeton, New Jersey

Dear Dr. Velikovsky,

I returned five days ago from an inconclusive and rather disappointing trip to Boston. Two days before I left, Larry Smarr called to warn me that there might be problems involved in gaining access to Dr. Shapley's archives. As a result of his absence from Cambridge and poor planning on my part, he had only a short time to sponsor my activities. Despite Larry's warning, I decided to risk the trip. Joan McMillan (Henry Zemel's friend) had arrived from Colorado and Henry had made plans to motor down from Toronto to spend some time with her.

My first meeting with Clark Elliot, who is head of the University Archives, set the tone for the whole week. He stated that access to the archives required the permission of both Harlow Shapley's family and the head of the Harvard College Observatory, the former for his personal papers, the latter for his public papers. An additional complication arose from the fact that they were not necessarily divided into those categories, the inference being that he, as Chief Archivist, would make the final decision. Even if I were granted access, it was further stipulated that this would only give me the right of sight and not of publication. When I informed him that I intended to see Dr. George Fields, the present head of the Observatory, to obtain the required permission for viewing the public papers, he advised me that it would be best to approach either the family or Dr. Owen Gingrich. The present Director had already denied access to materials going back as far as the 1920's and would probably show greater sensitivity to matters relating to 1950. Dr. Gingrich, he advised me, had been a friend of the late Dr. Shapley and was close to his remaining family. If he cleared me, I should have no trouble gaining original access. Having little choice in the matter, I spent the rest of the week on interviews with Dr. Shapleys' contemporaries and researching materials available to the public. I have made transcriptions of the most interesting elements in the taped materials and enclosed them as an appendix to this letter.

My interview with Dr. Gingrich has convinced me that I have very little chance of ever gaining access to Dr. Shapleys' archives. He made his position fairly clear. Any materials that were used to cast Dr. Shapley in a negative light could very well cause the family to close the archives permanently and this he felt would cause great injury to future research. He would forward my request to Dr. Allan Shapley and said that

he would take neither a positive nor negative stance to my request. I will write Dr. Shapley's son, but I fear it is all a waste of time.

Gaining access to the Shapley archives neither guarantees the success or failure of my book. It does, however, extend the time horizon. As I informed you in our recent telephone conversation, I have received financial backing for my Pipeline Project and I am under a financial and moral obligation to spend most of my time pursuing it. In addition to this impediment, a movie script that I was working on in my doldrum period has caused great enthusiasm and I find myself a silent co-producer of a major film.

These events, in balance, are highly beneficial to my ultimate Velikovsky aims. As I informed you during my Princeton visits, I am not a professional author. My ambition, once I have finished my Pipeline Project, is to further your work in a manner that best suits my native capability. To that end, I have already accumulated a rather respectable tape library of approximately thirty books on Velikovsky-Shapley material representing approximately 240 hours of recorded material. In addition to that, I have a further 20 hours of notes and recorded interviews.

Before going further on this project and deciding the form my book will take and the time I can effectively devote to it, it is important that I have some access to your materials. At present the circumstantial evidence surrounding Dr. Shapley's attempt to suppress the publication of *Worlds in Collision* is well established in the two publications "The Velikovsky Affair" and "Velikovsky Reconsidered." In particular the article by Kallen is as warm and convincing a document as one could want. To improve on this, the book must draw up a convincing psychological profile of Dr. Shapley. I am sure that his motives in the affair will never be totally clear, but the only materials I have at present support a snap decision on your work, reinforced by contemporary social and political conditions. I feel that Dr. Shapley's reaction, at base, was a psychological one paralleling the historical attitudes described by you in *Worlds in Collision* and ancillary speeches and writings and followed up competently by Stechini. I would like to see the conflict between you and Shapley as Stechini saw the conflict between Whiston and Newton. To do this effectively may or may not require access to the archives. Without individuals who were contemporary to the affair. I would like to begin by reading your unpublished biographical manuscripts and any other information relevant to the conflict. If you will grant me permission I can arrange for a reader to accompany me down to Princeton within the next sixty days.

I hope this letter has not depressed you. The Boston visit was not a complete disaster. Gingrich, although denying the possibility of Shapley's opposition as a subconscious rejection of chaos, conceded that there might be an important tie between Dr. Shapley's religious upbringing and consequent agnosticism (Gingrich would not believe that Dr. Shapley accepted an honorary Doctor of Divinity degree in his later years). Gingrich interprets any emotional reaction to your work by Shapley as a result of the wide use of Old Testament materials. On the brighter side, Larry Smarr

reported the first debate on Velikovsky at the traditional Monday night dinner held for the fifty or so junior and senior fellows of Harvard. Apparently Professor Quine, who according to Larry is one of the leading logicians of our time, made a passing reference to Kronos on something about having failed to renew his subscription to Kronos. When the laughter had subsided, Larry spoke up and mentioned that he had indeed himself renewed his subscription to Kronos. An exchange followed in which Larry attempted to explain the ideas expressed in your works and Quine kept interrupting with sarcastic interjections. According to Larry, he let Quine get in deeper and deeper until the junior fellows started resenting his interruptions and asked Quine to desist. Apparently none of the junior fellows was acquainted with your work and developed an active interest in them during the course of the discussion. Only the senior fellows the “defenders of the faith” put up any opposition.

After a week in Boston, I wonder whether I should not accept a lesson implicit in Larry Smarr’s story and the Mosaic tradition—concentrate on the young and let the Gingriches and the Helen Hoggs fade away. At any rate, I feel more comfortable dealing with the sins of the sons, than the sins of the fathers

I want to thank you again for your cooperation and encouragement. I shall eventually put it to good use.

Faithfully yours,

Milton Zysman

c.c. Dr. Larry Smarr

Bill Mullen

hw/MZ

Excerpts from Taped Interviews — Boston Visit February 23-26, 1977

Interview with David Layzer February 23, 1977

Introduction

David Layzer was at the Harvard College Observatory when *Worlds in Collision* was published. He returned in 1952 after an absence of two and a half years where he has remained to the present. He informed Larry Smarr, but did not state during the interview, that Dr. Shapley did not reply to Velikovsky’s book personally because he felt he lacked the expertise to do so and relied on such individuals as Payne Gaposchkin and others: Layzer had little regard for Shapley’s training as a

mathematician or physicist.

On Shapley's motivation for the attempt to suppress *Worlds in Collision*: "Of course the course that they took, even in that time, was clearly wrong that if it needed to be combatted at all was not to try to suppress publication but the idea was some sort of fuzzy idea that if something like that was to be published, it should be published by people who publish "porn." It was a very naive and not very well thought out reaction.

Compares Shapley's vendetta to Dr. Bok's lifelong attack against astrology. Also discusses Dr. Manzelle's three book crusade against flying saucers.

On Shapley: "Shapley also did not have what now a days would be considered an adequate scientific background... He came to astronomy from journalism. I don't think he appreciated the way the physical sciences are constructed..."

On Shapley's Personality: "He was very shy and kept his distance from people... All of his colleagues called him Dr. Shapley (Layzer recalls a gaff where one junior colleague called him by his first name); even now everyone in talking about him, after his death, refers to him as Dr. Shapley."

On his large group of female assistants: "...Shapley believed... I remember him saying once... If you make a hundred observations it has some value, if you make ten thousand observations... then you have something solid and important...his central formula was to do things thoroughly... do routine tasks in a very thorough way.. .a sort of Draconian approach to science which nobody today would consider valid ...the other professors on staff were in a much inferior position to him... and had to work on their own (did not have access to personnel on the same scale as Dr. Shapley)."

On accomplishments for the Harvard College Observatory during his tenure period: "The instruments that were built during his tenure... were second rate."

On his graduate teaching: "Shapley himself took a very small part in that P.H.D. program. He gave no courses... not even advanced courses."

On political power: "He very much enjoyed being part of the scientific aristocracy he considered himself one of the most distinguished American astronomers."

On his motives for radical political activity: "During the Second World War he was very disappointed not to be given a position of great responsibility. He felt left out."

On reasons for excluding Shapley: "His scientific talents were very limited. He did not in fact have the professional respect of the community of physicists. It was quite clear that what was not needed was not the ability to put fifty women to work reducing plates, but somebody who could organize modern physical scientists."

Layzer ends by stating that he was an energetic *man* who wanted to be involved and a position of responsibility during the war would have kept him quiet politically. “He was a man, like Henry Wallace, interested in a better world and more justice but he didn’t put them into effect very well at the Observatory. He paid his female assistants very badly... he kept as much power as he could possibly do but in principle he was a very democratic man...all for world peace, disarmament... certainly pacifist.”

On his bureaucratic accomplishments: “He was available. Many highly protective scientists are not willing to give up (their successful practice).”

Layzers’ comments on the anti chaos argument: “Shapley’s feelings about order were not overly strong. His arch rival Hubble was the one who really saw the universe as cosmos and Shapley until his dying day would never agree to Hubble’s view of the universe, which was almost instantly accepted by all contemporary astronomers i.e. that the universe is basically isotropic and homogenous in all directions... Hubble called that the principal of uniformity (Shapley opposed this to his dying day).”

Excerpts from further Boston interviews will follow in a later letter.





THE VELIKOVSKY CORRESPONDENCE

1958

| Date | Description |
|---|---|
| <u>January 28, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>May 13, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>September 19, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>September 30, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 2, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 5, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 8, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 16, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 22, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>October 29, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>November 2, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>November 11, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>November 16, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>November 20, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>November 24, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>December 3, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>December 9, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |
| <u>December 16, 1958</u> | <u>Immanuel Velikovsky to Walter Federn</u> |

December 18, 1958

Immanuel Velikovsky to Walter Federn

December 29, 1958

Immanuel Velikovsky to Walter Federn





January 21, 59
in the evening.

Dear Dr. Federn:

Yesterday before I mailed my letter, yours arrived, but I have not opened my envelope and here I write again.

Since Amenhotep son of Hapu wrote in his biography about matters in a way that made difficult their understanding, and since we agree, both of us, that he most probably was the historical Tiresias, could not his text be interpreted in a way suggested by his role in the Theban cycle?

I quote from "Eclipses of the Sun" by S. A. Mitchell, N.Y., 1923, p. 16: "Astronomy was thus of very old standing in Babylonia. The principal astronomical work called the Illuminations of Bel was compiled for the library of Sargon of Akkad; it was inscribed on 70 tablets, and apparently went through numerous editions, one of the tablets being in the British Museum. It treats among other things, on observations of comets, the pole star, the conjunction of sun and moon, and the motions of Venus and Mars." This author, though of academic standing, is not very reliable: thus he wrote that Berossus founded about the year 640 a school on the island of Kos, and that Thales was most probably his pupil. I have not heard anywhere else of a namesake of Berossus (who lived after Alexander) almost four hundred years earlier.

In your letter I found a series of interesting and important information items. It is important to re-examine all cases where Osorkon (or Shishak) is accused of re-using Ramses II stones. I believe that the case is vice-versa. Where are these incidents? I remember reading about a temple of Osorkon with cartouches of Ramses, and it looked to me as if Ramses put his cartouches on the walls of Osorkon's temple.

Is it so that your medical job may be discontinued, not just made dormant for a little while?

About the Bel tables, do you think it would be worthwhile to inquire of Oppenheim, thus renewing contact with him?

Warm regards from Elisheva. Cordially yours,





Of Repressed Racial Memories and of their Effect on Human Society

Columbia University, New York City, May 19, 1965

The view from these windows—the campus with its many libraries—evokes in me nostalgic memories of the years passed here. These were years of war and irrational behavior of man. Helpless to change anything on the world scene, I spent my days in reading, in research, in thinking and in writing. I came to this country as the prospective author of a book on history and psychology. My vocation was psychiatry and psycho-analysis, my avocation history. In the preface to my first book, *Worlds in Collision* I said that the methods I had learned to apply to a single person, I intended to apply to the human race; like the early memories of a single person, so are the early sagas and myths and legends of a race, and, like the traumatic experience of a single person, so are the traumatic experiences of the human kind. Three times in the book I revealed my psychological approach—in the preface, then in the section called “Collective Amnesia” and finally in the epilogue. In the section on collective amnesia I said that the memory of the cataclysms was erased not because of the lack of written traditions but because of some characteristic process that later caused entire nations with their literate men to read into these traditions allegories or metaphors where actual events were clearly described. Some of my opponents used this term “collective amnesia” to claim that I had no evidence, no arguments, and that I just presented my theory out of thin air, as if, in this claimed catastrophe, everything, every memory, every literary document were destroyed, and under this pretext I was free to invent. This was not the case, just me opposite of it. Maybe I should rather have applied the term “collective scotoma” because the evidence from all ancient literature is overwhelming, only no attention was paid, not even to those literary monuments that are familiar to everyone. What book is read more than the Old Testament? Here is an example, and the reader could select similar or equally characteristic sentences from many Psalms, from many pages of Prophets, from Exodus and from Numbers,

“The earth shook and trembled? the foundations also of the hills moved and were shaken. . .

Smoke. . . and fire. . . coals were kindled. . . then the channels of waters were seen, and the foundations of the world were discovered. . .” (Psalms 18)

For many generations In every civilized nation the Old Testament was read. Even the fundamentalists interpret such utterances as metaphors: who would even consider that

the hills moved—clearly this was a metaphor. But I had behind me almost a score of years of work as a psychiatrist and psychoanalyst and I was acquainted with the phenomenon of psychological scotoma. The ancient world, not only the Hebrew world, on both sides of the ocean, left monuments in writing, whether on papyri or in clay, whether on stone, with evidence of events of an overwhelming nature. Catastrophes took place within human memory; catastrophes took place also before recorded history: the time of conscious human memory reaches back no more than 5,000 years. Preoccupation with catastrophic events on a stupendous scale was, as I said, not just a characteristic feature of the Hebrew tradition, it was in the tradition of all ancient civilizations. Should you recite a Babylonian psalm it would sound to you very similar to a Biblical psalm. Here is a prayer with the “raising of hands” to the planet Ishtar, known to us as Venus,

O Ishtar, queen of all peoples. . .
Thou art the light of heaven and earth. . .
At the thought of thy name the heaven and the earth quake. . .
And the spirits of the earth falter.
Mankind payeth homage unto thy mighty name,
for thou art great, and thou art exalted.
All mankind, the whole human race,
boweth down before thy power. . .
How long wilt thou tarry, O lady of heaven and earth. . .?
How long wilt thou tarry, O lady of all fights and of the battle?
O thou glorious one, that art raised on high, that art firmly established,
O valiant Ishtar, great in thy might!
Bright torch of heaven and earth, light of all dwellings,
Terrible in the fight, one who cannot be opposed, strong in the battle!
O whirlwind, that roarest against the foe and cuttest off the mighty!
O furious Ishtar, summoner of armies!¹

I could quote you similar passages from old Hindu or Mexican lore, and the question is: why were the planetary gods worshipped? Were there to night a clearer sky, I would have asked any one of you to point out to me the planet Jupiter; you are all highly educated men, but probably only one or two of you would be able to identify me planet. Then why was this planet, named Amon in Egypt, Zeus in Greece, Marduk in Babylonia, Ormuzd in Iran and Shiva in India the supreme deity of ancient peoples? Why were the planetary gods worshipped? There were temples built to them and some of these structures are still standing. You go to Athens to see the Parthenon or the temple of Athene and the temple of Zeus. Human sacrifices were offered to the planet in all parts of the world. Man had to appease these deities; they were described as violent; they overturned cities and mountains. Man was frightened and brought human sacrifices long past ancient times. Wellhausen describes how in the last century, in Arabia, human sacrifices were brought to the planet Venus. Actually Mohammed worshipped the planet Venus (al-Uzza) before he became a follower of the Jewish faith and founded a new version of it, the Mohammedan religion. The Field Museum published some time ago a description of the Pawnee Indians bringing

human sacrifices to the planet Venus.

These are still symptoms of something that happened in the past. Mankind tries to forget these occurrences, despite the fact that there is no lack of evidence—me evidence is overwhelming. Tens of thousands of tablets with astronomical content were found in the library of Assurbanipal in Nineveh, composed before 700 B.C. and all of them conflict with the Known elements of celestial motions. These tablets disclose a highly developed mathematics, but astronomically nothing is true—neither the length of the day, nor the length of the month, nor the length of the year, nor the position of the terrestrial axis, nor the calendar dates of the equinoxes, nor the length of the shadow on the longest day of the year. These ancient tablets are discarded as if no effort was necessary to put together tens of thousands of observations and press them into clay, to burn or dry these tablets, store them -» was all this done on the basis of nothing? But trust this material and compare it with material from other civilizations for correspondences, and you have overwhelming documentary evidence.

I have collected only a fraction of the existing evidence, and again only a fraction was I able to put into *Worlds in Collision* so as not to overburden the book. Furthermore, evidence comes not only from folklore and from ancient literature and historical texts, but also from archaeology, geology and paleontology and it is presented in *Earth in Upheaval*. In the field of archaeology I would just mention that Professor Claude Schaeffer, the renowned archaeologist, excavator of Ras Shamra came to the very same conclusions as I, without knowing of my work. The description of the catastrophes, though not their cause, is given in his book *Stratigraphie Comparée* (Oxford University Press) printed in French; Schaeffer's conclusions correspond exactly also as to the number of catastrophes, their probable relative dates and the fact that the Middle Kingdom in Egypt, which is the Middle Bronze period of the Middle East, was terminated, together with the trade and civilisation of the entire area, in cataclysmic events—populations were decimated, in other places annihilated, the climate changed too. I would not go at any length into this area, because I wish to continue on the theme that I offered in this colloquium.

At the beginning of the Christian era, the expectation of the end of the world was very clear. The New Testament is full of these expectations—of the Doomsday. “The heavens being on fire shall be dissolved and elements shall melt with fervent heat. Nevertheless we, according to His promise, look for a new heaven and a new Earth” (2 Peter III, 12).

You find references to the paroxysms of nature in many Greek and Roman authors. The whole of historical and philosophical literature is full of them—in the teachings of Heraclitus and Democritus and of the stoics in general; there are also clear indications that the so-called secret learning of Pythagoras' school which was never put in writing, was preoccupied with this very subject. From generation to generation all were preoccupied with that happened and what might happen. The fear was not abandoning man even when the memory of the ancient great disturbances that affected man so strongly was already going into oblivion. In the first century B.C.

you find two friends, Cicero and Lucretius: Lucretius knew of the catastrophes and wrote of them, and traditionally he is the prophet of doom. Cicero claimed that the planets are gods, they revolve in inalterable orbits, and nothing could happen to them—they will never move from prescribed paths and they should be worshipped as gods, anybody expressing a sceptical word about them, their orderly nature, should be called to criminal court, for a great offense.

Astrological beliefs go back to the time of the Babylonian observers astrologers, who wrote what must happen if this or that planet occupied this or that position, approached this or that star. Astrology goes back to those very ancient terrifying experiences.

Men had to watch what was going on in the sky« But, at the time man refused to believe that events like this could ever happen. We wish to believe that Mother Earth has a perfect past, we wish to believe that we are on an earth and fixed in space* No theory in the history of science caused more opposition for a longer period than the Copernican theory, and it was not the church groups that came up with opposition at first, it was the scientific groups which did not-wish believe we live on something moving,

The original opposition to Darwin came from the feeling that instead of the permanency of the species creation with no changes in 6,000 years, with no cataclysmic events intervening—all of which is a traditional but wrong interpretation of the scriptural texts—Darwin claimed slow variations in living forms, accumulating to great changes in eons of time. The opposition Darwin initially met was not so great and strong as you generally believe or read in books. Actually, very soon the scientific world accepted the Darwinian theory in toto and rejected the catastrophism of the founders of geological and paleontological science, Sedgwick, Murchison and Buckland. The scholarly and popular consensus accepted Darwin most of all because his theory predicted a safe future for more eons to come. Actually, Darwin finished his book *The Origin of Species* in saying that the safe motion of the planets, the stable organization of the solar system, is what gives us faith in a safe future and in a slow and uneventful progress of evolution and this is what men like most. But did not Darwin, a young naturalist, graduated from Cambridge with a bachelor's degree in theology, observe the immense heaps of fossil bones in South America and write that, in order to destroy all these forms of life, from Patagonia, the Cordilleras of the Andes, up to the Bering Strait, nothing less than the shaking of the frame of the entire globe must have taken place? In subsequent years Darwin believed he found an explanation of the frightening record of stones and bones but the explanation could not explain the phenomenon itself and other phenomena which he would not even tackle. In his *Origin of Species* he stresses that the destruction of the species is enshrouded in mystery, and claimed blank intervals in the geological record: What appears as results of great upheaval was but accumulation of natural extinction during the lacunae in the records He evaded dealing with the fact that so many forms of life which do not belong together were found in many places under conditions that defy this explanation of blank intervals and incomplete geological records. *My Earth in*

Upheaval starts with the description of finds in Alaska, on the shores of the Tanana river, tributary to the Yukon, but also in many other places: gold-digging machines slice through “muck” hundreds of feet deep miles long to reach gold-bearing gravel: the “muck” consists of multitudes of animals, torn limb from limb, of species extant and extinct alike, forms that do not belong together, and similar finds were made in many other places of the world. Also understandable only as the effect of tidal waves are the finds on the New Siberian islands, composed of splintered trees and of bones of innumerable mammoths, rhinoceroses, horses and buffaloes, finds known to Darwin in his time. Certainly animals like the rhinoceros do not belong inside the Polar circle. The co-author of the theory of evolution by natural selection, Alfred Wallace, described the Siwalik Hills at the foot of the Himalayas filled to the brim with bones of strange animals, of extinct forms, together with others still surviving. In other places animals were found from tundras and from jungles, all heaped together, ostriches, crocodiles and tropical snakes with polar bears, seals and arctic foxes. Geologists, biologists and evolutionists know of these finds but they turn away from them, because there is no explanation. This phenomenon, of trying to forget or not to read the ancient texts in their literal meaning, not to look at the geological or archaeological and paleontological records, this phenomenon is known to the psychoanalyst in his private practice—a repression of what is most unpleasant: traumatic experiences are forgotten but then the person acts strangely.

He does things for which he has no explanation. If he has an explanation, it is mostly a rationalization, not a true explanation. Mankind forgot the paroxysms of nature to which his ancestors were exposed. If it is necessary to rediscover the past of only a few thousand years, and such effort causes violent opposition, then we have in the human race a syndrome that requires a psychoanalytic approach. The human race certainly behaves irrationally in every respect, in every field. Here is a religion of love and men were brought to the stake and burnt alive in the name of the religion of love. The fires of the Inquisition were burning when America was discovered, and the aborigines of the New World also sacrificed human beings to planetary gods. Most ceremonials of all religions go back to those catastrophes: if we look into the ceremonials of the Hebrew religion, whether it is Saturday, the memorial of the Exodus also a symbol of the seventh age, or Passover, also a memorial of the Exodus amidst plagues and of Mount Sinai rumbling and of the dark shadow of death that covered the desert for a generation. Almost every ceremonial in the Hebrew religion and likewise in every other religion goes back to these unusual events.

I have a predecessor in Nicolas Boulanger, born in 1722, who lived only to the age of 37, a contemporary of Voltaire, Diderot and Rousseau, and to me by far the greatest among them. He left six volumes and one theme is in all of them, actually what I am telling you. He was not a religious man, almost the opposite of it. He was a contributor to the *Encyclopedie* of Diderot, and wrote for it the entry on the Deluge; one idea occupied his mind in all his work, the ancient catastrophes. About them he says: “We still tremble today as a consequence of the deluge and our institutions still pass on to us the fears and the apocalyptic ideas of our first fathers. Terror survives from race to race. . . The child will dread in perpetuity what frightened his ancestors.

We shall there see the origin of the terrors which throughout the ages have alarmed the minds of men always possessed by ideas of the devastation of the world. There we shall see generated the destructive fanaticism, the enthusiasm which leads men to commit the greatest excesses against themselves and against their fellows, the spirit of persecution and intolerance which under the name of zeal makes man believe that he has the right to torment those who do not adore with him the same celestial monarch, or who do not have the same opinion he does about His essence or His cult.”

There is in our heritage fear and of hatred of man for man reaching from ancient times to our own days. He perhaps prepares his own annihilation because we are living in a time when man has technologically advanced so far that he is entering the Space Age, soon free to leave the limits of this ball of rock on which he travels. But, morally he has not advanced enough and so he is in the perilous state of toying with something that may cause the destruction of this planet, after it won in the contest for survival of the fittest among the celestial bodies.

Zdanek Kopal, a cosmologist of repute, wrote not so long ago: “Suppose however, and we cannot rule it out” when, at some time in the future a nervous hand will trigger the fateful button the world gets engulfed in a nuclear holocaust. When it is over, such life as may have survived its immediate impact will find itself condemned to a lingering death by induced radioactivity of air and water, which may take thousands of years to subside, and against which there is no defense. If so, may not the only chance of the survival of life, that precious creation which took nature hundreds of millions of years to develop, be to transplant it, at least temporarily, to the moon before Mother Earth may become habitable again? And is it not symbolic that space rockets, the potential version of Noah’s Ark, have come into being at just about the same time as a silent answer to the nuclear threat to life? “

It is a very desolate picture, but it can happen, you cannot deny the first part of it, if it could happen that the first Secretary of Defense, a man of great ability, lost his composure from overwork and ran out unclad into the street in a Florida town crying that this country was invaded by the communists: a nervous finger on the push-button and the nuclear war may start out of some error. We are in a state of great peril, because man is a victim of amnesia. He does not know what causes him to act as he does. I mentioned religion, how irrational he is there, I could mention international politics, how irrational he is there.

As a psychologist I undertook the task of trying to analyze the entire human race. It made me transgress into so many fields. The human race in the state of amnesia, playing with thermonuclear weapons, is a frightening figure. The solar system, seven billion miles across has intelligent life only on earth. If man destroys the civilization he attained and, in radioactive degeneration, sinks into barbarism, the million years’ long history of his effort to rise from the slime, will be terminated and it would be better had it never been initiated.

References

1. *The Seven Tablets of Creation*, tr. L. W. King.
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THE VELIKOVSKY LECTURES

1951

Date

Description

May 27, 1951

Young Israel Institute

November 3, 1951

The Jewish Club, Inc., New York

December 7, 1951

Riverside Synagogue



THE VELIKOVSKY LECTURES

1953

| Date | Description |
|------------------|--|
| October 14, 1953 | Princeton University, Graduate College Forum |



THE VELIKOVSKY LECTURES

1954

| Date | Description |
|-------------------|-------------|
| February 12, 1954 | Habonim |



THE VELIKOVSKY LECTURES

1955

| Date | Description |
|-------------------|--|
| February 10, 1955 | Princeton University, Psychology Class |



THE VELIKOVSKY LECTURES

1960

| Date | Description |
|-------------------|---|
| February 19, 1960 | Princeton University, Geology Dept. |
| November 12, 1960 | The Jewish Cultural Society, Philadelphia |



THE VELIKOVSKY LECTURES

1961

| Date | Description |
|----------------|--|
| April 12, 1961 | Princeton University, Graduate College Forum |



THE VELIKOVSKY LECTURES

1962

| Date | Description |
|------|--|
| 1962 | Princeton University, Graduate College Forum and Geology Dept. |



THE VELIKOVSKY LECTURES

1963

| Date | Description |
|-------------------|----------------------|
| November 14, 1963 | Union Junior College |
| December 1963 | The Haverford School |



THE VELIKOVSKY LECTURES

1964

| Date | | Description |
|--------------------------|--|--|
| February 13, 1964 | | Princeton University, Graduate College Forum |
| April 16, 1964 | | Keuka College |
| May, 1964 | | Union Carbide |
| May 12, 1964 | | Earlham College |
| May 13-14, 1964 | | St. Vincent College |
| March 16, 1964 | | Princeton University, Woodrow Wilson Society Lecture |
| September-December, 1964 | | The New School for Social Research, lecture series |
| October 1, 1964 | | Unitarian Church of Southern New Jersey |



THE VELIKOVSKY LECTURES

1965

| Date | Description |
|----------------------------|--|
| January 18, 1965 | Princeton University, Cosmos & Chronos, with Harry Hess |
| February 16, 1965 | Kent State University |
| Febr. 17-18, 1965 | Oberlin College |
| March 2, 1965 | Princeton University, Cosmos & Chronos, with Lloyd Motz |
| March 4, 1965 | Carnegie Institute of Technol. & University of Pittsburgh colloquium |
| March 15, 1965 | Brown University |
| May 3-4, 1965 | Queen's College |
| May 6, 1965 | Duke University, Department of Physics |
| May 7, 1965 | Duke University, Political science graduate seminar |
| May 10, 1965 | American University |
| May 17, 1965 | Glassboro St. Coll. "From Book to Book and Land to Land" |
| <u>May 19, 1965</u> | <u>Columbia University, "On Repressed Racial Memories"</u> |
| May 26, 1965 | AIAA - American Institute of Aeronautics and Astronautics |
| October 15, 1965 | Amateur Astronomers, Inc., at Union Junior College |
| October 27, 1965 | Princeton University, Graduate College Forum |
| November 9, 1965 | Princeton University, with Walter Kaufmann |
| November 23, 1965 | Princeton Theological Seminary |
| November 30, 1965 | Temple Israel |

November 30, 1965

Temple University, Philadelphia

1965

New York Institute of Technology





THE VELIKOVSKY LECTURES

1967

| Date | Description |
|--------------------------------|--|
| February 19, 1967 | Dartmouth University |
| April 7, 1967 | Rittenhouse Astronomical Society |
| May 4, 1967 | St. Olaf College |
| May 9, 1967 | University of Wisconsin |
| June 2-3, 1967 | Washington University, St. Louis |
| May 16, 1967 | Chicago, University of |
| May 18, 1967 | Kansas State University |
| December 4, 1967 | Princeton University, Graduate Student Organization |
| <u>December 6, 1967</u> | <u>Princeton University, Graduate College Forum</u> |
| 1967 | The Hill School |



THE VELIKOVSKY LECTURES

1968

| Date | Description |
|---------------------|---------------------------------------|
| January 28, 1968 | Pennsylvania, University of |
| January 31, 1968 | Virginia Intermont College |
| February 7, 1968 | Converse College |
| March 1, 1968 | New York University |
| April 1,2, 1968 | Cuyahoga Community College, Cleveland |
| April 8, 1968 | William Penn Charter School |
| April 27, 1968 | Yale University |
| May 3, 1968 | Rider College |
| October 23, 1968 | North Texas State University |
| October 27-29, 1968 | Rice University, Seminar |
| 1968 | Guilford College, N.C. |



THE VELIKOVSKY LECTURES

1969

| Date | Description |
|---|--|
| February 19, 1969 | The Jewish Center of Princeton |
| March 11, 1969 | Princeton University |
| April 1969 | Princeton University |
| <u>October 21, 1969</u> | <u>Princeton University, Geology Dept., C. & Ch.</u> |
| 1969 | Johns Hopkins University, Seminar |
| 1969 | Oakland University |
| 1969 | University of Washington, Seattle |



THE VELIKOVSKY LECTURES

1970

| Date | Description |
|------|-------------|
|------|-------------|

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|------------------|------------------------------------|
| January 29, 1970 | Philadelphia, Community College of |
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| March 6-8, 1970 | University of Victoria |
|-----------------|------------------------|

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|----------------|---------------------------------|
| March 12, 1970 | British Columbia, University of |
|----------------|---------------------------------|

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|----------------|--------------------------|
| April 22, 1970 | Parsons School of Design |
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| October 12, 1970 | AIAA - Connecticut section, Hartford, (jointly with ASME) |
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|-------------------|--|
| November 18, 1970 | Princeton University, Graduate College Forum |
|-------------------|--|

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|------|------------------------|
| 1970 | Georgia, University of |
|------|------------------------|



THE VELIKOVSKY LECTURES

1971

| Date | Description |
|-------------------------------------|--|
| <u>January 1971</u> | <u>ISA – The Instrument Society of America, Philadelphia</u> |
| April 6, 1971 | Utica College |
| May 17, 1971 | Bell Laboratories |
| <u>Summer 1971</u> | <u>New World, University of, Valais, Switzerland</u> |
| October 1971 | Trent University |
| October 18-20, 1971 | Toronto, University of |
| December 6, 1971 | Princeton University, Anthropology class |
| 1971 | Moravian College |
| 1971 | Drexel University |



THE VELIKOVSKY LECTURES

1972

Date

Description

February 17, 1972

Harvard University, Society of Harvard Engineers and Scientists

March 20, 1972

Buffalo State College

March 22, 1972

McMaster University

August 14, 1972

NASA - Ames Research Center

August 16-18, 1972

Lewis & Clark College

October 10, 1972

Princeton University, Graduate College Forum

1972

Congregation Rodef Shalom



THE VELIKOVSKY LECTURES

1973

| Date | Description |
|---------------------|---|
| April 1973 | Youngstown University |
| September 26, 1973 | Nassau Community College |
| October 10-15, 1973 | Century 21 |
| October 15-17, 1973 | IBM San José Research Center, Expanding Awareness Program |
| December 1, 1973 | North Carolina, University of |
| December 7, 1973 | Furman University |
| December 10, 1973 | NASA - Langley Research Center |
| 1973 | Royal Astronomical Society, Edmonton |
| 1973 | Rutgers University |



THE VELIKOVSKY LECTURES

1974

| Date | Description |
|---------------------------------|---|
| January 30, 1974 | Alabama, University of |
| <u>February 25, 1974</u> | <u>AAAS - "Velikovsky's Challenge to Science"</u> |
| March 4, 1974 | Lockheed |
| <u>May 9-10, 1974</u> | <u>University of Lethbridge, "Velikovsky and Cultural Amnesia"</u> |
| April 22, 1974 | Amateur Astronomers Association of Princeton |
| June 17-18, 1974 | McMaster University |
| Oct. 27-Nov. 2, 1974 | Duquesne University, History Forum |
| November 1-3, 1974 | Notre Dame University |
| November 12, 1974 | Massada Award, Israel Bonds |
| 1974 | Rider College |
| 1974 | Selkirk College |





THE VELIKOVSKY LECTURES

1975

| Date | Description |
|-------------------|---------------------------------------|
| | |
| April 28-29, 1975 | Auburn University, Alabama |
| May 6, 1975 | Massachusetts, University of |
| December 5, 1975 | Nassau Inn |
| January, 1975 | New Jersey State Planetarium, Trenton |





THE VELIKOVSKY LECTURES

1978

| Date | Description |
|------------------|----------------------|
| April 12, 1978 | Psychologists' Group |
| November 4, 1978 | Nassau Inn |



“*I Survived, As You See*”

Velikovsky at Harvard

Stephen L. Talbott

“I have been waiting for this evening for 22 years.” It was Thursday, February 17, 1972, and Dr. Immanuel Velikovsky was addressing 900 members of academia at Harvard University. “I did not come here for revenge or triumph,” he remarked at a seminar afterwards. “I came here to find the young, the spirited, the men who have a fascination for discovery.”

If *revenge* was not what Velikovsky sought, surely he at least savored the taste of *vindication*. For he spoke with the confidence and satisfaction of a man whom events had finally proven right—despite both the embittered opposition of science’s most powerful authorities, and a protracted conspiracy of silence—and not only proven right, but vindicated by such a rapid and breathtaking series of surprising discoveries as science has rarely if ever before witnessed.

“Nonsense and Rubbish”

It was at Harvard that Dr. Harlow Shapley, then director of the observatory, branded Velikovsky’s *Worlds in Collision* as so much “nonsense and rubbishy—without bothering to read the book. And it was Shapley who prevailed upon his Harvard colleague, Pr. Cecilia Payne-Gaposchkin, to write “the first detailed answer to Dr. Velikovsky’s theory”—before she had read the book. This “answer,” at first circulated widely under a Harvard letterhead, then appeared in the popular press as the opinion of an authority on astronomy and history, and was later reported in Shapley’s *Science News Letter*.

It was at Harvard that Dr. Fred Whipple, succeeding Shapley as director of the observatory, wrote a letter to a subsidiary of Velikovsky’s publisher, threatening to break his relations as an author with that house unless *Worlds in Collision* was suppressed. It was at Harvard that astronomer Donald Menzel ridiculed Velikovsky, claiming his theories would require an impossible solar charge of 10^{19} volts. The sun, he said, couldn’t have more than 1800 positive volts (or, it follows, one negative volt)—this before physicist V. A. Bailey calculated that the sun has a negative charge of 10^{19} volts.

And so, in a stronghold of ill-starred resistance to his views, Velikovsky was finally asked to tell his own story and to call forth his own witnesses. He spoke before an

audience hosted by the Society of Harvard Engineers and Scientists, comprising faculty, alumni, graduate, and undergraduate students. The decision to invite Velikovsky originated with Herbert Zisch-k,au, a Harvard sophomore; Louis Sutro, on the research staff of MIT's Draper Laboratory, worked out the arrangements with Velikovsky.

The invitation came at an opportune moment for Velikovsky. Five days after his lecture, the Canadian Broadcasting Corporation would air a one-hour television special on the man who for years was barred from nearly every academic institution in the country. Where once he was met by the epithets "crank" and "charlatan," doors are now slowly opening, revealing not a few sheepish, if academically dignified, faces. Many respected scientists are finally willing to discuss his work and acknowledge his contributions. His books are required reading at such colleges and universities as Antioch, Oberlin, and Princeton. The Harvard lecture itself was filmed by a team preparing a full-length documentary on Velikovsky.

Although the lecture's timing added its own drama, Velikovsky did not take advantage of the occasion by attempting to pay old debts. He counterattacked with facts. Characteristically, he did not even mention his sometimes libelous Harvard critics, but instead praised the late Robert Pfeiffer, former chairman of the Department of Semitic Languages. Pfeiffer, the first person to read Velikovsky's *Ares in Chaos*, retained an open and fair mind, publicly conceding that this dramatic historical reconstruction could be correct.

Velikovsky did refer, however, to the difficult period following publication of *Worlds in Collision*. "The scientific journals not only refused to publish my articles, but also ignored my replies to critics. It became an emotional crisis for me. But despite years of neglect, I survived, as you see."

The capacity audience in Lowell Lecture Hall, obviously sympathetic toward Velikovsky, listened attentively as, in a slow and deliberate manner, he described how he "pitted history against folklore, folklore against geology, geology and paleontology against astronomy. I found that my thesis can be sustained."

Antiquated Textbooks

That thesis came under severe attack in 1950; but today, he observed, it is not *his* book, but the textbooks that "are mostly outmoded. Those of 1950 are antiquated." An astronomer could write during the 1950's that the celestial bodies "could not possibly possess electrostatic charges enough to produce any of the [observed] effects on motion within the solar system." "But how," Velikovsky asked the physicists and astronomers present, "could the satellites of Jupiter, plowing through the intense Jovian magnetosphere, do so without any observable effect? Or how can you explain the, movement of cometary tails around the sun when, by ten totwenty thousand times, solar light pressure is insufficient to do the job?."

Darwin, and with him all the biology and paleontology textbooks through the Fifties, “frequently invoked absence of the fossil record to explain what appear to be sudden changes. Today many of the prominent evolutionists of the Fifties have been forced to become catastrophists, but call themselves ‘neo-catastrophists’ to separate themselves from me.” Further, “the theory that fossils are formed when animals die in shallow water is ‘impossible’. (Who ever saw a cat wading in water?)”

The controversial scientist recalled his predictive successes based on deductions, from his historical reconstructions: “I was bold enough to claim that Venus must be hot. I explained Venus’ equal temperatures on its day and night sides by saying that Venus gives off heat. I claimed that Venus has a massive atmosphere, while Royal Astronomer Spencer Jones said it has less than the Earth. I claimed that Mars would be moon-like, its surface cracked. I claimed there would be remanent magnetism on the moon, resulting from the close approach of planetary bodies. I do not claim to be an astronomer. But I had a guiding idea that carried me into many different fields. Critics can call me all kinds of names, but they cannot make Venus cold.”

“We Are Alone”

What terrible force gripped the Earth, Velikovsky wondered, causing a giant rift along the ocean bottoms—a rift that stretches nearly twice around the globe? What caused the ocean levels suddenly to drop 18-20 feet 3,500 years ago? Where did the white ash which covers the ocean bottom, and which its discoverers attribute to a comet, come from? Why do the clay tablets from Assurbanipal’s library, utilizing advanced mathematics, depict the celestial theater completely unlike it is today?—the length of the day, month, and year, and the positions of the moon and planets are all “wrong.”

Velikovsky reviewed the anomalies which, from one discipline to another, lend support to his belief that global paroxysms convulsed the Earth in historical times. In cosmology, celestial mechanics, geology, evolutionary theory, and psychology he questioned assumptions—“of Victorian vintage”—which have remained unchanged despite the accumulation of evidence against them.

Finally, of the students of religion he inquired: “Why was Jupiter—not as bright as the sun and not as important for our sustenance as the sun—why was it the supreme deity for a long period? How many of you could go out at night and point out Jupiter, the chief deity of ancients around the world? Why were the other planets worshipped, and why were temples built for them? Why were human and animal sacrifices brought to them? . . .

“We are alone in the solar system. We are irrational because we do not know what happened to us in the recent past. From Freud we learned that traumatic experiences are easily forgotten. We also learned that we tend to repeat them. We have, in these two arsenals across the Atlantic, enough destructive power to make life impossible. There is some ancestral heritage in us which was born in traumatic, awful

experiences. Freud knew this was so, but he did not find out what those experiences were.”

The cosmic actors, now in a state of “peaceful coexistence,” lend deceptive credence to the belief that all things have continued in peace and stability since time immemorial. But the real tale is different—a tale of destruction and terror.

“I have only said, ‘Know yourself; know your past’ ”...

“The cause of the opposition to me was in great part psychological: my critics could not accept my bringing their unconscious to consciousness.”

Concluding his lecture on an offbeat, Velikovsky recalled the remarks of an archaeology professor at Southern Methodist University: Velikovsky’s *Worlds in Collision*, the professor warned the nation, has caused more damage than “communism and prostitution combined.”

The audience, which included faculty from Harvard, Brandeis, and MIT, vigorously applauded the one-time heretic, and responded with questions ranging from the Queen of Sheba to Atlantis to Stonehenge, to the carbon dating of New Kingdom pharaohs. The hecklers, apparently, chose to stay home. After formal questions and answers, an eager crowd enveloped the lecturer, pressing him with questions about his work. He seemed to enjoy the exchange.

The next day Robert Goldfarb interviewed Velikovsky for the campus radio station, WHRB. The one-half hour taped interview was aired February 27. During the interview Goldfarb remarked, “Your theories have been very controversial. I think it’s come to a stage where the people who believe them believe them very strongly, and the people who don’t believe them disagree with them strongly ...”

Velikovsky: “Characteristically enough, the demarcation line lies between those who have read my books and those who have not. I would like to be confronted with a scientist who has read my books (not just glanced at them or read the reviews) and then offered me a straight refusal of belief. I have not seen him.”

Goldfarb: “To what extent have you adhered to the scientific method in your researches?.”

Velikovsky: “Every statement, every reference in my books is supplied with a footnote where I’ve given the author, the article or book, the place of publication, the year, and the page. So it is easy to control. Take for comparison Darwin’s *Origin of Species* (which was also presented simultaneously for the scientific world and the general public): he omitted all footnotes. Here there is no method of control—you have to believe that this or that claim about some discovery or find is really true. In my books you have nothing to take on belief. You have only to read and then to

follow your own logic. For example, my *Earth in Upheaval* is a book on the paleontological record. I never did any field work in geology or paleontology. But I collected the printed material, and when it is collected and presented, whoever reads it cannot regain a believer in slow evolution.”

Goldfarb: “To what extent do you believe the Bible is an accurate document or historical record?”

Velikovsky: “I’m not a fundamentalist and I oppose fundamentalism. I consider any work written by a fundamentalist — say on geology or paleontology — as of reduced value (even though it may have some interesting facts brought together) because there is an axe to grind. You cannot approach the Bible differently than you approach any other source. I found, however, that the Old Testament is a carefully composed history. I was gratified to discover that it is basically a truthful document.”

Goldfarb: “Your investigations have included both scientific sources and the Bible. Some people see this as a contradiction.”

Velikovsky: “The Bible in my work plays no other role than the Vedas, Upanishads, Icelandic Edda, etc. We must find the common denominator. If the Old Testament records that before the sun was disturbed in its motion stones fell from the sky, then we are close to a suspicion that maybe it was a natural phenomenon, because the ancients could not know the connection between the rotation of the earth — of which they had no inkling — and the disturbance caused by meeting a shower of meteorites in the tail of a large comet.

"But then we have to go to the legends across the oceans and find whether the Indians have the same stories. They saw the sun rising over the eastern horizon, remaining standing or even going down a little, and all the forests were burning. How could they know the connection between a disturbance in the rotation of the Earth and the conversion of motion to heat? Our suspicion grows, but we are still not satisfied. We have to find the same story in all places. These events created the mythology of all the peoples. Besides, we have the historical records.

"One must go again and again to specialists. As an interdisciplinary synthesis! you are not a jack-of-all-trades. You are the one who dares to cross the barriers. Every department is divided into compartments, and scholars believe that in other compartments there are no fundamental, unsolved questions. All is solved. Only *he* has some questions. He does not know that in other compartments is the very same situation.”

During an informal workshop the next day Velikovsky reflected on the value of his trips to campuses: “In science a theory is considered established when, besides proving better than an old theory in explaining the known facts, it also predicts facts yet unknown. I mention my advance claims not for the purpose of saying ‘I told you so,’ but for the purpose of inducing you, young scholars and scientists, to see your

task. It is not destructive. Those of you of noble spirit should think, ‘Where can I put in my little part? Which test can I do? Which calculation can I perform? Where can I be of assistance?’ My visits to campuses are not in vain if some new, younger minds will tackle what I could not.”





Dr. I. Velikovsky
mans podium to
address audience

Dr. I. Velikovsky

“In Search of Truth in Science”

by Beverly Andrews
Publicity Director, Phila. I.S.A.

Business Associates and friends had met and lingered over the cocktail hour. Conversation had flowed freely. The deliciously-prepared, well-served dinner that followed offered more “engineering” disucssions for there were three times as many people to talk to than usual. All a prelude to the featured event of the evening, at last it was time. President Carl Mariani had welcomed members and guests, and Ben DeRoy had introduced the controversial and eagerly awaited guest speaker.

The banquet hall became quiet. All eyes were riveted on the tall gray-haired, distinguished-looking gentleman standing before the microphone. From the moment he spoke until his summary, Dr. Immanuel Velikovsky held the attention of those attending the January meeting of the ISA Philadelphia Section.

Dr. Velikovsky started by saying he liked to speak before engineers because it was engineers who had given him support and courage in the theories he had propounded. And, these two qualities he needed, for “Philadelphia was a record” of his experiences of ostracism to justification as a result of his theories of catastrophic events in ancient times.

In 1950 he wrote a book entitled **Worlds in Collision** wherein he presented a different picture of the history of the solar system and earth which contrasted in practically every detail from that depicted as truth by astronomers, physicists, and geologists. In this book, Dr. Velikovsky interprets the events told in the Bible of the Exodus as actually occurring, not due to a Supernatural Force but to a near collision with an erratically-orbiting Venus.





Lethbridge University

“Velikovsky and Cultural Amnesia” Symposium May 9-10, 1974

Honourary Degree Awarded to Immanuel Velikovsky

On 19 March 1973 the General Faculties Council of the University of Lethbridge passed a motion unanimously recommending “that Immanuel Velikovsky be granted an Honourary Degree Doctor of Arts and Science at the Spring Convocation of 1974.” This motion was forwarded to the Senate of the University for consideration. At the Senate meeting, held on 7 April 1973, the recommendation from General Faculties Council was approved and the Senate voted unanimously to award Immanuel Velikovsky the degree Doctor of Arts and Science, *Honoris Causa*.

Letter of [J. Oshiro to I. Velikovsky, April 12, 1973](#) offering honorary degree

Letter of [I. Velikovsky to J. Oshiro, April 30, 1973](#) accepting honorary degree

Velikovsky’s keynote address: “[Cultural Amnesia](#): The Submergence of Terrifying Events in the Racial Memory and their Later Emergence”

[Afterword](#), by Immanuel Velikovsky, Friday May 10, 1974

[Velikovsky’s Address to the Chancellor’s Dinner](#), Friday May 10, 1974

At the annual Spring Convocation ceremony held on 11 May 1974 Immanuel Velikovsky, M. D., was presented to the Chancellor of the University of Lethbridge, James Oshio, M. D., by University President and Vice-Chancellor W. E. Beckel. Dr. Oshiro conferred on Dr. Velikovsky the degree of Doctor of Arts and Science (*Honoris Causa*).

[Velikovsky’s Address to the Convocation Dinner](#), Saturday May 11, 1974





University of the New World

Valais, Switzerland

Summer 1971

Lecture Series by Immanuel Velikovsky

[On Mankind in Amnesia](#)

[On Saturn and the Flood](#)



Mankind in Amnesia

Lecture before the Graduate Student Forum in Princeton, December 6, 1967

This room is familiar to me; not all the faces are familiar. It was on October 14, 1953 that I had the honor for the first time to speak at the forum of the Graduate College. At that time and in this place I claimed that should Jupiter be examined on emitting radio noises they would be detected. Therefore, this room is good on my memory. My coming here that time was after a period of eleven years of solitude in libraries. The ancient world came alive before my eyes—the ancient world and the domain of the sky. Everything was different from what I was taught. It was not a peaceful world evolving through billions of years, it was not a solar system, a family of planets serenely traveling on their orbits. The past was of conflict, of cataclysm, perturbation and the solar system was not a peaceful place.

Ten years ago, in 1957, the space age started. Since then, an entirely new picture of the solar system evolved. The moon, a cemetery circling the earth—whether there was at any time an abode of life, we don't know—covered by oceans of lava, pocked by craters, whether of collision or eruption, a devastated world, is not inactive, nor cold to its core—it is hot under its surface, it was bubbling only recently, it is even partly self-illuminating. Mars' surface proved to be moonlike, no abode of life unless of micro-organisms, also a world perturbed, also emitting more heat than expected. Venus was proved to be a real hell. The name Lucifer for the morning star is fitting. Its surface is hot to an extent that many metals must be molten—bismuth and zinc and tin and lead—and it is covered by a suspended envelope, 15 miles thick, 45 miles above the surface of the planet, of dust and gases, and it rotates not as it should according to the cosmological theories, but retrogradely and, surprisingly, locked in its rotation with respect to the earth so that every time it passes between the sun and the earth it turns the very same face to us.

We are not in the center of the universe, as people thought before Copernicus and for a century after him—but we are at the optimal place in the system—not too close to the sun and not too far away from it. We live on a planet that is protected; it is surrounded by a magnetosphere that keeps most of the cosmic rays out; it is enveloped in an ionosphere that protects us from the damaging ultra-violet rays coming from the sun. It has an atmosphere, not like the moon which has none, or Mars that has a very thin one. This atmosphere lets light go through. It is composed of oxygen diluted in nitrogen so that we do not burn our lungs. We have a plentiful supply of water, four-fifths of the planet is water, and most of it is neither frozen nor in a vaporous state. We have life in the ocean, we have life on ground, we have life in the air. So we are in the optimal place, but it is a very fragile situation. Not because a

new catastrophe of cosmic origin is in store but because man himself may be the instrument of destruction.

I started my work as psychoanalyst. For sixteen years I worked as a psychiatrist and psychoanalyst in Palestine—today Israel. And when I started my present work, I was led by certain considerations, axiomatic in psychoanalysis. Forgotten memories of a man need to be re-awakened and brought to the surface, to the conscious mind in order to free the person of his irrational behavior. Can we not approach racial memory, racial amnesia, and racial fantasies, in the same way we approach earlier memories, the unconscious mind and the dreams and fantasies of a single personality?

There is a phenomenon that traumatic experiences to which a human being is subjected are forgotten, are erased from the conscious, but conserved in his unconscious mind. This is one of the major contributions of Freud to the psychology of the unconscious mind. The irrational behavior of man comes from a traumatic experience in the past, that the person tries not to know, to forget, not to be aware of, to explain away. All kinds of phenomena come out of this. Criminal behavior, running away from reality, suicidal urge—and we are today a society which is certainly irrational.

As historian and psychologist I felt a duty to continue on Freud's path, from single individual to the entire human race, because the human race forgot the traumatic experiences to which it was subjected, and only very recently so. (I will read to you from the first page of the future book, *Mankind in Amnesia*.)

“Contorted figures in discotheques till morning hours, self-immolating young nuns in blazing robes in Vietnam, uncouth beatniks declaiming verse, racing cars overturning in flames onto onlookers who came to witness disaster, assemblages of co-eds in hallucinogenic leave from reality, crowds of negroes reducing city-quarters to shambles, men in capsules revolving around the earth in 90 minutes, next aiming at the moon. All this and much more is the outward picture of mankind in dismay.

“What if really the unidentified flying objects are spying lenses produced in our atmosphere by a remote control and we are under observation? If such were the case—*it is not*—what picture do we present to an observer from another world? Armies are crossing the ocean to spray with torch hose villagers and with defoliant chemicals fields and forests. Affluence grew around the crematoria where six million people were gassed and the last fat extracted from their emaciated bodies and used for soap. One hundred thousand men, women and children gather as onlookers at a public hanging in the Congo. And derricks are prepared to dig a hole through the earth under the ocean bottom.”¹

The Copernican revolution met with opposition because man does not like to think that he is not in the center of the universe, and even more so he does not like to think that he lives on a planet that travels, that moves. The opposition to Darwin came because it was most unpleasant to think, especially in the church-going England, that there is no distinction in principle between man and animal, man with the soul and the soulless animal, only in gradation. But the idea of Darwin that we are secure in our future, that nothing will happen to this earth because nothing did happen in the past, made him acceptable. Changes are small, infinitesimally small, homeopathically small—Darwin in his private life was a homeopath. At the very end of his *Origin of Species* he wrote that since there is a direct line from pre-Cambrian life to our own time, there could not have been any great catastrophes in the past and we can be certain there will be none. But this was nothing less than psychological scotoma. Psychological scotoma, like opthalmological scotoma, is an inability to see. Darwin saw through his own eyes on his travels in South America in the pampas of Patagonia, on the plains of Brazil, in the Cordillera of Peru, immense hecatombs of animals big and small, forms still extant and also extinct. He wondered and wrote in his diary: “But to destroy all these animals, small and big, from Tierra del Fuego in South America to the Bering Strait of North America, nothing less than shaking of the entire framework of the world could suffice.” Of the extinction of species he wrote, also in *Origin of Species*, that it is the most amazing, unexplained, and perplexing phenomenon. He built up a theory of which the main thesis is that the geological record has gaps. On these gaps he built his work, because without them there is no theory of evolution in the Darwinian sense. The argument is *ex silentio* and is but absence of evidence. Darwin uses the postulated large lacunae in the geological and paleontological records to explain the perplexing accumulations of bones in numerous localities by slow evolution and by slow extinction. But they are not explainable that way, already because in so many assemblages bones were found heaped together of animals from the polar circle, like arctic fox, polar bear or seal, and from the tropical regions, like boa constrictor, crocodile and ostrich, and from the depth of the ocean, all thrown together, and not in one or two places, but in very many all over the world. Alfred Wallace, who simultaneously with Darwin came to the same idea of evolution by natural selection, described the Siwalik Hills at the foot of the Himalayas, bursting with hundreds of miles of deposits of broken bones of animals that do not belong together. Beyond the clerical circles Darwin’s revolution was not met with what is usually described as great opposition. The scientific world accepted him rather soon, rather from the beginning. We are living in a peaceful world and nothing will happen to us. You can invest your money in the stock exchange or in real estate. All is secure. The sea and land will not change their borders.

If you don’t have a Bible just stop at a motel and you find one there. And there you will read if you open it twice—the chances are better than fifty-fifty—a description of some phenomena that are certainly not peaceful. The foundations of the earth were discovered, coal was falling from the sky, earth was trembling, hills were moving into the sea, sea and land were changing places, mountains vomited lava and were molten like wax. And this kind of pictures are found in the prophets through the Psalms and

also in the books of Genesis, Exodus and Numbers, without end. Even fundamentalists read them as metaphors. Follow the description the Dominican monks wrote down as told by the aborigines of this continent—I quote it in *Worlds in Collision*—and imagine stones falling from the sky with crashing noises and bitumen pouring down, and men trying to go on the roofs, while the buildings collapse, or to climb the trees which throw them away; imagine the Pacific Ocean rising like a towering wall and approaching the continent, the entire land burning with a thousand volcanoes; new mountains going up and the water carrying everything away. This is not a vision: it is described in historical texts and folk traditions and in epics of many races of the world. We don't like to think about those things as real events. Already about the time of the first century B. C. started the forgetfulness. In the Sibylline books or in the New Testament many sentences tell of the expectations of Doomsday—a scene taken from the experiences of the past. The phenomenon of the creeping-in oblivion you can observe in the debate between the anti-clerical Lucretius who understood the heritage of ages and the clerical Cicero who claimed that the planets are gods. Nothing can happen to them and whoever claims that at any time they can be at fault should be brought to court and for a capital punishment. The Pythagorean secret teaching, the Stoic philosophy, all the mysteries and various rites, all go back to those experiences, in order to re-live them.

The human history, that starts with the invention of writing, is hardly 5,000 years old. Anyone of you who reached already the age of 25 lived a full half percent of the recorded history. Or I can say, since I work on my book, it passed already more than that. It is a short period to remember and plentiful documentation is available, but the inability to read, word for word, what is written by assuming metaphors where there are no metaphors is a familiar psychological phenomenon of explaining away or rationalizing.

A man who suffers complete amnesia does not remember anything from some date on in the past. He may find himself in the street and he does not know from what town he came, what is his name, whether he is married and has children. He may look for psychiatric help or he may live in a kind of incognito, marry and run the chance of being detected as a bigamist. The cause of the amnesia is in a traumatic experience, the memory of which cannot be faced. Actually the very first case in the psychoanalytical history, a common patient of Joseph Breuer and Sigmund Freud, was a young lady who had taken care of her father before he died and the experience was so overwhelming for her that she developed a grave neurosis, though not a complete amnesia, but complete as to the events of that period.

A second phenomenon, which Freud stressed again and again, is that a person suffering of traumatic neurosis has the urge to repeat the experience, to re-live it again; very often the person tries to change the roles—he was the victim, he will make another the victim.

Now we are in a much progressed technological age. When I wrote my book I did not expect that I will be here to read about the exploits in the sky. As if man fixed all the

problems here on earth he tries to reach the planets. Everything here on earth is in turmoil. Mankind is in dismay.

The communistic world is split, the Semitic world is torn, so also the Latin American and the African and the southeast Asian. Barriers are built even on the Himalayas as if they are not barriers high enough by themselves. This nation is a house divided. Black power, students' unrest, disorganized society, no more one nation.

It is very well to start the morning by finding your shoes, your textbooks to come to classes and spend the day in classes or in the library, never thinking that we are travelling in space—so safe is the ship. Safe it is—the planets came to a peaceful co-existence. But they still show their wounds. They are still in fever—Mars, Venus and Jupiter and the rest of them are hotter than theoretical would anticipate. Their wounds and the fever are the consequence of their having participated recently in theomachy, the battle of the gods. But today almost every orbit is free of being interchained with another orbit. Nothing spectacular from cosmic spaces is in store for us. But man himself achieved an immense progress in technology. Sciences were proven all wrong. From Harold Urey's theory of the moon to everything else that was spoken and said. Only recently I visited that friendly library that is never closed here on the campus, not even on Christmas night: the Fine Library of Physics. I pulled out an astronomical text of a Harvard Professor published in 1946. I read it, it was to me like reading Regiomontanus, the accepted astronomer who had his books in scores of editions in the days of Copernicus, while the second edition of *De Revolutionibus* took place—I do not exactly know how much after the first—eighty years probably. Everything changed, no more the same universe. Today you go into the astronomical building library, a beautiful new place on this campus, and you find there many magazines, and you open as many as you care: all discuss plasma and magnetic fields and interrelations. Nothing of the kind was when I wrote my books. But this is all due to the engineering progress. Is it not amazing to send out a vehicle to overcome the gravitational pull, to aim it at a planet that is hundreds of millions of miles away on its orbit, to know exactly the day and the hour when it will reach the rendezvous point, to scan the planet for its magnetic field, content of its atmosphere, for its form whether it is spherical and on a battery of a few volts to send back a code in many millions of dots of signals with large radio antennas to catch these signals, to put them through computers, to interpret them and to report them—entirely the work of engineers. But before all this, the progress in physics made possible the fission and fusion to the atom. In twenty-five short years since the first successful experiment in a courtyard of the University of Chicago, the means capable of destroying the population of the world is already in the arsenal. This country alone has more than necessary to destroy every city, every village in the world. And on the other side of the ocean another great nation already developed intercontinental missiles that can be thrown over the ocean and then in a kind of saving, in separating itself into six heads destroy simultaneously Boston, Pittsburgh, New York, Washington, Philadelphia and Detroit. And American feature an “omnibus” that may drop continually atomic warheads traveling over Russia. The Russians will soon have artificial satellites permanently in orbits and carrying atom heads that can be directed by a signal to any

place on earth. This is really what the ancients called the sword of Damocles. The only population of intelligent being that is left in this solar system—whether there was or was not such population on other planets—nothing is left there. We are alone, man is alone. Contact a star—but the closest star is 4 ½ light years away. Don't start a long distance telephone conversation by a "Hello!" it will take 9 years to have a "Hello!" in reply. And this is the closest and most probably it has not a single soul with whom to converse there.

If we extinguish life on this planet or if we bring it down to the state of barbarism, and a state of degeneration caused by radiation, it may have been better if had not started at all. But this can happen because we are victims of amnesia. We do not wish to know what happened in the past. Some reader of mine wrote to me: "Even the opposition that you met, the vociferous and hostile opposition that had no precedent in the history of science, was largely caused by the non-desire to know what happened in the past and to realise the traumatic experience of the ancestors, the evidence for which comes from all places, from planets, from the torn continents and torn bottoms of the sea, from all ancient books, sacred books and historical tablets in cuneiform, hieroglyphics on papyri." And why I ask, did the ancient man worship the planets? And why Zeus, Jupiter, was the main deity? And would you know if you go out, would all of you know to identify among the stars the main deity, planet Jupiter, worshiped by all ancient world? And why was the sun a secondary deity, if everything was always as it is now? Why human sacrifices were brought to planetary gods? And later to the cross and still later to the swastika? A reader of mine, a psychologist in Jerusalem, wrote me: "But anti-Semitism has its first roots in the very fact that the Jewish people by some chance had some survivals, when the sea was torn apart, the sea of Passage, and they took upon themselves the yoke of moral rules and they praised themselves that for their benefit the events took place that threw all the world into shambles, not just Egypt. All the world suffered utter suffering, and here a nation repeatedly claimed and blessed the God for these very events. How not to hate, for the hatred comes from the sub-conscious mind."

The scientific world, though at small steps, approaches the view that the Darwinian evolution is not the solution, that the world underwent great catastrophes, that planetary bodies are not serene travelers through eons of time on peaceful orbits.

So when I come here to speak about mankind in amnesia it is because I realize the severity of the situation. Something of immense importance is at stake. Before I finish I will read you a letter from one of my readers. "I feel that the ancients in myth, epic and sacred works have been trying to tell us something about a problem that bothered them a great deal. It appears fairly clear that our ancestors were trying to communicate a deep fear, a terrible anxiety. They were talking about a problem that was so terrible that the most drastic measures to group discipline and/or self-repression were justified. It was a powerful fear. It is sometimes suggested that the bible can directly be applied to modern life in that all the ancients were really writing about was the problems of survival, while avoiding neurosis, worries, unhappiness and so on. To me that approach is very unconvincing, the god those people were

writing about was terrifying. In the Old Testament he is the god of wrath. And in the New Testament, as Albert Schweitzer among others has pointed out, he is about to end the world in Jesus life-time or shortly thereafter. He was dangerous and violent. Rock, fire, flood, hurricane and similar weapons he used on those he judged ill of. That's what the ancients wrote, and I see no point in trying to water it down. That's what they meant. They were really scared."

I brought you my message. Take it as an effort of a psychoanalyst to apply the method of his art to racial memories and the racial subconscious mind. You understand yourselves what is at stake. You should understand also that coming here I did not wish to sound as a prophet of doom, and I did not call you to mend your ways or to repent but to know yourselves. In order to bring our contemporary life to a rational scale, the very first what we need is to know the past and to be able to face it.

References

1. Those passages from an early version of the book are not included in the [\[printed version\]](#).





Velikovsky addresses crowd at Guyot Hall

‘Heretic’ Velikovsky sees radical solar system’

by Bruce Nickerson

Speaking before an overflow crowd of 200 in Guyot Hall last night Immanuel Velikovsky expounded his theory of a solar system much more violent than predicted by accepted theory.

Velikovsky called himself a scientific “heretic of yesterday,” but went on to show how many of his radical predictions have been accepted by the scientific community. Several of his suggestions have been included in Apollo experiments.

He predicted a high surface temperature on Venus, discovery of radioactivity on the moon, the earth’s magnetosphere, discovery of hydrocarbons and their derivatives on the moon, molten moon rocks, and moonquakes so frequent that astronauts would experience them while they were there. All of these predictions later proved true.

Velikovsky’s most radical prediction, however, has not yet received acceptance although he noted that an astronomy class at the University of California keeps one of his books on hand although not teaching from it.

In his lecture he tried to show that a planet flying through the solar system in recent astronomical times has caused changes in the earth’s climate, and the magnetic

polarization of rocks.

He uses historical records from numerous ancient civilizations all over the world and geological evidence to back up his theory. In his lecture he proposed that this planet was Venus and uses the finding that Russian probes found the surface of Venus to vary in altitude by much more than the surface of the earth does.

He explained this finding by claiming that this massive difference is caused by massive tides on the molten surface of the planet.

He then uses this to explain the extreme circularity of the orbit of Venus by showing that these tides would have a braking effect on the planet thus bringing it from an elliptical to a circular orbit.

He claims that the planet is relatively young in astronomical terms, much younger than the six billion year old solar system. This he claims accounts for the still molten surface.

—*The Daily Princetonian*, October 22, 1969





AFTERWORD

This essay was completed early in April of 1976, for inclusion in the A.A.A.S.-Cornell volume Scientists Confront Velikovsky, and it is to the latter that such expressions as "this volume" refer. After writing the "Afterword" in accordance with the limitations of space and time laid down by the A.A.A.S.-Cornell people, Velikovsky decided that he would not participate any further in their volume, because of their unfair and restrictive requirements, and because of their long record of broken promises and rigged arrangements. -The Eds.]

It has been claimed in print that I "objected" to efforts "to publish the proceedings" of the Symposium (Owen Gingerich, "Science Year Close-Up", *World Book Encyclopedia Supplement*, 1975, page 249), and also that at the Symposium "Velikovsky was clearly shown in error, which perhaps explains why he has seen fit to prevent the publication of the transcript of the meeting" (Reader's Forum, *Mercury: Journal of the Astronomical Society of the Pacific*, November/December, 1975, page 35).

None of this is true.

The tape recording of the Symposium shows that I effectively and forcefully answered my opponents. I have urged, since even before the Symposium was held, that the papers as delivered and the discussions as spoken should be quickly published, with minimal editing, or, better, with no editing at all, so that there would be a full and accurate historical record of what transpired. This record could have been supplemented by additional papers by each of the panelists, but any such new material should have been clearly designated as supplementary to the historical record of what was said on February 25, 1974.

This plan was not accepted, however, and it was decided by others that Professor Carl Sagan, one of the panelists at the Symposium, could revise his paper prior to publication. My own paper was intended to be printed exactly in the form in which it was distributed on February 25, 1974. Hence the delay in the preparation of materials for this volume has not been due to me, despite what Gingerich and others are saying. The principal delay in the preparation of material for this volume has been due to Sagan, who consumed nearly two years (late February 1974 to early February 1976) in revising and greatly expanding his paper. There are well over thirty pages of new material in the 1976 paper, I could not be expected to have prepared answers to additional arguments and assertions that I had never even seen until February 1976.

By the decree of the organizers of this volume, I am limited to six thousand words or about twenty typewritten pages to answer the papers of the panelists at the

Symposium that was held on my work. I found such a limitation unfair, but I agreed, lest my rejection be branded as a refusal to meet my opponents on printed pages.

To “equalize,” each of the other panelists is offered three thousand words to add his counterarguments. The reader will excuse me if I do not answer these counterarguments here: I will not be permitted to see them before the volume is printed.

I will omit here the story of how the Symposium came to be; but the original offer to have equal numbers of panelists on opposing sides was not carried out; the chairman, having come under pressure from the higher echelons of the establishment for the very idea, wished to publish an advance statement, making known that no pursuit of scientific debate was really in mind, and he also made an opening statement at the Symposium itself on that score, thus subscribing to a bias in advance of the debate. With a biased chairman, with an unbalanced panel, and with the papers of those panelists attacking my theories not sent to me in advance of the seven-hour debate, I, in the opinion of the fourteen hundred in the audience, fared well — as indicated by the standing ovation that was accorded only to the iconoclast. But the scientific and semi-scientific press showed by its reports that it was orchestrated - the very sentences, and the very same errors of fact and number, appeared simultaneously in many reviews.

The press in a chorus singled out and repeated the “overkill” by Sagan in his paper of 57 typewritten pages. In the oral confrontation at the morning session he read only part of his paper; it was anything but an overkill — and the audience reacted accordingly. The organizers permitted him to work on his paper for two additional years, and what appears in this volume has grown to 87 typewritten pages submitted in February 1976 as a paper read in February 1974. This, too, I protested, but I decided that any strictures and retreats from an unbiased position, to which they were obligated, will, in the final count, not serve their interest, which is to do what the previous generation could not — to stamp out the heresy, by stampeding the media.

A careless reader of the papers of the panelists will come away with the feeling that the basic tenets of my work have been pulled apart. The careful reader, however, will observe that my opponents retreated on all major fronts, and even surrendered the cherished arguments that were much used in the past and also used even more recently against my work. *In this itself is a measure of victory.*

MULHOLLAND

Two astronomers confronted me on the panel: Professor J. Derral Mulholland, whose field is celestial mechanics, and Professor Sagan, whose field is planetary atmospheres, rock compositions, and biological conditions. Mulholland said:

... the celestial mechanics of Newton and Newcomb are no longer the ultimate measure. The celestial mechanics of 1974 is a living, vital

science that admits of non-gravitational effects, of electromagnetic interactions. . . .

This is a retreat of unprecedented significance. My opponents of the 1950's would not permit the smallest concession regarding their dictum that only gravitation and inertia account for celestial motions. They put themselves on record in print.

Celestial near-collisions *could have happened*, according to Mulholland, who here sheds the uniformitarian dogmas. Giant tides, global earthquakes, changes of the direction of the celestial axis would have resulted. "There is no faith here; these are unavoidable consequences of the laws of motion" .

But whether all this happened depends on historical and archeo-logical evidence that can be presented. He criticizes a few single cases like the case of Babylon that in the past changed its position in relation to the pole by several degrees. But my sources were Johann Kepler, who quotes Arabian geographers, and historians going back to Ptolemy. Every other change, like the changing ratio of the shortest to the longest day in Babylon and Egypt, I also discussed in some detail.

Mulholland asks: "Does Velikovsky's evidence provide reasonable proof that the axis shifted abruptly and catastrophically 27 centuries ago?" His verdict is in two words: "Absolutely not" .

No careful reader of *Worlds in Collision* would agree. All of the evidence from Greek, Roman, Babylonian, Sumerian, Chinese, Hindu, Hebrew, Egyptian, Mayan, and Toltec civilizations are dismissed in this casual fashion, hundreds of pages, thousands of references. There are also several chapters in *Earth in Upheaval* dealing with evidence of the changing position of the terrestrial axis.

Mulholland, who on the first page of his paper refers to how both Venus and Mars "erupted into the sky" as "two giant comets" , cannot be counted among careful readers. He did not refer to *Earth in Upheaval*; and all the evidence from deserts, polar lands, jungles, once habitable countries, are also disposed of in this two-word verdict, though he agrees and stresses that "if a planet-sized object were to pass close by the Earth" , the consequences would be the very events described in *Worlds in Collision*.

I thank Mulholland for saying "Velikovsky's challenge is not one to be decided on a basis of belief or unbelief." Mulholland continues:

"He strives to build physically plausible solutions that involve testable ideas. He is not a mystic." — and this when some prominent scientists announced that I belong in one group with palmists, astrologers, or believers in a flat earth. But when Mulholland says that the rotation of Mars refutes the theory of recent catastrophism, he has grasped a weak reed — is it not agreed that Mars lost a major portion of its

rotational angular momentum?

STOKER

Professor Norman Storer was selected by the organizers of the Symposium to represent the sociological aspect of the Velikovsky controversy. He concluded that it would be a sign of objectivity to divide equally between myself and the establishment the guilt for what happened. Storer made the fundamental error of confusing *neutrality* with objectivity, and his efforts failed, as I pointed out in the evening discussion: one who maintains “neutrality” between a gross offender and the victim of the offense does not give an objective account of the realities; the account is *biased* in favor of the offender. Storer's paper is a whitewash of the offenses of the establishment.

Storer's was the only paper sent to me before the Symposium.

HUBER

Dr. Peter Huber is a professor of statistics (on the program he was billed as a professor of ancient history), his Assyriology being, as he told me, his hobby. Huber tried to bring out of one or two sources of ancient material 1) that the solar system was stable through historical times (since a certain solar eclipse could prove it), and 2) that Venus was observed in the sky earlier than the first near encounter of the protoplanet Venus with the Earth.

To the first point it would suffice to cite the opening paragraph of van der Waerden's article of 1951 (*Journal of Near Eastern Studies*, vol. X, p. 20). In the Assyro-Babylonian calendar of about -700 the vernal equinox was transferred by more than a month. Also the ratio of the day to the night at the summer solstice seems to have changed from 2:1 to 3:2. Similar changes took place in Egypt at the same time.

And of what value are reports of phenomena from Syria or the Far East that are now supposed to be eclipses, when a plurality of scholars long acquainted with the problem discount such claims or interpretations? In my debate with Princeton astronomer John Q. Stewart, in *Harper's*, June 1951, Stewart based himself on an article by Fotheringham concerning three historical “eclipses”. In 1974 Huber declared me right, and Fotheringham followed by Stewart he declared wrong.

As to whether Venus had been seen before -1450, Huber refers to the so-called Ammizaduga tablets (Schiaparelli refers them not to Ammizaduga but to the seventh century). But Huber needed to announce that in about thirty percent of readings the text has to be changed: east must be changed to west, and west to east; the names of months must be changed; the dates of the month must be changed; the intervals between disappearance and reappearance of Venus must be lengthened or shortened — all in order to prove his point that Venus moved then as it moves now. My own

understanding of the Venus tablets does not require a thirty percent change of data — probably not even *one* datum — and the tablets show only that Venus did *not* travel on the orbit it travels now. (See *Worlds in Collision*, p. 198 ff.)

Huber also quotes a Sumerian text (its being in Sumerian does not attest its antiquity; like Latin, Sumerian was used for sacerdotal purposes for many centuries after the Sumerian civilization went down in destruction, leaving hymns and prayers to the feared planetary gods); and Venus in the text quoted by Huber is compared in its brilliance to the Sun itself.

What is more: in an earlier prepared review, to explain a series of facts otherwise unexplainable, Huber expressed the surmise that the solar system may have been visited or invaded by a new planet that caused havoc in nature and awe in man: “highly improbable, but *not to be excluded* capture of a rather large foreign heavenly body into the solar system in *historical* time. . . .” (My italics.)

SAGAN

As my opponent for the fourth tournament, the astronomical establishment selected Sagan. To answer his nearly 90 pages and nearly 30,000 words (1976 version), I am left with barely one-tenth of that amount, though an answer usually requires more space than an accusation, especially those that are bland and unsupported: I must first state what the charge was, then state what the truth is, what I really wrote, etc., and then present the evidence for what I said. In the 1974 version of his paper, Sagan had twice mentioned both the letter of Bargmann and Motz and the letter of Hess, but in the 1976 version all such references have been deleted, even from the Bibliography. These deletions cannot have been in the interest of saving space, for Sagan allowed the length of his paper to grow by more than fifty percent. In their letter published in *Science* (December 21, 1962), Professor V. Bargmann, Department of Physics, Princeton University, and Professor Lloyd Motz, Department of Astronomy, Columbia University, called attention to the originality and to the correctness of my predictions of radio noises from Jupiter and of a very high temperature of Venus (they also mentioned my prediction of the existence of the terrestrial magnetosphere). Bargmann and Motz conclude: “Although we disagree with Velikovsky's theories, we feel impelled to make this statement to establish Velikovsky's priority of prediction of these two points and to urge, in view of these prognostications, that his other conclusions be objectively re-examined.” In his open letter to me on March 15, 1963, Professor H. H. Hess, Chairman of the Geology Department, Princeton University, wrote: “You have after all predicted that Jupiter would be a source of radio noise, that Venus would have a high surface temperature, that the sun and bodies of the solar system would have large electrical charges and several other such predictions. Some of these predictions were said to be impossible when you made them. All of them were predicted long before proof that they were correct came to hand. Conversely, I do not know of any specific prediction you made that has since been proven to be false.” The deletion of his earlier references to Bargmann and Motz and to Hess seems to be a part of Sagan's program to deny me credit for my record of correctness

and originality.

In the two years during which his paper was brought into shape, Sagan was helped by such authorities as Thomas Gold and Philip Morrison among others, and therefore I am in the position of standing against the entire establishment, though greatly limited as to space and time, and blindfolded as to any additional counterarguments my opponents may bring, before I see the printed book. Unjust as such conditions may be for a scientific debate, I am not abandoning the project and will do my best under the circumstances, to the limits of what decency can tolerate, though my friends, also in positions of moral standing in the community of the scholarly world, advised me to abandon the project and if necessary give a complete and unbiased account with the help of several collaborators.

Sagan may mislead the reader by professing, in opening his paper, high principles and even magnanimity (benefit of doubt going to me); he declares also that no physical laws are inviolate if facts of experience or of experiment oppose them - by this echoing the words in the Preface of *Worlds in Collision*. He actually admits that all vituperations of his guild in the past 26 years were not supported by sound argument. Sagan concludes that a planet *could* have escaped from Jupiter; that a disturbance of rotation of the Earth *could have* happened; that the terrestrial axis *could* have changed its direction;

that a bringing of the Earth to a rotational stasis even in less than one hour, would hardly be noticed by human beings and they certainly would not fly off into space (what he himself asserted a few years ago and what his friend Asimov still asserts); nor even would stalactites break off (Asimov's foremost argument till today).

Sagan makes more fundamental concessions; and above all, agrees that changes in the order of the solar system *could and must* have taken place. This last general statement was the only thing I communicated to Harlow Shapley that started the campaign of suppression which is not over even today.

All these basic statements were used by the generation of Shapley and Payne-Gaposchkin against my work. Sagan also is contemptuous of 25 years (1950-1975) argumentation of his guild: "I am surprised at how little of it there is." "There is nothing absurd in the possibility of cosmic collisions." "Collisions and catastrophism are part and parcel of modern astronomy" — and so already for centuries. There is nothing unorthodox about the idea of cosmic catastrophes, says Sagan. Then why was I, and my work, vilified for a quarter of a century?

Fortresses having been surrendered, makeshift fortifications are being raised. "What then is all the furor about?" — It is the time scale and the written ancient evidence. Sagan admits "I find the concatenation of legends which Velikovsky has accumulated stunning. . . ." From here starts the assault. Sagan follows me into many areas and cuts many Gordian knots.

Throughout his paper, Sagan repeatedly stresses that I accept some parts of ancient myths and legends and not other parts, and he wonders why I do not accept either all or else nothing. He suggests that my procedure here is arbitrary or capricious. But Sagan has not troubled to understand my procedure. He complains that I accept ancient legends about manna, but that I do not accept the scriptural account that manna fell in a double portion on Fridays and not at all on Saturdays. But I accept the ancient testimonies about manna of the Hebrews, ambrosia of the Greeks, and honey-dew of other peoples from around the Earth, precisely because there is testimony on this from many peoples from many parts of the Earth and because there are physical events (the near collisions between Earth and Venus) that could have led to such results. And I reject the report about manna falling in double portions on Fridays and not at all on Saturdays, precisely because that feature of the story does not have a plausible physical basis, is not testified to by other peoples, and is therefore to be regarded as an inaccurate elaboration by one people upon what actually transpired.

Whoever read the sections in *Worlds in Collision* on ancient calendars and calendar reforms occurring from Japan to India, to Persia, to Assyria and Babylonia, to Greece, to Rome, to Israel, to Egypt, and so on, would not have been misled by the simplistic theory that 360-day years were merely convenient approximations.

Sagan moves to cave paintings (where he finds only a picture of a supernova) and to ancient art generally and asks: “**If** the Velikovskian catastrophes occurred, why are there no contemporary graphic records of them?” As a novice in the field, Sagan should perceive that the great majority of ancient contemporary art is *dominated* by the theme of global catastrophes and celestial planetary deities in battle. In my lecture I referred to the Mayan, Olmec, and Toltec art — and whoever visits Yucatan knows that virtually *no other theme* exists in this art. No dynastic or military exploits, but battles between planetary deities, and sacrifices to them — almost to the exclusion of other themes. The cave man pictures animals in global conflict; serpents fighting planets *are* a frequent theme in cave and mural art; and in literary art — from the *Iliad*, to the Assyrian prayers, to the Old Testament, its prophets and psalms, to Hindi and to Icelandic epics — it is the all-pervading motif. So it goes in this domain, which is foreign to Sagan.

Sagan writes:

Other critical statements which are given extremely inadequate justification, and which are central to one or more of Velikovsky’s major themes, are as follows: the statement (page 283) that ‘Meteorites, when entering the earth’s atmosphere, make a frightful din,’ when they are generally observed to be silent; the statement (page 114) that ‘a thunderbolt, when striking a magnet, reverses the poles of the magnet;’ the translation (page 51) of ‘Barad’ as meteorites; and the contention (page 85) ‘as is known, Pallas was another name for Typhon.’ On page 179 is enunciated a principle that when two gods are hyphenated in a joint name, it indicates an attribute of a celestial body — as, for

example, Ashteroth-Kamaim, a homed Venus, which Velikovsky interprets as a crescent Venus and evidence that Venus was once close enough to the Earth to have its phases discernible to the naked eye. But what does this principle imply, for example, for the god Ammon-Ra? Did the Egyptians see the sun (Ra) as a ram (Ammon)?

The Smithsonian Institution published in 1929 a volume on *Minerals from Earth and Sky*. George P. Merrill, Head Curator, Department of Geology, U. S. National Museum, contributed “The Story of Meteorites,” in which he gives a long series of reports of loud explosions accompanying the fall of meteorites. Meteorites are a subject that belongs to Sagan's own field, but he does not know that they can make noise. For example, in Emmet County, Iowa, on May 10, 1879: “The sounds produced by the explosions incidental to its [the meteor’s] breaking up were referred to as terrible and indescribable. . . . The first explosion, for there were several, was louder than the loudest artillery.” This is only one of a number of illustrative cases described by the Smithsonian Institution. So silent when entering the atmosphere they are not, Sagan notwithstanding.

Sagan wonders that “a thunderbolt, when striking a magnet, reverses the poles of the magnet” . This explains the reversals in paleomagnetism (*Worlds in Collision*, pages 114-115). If Sagan has doubts, let him perform an experiment.

The word *barad*, being described as hot, could not be ice hail, but is properly interpreted by me as meteorite.

That Pallas and Typhon are the same I need not have supported with a note — any dictionary will tell this.

Ashteroth-Kamaim is mentioned on page 169 of *Worlds in Collision*. Neither there nor anywhere else in my writings, have I ever said that whenever there is a hyphenated pair of names for a deity, this “indicates an attribute of a celestial body” . The “principle” is Sagan's invention. Sagan asks — in connection with Ammon — did the Egyptians see the Sun as a ram? Yet Ammon was not the Sun, but, as is known from many sources, Ammon was the planet Jupiter. (Herodotos, 11:41)

Sagan next presents “Velikovsky's Principal Hypothesis” , and he purports faithfully to tell what it is. I will follow this for two or three pages, and the reader will have enough. Sagan says: “at the moment that Moses strikes his staff upon the rock, the Red Sea parts. . . .” Later, “after the death of Moses ... the same comet comes screeching back for another grazing collision with the earth. At the moment when Joshua says “Sun, stand thou still upon Gibeon; and thou Moon, in the valley of Agalon,” the Earth . . . obligingly ceases its rotation. ...” He later says that I “attempt to rescue the old-time religion” . To tell of Velikovsky's principal hypothesis in this vein is nothing but purposely misleading.

In the story of the crossing at the Sea of Passage, I deliberately did not even mention

Moses; and some 200 pages later (in the section, “The Subjective Interpretation of the Events and Their *Authenticity*”) I wrote: “The sea was torn apart. The people attributed this act to the intervention of their leader; he lifted his staff over the waters and they divided. Of course, there is no person who can do this, and no staff with which it can be done. Likewise in the case of Joshua who commanded the sun and the moon to halt in their movements. Because the scientific mind cannot believe that a man can make the sun and moon to stand still, it disbelieves also the alleged event.” (*Worlds in Collision* pages 306-307.)

In the Biblical story, Moses did not hit the rock with his rod at the Sea of Passage; the striking of the rod against the rock is from the story (not quoted by me) of finding water in the desert. Biblical scholarship is not Sagan's field. And I stressed that many Israelites did not succeed in crossing the Sea, and the large majority of them perished (according to Psalms and midrashic sources, actually 49 out of 50 during the Plague of Darkness), contrary to the account by Sagan of my “hypothesis.”

These are just examples of Sagan retelling my book. One of the major areas of disagreement between Sagan and myself has to do with the composition of the atmosphere of Venus. This was perhaps the principal topic of discussion at the Symposium, and it is my understanding that the organizers of this volume will be including a complete and accurate transcript of that discussion. The readers of such a transcript will see for themselves how I have already replied, both during the morning session and during the evening session, to Sagan’s claims. Thus I will not explore this subject further here.

Among many other disputes that I have insufficient space to discuss are: orbital circularization; escape velocities from Jupiter; and rotational stasis as opposed to axial tilting. I have answers regarding these and other issues, but the publication of those answers will have to be in some other context where there is not such a severe limitation on space. The reader is also directed to my published writings, wherein are already contained the answers to all of Sagan’s various arguments and assertions, if he had but troubled to look.

But there are two matters that must be dealt with before I close:

Sagan’s denial of the originality of my advance claim regarding the heat of Venus, and his widely publicized calculation of the “odds” against my theory's being true.

Sagan repeatedly states that none of my advance claims was original and correct. He made this announcement in the press before the Symposium, but as an organizer and panelist he should not have prejudiced the outcome. He says that Rupert Wildt in 1940 already proposed that Venus under the clouds is hot, and that I presented my claim of the heat of Venus without telling of Wildt and Wildt's estimate. (Actually, I did not give anyone's estimates.) So what was Wildt's estimate, and upon what was it based? He was the originator of the greenhouse effect theory that would keep Venus hot, and he came to the conclusion that only the subsolar point of the surface of

Venus is of the temperature of boiling water, or possibly up to 135 degrees Centigrade. Professor G. Kuiper later showed that Wildt erred in his evaluation of the albedo or reflecting power of the Venus clouds, and therefore the temperature because of the greenhouse effect would be definitely less.

In *Worlds in Collision*, I stated that the protoplanet Venus “was in a state of candescence” only a few millennia ago, and I enumerated my reasons:

Venus experienced in quick succession its birth and expulsion under violent conditions; an existence as a comet on an ellipse which approached the sun closely; two encounters with the earth accompanied by discharges of potentials between these two bodies and with a thermal effect caused by conversion of momentum into heat; a number of contacts with Mars, and probably also with Jupiter. Since all this happened between the third and first millennia before the present era, the core of the planet Venus must still be hot.

I proposed that “Venus is hot”; that the source of the heat is Venus itself, rather than the sun; and that the temperatures are high enough for hydrocarbons to “circulate in gaseous form” and for the planet to have been “in a state of candescence” only a few thousand years ago, which means that the temperatures would be hundreds of degrees higher than Wildt or anyone else had ever imagined. Wildt's greenhouse effect theory was not relevant to my theory, and there was no reason why I should have cited him.

What I did cite in *Worlds in Collision* was the literature on the thermal *balance* of Venus. Thus the temperature of the clouds was found to be nearly the same (actually, about -25 C.), both for the day side and for the night side. This was paradoxical, since spectral indications were that Venus rotated very slowly. (This was later confirmed by radar studies.) Why did the night side not cool off? My answer was that the heat of the clouds of Venus, both on the night side and on the day side, is from the planet itself, not from the sun. I said: “Venus gives off heat.” Later, in a paper entitled “Is Venus' Heat Decreasing?” I called attention to separate measurements, spread over a number of years, in which the temperatures for the cloud surfaces seemed to be decreasing. Indeed, from these results only one deduction can be drawn: Venus cools off. Despite my repeated challenge to institute a planned observation of the rate of this cooling off, I have seen no paper dealing with the problem as it deserves — with a full cognition of what deductions are to be made if Venus is really cooling off. But even from an unplanned, haphazard comparison of figures, the trend can be recognized — and the lowering of the cloud surface temperature reflects an even greater lowering of the ground surface temperature of the planet.

“Venus gives off heat,” as I wrote in *Worlds in Collision*. In other words, it sends off more heat than it receives from the sun; it is in a state of thermal imbalance. If it has traveled on its orbit for billions of years and all the time has been cooling off, staggering figures would result for a time a million years ago, and unnatural figures for a time measured in billions of years. If in the fifty years since the observations of

Pettit and Nicholson in the 1920's, the cloud surface lost, say, 8° C., a simple arithmetical deduction would point to a loss of 1° C. in 6 years, which would represent a substantially greater loss on the ground, under the cloud cover and the lower atmosphere. I assume that calculation would show that the planet must have been largely incandescent only thirty-four centuries ago.* Such research would lead to the result that Venus is a newcomer (what its name in Latin also means).

The grace with which the figures of various observers, through decades, were left without being tabulated is a psychological phenomenon - the preference "not to know," if the knowledge threatens to convey a firm basis to an iconoclastic concept.

Sagan calculated that a chance of one against 30,000 was needed in order to make Venus hit the Earth in any given millennium, and to produce a series of collisions the chance is one against 1027, if such collisions are statistically "independent" . The problem of marksmanship was discussed by me in my debate with the late Professor John Q. Stewart, Princeton University astronomer (*Harper's*, June, 1951, page 64). I came to a completely different result:

"The image of 'marksmanship' is not well derived. The planets revolve in the plane of the ecliptic; if one should move on a stretched orbit, it would contact its neighbor planets. And if a comet with a tail 100 million miles long [actually, it is not excluded that the tail might be even several hundred million miles long] should move in the ecliptic, no good fortune would keep the [inner] planets from passing through its fabric; at its every passage inside the terrestrial orbit, the Earth would have a better than 60 to 40 chance of going through its tail or head."

In his calculations, Sagan chops off the tail of Venus that sweeps the entire area, and assumes that "Velikovsky is talking about a grazing collision: the surfaces of Earth and Venus scrape!" But in my writings it is repeatedly emphasized that these near collisions were *not* "grazing" collisions: the "targets" were larger, by many orders of magnitude, than Sagan allows. On page 85 I said that "the head of the comet did not crash into the earth," and on page 372 I said that planets, during a close approach to each other, are "cushioned in the magnetic fields around them ... an actual crushing collision of the lithospheres will be avoided."

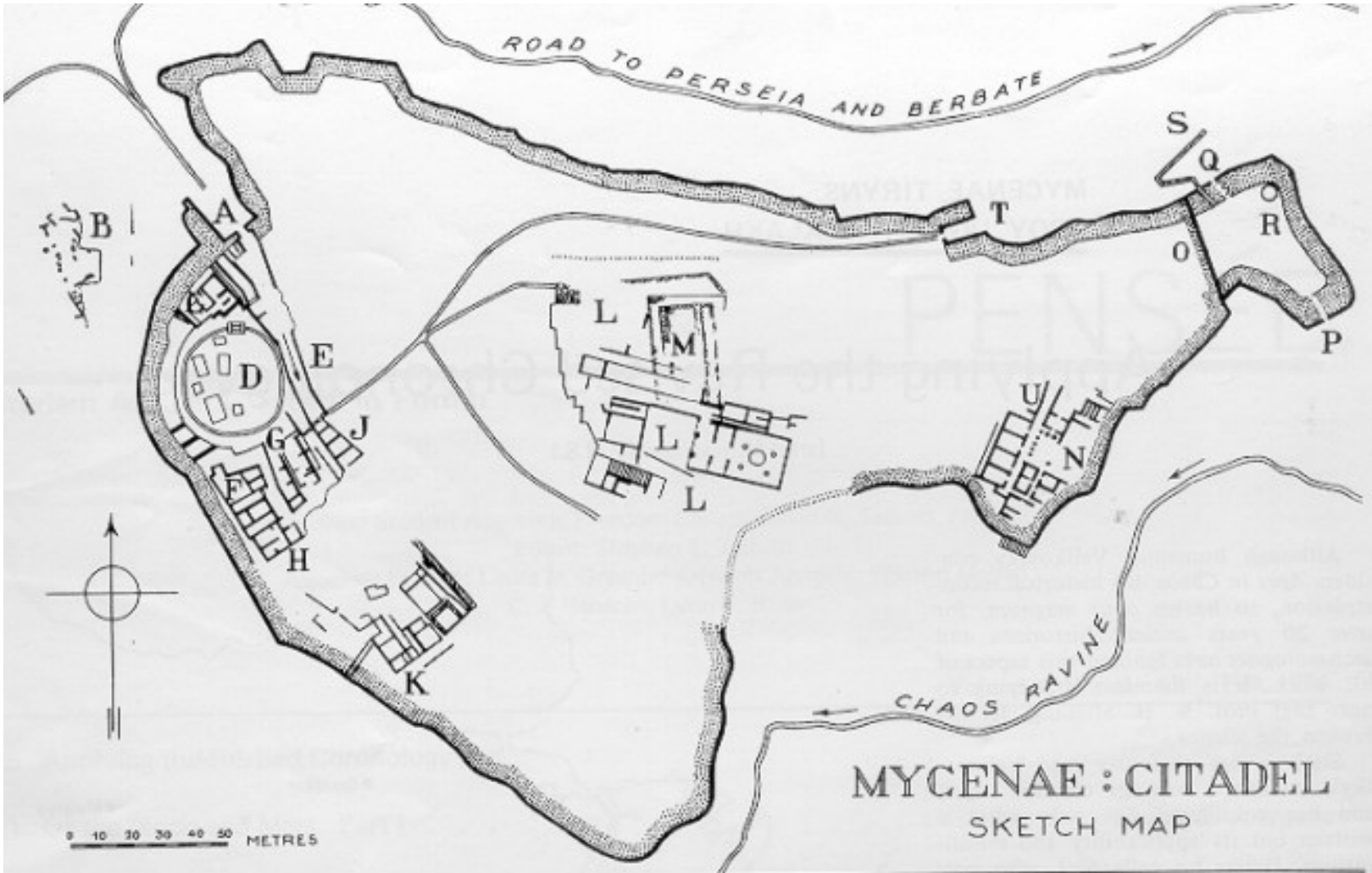
Sagan calculates how close the head of the comet Venus must have come to the surface of the Earth, on the assumption that tides 1600 miles high were raised. On page 72, I quoted a midrashic source: "The waters were piled up to the height of sixteen hundred miles, and they could be seen by all the nations of the earth." In the very next sentence I indicated that this legend obviously is not to be taken literally: "The figure in this sentence intends to say that the heap of water was tremendous." But Sagan, in search of bizarre premises from which to derive bizarre conclusions, takes the figure of 1600 miles literally, and bases his calculations upon it. The figures in his conclusions should not be taken any more seriously than the figures in his premises.

Sagan further assumes “that Velikovsky believes in several statistically independent collisions in a few hundred years” , despite my many explicit statements that the collisions were causally interrelated. For example, see *Worlds in Collision*, page 373; “Each collision between two planets in the past caused a series of subsequent collisions.” A ten-car pile-up on the expressway is a chain reaction: it does not consist of ten independent events. Sagan's inferences are unsound. He should know better than to apply to causally interrelated events laws of probability that are appropriate only for independent events.

In general, when we are speaking of the probability of historical events, we must proceed with great care and caution. Whether something did or did not occur must be decided on the basis of historical evidence, not on the basis of probability laws. Actually, if some historical event is described with great precision, and each characteristic of that event is treated as an independent factor, then the probability of such an event will be vanishingly small. If all the details of an automobile collision are listed, then the probability that such an event could occur will be so low as to seem almost impossible. Yet collisions of automobiles have indeed occurred — and so have near collisions of planets.

References:

*Such a calculation was actually made by physicist C. J. Ransom in 1972. The results obtained by Dr. Ransom indicate that the temperature of Venus 3500 years ago would be 1184° K - or fully incandescent (*Pensée* II, Fall, 1972, p. 18).





23. VII. 56

Pardigon, par Cavalaïse s/Mer (Var) until 22 Aug, then
Le Castel Blanc, 14 rue Turgot, St. Germain en Laye

Dear Sir:

I shall answer in English but apologize in advance for the style of this letter and the grammatical mistakes.

I now can acknowledge with thanks the arrival of your book on Earth in Upheaval. I took it with me to the South where at the Mediterranean shore I find some time for quiet reading and writing before I shall go out again to further archaeological and stratigraphical research in Syria (Ras Shamra) and Cyprus (Enkomi-Alasia), in September. I finished reading your book with the greatest interest and much profit. I am glad to have learned that the upheavals in geological times so far distant from us and our prehistorical or protohistorical periods, have in several cases occurred much nearer to us and even, it seems, during the early periods of men on earth. Thus the parallelism between them and the crises which I found have interrupted the historical development in the Near East during the IIRD and IIND millennia has become much more significant.

Since the publication of *Stratigraphie Comparée* in 1948, written during the intervals of my wartime duties in the Fighting French Navy, mainly between 1942 and 1945, further reading and research in several Near-Eastern archaeological sites have disclosed new confirmations of the reality of those crises on a continental scale which I have detected and tried to analyze. I would be glad if I could write now immediately the contemplated second and enlarged edition of *Stratigraphie Comparée* in 2 volumes. For with the new confirmations those crises could no longer be questioned by the great number of sceptical short-sighted archaeologists among which I live now in some sort of scientific isolation, so striking are the proofs and so accurate the dates established by the new discoveries. When their testimony will have been shown, those great crises will explain better than before, the historical development of the most ancient civilizations and its mechanism, and they will definitely take out of the hands of man the command of the great historical happenings we thought he possessed.

Having for the first time established in *Strat. Comp.* those successive crises during the IIRD and IIND mill from the Caucasus down to Egypt (and there are even more to be analyzed of the IVth and Ist mill. B.C.), I was tempted to look for the causes among which were earthquakes, tidal waves, climatic changes and other natural

catastrophic agents. The idea of the earthquake disturbances and their consequences has bitten so much the imagination of the archaeologists that some of them which are hostile to new ideas which oblige them to study afresh established scientific opinions, admitted that I wanted to explain all those different crises by earth tremors and their consequences on human occupation and civilization in ancient times. Thus those of my colleagues which are not easily accessible to new ideas used their argument in order to discredit the whole idea of the reality of crises on continental scale. It disturbed their conservative and comfortable outlook on the historical events during the IIIrd and IIInd mill. It will take some more time until the new idea has taken root, but it will ultimately take root for the truth always in the end prevails. Of course, as you did it in your vast field mainly of geology, anthropology, astronomy, I would like to hasten the process of ripening of the new ideas by publishing the new material and the new confirmation in the Near Eastern and European prehistorical and protohistorical archaeology. Unfortunately I am so burdened with work that the time has not yet come when I can sit back and write down the new and enlarged *Stratigraphie Comparée*.

Perhaps it is good, at present, to establish only the reality of those crises and tremendous upheavals during the last millennia before our time, or B.C. and leave the study of the causes to later research. For the historian and the general public are not yet ready to accept the thought that the earth is a much less safe place than they were accustomed to believe. With the removal of the troublesome warlords in some of the modern nations, with Hitler, Mussolini and the Communists finally removed, they think eternal peace and security will automatically be attained on earth everywhere. It is true that the very recent earthquake disaster in the usual Mediterranean area have again slightly shaken that belief. But men are not easily convinced to face reality and to accept the results of objective research. They prefer to live in their imaginative world. And perhaps all the better for them.

Here are some particulars which I noticed among many more which I cannot mention in this letter. Chapter I: I will try to get the publication you refer to concerning the new Alaska finds and those of the Ivory Islands. They are so very much important also for the French paleolithic finds and their chronology. I had before the war in my library a book by Pfigmuller (?) on the Siberian Mammoth finds. But during the German occupation of my house near Paris, most of the books of my library have disappeared or were burned stupidly in my garden by the Gestapo agents. Now I can't find many of those books for they are out of print. —p. 13, you refer very well to Cuvier's views which are too often forgotten nowadays. I feel exactly the same way, I know that those vast crises and cataclysms have occurred during the IV-Ist mill. B.C., but I cannot yet explain them satisfactorily. Your explanations and ideas will certainly help me to try again to find out the real causes which are certainly identifiable in the near future and lead what concerns the archaeological evidence. How far the cataclysmic evolution can convincingly be ascertained, I can't say, being incompetent in the matter, But the theory is very tempting. I noticed that what you call "absolute intelligence" and what religious people call God (p. 210) employs similar methods in many of his manifestations. So catastrophic historical mechanism

which also often had the result of cataclysmic evolution what concern the civilizations, may be a counterpart to the cataclysmic evolution as a whole and what concerns the origin of new specials in partiuclar (p. 255 ss.)

P. 77. I have excavated neolithic tombs and settlements in the Alsatian loess region. But I did not think this loess formation could be contemporary with the neolithic sites. I would like to reinvestigate the matter. You should come over to do yourself effective research. For with the great knowledge you have collected by studying the results of other scientists, you should now take a hand in firsthand research. I would gladly give you all support in my power. There are many possibilities where you could increase your knowledge and verify your conclusions. Your own feeling of security for the conclusions to be made from the results by other research workers would thus increase. Also the critical approach is facilitated by investigating on the spot, what now with the quick transportation means at our disposal to all parts of the world is much easier than before. I amdire the extent of your knowledge and I feel you could help by basic research to get more light on so many still obscure patterns of problems. - p. 28 I myself dug hippopotamus finds in the Rine vallye (near Burbach) and afterwards discovered the effect of climatic changes in the Alsatian tumuli period (Bronze Age, IIInd mill.) and published the findings in a work which I hope to send you when back St. Germain. Much later, in 1949-52 in Cyprus (Enkomi) I discovered evidence of a Klimasturz (which is dated to the very beginning of the Iron Age there = XIIth or beg. of XIth B.C.) during which part of the Island's capital (Alasia) was inundated and whole streets filled with silt like in a river bed and stratified like there. I left the deposit in situ to be shown and would like to show it to you if you can come over there. I shall be in Cyprus again next November. I shall send you a copy of my book on Enkomi-Alasia in which these inundations layers are shown. But seeing them in position is much more convincing. These layers are contemporary with upheavals we know of in prehistoric Europe. - P. 102 submarine volcanoes: If you notice the very recent appearance of a new volcano near the recently badly shaken island of Santorini (=Thera), July 1956; you refer to former catastrophes of the same island on p. 201, or 191. - There, under our eyes, on a smaller scale, is happening what happened in earlier times on a gigantic scale. Go there and see the things by yourself, it would interest you certainly very much. - p. 104 Pettersson's research has also disclosed cyclic periods of disturbances with climatic changes which explain the difficulties and hard winters in Gothic times (XIIth-XIVth C. A.D.) and the loss of herring fishing by the Hanseatic towns, which thus were impoverished: confirmation that crises and upheavals continue into very recent ceturies, it is true on a smaller scale. - p. 159 (note 9), 200 (note 2), 274 and follwoing pages: date of the end of the Middle Kingdom in Egypt and Exodus. At present it seems difficult to bring down the end of the XIIth - XIIIth dyn. as late as you suggest: 1500 B.C. and I would suggest to you to be cautious here. The Exodus is not yet accurately dated. But present evidence suggests it to be a different event from the downfall of the Middle Kingdom and that it should be chronologically linked with the ending of the XIXth dynasty perhaps. - p. 278, you wish that radiocarbon analyses be made of objects dating from the New Kingdom. I offer you gladly the material I have from dated Ras Shamra levels of the time of Amenophis III, IV (Akhnaton) and Ramses II. I could

send it over to you for analysis by radiocarbon or, better, you come to collect it in Paris. Your dating could thus be proved or disproved. The lowering of the accepted chronology by 5 to 7 centuries is perhaps not impossible, but seems at the present state of our knowledge improbable. But tests made as you suggest (p. 278) would decide. - p. 278 (note 4) these are examples that some literate people have lost their well developed literacy entirely and this occurred during a catastrophe: example, the early Phoenician literature with the oldest known alphabetical script I discovered in Ras Shamra! There were, it is true, some faint remembrances left by much later traditions which confirm your idea of the tenacity of traditional memory. But the fact of the loss of an entire literate civilization *has* happened.

Independent from you I came to the conclusion of an important and vast upheaval towards 1500 (XVIth C.) B.C. or a bit earlier followed by the rise of the kingdom of Egypt and corresponding highlights in neighboring countries. There must be a connection with the many observations you refer to of the catastrophes in the middle of the IInd mill.: p. 158 (glacial evidence), p. 166 (Bear River and its glacier), p. 174 (Klimasturz), p. 175 (tree rings), p. 177 (lake dwellings history), p. 180 (indications of climatic catastrophes by pollen analyses), drop of ocean levels (p. 183) and land sinking (p. 184).- There is also concordance between my catastrophe of the end of the Ird mill or toward 2100-200 and several phenomena you refer to.

The palace of Ugarit I finished to excavate (or at least the main part) last November, went through earthquake and fire destruction like the palace of Knossos and this several times. These new findings have still to be published. But the evidence is already visible among the ruins I have excavated and which can be visited. - p. 228, have a look into the reference of mammoth find in Predmost (Moravia) in Neolithic towns. I remember (but cannot verify here) that before the war, these finds have been dated to the late paleolithic period.

Your chapter XIV is of very great interest and did teach me a lot. I hope you will continue these researches and critical analyses of the opinion of the various scholars. When you have received the books I shall send you on my return to St. Germain, I would like that you send me your former publications (1950, 1952), for I would like to check your findings, after traditions and legends, which as I published many years ago, have indeed often a real value. In any case, I hope you will go on with your research. You are working in the right direction and time will help to show the reality of global or near-global catastrophes. Already continental or near-continental catastrophes cannot be doubted as I showed by my stratigraphical work in the Near East. I will take time for your findings and mine to be acknowledged. That may make us sometimes impatient. But it will stir us to more work and more research. I was glad to receive your agreement and hope one day to make your acquaintance.

Yours sincerely,

Claude Schaeffer
Membre de l'Institut
Prof. du Collège de France

P.S. Very glad that Earth in Upheaval will be published in French by Stock





February 7, 1977

Dear Mr. Buitron:

Last week arrived the samples of wood and clay that you sent, with your letter dated January 18. At this time, I do not see which University Laboratory I could interest in carbon dating. My most recent book, *Peoples of the Sea* (published on January 16) would require a number of tests of radiocarbon and thermoluminescence dating. I will keep your sample well-saved, but if you wish to re-direct them, let me know.

With many thanks for your interest in my work, and desire to be of assistance,

Sincerely yours,

Im. Velikovsky

IV:js



March 16, 1959

Dear Dr. Danelius:

Your letter of February 23rd was very welcome; it contains a mine of information, only a fraction of which I have had from you before. I have had a letter from Claude Schaeffer; and I go to retype a list of quotations from archaeological literature, and you will have a copy; the literature on excavations is very bulky and each item extracted from it for the purpose of Ages is Godsent.

To your question about Megiddo—I enclose a postcard from Dr. Federn. I, too, have a similar problem. In the cases of Thutmose III it seems that he took Megiddo, because in the description of the front line he refers to it and to Taanach. It seems that the division at the first decade after Solomon was not unsimilar to the present division of Palestine between Israel and Jordan, with Judah stretched to the Carmel; Megiddo was a strong fortress and could resist Jeroboam; Thutmose, however, came to capture it. Together with this, in the el-Amarna time Megiddo is *the* fortress, and Biridri in his letters to the Pharaoh referred to his fortress (Knudzon) deliberately, as Makeda and Megiddo (Magiidda) [Ages I, p. 312]. As I believe, I have told you, the northern frontier of Israel was by a large margin more to the north than the spring of the Jordan. — A similar problem I had before me through years, and still have. In the O.T. Pharaoh-Necho meets king Josiah at Megiddo; but acc. to Herodotus, at Migdol. In order to block the progress of the Egyptian army toward the Euphrates, Megiddo seems to me for the king of Jerusalem too far to the north. Possibly Herodotus is right, and Migdol may be the same Migdol where the Israelite army, acc. to the press of that time, beat the Egyptian army that also intended to penetrate toward the north: there was the place to stop it.





Aug. 21, 1953

Dr. Immanuel Velikovsky
4 Hartley Avenue
Princeton, N. J.

Dear Mr. Dyen:

Taking leave from my desk with my work I dedicate this morning to the accumulated correspondence, and one of the first letters I go to answer yours.

In order to prepare a paper on the problem of “Ahab or Jehoram?” it seems to me that you have to leave out the entire first part of your manuscript, and rewrite the second part. First you have to give the arguments which brought me to the radical change in el-Amarna chronology (in broad lines); then the arguments which I used for selecting Ahab as the author of the letters and then your arguments for a different understanding of the situation and the authorship, and thus also a definite—though in one or two decades only—change in chronology.

All this you may have do without an assurance from an editor of having the paper published: first it must be suitably written; then, possibly, Prof. Pfeiffer, who for years was editor of the *Journal of Biblical Studies*, (I believe this is the name of the periodical), may be helpful. I shall be glad, too, to see the finished paper, if you would care to show it to me. You must also realize that my reconstruction until now is accepted by some scholars, but is not accepted by some influential men, like Albright. Of the Egyptologists, one of the most prominent scholars, Prof. Drioton, was very favorable; so also some of the Jesuite professors of Biblical archaeology. My second volume of *Ages* is postponed with publication, acc. to my request, until a volume on pre-history will be finished and published (by Doubleday). This information may be of use to you for your project. I wish you success.

Sincerely yours,

Im. Velikovsky





THE VELIKOVSKY CORRESPONDENCE

1921

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THE VELIKOVSKY CORRESPONDENCE

1923

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PROF. DR. FREUD

15 Jan 1922
WIEN X. BERGASSE 19.

Mein lieber Herr Kollege

Ich habe mich mit meinem Gemüths-
zustand über die Sache des Judentums
für eine gewisse Zeit in
Jerusalem in ein tiefes
genau. Aber die Publikation
von Arbeiten auf dem ver-
schiedensten Wissensgebiete
spielt mir sehr sehr demnach
wie ein Teil der Mission
nach Jerusalem. Der Ausgang
infolgedessen Arbeit ist
hier klar gekennzeichnet.

Man hat eigentlich Arbeiten
aus dem Spezialgebiet der
Psychoanalyse veröffentlicht
in den Jahren mit folgenden
Veröffentlichungen:
"Magie und Internat, Leitch."
"Für Psychoanalyse oder
in dem Zusammenhang mit
Journal of Psycho-Analysis.
In anderen Fällen werden

man sich nicht scheuen, sie zu zeigen
für andere, das ist das Leben,
während sie die Lapsen der
Geborenen nicht. und das
Händlich bleiben müssen.

Ich habe als kein Anrecht
darauf, mich ihnen als Händlich
Mittelschicht anzutragen.
Dagegen will ich nicht für
Händlich sein. Ich will
das Haupt zeigen. Lapsen
Periodika herausgeben.

Ich verzeihe jedermann
H. Freund



THE VELIKOVSKY CORRESPONDENCE

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THE VELIKOVSKY CORRESPONDENCE

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THE VELIKOVSKY CORRESPONDENCE

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Prof. Dr. Freud

Wien, IX, Berggasse 19, 24.6. 1931

Geehrten Herr Kollege

Ich kann mich zum Inhalt ihres Aufsatzes (Energetik der Psyche) ganz übereinstimmend mit Bleuler äussern. Auch ich habe mir über den Gegenstand selbständig Meinungen gebildet die den ihren sehr nahe kommen, sich in manchen Stücken gradezu mit ihnen decken. Gegen eine energetische Auffassung der Denkprozesse hat grade der Analytiker am wenigstens einzuwenden. Eigene Erfahrungen haben mir die Vermutung nahe gelegt, dass die Telepathie der reale Kern der angeblichen parapsycholog. Phänomene ist und vielleicht der einzige. Aber etwas Zwingendes habe ich in diesen Dingen doch weder erlebt, noch irgendwo—auch in ihrer Schrift nicht—gefunden und somit bleibt uns nichts übrig als die Klärung dieses im Grund physikalischen Problems von einer hoffentlich nicht fernen Zukunft zu erwarten!

Mit kolleg. Gruss

Ihr Freud

Translation:

Professor Dr. Freud

Vienna, IX., Berggasse 19, 24. June 1931

Dear Colleague:

I find myself in complete agreement with Bleuler on the contents of your paper (Energetics of the Psyche). Also, I have independently formed my own opinions on the subject which are very similar to yours and, indeed, quite coincide with them in some parts. The analyst, least of all, will object to an energetic interpretation of the processes of thought. My own experiences have led me to suppose that the real and perhaps the only core of the alleged parapsychological phenomena is telepathy. But in this matter I have neither experienced anything compelling nor have I found it anywhere else—not even in your paper.

Thus, nothing is left to us but to await clarification of this basically physical problem from the—I hope—not too distant future.

Sincerely,

Your colleague Freud





PROF. DR. FREUD

26. 4. 1934

ALBA LEX, BERGASSE 10

Herr Professor Dr. Sigmund Freud,
 Alballex, Bergasse 10,
 Wien.
 Ich habe Ihre Briefe vom 21. und 23. April
 erhalten und bin Ihnen sehr dankbar für
 die interessanten Mitteilungen.
 Ich werde Sie bald wieder hören.
 Mit freundlichen Grüßen
 Dr. Sigmund Freud



THE VELIKOVSKY CORRESPONDENCE

1934

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PROF. DR. FREUD

0.4. 1953
WIEN, IX., DRUGASSE 19

Geachteter Herr Doktor
 Ich habe Sie schon lange
 durch Ihre Veröffentlichungen
 über die Psychoanalyse kennen
 gelernt und bin sehr dankbar
 für die wertvollen Beiträge
 die Sie der Wissenschaft
 durch Ihre Arbeiten leisten.
 Ich habe Ihre Bücher mit
 Interesse gelesen und
 bin sehr beeindruckt von
 der Tiefe Ihrer Gedanken.
 Ich hoffe, Sie werden
 mir bald wieder schreiben.
 Mit freundlichen Grüßen
 Dr. Freud



THE VELIKOVSKY CORRESPONDENCE

1939

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THE VELIKOVSKY CORRESPONDENCE

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March 10, 1940

The Macmillan Company,
Publishers,
New York.

Dear Sir:

In answer to your letter of February 29, I like to give here an idea about my book "The Hatred" by attaching 1. A short resumé of my paper read at the international psycholog. Congress, Paris, Juli 1937, and by adjoining 2. A chapter about jealousy (the only chapter printed).

The book about the hatred is a new approach to the social psychology of the psychology of the unconsciousness. It reveals the most important part which the not finished struggle between the masculine and feminine ingredients of an embryo continues to play in the life and activities of a single personality and of the collectives. This idea brings light upon the origin of moral feelings, the source of religion, the sexual life, the behaviorismus, the hate of nations; a series of essays illustrate it, and the personalities Michael Servetus, Michael Angello, J. J. Rousseau, Leo Tolstoi and and others are implied.

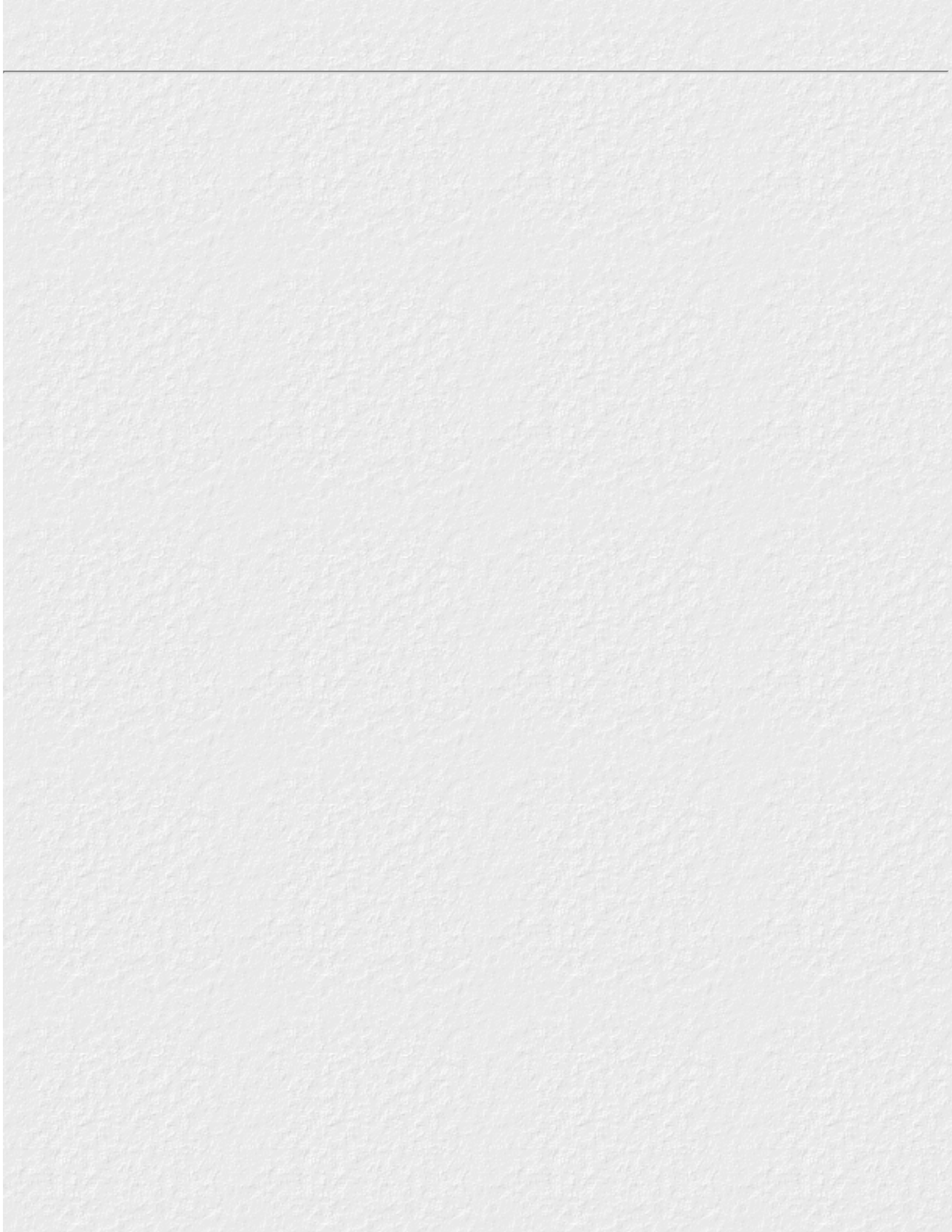
A chapter is dedicated to the modern warfare; another - to Hitler with quotations from his description of his childhood which brought together make clear the origin of his ideas.

My 'Hatred of Nations' is, I think, the only one psychological approach to the problem of war and peace in existence; it opens a better chance for influencing than the sermon of the peace-preachers since ever.

'The Presse Universitaire de France' (Alcan & Co) wrote; to me before the beginning of the war they agree to print this book, I would prefer to let it appear in U.S. in English language previously.

Sincerely yours,

Immanuel Velikovsky





THE MACMILLAN COMPANY

SIXTY • FIFTH AVENUE • NEW YORK

March 20, 1940

Dr. Immanuel Velikovsky
3 Riverside Drive, New York, N.Y.

Dear Dr. Velikovsky:-

We appreciate your sending us, with your letter of March 10 th, the two reprints of your work, in order to give us an idea about your proposed book, THE HATRED OF NATIONS.

This company is always interested in new projects, and we have been glad to go over your material and discuss in our editorial conference the possibility of such a book fitting in with out future publishing commitments. Since we can see little chance of finding a place for your work on our forthcoming schedule, we do not feel we can, in all fairness, suggest that you forward the complete manuscript for us to consider.

May we not thank you for thinking of us as possible publishers of your work? We are returning your reprints, herewith.

Very truly yours,

(signed) Lois Dwight Cole
THE MACMILLAN COMPANY
Associate Editor

LDC: RT
Enc.





HARVARD UNIVERSITY
DEPARTMENT OF SEMITIC LANGUAGES AND HISTORY
Cambridge, Massachusetts

July 22, 1942

Professor Harry A. Wolfson Harvard University

Dear Wolfson:

After reading with great interest the monograph of Dr. Immanuel Velikovsky (or rather its first part), which you kindly allowed me to see, I should like to make a few remarks.

Although the English diction and style of the paper require thorough revision before it may be printed, the monograph is very interesting and holds the attention of the reader. The author shows considerable familiarity with a great variety of ancient sources. In general the author seems to prefer the information, no matter how legendary, given by ancient sources to the conclusions of modern historians, based on the criticism of available evidence. This method may be defended, but the disregard of the work of modern scholars may cause the latter to dismiss the work with a shrug of the shoulders as unworthy of their attention.

The main thesis of the paper—the identification of the Hyksos with the Amalekites—is entirely new to me; as far as I know it has never been advanced. The arguments of the author to prove this thesis are extremely ingenious, if not always convincing. In dealing with a period of history which, owing to the extreme scarcity of contemporary sources, is extremely obscure, new hypotheses are legitimate.

If I am not mistaken, the historical reconstruction of Dr. Velikovsky disregards the chronological data which are certain beyond a shadow of a doubt. We know that the Hyksos invaded the Nile Delta about 1730, ruled as the Pharaohs of the Dynasties XV and XVI from ca. 1680 to 1580, Ahmose took Avaris in 1580, thus founding the 18th dynasty, drove out the Hyksos and after a siege of 3 years captured their fortress in Southern Palestine, Sharuen. Thereafter the Hyksos disappear from history. On the other hand the author discovers an account of the Egyptian plagues in Exodus, in “The Writing of Ipuwer” which, according to Egyptologists was written *long before* the Hyksos invasion and refers to the misery of Egypt during the *first* (not the second) Intermediary Period (ca. 2270-2100). The same applies to the prophecy of Neferrohu, announcing [post eventum] the coming of “Ameni” (1.58) or Amenemhet I (ca. 2000-1790), the founder of the 12th dynasty. If such is the case the Hyksos could hardly have invaded. Egypt during the calamities described by these two texts, nor could the Exodus of the Israelites have taken place during those calamities in the latter part of the

third millennium.

Assuming however that the author is correct in connecting those calamities with the second Intermediary period, during which the Israelites invaded Egypt, he alone of all scholars (to the best of my knowledge) would date the Exodus from Egypt “a few days or weeks” before the invasion of the Hyksos (ca. 1730). In other words Moses lived about 700 years before David, for we know positively that David was alive in 1000 B. C. Even if the period of the Judges lasted 400 years (which most scholars refuse to admit), more than 200 years elapsed, according to this theory, between the Exodus and the invasion of Canaan (traditionally 40 years in the desert).

The identification of Agag, the Amalekite king defeated by Saul and killed by Samuel (in the period 1050-1000 B.C.) with Apop II, one of the last kings of the Hyksos or the last one, requires us to either bring Saul and Samuel up to 1580 (when Avaris “the stronghold and residence of Apop” was taken), or dating Apop in the 21st dynasty (1090-945), and not in the 17th.

It is possible that I have not understood the author correctly: he refrains from giving any dates for the events which he describes. In any case we know positively that Sharuhennu fell shortly after 1580 and could not have been captured by Saul who lived five centuries later.

The preceding remarks show merely that I cannot accept the conclusions of Dr. Velikovsky—not that he is wrong and I am right. I should say, however, that the author should give us his chronology of the second millennium, which apparently differs radically from that accepted by all historians known to me, before proceeding to identify the Hyksos (who are usually thought of riding in horse-drawn chariots) with the Amalekites (described in the Bible as camel-riding Bedouins). Unless he overthrows the current chronology, he identifies events which in our chronology are separated by more than five centuries. The only date which is still debatable is that of the Exodus, variously placed in 1580, 1440, 1300, 1225.

With my best regards, Yours cordially,

Robert H. Pfeiffer





August 18, 1942

Dear Professor Pfeiffer,

taking into consideration that the publication of my work in the 'Semitic Series' would after all demand the help of some foundation, I came to the conclusion not to request the acceptance of my Mns. into this Seires. I think that my book should appear without help of foundations, and might be arranged with a Unviersity Press or general publisher on a regular commercial basis.

I visited, with approval of Professor Wolfson, the Harvard University Press, and I was told by the secretary that my Mns might be of interst for the publication at expences of the Press, and he asked me to leave the Mns. for reading. As I would like to give it to the Publisher with an explaining preface, I did not leave it. — I showed the secretary a letter of Prof. Horace M. Kallen of New York (known to Wolfson) who accepted without reservation my reconstruction of the history.

I shall give my Mns, acc. to your suggestion, to one of the larger Publishers, preferably a University Press (Harvard Press). In the last case, the Press will surely ask your opinion. Anyway I like to hope that you will show also henceforth the same interest in my work; I think also that you would like to reject or to accept my reconstruction, and therefore will again give attention to the Mns when provided with a preface, and a few missing chapters.

Would you regard as desirable some tables of comparison to be placed at the end of the work? I adjoin here one: Jeremiah 46 - Kadesh poem. About 18 tables like this might serve as addenda to the book.

Whe I asked you visiting you on August 6th: did any difficulty arise out fo the reconstruction of ancient history?, you put before me the question: Do not the objects of art bring testimony against the reconstruction?

I would like to give a few more details in answer to your question on the attached page.

Please, kindly handle also in the next future the material as trusted to you and Prof. Wolfson only.

Very sincerely yours,

Attached to a letter
addressed to Prof. Pfeiffer
August 18, 42

A few remarks about the testimony of art, applied to the reconstruction of the history.

Time of Thutmose III. A chapter in the Mns is devoted to comparison fo the objects of sacral art brought by T.III from Palestine with the objects of Salomo's Temple. The non-sacral booty too is of a higher perfection and design than a pre-Israelite Canaan should be credited with. 'We learn from the booty carried into Egypt—chariots inlaid with silver, gold-plated chariots, etc.—of the astounding civilization of syria at that period (T III).'

(S. Mercer, Extra-Biblical sources..., p. 10)

Time of Ikhnaton and El-Amarna. The ivory of Samaria has Hebrew signs of the character of Mesa stele. They are recognized as having originated in the time of Ahab (L. Sukenik in the book of Crowfoot). Here quotations from Crowfoot, 'Early Ivories from Samaria,' 1938.

p. 9 'The subjects of these plaques are all Egyptian'

p.18: 'The formed of winged figures on the ivories...are derived from Egyptian models. Tutelary goddesses of this type stand at the four corners of the shrine of Tutankhamun'.

again p.18: 'Three winged sphinxes with human heads... It is an Egyptian features—see for ex. the human-headed lion in the chariot from the tomb of Tutankhamun—

p. 34: 'The same elements recur again and again ... the type goes back to the Egyptian art of the 18th Dynasty'

Time of Ramses II and the war with the 'Hittites'. Here a few quotations from O. Puchstein, Pseudohethitische Kunst, 1890. In 1912, he wrote 'Boghaskoi, die Bauwerke', and at that time the archive of Boghaskoi was already unearthed. I shall look in that work, and probably I shall find that under the weight of established coevality of Boghaskoi-archive and the time of Ramses II, Puchstein did not support any more his view that the 'Hittite art' was a product of the seventh century.

'Aus derartigen Abweichungen dürfen wir den Schluss ziehen, dass es sich in Boghazkoi um einheimische Götter handelt, deren Bilder erst in 7. Jahrhundert v. Chr. unter dem Einfluss assyrischer Vorstellungen so wie wir es sehen ausgeprägt worden sind. Sie lassen sich tatsächlich mit den Göttern in Eubereinstimmung bringen, die nach griechisch-römischen Quellen in späterer Zeit in Kappadokien verehrt wurden.'

Another quotation from the same 'Vortrag

of Puchstein:

'Weisen alle jene Bildwerke deutliche Kennzeichen einer viel späteren Entstehungszeit auf; es ist daher ausgeschlossen, dass sie Schöpfungen der ägyptischen Cheta sein könnten'.

'Jedenfalls gibt es weder hier noch in Nordsyrien ein Zeugnis dafür, dass die sogenannte hethitische Plastik schon in dem 10. Jahrhundert existierte. Diese Tatsache scheint mir mit den Ansichten von Sayce unvereinbar zu sein. Für ihn liegt die grösste Machtentfaltung des Hethitischen Reiches und damit auch die Blüte der hethitischen Kunst fast um ein halbes Jahrtausend vor der Zeit, in der die erhaltenen altkanaanitischen und kleinasiatischen Denkmäler entstanden sind'

'Die Kunst ist... als ein merkwürdiges Zeichen der ehemals hochentwickelten Kultur der kleinasiatischen und kanaanitischen Bevölkerung in der Zeit von 1000-600 zu betrachten'. (p. 13, 14, 21, 22)

The author of these lines did not suspect that the art of Boghaskoi still was coeval with Cheta of Ramses II, but that Ramses II himself lived in the seventh century.

Time of Ramses III.

The bas-relief: Ramses III sets out upon his campaign against the Libyans.

'The king is shown, in the attitude of some hero on a Greek vase painting, in the act of mounting his chariot'.
(Medinet Habu, 1924-28. The epigraphic survey of the Great Temple of Medinet Habu, by H. Nelson, Explanation to the picture of the p. 17.)

The bas-relief: Heads of Shardana warriors.

'Two heads of young Shardana warriors from relief at Medinet Habu: c. 1190 B.C. The European, in fact Greek type is very noticeable: the face of (f) closely resembles that of a well-known head of a young man of the VIth-Vth cent. in the Acropolis Museum at Athens' (The Cambridge Ancient History, vol. of plates I, by C.T. Seltman, p. 152).

The head-apparel of Peleset is identical with head apparel of the Persians of Persepolis. This we discussed already.

Also the ships used by the 'Peleset' as pictured in Medinet Habu (especially the

peculiar form of the rudder) can be compared with the ships and their rudders on coins which according to the reconstruction were struck in the years of this campaign. Compare the pictures in 'Medinet Habu' of Nelson and Hölscher with Plate XIX.2 also XIX.5 in G. Hill, Catalogue of the Greek Coins of Phoenicia, 1910. These coins were stamped in Sidon, c. 384-370 and 370-358, resp.





HARVARD UNIVERSITY
DIVISION OF SEMITIC LANGUAGES AND HISTORY

Cambridge, Massachusetts
August 24, 1942

Dr. Immanuel Velikovsky
New York City

Dear Dr. Velikovsky:-

Thank you for your letter of the 18th (with enclosures), which was forwarded to me here in the country (Route 1, Westport, Conn.), where I shall be until September 20.

I am delighted to hear that you have made some progress in the plans for the publication of your revolutionary reconstruction of ancient history and chronology. I sincerely hope that some University Press or reputable publisher will accept your manuscript for publication. I regard your work—provocative as it is—of fundamental importance, whether its conclusions are accepted by competent scholars or whether it forces them to a far-reaching and searching reconsideration of the accepted ancient chronology.

I have read with much interest your discussion of some topics in the history of ancient art, and I believe this phase of the question should receive some attention in your volume. Comparative tables, such as the one you have sent on the battle of Kadesh-Carchemish, would be of great value to the reader, in making some matters clear at a glance.

You may rest assured that I shall regard the contents of the manuscripts which you have allowed me to see, as strictly confidential until the volume is published.

With my kindest regards,

Yours very sincerely,

Robert H. Pfeiffer





March 12, 43

Dear Dr. Pfeiffer,

It is now more than half a year since I visited you in Cambridge, Mass; you were kind to read my Mns and to comment on it. It might be that you are curious to know, what happened to me and my work. Since the fall I wrote an introducing chapter (suggestion of Dr. Wolfson), a new chapter dealing with Ras Shamra material; also a chapter about the Sothis period; and perfected Ramses III chapter; the rest of the winter I was busy with the other manuscript, dealing with the physical aspect of the catastrophes of the past.

I enclose here the chapter about Ramses III.

I have not yet approached Harvard or Oxford Press, but I shall nto delay to do so soon.

Very sincerely yours,

Immanuel Velikovsky



DR. IMMANUEL VELIKOVSKY

526 WEST 113TH STREET, NEW
YORK, N.Y.

PHONE: MONUMENT 2-2225

April 14, 43

Dr. Robert H. Pfeiffer
Director of Semitic Museum
57 Francis Avenue, Cambridge, Mass.

Dear Dr. Pfeiffer,

when I received—now quite four weeks ago—your very kind letter together with my chapter about Ramses III, I thought to express you immediately my thanks for your reading, commenting and also for the corrections of style. I appreciate you liberal approach, and also your standpoint, you expressed in your letter ('shaken but not converted'), which makes the decision depending on farther arguments.

I wished to write you all this and to accompany my letter by another chapter, and it took much more time than I supposed to bring the chapter in its present shape, and days turned into weeks.

The one hundred odd years—from the middle of the ninth century, are treated by me in four chapters: 1. Hatshepsut-Solomon, 2. Thutmose III-Rehoboam 3. Amehotep II-Asa (Ras Shamra) 4. Amenhotep II and IV-Jehoshaphat. I think that the combined proofs of these four chapters might have a cumulative value. May I again have your attention?

I enclose here a) the Thutmose III chapter with a number of new sections and a table of vessels with numbered objects. I attribute importance to the comparison of furniture and vessels of the Temple and of the Karnak basrelief, and b) the new chapter of Ras Shamra, in which 'the poem of Keret' section has direct relation to the time of Asa.

For an earlier orientation I supplied one of these files with a simple device: by moving the Egyptian history along the Hebrew history, and bringing the catastrophe of Exodus and that of Papyrus Ipuwer to one level—we have immediately all the contracts between the two histories, which I describe in my work.

I would like to hope that a work of fundamental revision of a thousand years of world history, might be of less risk for a publisher, than regular works in special fields, as

important as they are, do generally present from commercial point of view.

Yours faithfully,

Immanuel Velikovsky





JOURNAL OF BIBLICAL LITERATURE

ROBERT H.
PFEIFFER
Editor

*57 Francis Avenue
Cambridge,
Massachusetts*

April 17, 1943

Dr. Immanuel Velikovsky
526 West 113th Street
New York City

Dear Dr. Velikovsky:-

Thank you for your kind letter of the 14th, accompanying two more chapters of your historical work, dealing with Thutmosis III and Ras Shamra.

As usual I have been fascinated by your unheard of identifications and dates and admire your incredible ingenuity. I fear however that there is some truth in the old proverb, "You cannot teach an old dog new tricks." I can only repeat the words of King Agrippa to the Apostle Paul, "Almost thou persuadest me ..."

With all my wishes for the publication of your work.

Yours faithfully,

Robert H. Pfeiffer



DR. IMMANUEL VELIKOVSKY

526 WEST 113TH STREET, NEW YORK, N.
Y.

PHONE: MONUMENT 2-2225

March 17, 44

Mr. H. T. Hatcher
The Oxford University Press
Fifth Ave.
New York, N.Y.

Dear Mr. Hatcher:

On December 14, giving you the larger part of my Mns 'Ages in Chaos', I expressed my belief that the remaining part would be ready in about two months. I miscalculated. The delay is due to the insertion of some new sections dealing with important matters, which necessitated additional research. It will take a few weeks more, before I shall be able to bring you the last file of the Mns.

Looking through a copy of the first part of the Mns, I find some mistakes that change sense. At least one of them I would ask to kindly correct: on the p. 2 of the first chapter, instead of 'Cheops of the IVth Dynasty, should be 'Cheops of the IVth and Phiops of the VIth Dynasty'.

The new ideas might be so strange and provocative to the reader whom you may trust the reading of the Mns, that he may have an urge to discuss it with his colleagues. May I ask you, therefore, to kindly explain to the reader, that he should not neglect the usual rule of discretion. If he has some questions, he may put them in writing and I shall be glad to furnish explanation, addressing my answer to your office.

Very sincerely yours,

Im. Velikovsky



526 West 113th Street, New York,
N.Y.

July 6, 44

Dear Professor Pfeiffer,

In August 1942 you were very kind to read my Mns dealing with reconstruction of Ancient History, and to comment favorably. Since then I worked on improving my Mns; I added a number of important chapters, and following your suggestion, added sections on art.

A short time ago I submitted the second half of the Mns. to Mr. Hatcher, a director of the Oxford University Press (the first half I submitted earlier). Mr. Hatcher, who showed much interest in my work, expressed his willingness to apply to you, asking you to be a reader of the Mns.

I hope you will soon hear from them and I shall be glad if you will accept their offer.

Very sincerely yours,

Immanuel Velikovsky



Copy for Dr. I. Velikovsky

JOURNAL OF BIBLICAL LITERATURE

ROBERT H.
PFEIFFER
Editor

Summer Address:
Route 1
Westport, Connecticut

*57 Francis Avenue
Cambridge,
Massachusetts*

July 12, 1944

Mr. H. T. Hatcher
Trade Editor
Oxford University Press
New York City

Dear Mr. Hatcher:

Thank you for your letter of the 7th, concerning the book of Dr. Immanuel Velikovsky on the chronological disorder which he has discovered in our present notions about ancient history.

For a number of reasons I would suggest that the manuscript be submitted for an opinion to other scholars: 1. I have already read most of the manuscript. 2. I have made some suggestions for its revision. 3. I am already in a position to give you my opinion, for whatever it is worth. 4. I do not consider myself a specialist in that field.

My opinion, in brief, is as follows. The conclusions of Dr. Velikovsky are simply revolutionary: they lead to a complete revision of our chronology of Egyptian and Near Eastern history before Cyrus King of Persia. Unquestionably the arguments of Dr. Velikovsky deserve serious consideration and are often very strong. Moreover his new chronology solves some problems and clarifies some obscurities which have thus far remained puzzling. On the other hand, I am at present unable to accept these conclusions, possibly because the standard views have been so inextricably and so long at the basis of my thinking and of my research. My present opinion is that the chances that Dr. Velikovsky is right are about 10 per cent, but I admit I am prejudiced and I am eager to see his book published: it should prove to be not only sensational, but also stimulating to historians.

If you allow me to suggest other readers for this manuscript, I would name:

Professor William F. Albright, The Johns Hopkins University,
Baltimore 18, Maryland
Prof. Albert T. Olmstead, University of Chicago, 5758 Blackstone
Avenue, Chicago, Illinois

With kind regards

Yours faithfully,

Robert H. Pfeiffer





DR. IMMANUEL VELIKOVSKY

526 WEST 113TH STREET, N.Y. 25

(Temporarily: c/o William Pfaefflin,
Smith Hill, Winsted, Conn.)

July 17, 44.

Dear Mr. Hatcher:

Dr. Pfaeffler sent me a copy of his reply to you. I see that he declined to be the reader of my work, but he evaluated it without reading.

Two years ago he read an early version of my work: he expressed at that time his opinion in an adequate form, and his immediate reaction was put down in a few letters - copies of some of them are before you. He wrote that my work is "of fundamental importance" (Aug. 24, 1942), had not one argument to oppose my scheme, asked me to show how my scheme can be proven on ancient art, and we agreed that in his lecturing on Biblical History, Egypt and Assyrian history at Harvard Un., he will not mention my work before it is published.

Since then I worked for two years on my Mns. and in volume and in material it is now more than twice as large as it was in August 1942.

One year ago—on Aug. 8, 1943 I showed you my work, but not before one month ago—on June 14—that I completed the Mns and brought to you the second part of it. I hoped that Dr. Pfeiffer who "confessed" that he was "shaken but not converted" and who admitted that "some of your (my) clues are most disturbing to one who cannot suddenly give up notions about ancient history which seemed unquestionable." (letter of March 6, 1943), and "fascinated by your unheard of identifications and dates" (letter of April 17, 1943)—I hoped that he would be entirely converted by reading of the completed work. The present form of my work was called to give him the coup de grace and to free him from the agony (or "[illegible]" as he put it) of teaching of what he was no more sure). The prospects of making thousands of books and articles obsolete because of the chaos in the ages, makes a scholars shy and shrink from his responsibility.

The qualities of "revolutionary" and "sensational" are an invitation for a publisher to print a work. You and I realize that my work cannot be correct or incorrect on a basis of percentage. It is correct or wrong. But if the Empire State Building of the world's ancient history is appraised by one of its builders as 10% liable to crumble because of unstable construction—you will like to come out of it and not remain in its vicinity. I

means taht the belief in the integrity of the ancient history is gone.

We cannot expect by means of an Mns to explore the old concept of history. One scholar is expecting what will other scholars say. It is the task of a printed book that will come to all of them at the same time.

But if you like a further investigation of my Mns instead of making your own opinion to decision, I would agree to have Prof. Olmstead named by Prof. Pfeiffer as one of the readers of my work. Prof. Albright on the other hand, is the exponent of the scheme assailed; can be be defendant and judge in one?

Prof. Horace M. Kallen would also propose a general historian as a reader, who should be able to judge the work from a broader angle. He has somebody in mind. Was this not your wish to find out what interest the book could be outside the circle of specialists? I show that with the chronolgy, the entire history is changed.

I wish you healthy vacation.

Very sincerely yours,

Im. Velikovsky





526 West 113th Street
New York 25, N.Y.

June 29, 1945

Professor Robert H. Pfeiffer
Cambridge, Mass.

Dear Professor Pfeiffer,

I believe that you would like to know what happened to my work on reconstruction of ancient history, since you were very kind to give me attention in the past, and since you know that I gave my Ms to the Oxford University Press.

In February, the Oxford University Press returned the Ms to me, after they have kept it for over a year. They were anxious to print the book, but they reached their decision, because two scholars who read the work disagreed, one being very enthusiastic about the work, the other being decidedly against it. They interpreted your letter to them as also against the Ms: you declined to read the work, but in your answer there was a valuation, based on a previous reading (10 contra 90). So there were two readers against one.

Since the time you had the Mns for a few days in the summer 1942, and till the summer 1944, I enlarged the work three times, rewrote it, and per chance in its full form, it could help you to conquer your doubts (“shaken but not converted”). The Oxford Press related your valuation to the final form of the work.

The fact is that until now no scholar who read the work was able to make an objection or give a proof against my work, or show a difficulty to which my reconstruction leads. Your only suggestion to prove my thesis also on art-objects, I fulfilled in the new version of my work, and I did it extensively.

You wrote me in a number of letters (esp. August 24, 1942, when under a fresh impression after the reading) encouraging words and advised me to print my work. In the case of the Oxford Press, it happened, which can easily happen to me, that the reader who was against my book, was the author of the books assailed by me in my work. I showed which would be the correct conclusions, if this author were not guided by the conventional chronology. He was defendant and judge in one. How can I then come to print, if I fail to comply with the maxim: “Quod semper, quod ubique, quod ab omnibus, creditum est, ho est vere proprieque studium”?

I intend now to send my work to the Harvard University Press—not to any of its

series—but to the general department.

Of course, I would consider it a high privilege, if you will consent to be the reader of my work for the Press. But were this entirely impossible, which I would regret very much, would you suggest a reader who is also independent in his judgements, and fearless in matters of science?

Very sincerely yours,
Immanuel Velikovsky





ROBERT H. PFEIFFER
ROUTE 1
WESTPORT, CONN.

July 2, 1945

Dr. Immanuel Velikovsky
New York City

Dear Dr. Velikovsky:-

Thank you for your good letter of the 29th of June, which was forwarded to me here in the country (where I shall be, presumably, until September 20).

I was very sorry to hear that the Oxford Press had finally declined to print your radical revision of ancient history. As I had written you after reading the first draft, your conclusions were so revolutionary that I was unable to accept them at once, but that I believed your work should be printed without any question. My opinions on the matter are of no great importance, while your provocative brilliant study could mean a new era in the research for the historical period before Alexander.

I deeply regret that the Oxford Press misunderstood my letter and wrongly classed me with those opposed to the printing of your book.

I shall be glad to give a favorable report to the Harvard University Press. But I should like to have a more competent man be the official reader. If you happen to know of a historian of antiquity "independent in judgment and fearless in matters of science" will you please communicate his name to me (with address, since I lack a full library here in the country)? In this country I can think of only A. T. Olmstead (Chicago) and A. Goetze (Yale) who have done valuable research in ancient history.

With all good wishes for the publication of your book, and best personal regards,

Yours faithfully,

Robert H. Pfeiffer





ROBERT H. PFEIFFER
ROUTE 1
WESTPORT, CONN.

July 16, 1945

My dear Dr. Velikovsky:

Many thanks for your kind letter of July 11. You are most generous in judging my competence in ancient Near Eastern history, but I know my limitations. In any case I am grateful for your encouraging opinion of my knowledge.

If, as I understand, you will submit your manuscript on ancient history to the Harvard University Press for publication, you will not be asked by the Harvard Press to suggest a reader. As a matter of fact, if you did suggest a reader they would probably regard him as biased in your favor and question his recommendations. The Harvard Press will select its own readers on the Harvard Faculty and elsewhere. If they ask me to report on your book, I shall gladly do so as a matter of course. In any case I shall not communicate with the Press about your book before I am asked, and I do not believe you should suggest my name.

In any case, I still am firmly convinced that the publication of your book would be of immense value to historical studies.

With all good wishes,

Yours faithfully,

Robert H. Pfeiffer



WILLIAM SCOTT FERGUSON
8 SCOTT STREET
CAMBRIDGE

October 15, 1945

Dear Dr. Scaife

I have gone through Immanuel Velikovsky's "Ages in Chaos" with an interest stimulated by the audacity of the author rather than by the worth of his opus. It has no scientific value, in my judgment. It is a monument of misguided effort. I should not be published by the Harvard Press or, as I think, by anybody.

I am, Yours sincerely.

W. S. Ferguson

Mr. Roger L. Scaife
Director
Harvard University Press
38 Quincy St.
Cambridge, Mass.



November 25, 1945

Professor William Scott Ferguson
8 Scott Street
Cambridge, Mass.

Dear Professor Ferguson:

It was by mistake that the Harvard University Press left your letter to them on the front page of my Ms. ("Ages in Chaos"), where I found it a few days ago when the Ms. came back from Cambridge, Mass. Should I disregard this mistake, or should I act as a man of Athens who probably would have seen an act of fate in such a mistake?

I, today an unknown scholar, challenge you, a great master, in the spirit of an Athenian discussion, to show me one single instance which proves the fault of my chronological scheme, but proves it by historical material and not by the argument of "so it is established."

To explain what I mean with my challenge, I give here four or five problems which the established system is obliged to solve. If it will appear difficult to encounter my work with similar problems, I shall still accept your verdict about my work, if you would be willing to solve the following problems in the frame of the existing chronological system. I shall be satisfied if you will show the solution of the first problem alone. Upon asking, I shall be glad to increase the number of such problems to over one hundred: here I chose a few at random, because of their bearing witness to the Greek past, the field of your research.

Please interpret this challenge and its acceptance as a service to science, where no personal motives are involved; interpret it in a way Socrates would have chosen in a similar case.

1. On the tiles of Ramses III are the letters incised during the process of manufacturing; these are Greek characters of a classical form (fourth century. Ramses III according to the conventional scheme reigned in the twelfth century).

Literature:

T. H. Lewis, *Tel-el-Yahoudeh*, *Transact. Soc. Bibl. Archaeol.*, 1881, pp. 182, 189.

E. Brugsch, *On et Onion*, *Receuil des travaux relatif à la philol. et hist. Egypt. et Assyr.* vol. viii, 1885, p. 5.

Ed. Naville, *The Mound of the Jew and the City of Onias*, 1887, pp. 6-7.

F.L.L. Griffith, *The Antiquities of Tell-el-Yahudiyeh*, p. 41.

Fl. Petrie, *Eg. History (XX Dynasty)*.

(Acc. to my scheme Ramses III is identical with a pharaoh of the fourth century).

2. In Gordion vases signed vases signed by Klitias and Ergotimos were found in a layer contemporary with the Hittite Empire. In the entire Asia Minor Phrygian remnants are consistently found in deeper strata than the Hittite remnants of the Empire period. Also on Greek sculptures there are Hittite hieroglyphs. Greek authors, Homer included, do not know about Hittites in Asia Minor.

Literature:

C. & L. Körte, *Gordion*, Berlin, 1904, p. 144, p. 218.

H. Frankfurter (see Bittel and Güterbock, *Boghazkoy, Abh. d. Akad. d. Wiss. Phil.-hist. Klasse 1935* (Berlin, 1936), pp. 46, 58, 84ff.

H. v. d. Osten & E. Schidt, *The Alishar Huyuk*, p. 22.

H. v. d. Osten, *Discov. in Anatolia*, Public Orient. Instit. of the Un. of Chicago, 1933, pp. 9-10.

H. v. d. Osten, Four sculptures from Marash, *Metrop. Mus. Studies*, vol. 2, 1929-30, N.Y., 1930, pp. 115, 124, 127.

(Acc. to my scheme "Hittites" are the "Chaldeans")

3. Beth-Shan in Palestine (Scythopolis) was occupied in the seventh century by Psammetich who had Greek (Ionian) and Carian soldiers in his army. The stratification of Beth-Shan shows no Israelite period, neither any rests of occupation by the Pharaoh Psammetich, the period of Seti and Ramses II being followed by the Babylonian Empire; the Greek graves are found in the stratum of Seti.

Literature:

A. Rowe, *The Topography and History of Beth Shan* (Philad., 1930)

G. M. Fitzgerald, *Beth Shan, The Pottery* (Phil., 1930)

4. In the undisturbed tomb of Ahiiram in Byblos there were found Cypriote vases of the seventh century and objects of Ramses II.

Literature:

R. Dussaud, *Les Inscriptions Phéniciennes du Tombeau d'Ahiiram*, Syria 1924, p. 144

W. Spiegelberg, *Zur Datierung der Ahiiram-Inschrift von Byblos*, *Orientalist. Lit. Zeitung* 1926, no. 10

R. Dussaud, *Archiv für Orientalforsch.*, vol. V, p. 237 (1929)

Ed. Meyer, *Gesch. der Altertums*, vol. 2, part 2, p. 73 (1931)

Sidney Smith, *Alalakh and Chronology*, (London, 1940), p. 46.

A.H. Gardiner, *Pal. Explor. Quarterly*, 1939, p. 112.

R. Dussaud, *Syria*, 1930, p. 183.

5. Objects of the seventh century and of the fourteenth century were regularly found in Cypriote graves, and they cannot be severed from each other.

Literature:

A.S. Murray, *Handbook of Greek Archaeol.*, 1892, p. 57.

A.S. Murray, *Excav. at Enkomi*, in Murray-Smith-Walter, *Excav. in Cyprus*, London, 1900.

6. How to explain that Greece lost the art of writing for seven centuries?

Lit.:

R. Carpenter, "The Antiquity of the Greek Alphabet," *Am. Journ. of Archaeol.*, vol. 37 (1933).

B. Ullman, *Amer. J. of Arch.*, v. 38 (1933).

(There was no "dark age" between the Mycenaean and Greek periods. You will remember the long fight of the classic scholars against the contention of the Egyptologists who demanded the severing of the Greek past from that of the Mycenaean age by six or seven centuries).

Respectfully yours,

Immanuel Velikovsky





526 West 113th Street
New York 25, N.Y.

November 25, 1945

Professor Robert H. Pfeiffer
Cambridge, Mass.

Dear Professor Pfeiffer:

I send you enclosed a copy of a letter to Professor Ferguson. I realize it is very difficult to part with the old way of thinking and to become and adept at my Reconstrucion. But can I persuade one by one all scholars? When printed, it will challenge all of them at once.

Very sincerely yours,
Immanuel Velikovsky



HARVARD UNIVERSITY
DEPARTMENT OF SEMITIC LANGUAGES AND HISTORY
CAMBRIDGE, MASSACHUSETTS

57 Francis Avenue
November 27, 1945

Dr. Immanuel Velikovsky
New York City

My Dr. Velikovsky:

It was very kind and thoughtful of you to send me a copy of your letter to Professor Ferguson. I have read it with the greatest interest, and am returning it herewith for your files.

From what you say, I assume taht the Harvard University Press is not inclined to publish your book, and I do greatly hope that you will find another publisher. Your conclusions are so startlingly new and so revolutionary that most publishers are naturally frightened by them, especially when their readers are unable to conceive so great an error in the chronology of Egypt and Western Asia before Alexander as you are certain to have discovered.

The problems you present to Professor Ferguson have “stumped” me and I am unable to solve them on the basis of the old chronology.

With my kindest regards and best wishes,

Yours faithfully,

Robert H. Pfeiffer



WILLIAM SCOTT FERGUSON
8 SCOTT STREET
CAMBRIDGE

December 6, 1945

Dear Dr. Velikovsky

I have sent your letter (with enclosure) of Nov. 25 to the Director of the Harvard Univ. Press, as was fitting.

I am sorry, but I have too much work on hand to turn aside to a detailed discussion of your chronological system. I certainly did not envisage anything of the sort when I agreed to give a confidential opinion to the Director as to the advisability of his publishing your Manuscript.

Yours sincerely,

W. S. Ferguson

Mr. Immanuel Velikovsky
526 West 113th Street
New York 25 N.Y.



September 19, 1946

Professor Robert H. Pfeiffer
57 Francis Avenue
Cambridge, Massachusetts.

Dear Professor Pfeiffer,

The last few years I worked on the history of cataclysms and did not make many efforts to find a publisher for my Reconstruction. Lately a friend of mine suggested Houghton Mifflin Co., the publisher of a number of his books. You repeatedly expressed your opinion that my Ms. ought to be printed, whether I am right or wrong. I would like, if possible, [to] hear your opinion whether I should apply to H. Mifflin, as intended, and whether I can count on your support, if I shall mention your name.

Last spring I printed "Theses" of my Reconstruction; I merely gave a scheme and enumerated the new points I elaborated in my work, and did not include any proofs; therefore I do not know whether these Theses are suited for a review or discussion, or are they? I send you a copy.

I wonder if during the years that passed since you first read my "Ages in Chaos" you came across facts which let you think of my theory.

I enclose also a clipping—N.Y. Herald Tribune of August 11, with an article of their Science Editor. I think that Dr. Pogo of Harvard who worked on Mayan calendar, Egyptian astronomy and spectrogram of planets, is close to the field of research presented in my cosmological work. Do you know him? Exploring the historical cataclysms, the catastrophe at the end of the Middle Kingdom being one of them, I come into conflicts with some established notions of cosmologists who usually do not use historical material.

Very sincerely yours,

[Immanuel Velikovsky]





HARVARD UNIVERSITY

DEPARTMENT OF SEMITIC LANGUAGES AND HISTORY

CAMBRIDGE, MASSACHUSETTS
57 Francis Avenue

October 8, 1946

Dear Dr. Velikovsky:

Will you forgive my delay in thanking you for your letter of September 19, and for a copy of your "Theses for the Reconstruction of Ancient History."

I am delighted to have your views so clearly and compactly presented, although I would prefer by far to have your complete argument as given in your book—which I hope will be printed. Although it is difficult for me to cast off the views and dates of ancient history on which I have been brought up, I admit that some of your arguments have greatly perplexed me. I readily admit that, on the basis of your book, some competent ancient historian should test anew the basis of our current chronology in the light of your arguments. I do not feel competent for such a task, having my hands full with Biblical studies. I do not know Dr. Pogo personally, and I do not believe he is at Harvard. I believe he helps George Sarton of Harvard edit ISIS.

With all good wishes, Yours faithfully,

Robert H. Pfeiffer

The *N. Y. Tribune* clipping is returned with thanks. You may have need of it.



HARVARD UNIVERSITY
DEPARTMENT OF SEMITIC LANGUAGES AND HISTORY
CAMBRIDGE, MASSACHUSETTS

June 30, 1947

Dr. Immanuel Velikovsky
526 West 113th St.
New York City

Dear Dr. Velikovsky:

It was extremely good of you to let me see the manuscript of your book, *Ages in Chaos: Reconstruction of Ancient History*.

When you first discussed with me your revolutionary conclusions, your drastic revision of the accepted chronology of the period before Cyrus the Great, your startlingly new parallels between the Bible and ancient Oriental texts, I was greatly disconcerted and somewhat skeptical.

Since then five or six years have passed and, although I cannot say that I have accepted your conclusions in toto, my confidence in the traditional chronology has been greatly shaken in the mean time. You have brought down the dates in Egyptian, Hittite, and Near Eastern histories (excepting Israel's) by six hundred years. In the mean time, as you know, the archaeological discoveries at Mari on the Euphrates have forced us to bring down the date of Hammurabi from 1900 to 1750 B.C. (with a resulting similar reduction of Hittite and Syrian chronology before 1400 B.C.) and in the latest issue of the *Journal Asiatique* the Middle Kingdom of Egypt chronology is brought down by about 200 years.

It would seem that your discoveries have anticipated somehow the revision of ancient chronology which archaeological discoveries and technical researches have made necessary. Even though your book is still sensational, ancient historians will be less shocked by it now than six years ago. While I do not anticipate that your views will be accepted at once by scholars, I am certain that they will be greatly stimulated by your brilliant volume, filled with innumerable new observations, parallels, and conclusions of detail. The present text of your book has been greatly improved over its form five years ago, through your revisions. I am eager to see it in print as soon as possible.

With all good wishes,

Yours faithfully,

Robert H. Pfeiffer
Chairman of the Department



526 West 113 Street, New York 25

July 16th, 1947

Dear Professor Pfeiffer:

Returning from our short vacation in the hills which we started the day after our visit ai Westport, I feel that one of the first things I owe to do is to thank you for your kind letter. Mrs. Velikovsky and I would like also to say that we were charmed by your and Mrs. Pfeiffer's friendliness. Mrs. Velikovsky sends to Mrs. Pfeiffer a photograph of one of her stone carvings.

With kind regards, Cordially yours,
Immanuel Velikovsky



Reader's Report on: Immanuel Velikovsky, AGES IN CHAOS

Spring 1949

Dr. Velikovsky has reached the conclusion that the chronology of Egypt and the Near East before Alexander the Great is utterly wrong and chaotic. In the current histories of ancient Egypt the same events are related twice with a gap from six to eight centuries, the kings appear twice with different names, descendants become ancestors, etc.

The present volume is devoted to the discovery and correction of such errors. His clues and evidence are chiefly:

1. Parallels between biblical and Egyptian literary and historical texts.
2. Philological parallels between words, which make it possible to identify, for instance, Agag (Amalekite King) with Apop (Hyksos king); Amuru and Arameans; etc.
3. Textual revisions: in Exodus 4:22-23 "first-born" is changed to "chosen"; in Psalm 78:49 "sending evil angels" is changed to "invasion of king-shepherds."

Dr. Velikovsky discloses immense erudition and extraordinary ingenuity. He writes well and documents all his statements with the original ancient sources.

His conclusions are amazing, unheard of, revolutionary, sensational. If his findings are accepted by historians, all present histories for the period before Alexander the Great (who died in 323 B.C.) must be discarded, and completely re-written. If Dr. Velikovsky is right, this volume is the greatest contribution to the investigation of ancient times ever written.

The present reviewer would not undertake to guess the reaction of his colleagues to the rearrangement of ancient history proposed by Dr. Velikovsky. This reviewer is somewhat bewildered by this book, but even though shaken by some of the evidence adduced, he is still perversely obdurate, unable to discard the history he has learned and taught, unable to accept the revolutionary new presentation of Velikovsky. Even though this attitude is subjective and unimportant, it may be that of some other historians. The reviewer, however, would like to have the volume published and have a copy in his library: he would like his students to read it, being convinced that only out of the discussion of opposite views may the truth, or an approximation thereto, be attained.





Dr. Immanuel Velikovsky 526 West 113 Street, New York 25

May 6, 1949

Dear Professor Pfeiffer:

In agreement with me, MacMillan sent to you my "Ages in Chaos" in its final version. I understand that you have finished the reading and made the report. It was very kind of you to take this assignment. If the time permitted you to read the Mns. page by page and not to rely in parts on the recollection of the reading of the single chapters of the early version in 1942, I am assured that I won this time an unwavering adept for my reconstruction.

I prepared also a section concerning the Assyrian chronology, a matter to which you drew my attention two summers ago, but actually: Platanos tomb proves the contemporaneity of the tablets of Arrapha and Nuzu of the 15th century with seal impression of the First Babylonian Dynasty show by implication that the Middle Kingdom in Egypt endured until the middle of the second millennium. But where is left the time of the Hyksos already reduced from 5 to 2 centuries? And if the Middle Kingdom endured until the 15th century, how to start the New Kingdom in the beginning of the 16th century?

It seems to me that I brought material sufficient to prove the thesis without additional material from Khorsabad of Mari, Nuzu and Alalakh, though the reduction of the Cappadocian tablets by 600 years and of the entire Middle Eastern Chronology by 350 or 400 years proves that the entire structure of the old chronology becomes untenable, and a new chronology is due. I believe that I filled the vacant scheme before it was realized that a reconstruction would be mandatory.

My other book "Worlds in Collision" is since long in proof sheets before me and MacMillan is anxious to have also the historical work; so am I, especially because the work in print is built in relying on the revised chronology as if it were already published.

I finished a short essay on Baalbek in biblical times and wonder whether you would be interested to see it.

Very sincerely yours,

Immanuel Velikovsky

Greetings from Mrs. Velikovsky and from me to Mrs. Pfeiffer.





Dr. Immanuel Velikovsky 526 West 113 Street, New York 25

May 13, 1949

Dear Professor Pfeiffer:

The letter that I mailed to you last Friday was returned to me by the postman: I enclose it here. In the meantime Mr. J. Putnam of Macmillan told me in a telephone conversation that he received "a rather negative" report from you, but when he came to see me yesterday and gave me a copy of your report, I did not find it so negative as he did. Therefore I offered Mr. Putnam to write to you and to ask you to point him whether there is any subject in my reconstruction which you would be able to confront with archaeological facts so as to disprove my scheme. Until now neither you nor anybody else was able to do with my scheme as I did with the conventional chronology pointing, for instance, to Ramses III's tiles bearing Greek letters of the fourth century incised before being placed in the furnace, to give one example out of a few hundreds in my manuscript. How short an historian would deal with me could he show in my scheme similar facts?

It is actually on the collation of historical texts, first, and on archaeological material, second, that I prove my scheme and disprove the conventional scheme. In the third place are the objects of art, your suggestion in 1942. I have used only very few philological parallels or revisions of the scriptural texts, since I know that these have mostly only controversial value. If it is, therefore, that the difficulty to accept my reconstruction is of psychological nature, then it must be less strong now than in 1942, because since then the conventional chronology is shaken.

Science is not a discipline if unchanging dogmas, neither of feelings and habits, but of reason and facts. My book must be rejected or accepted on basis of historical texts or archaeological facts.

I thank you again for the task of reading the entire work with the chapters added and for the flattering remarks. If my work, has even only a small chance of becoming a classic, as you put it in your letter, it deserved the time you gave to it in the past and again now revising it for Macmillan; this is my only excuse for bringing you again and again into the orbit of my "reconstruction of ancient history" and for asking you to help me to see the book published.

Very sincerely yours,
Immanuel Velikovsky

Postscript.

I finished now our telephone conversation and I am grateful to you for all your efforts to make my ancient history accessible for every scholar by being printed.

I think that Macmillan will make up their mind if they will realize that in your belief, as you wrote to me occasionally,

1. the conventional chronology is shaken by new finds in Mesopotamia and a reconstruction of chronology and history is due,
2. that some of my arguments are well built and that your expression of “being left bewildered” refers to this,
3. that in my reconstruction no statement was found which could be easily disproved by archaeological facts or by collation of texts and that it is not a series of unrelated arguments but a planned and consistently followed scheme
4. that the scientific world must judge my book and not another single scholar. Therefore it must be printed.

[signed] Im. V.





THE MACMILLAN COMPANY

SIXTY • FIFTH AVENUE • NEW YORK

March 20, 1940

Dr. Immanuel Velikovsky
3 Riverside Drive, New York, N.Y.

Dear Dr. Velikovsky:-

We appreciate your sending us, with your letter of March 10 th, the two reprints of your work, in order to give us an idea about your proposed book, THE HATRED OF NATIONS.

This company is always interested in new projects, and we have been glad to go over your material and discuss in our editorial conference the possibility of such a book fitting in with our future publishing commitments. Since we can see little chance of finding a place for your work on our forthcoming schedule, we do not feel we can, in all fairness, suggest that you forward the complete manuscript for us to consider.

May we not thank you for thinking of us as possible publishers of your work? We are returning your reprints, herewith.

Very truly yours,

HARVARD COLLEGE OBSERVATORY
Cambridge 38, Massachusetts

January 18, 1950

Editorial Department
The Macmillan Company
60 Fifth Avenue
New York II, N.Y.

Gentlemen:

I have heard a rumor from a source that should be reliable that possibly Macmillan Company will not proceed to the publication of Dr. Velikovsky's "Worlds in Collision." This rumor is the first item with regard to the Velikovsky business that makes for sanity. What books you publish is of course no affair of mine; and certainly I would depend on your expert judgment rather than on my own feelings in the matter. But I thought it might be well to record with you that a few scientists with whom I have talked about this matter (and this includes the President of Harvard University and all of the members of the Harvard Observatory staff) are not a little astonished that the great Macmillan Company, famous for its scientific publications, would venture into the Black Arts without rather careful refereeing of the manuscript.

The Velikovsky declaration or hypothesis or creed that the sun stood still is the most arrant nonsense of my experience, and I have met my share of crackpots. The fact that civilization exists at the present time is the most profound evidence I know of that nothing of this sort happened in historic times. The earth did not stop rotating in the interests of exegesis.

This note, of course, is not for publication or any further use than to report that to one reader of Macmillan's scientific books the aforementioned rumor is a great relief.

Sincerely yours,

Harlow Shapley





THE MACMILLAN COMPANY

January 24, 1950

Professor Harlow Shapley
Harvard College Observatory
Cambridge 38, Mass.

Dear Professor Shapley:

Thank you very much for your letter of January 18 which has been referred to me, as I have been working with Dr. Velikovsky on his book, *WORLDS IN COLLISION*, for several years. I am afraid that the rumor which you have heard is unfounded, as the book is about to go to press and we plan to publish it on March 28.

As I am sure you realize, we are publishing this book not as a scientific publication, but as the presentation of a theory which, it seemed to us, should be brought to the attention of scholars in the various fields of science with which it deals. Obviously it is a most controversial theory, and we have long since faced the fact that there will be a great diversity of reaction to the book. As to Dr. Velikovsky's scholarly attainments, you will perhaps be interested in the brief summary of biographical data regarding him, which I am enclosing.

As you probably know, the publication of the article by Eric Larrabee in *Harper's* has created a wide-spread interest in the book. When you see the book itself, in which, I may add, many changes have been made in the final proof, I shall be very much interested to know whether or not your feeling about it remains the same. I shall be glad to see that a copy is sent to you as soon as stock is available, which will probably be early in March.

I appreciate very much the spirit in which your letter was written, but I cannot believe that our publication of this book, which is presented by us as a theory, will affect your feeling toward our publications in the scientific field.

Sincerely yours,





HARVARD COLLEGE OBSERVATORY
Cambridge 38, Massachusetts

January 25, 1950

Mr. James Putnam
The Macmillan Company
60 Fifth Avenue
New York 11, N.Y.

Dear Mr. Putnam:

Thanks for your full letter of January 24. It will be interesting a year from now to hear from you as to whether or not the reputation of the Macmillan Company is damaged by the publication of "Worlds of Collision." Possibly you already have published similar "theories" and know that the reaction of the public is not professionally or financially undesirable. My chief interest now in your publication of the volume is just to see if the reaction is favorable—an experiment in the psychology of scientists and the public.

Larrabee is probably too little to judge by, but from where I sit the celestial mechanics of Dr. Velikovsky is complete nonsense. Perhaps in the book he follows through some of the consequences that must result from the celestial manipulations he describes.

If I remember correctly, several years ago (perhaps only three or four) Dr. Velikovsky, with an introduction from Horace Kallen, or some other acquaintance of mine, met me in a New York hotel. He sought my endorsement of his theory. I was astonished. I looked around to see if he had a keeper with him. He declined to participate in the tea or cocktail; but he was a very attractive individual in manner and vocabulary. I tried, but rather futilely, to explain to him that if the earth could be stopped in such a short space of time it would overthrow all that Isaac Newton had done; it would have wrecked all life on the surface of the planet; it would have denied all the laborious and impartial finds of paleontology; it would have made impossible that he and I could meet together in a building in New York City less than four thousand years after this tremendous planetary event.

Dr. V. seemed very sad. But somehow I felt he was feeling sorry for me and the thousands of other American physical scientists and geologists and historians who have been so, so wrong.*

You cannot wonder that I looked for a keeper. But of course if he and Macmillan are right, I should rather be looking for the million keepers who should be in charge of the million of us who are not willing to change the facts and careful recordings of nature, in the interests of exegesis.

Naturally you can see that I am interested in your experiment. And frankly, unless you can assure me that you have done things like this frequently in the past without damage, the publication must cut me off from the Macmillan Company. But this is a triviality.

One of my colleagues by request is writing a commentary on Larrabee's article, and, being also a classicist, will probably have a good time. I don't suppose there would be any chance that you would send to me for this colleague an early copy of the proof sheets so that it will be Dr. V. who is discussed and not Mr. Larrabee?

Yes, it will be an interesting experiment. Incidentally, I suppose you have checked up on the references of Dr. V. He certainly has had a brilliant and varied career, and is remarkably versatile. It is quite possible that only this "Worlds in Collision" episode is intellectually fraudulent.

Sincerely yours,

[signed] Harlow Shapley

* You may be able to report that Dr. V. has never been in New York and that my consultant was another planet handler.





THE MACMILLAN COMPANY

February 1, 1950

Professor Harlow Shapley
Harvard College Observatory
Cambridge 38, Massachusetts

My dear Professor Shapley:

Your letters of January 18 and January 25 with reference to Velikovsky's *WORLDS IN COLLISION* have just been referred to me. Normally, presumably, they would have been handled by the vice-president in charge of our Trade Department, the department which has contracted for the publication of *WORLDS IN COLLISION*. But as Mr. Latham is in England, the correspondence has been referred to me.

At first glance it would seem that we owe a debt of gratitude for waving the red flag. Mr. Latham presumably knows all about this publication, but as he is not here and I only have available to me the documentary evidence from our files, I am taking your cautionary note to heart and am insisting that just as soon as the proofs can be made available—they are in the process of being corrected—we get the opinions of three scholars on the book as a whole.

I take it you yourself have not had an opportunity of reading the book. I think it would be a little unfair to ask you to do so at this time. But I do appreciate your having taken the trouble to flag us down, because it enables me to get three additional opinions on my own count to back up or to refute the opinions of those critics who reviewed the manuscript for Mr. Latham.

It isn't often that scholars take the trouble to caution a publisher as you have. I am most grateful to you for your kindness.

Sincerely yours

[signed] George Brett

[President of the Macmillan Company]





The Macmillan Company
60 Fifth Avenue
New York II, N.Y.

Notes on *WORLDS IN COLLISION*

1. Appears to be quasi-scholarly.

Many quotations and footnotes will make the reader feel that he is engaged in serious reading.

2. The central idea of the literal interpretation of the legends of primitive peoples is interesting.

I do not know how new this idea is or how fairly he has presented the information.

3. The physics is not good.

Remarks on mechanics, gravitation, electricity, and magnetism are confused.

The author clearly does not understand the physical problems involved in his theory, nor does he seem, able to evaluate evidence in the physical sciences.

4. As a scholarly book attempting to present ideas to those in the field, I would rank it low. It is too long, it does not have a systematic presentation. It has too many mistakes.

5. As a book to sell to the general reader, I would rank it higher. Certainly the idea is one to capture the interest.

(signed) Ed. Thorndike
Feb. 13, 1950

Prepared by
Dr. E. M. Thorndike
Head by The Physics Department
Queens College





NEW YORK UNIVERSITY
WASHINGTON SQUARE COLLEGE OF ARTS AND SCIENCE
WASHINGTON SQUARE, NEW YORK 3, N.Y.

DEPARTMENT OF PHYSICS TELEPHONE:

SPRING 7-2000

February 14, 1950

Mr. H. B. McCurdy
The MacMillan Company
60 Fifth Avenue
New York 11, New York

SUBJECT: "WORLDS IN COLLISION" by Immanuel Velikovsky

My dear Mr. McCurdy:

"Worlds in Collision" is not a text on science and I am sure its author never intended it to be. It is not scientific fiction, it seems to me that it is more nearly fictional science and I am not saying this in any disparaging sense.

Velikovsky marshals an array of facts, a network of footnotes and a series of interlocked interpretations which are truly amazing. The reader, with three days at his disposal, for its perusal, is left quite dizzy.

I am impressed by the amount of research the author must have put into it, but "men of science" will not always be impressed scientifically by the presentation, for the scientific method is relegated to the side lines in the Velikovsky-treatment of much of the material.

I do not like the use of centrifugal force on page 7—(incidentally there seems to be something missing after page 35).

Speculation about the chemical behavior of carbon and hydrogen gases on page 53, to produce naphtha or petroleum, is not convincing.

The liberty which is taken in tilting the earth's axis, in slowing down the rate of rotation and even reversing the direction of rotation of the earth, is rather like scientific heterodoxy.

The fantastic battle in the sky described in Chapter 3, the details of this cosmic

catastrophe and the magnetic forces which are assumed to come into play, are far fetched.

The running catch-as-catch-can fight between the Earth, Venus and Mars sounds unscientific. The application of quantum considerations and stationary orbits to macrocosmic events, seems most questionable.

But, on the other hand, men of science are a conservative group and have by no means always been right, and I am giving you my own reactions after an overdose of concentrated reading. More reflection on my part may after my mental picture, especially after I have had an opportunity to consult source material.

I have found the book interesting and provocatively stimulating. Scientifically trained men and women form a small percentage of the reading public, and I have addressed myself to the question of how the general public will react to "Worlds in Collision."

It has ever been my experience that students, be they never so bored, will immediately come to attention when almost any subject from the field of Astronomy comes up for discussion. "Worlds In Collision" has a running start on that score alone, but on its own merits it cannot fail to appeal to the reader, whether he be a man of science or not. Perplexing questions of long standing are tackled and their explanations are daring and often breath-taking. A case in point is the suggested precipitation of carbohydrates in the form of manna to feed the Israelites, and incidentally, their enemies.

Velikovsky has written a challenging book, a book that will make people think and will spur them on to do more reading, if only they can have access to references so freely listed.

It is my opinion that there will be a good demand for "Worlds in Collision." It is my sincere hope that my opinion turns out to be well founded.

To The Macmillan Company go my best wishes for success in its publication, and to you, sir, my thanks for giving me the opportunity to see it at this stage.

Cordially yours,

[signed] C. W. van der Merwe





February 14, 1950

Mr. Henry B. McCurdy
College Department
The Macmillan Company
60 Fifth Avenue
New York 11, N.Y.

Bear Mr. McCurdy:

Immanuel Velikovsky's "Worlds in Collision" is amazing and fascinating. It amazes because of its forthright and simple (and perhaps correct) interpretations of ancient allusion. It fascinated because in the present time of an unsure "atomic fission and fusion" world, his statements and collations of natural events chronicled by many peoples startle one with the possibility of previous near-fatal cataclysms.

Astronomers may find reasons to refute some of his conclusions, and theologians and religious scholars may be irritated by this unorthodox shattering of ideas of miracles. His scholarly and erudite background is quite obvious in the many fields he touches upon, and his very sincere attempt toward objectiveness and honesty of presentation should set at rest any thoughts that he is a "crackpot with a message".

As a scientist, particularly a chemist, I can find on great flaws in his deductions. It seems to me that the difficult thing to do here is to free one's mind of preconceived "certainties". He has surely put in a tremendous amount of research and related effort to see whether his conceptions would bear up. I think he has pretty well succeeded in showing that they do. His thinking is clear and open; his intellectual power and honesty I believe are both beyond question.

As a chemist I would raise a question as to the "Naphtha" and "Ambrosia", sections in Part 1. But here, again, preconceived and fixed ideas interfere modern processes, contradicting some preconceived notions, are producing various oxygen-containing compounds from hydrocarbons, and who la to say that under the conditions he assumes the formation of edible substance would not be possible? I would not argue overmuch with his ideas of the source or nature of ambrosia and the milk and honey of ancient days, because conditions can only be conjectured as he suggests and even modern high temperature and catalytic processes are not infallibly predictable. The naphtha conception (and the implication as to one of the sources of petroleum on earth) is as good as any to explain certain phenomena otherwise accepted as miracles; perhaps the astronomers will have greater reasons for disbelief by virtue of knowledge of the atmosphere condition on Venus.

The remarkable agreement among various peoples of the world concerning the natural phenomena is very intriguing. No one can quickly check or study all the sources the author has so painstakingly investigated, but the startling evidence he presents seems to explain more of the mysteries and incompatible concurrences that have been discovered and uncovered by scientists and explorers of even recent years than have been explicable on any other basis. Perhaps intellectual obstinacy and stubborn narrow insistence on the “what now is, has always been” type of thinking is the reason that scholars and investigators have never before come to conclusions similar to the author’s.

The book is, to understate, food for thought, and I feel that further investigations in fields the author suggests may produce further evidence for his conclusions. As he points out, Newton and Darwin examined and proposed and developed their ideas on an earth already stabilised. The thought occurs that had they possessed and surface as the author suggests, could they have developed their theories as they did?

Perhaps the author’s ideas and theory are not heresy to Newton and Darwin except for those who choose to believe blindly and refuse to examine new evidence.

Sincerely yours,

(signed) Clarence S. Sherman
Assoc., Prof. of Chemistry
Cooper Union





February 17, 1950

Mr. Brett:

Mr. McCurdy told me that you would like to have me read the galley proof of *WORLDS IN COLLISION* and give you my views on it. I picked up this manuscript with the idea that it would probably be another interesting example of fitting a selected assortment of “facts” to an author’s pet theory. I recalled the razzing we got from a Wisconsin statistician on H. L. Moore’s *GENERATING ECONOMIC CYCLES*. Apparently, in figuring result of the interposition of Venus and the moon. Dr. Moore overlooked some important crop data from other parts of the world which would not cooperate with his theory—unintentionally, of course.

I finished the book with at least as much belief as I can give to religion—and I am not an atheist or even a real agnostic. The incredible part to me is just how any one man could have covered so much literature legend, and science so carefully as is apparent in reading the proof.

Astronomers will read the book and raise a million questions, one of which will surely concern our moon. How could it have remained so unconcerned while Venus was giving us such a working over? The author does not cite much in the records on this point. He does mention that Venus in her comet days raised havoc with some of the other planets’ satellites. I think the book will be a great success, and this volume should automatically make readers for the one to follow.

C. L. Skelley



March 7, 1950

Dr. Harlow Shapley
Harvard College Observatory
Cambridge 38, Mass.

Dear Harlow:

I have delayed an answer to your letter of February 20 until I felt reasonably recovered from my initial reaction to its content.

I could not feel that our friendship was worth retaining if I were not as frank in my reply as you undoubtedly were being with me.

In the first place, I feel that I must take with you as sharp an exception to your series of wholly unwarranted and unfounded characterizations of Dr. Velikovsky, as I have had occasion to take in another field when your political views have led to nearly as unwarranted an assault upon your own integrity.

I am genuinely shocked, in rereading your letter, at the epithets you have seen fit to use in characterizing Dr. Velikovsky, a man of unusual integrity and scholarship, whose painstaking approach to scientific theory is at least a match for your own....

... You further suggest that, evidently through your efforts, there is now some question about whether Macmillan will go through with the publication, thus not only confessing to do direct damage, but to provide some evidence of having successfully damaged Dr. Velikovsky's work. . . .

. . . I have had ample opportunity to verify from a wide variety of unimpeachable sources Dr. Velikovsky's scholarship and high integrity as an individual. His claims as to his studies, his background and his degrees have consistently, and without exception, been on the modest side.

It seems to me that you are making both a personal and professional mistake—a gravely serious and dangerous one— by the totally unscientific and viciously emotional character of your attack upon Dr. Velikovsky and his work.

I am writing this advisedly, since it is obvious that you have seen fit to unleash a series of attacks, by no means directed to me alone, both against Dr. Velikovsky and against his work, without ever once having taken the trouble to examine his work or

even to glance at the evidential research with which it has been accompanied.

I submit that, at the time of writing your letter, you had neither read the manuscript of Dr. Velikovsky's "Worlds in Collision," nor a single piece of evidence in its support. At the most, it is possible that you had examined superficially a popularization of a very small portion of this work by Eric Larrabee of Harper's Magazine.

It would be totally presumptuous of me to make the slightest effort to maintain the scientific validity of the conclusions which Dr. Velikovsky has stated as tentative theses, growing out of the historical evidence which he has amassed. But I think it is equally evident that you are at the present time, despite your scientific attainments, in an even less valid position to quarrel with Dr. Velikovsky's evidence or his conclusions, since you have not taken the trouble to examine either. In fact, it is impossible for me not to be alarmed at the intensity and character of the attack, particularly from an individual of your scientific attainment, which is based so completely on hearsay and emotional reaction. I am sure you would yourself hesitate to reach a conclusion about the nature of a planet without having examined with care all of the available evidence. And yet, you have had no hesitancy in proclaiming a distinguished scholar an impostor, a charlatan and a fraud and characterizing his work as pure rubbish.

That your course of action is, on its face, both morally and criminally slanderous and libelous, would have been perfectly evident to me, even had I not made a most thorough study of the law in relation to slander and libel. . . .

Certainly, it is possible that the evidence adduced by Dr. Velikovsky is scientifically inconclusive, but to maintain that it is rubbish merely because of a possible (though by no means certain) conflict with another working hypothesis, without even having bothered to make an examination of the evidence is, it seems to me, clearly nonsense, even when the nonsense is uttered by one who has achieved such an eminently responsible position in the field of astronomy as yourself.

I beg of you, in all earnestness, to consider your course of conduct in this matter and contrast it with the high standards you set before your students, before proceeding further in your campaign to destroy a man whom you do not know and to damn a theory about which you obviously know nothing.

I did take the trouble to read the article which you had prepared by Mrs. Cecilia Payne-Gaposchkin. Again, I have no presumption of scientific knowledge in her field and no basis for accepting or rejecting the scientific theories expounded in her article. I do, however, have a criticism of the main tenor of the article itself, which is as follows:

1. The article is an attack upon a book which the writer has not read.
2. In at least two instances, the article sets up strawmen and then proceeds to

demolish the strawmen. In other words, the article attributes to Dr. Velikovsky statements which are not made either by him or in his manuscript, and then proceeds to quarrel with those statements as though they were authentic. This is, to say the least, a most unscientific method of criticism....

Although it has no bearing whatever upon the case under discussion, except that it was a minor point raised in your letter, I feel that I can scarcely refrain from twitting you on the patronizing and blanket references to the unschooled and in formally educated (Dr. Velikovsky is, of course, neither). Surely, it should not require a layman like myself to remind you, for example, of such contributors to the field of scientific knowledge as Leeuwenhoek, the untutored church janitor who discovered and proved the existence of microbes, to the annoyance of the then existing practitioners of medicine.

Sincerely,

Ted O. Thackrey

cc. Dr. Immanuel Velikovsky





HARVARD COLLEGE OBSERVATORY
Cambridge 38, Massachusetts

March 8, 1950

Confidential

Mr. T. O. Thackrey
The Daily Compass
164 Duane Street
New York 13, New York

Dear Ted:

I apologize immediately for having written such disparaging remarks about an acquaintance of yours. My astonishment stands, but so does my apology. . . .

Last week's Science News Letter, incidentally, included statements on the Larrabee article from men in other fields— all of distinction, I believe—and they seem to be unfavorable. "Time" of this week also takes a dim view.

I myself am not writing anything in response to Dr. Velikovsky or Larrabee or anyone. In fact, the only hot communication I have made was this letter to you. I certainly wrote it to the wrong person! In half a dozen groups, chiefly of Harvard University professors (and they are not all ill-mannered, injudicious, or dumb), without exception I have found no one whose views about the Reader's Digest survey of the volume, to say nothing of Larrabee's article, were other than mine. Many, like Ickes in the New Republic, took the whole business as a joke. Wasn't Larrabee a Lampon editor?

Perhaps I wrote you that a vice-president of the American Astronomical Society thought that the Council of the Society should send a protest to Macmillan, the famous publisher of highly reputable scientific books; but I said immediately, and so did many others, that such an action would merely give greater publicity to Dr. Velikovsky's contributions. Freedom to publish is a basic freedom. . . .

Our trouble about the Macmillan Company and Harper's, if you call it trouble, was that such publications seem to throw doubt on the care with which they referee other manuscripts on which we want to depend. There was no fear whatever of being misled by Dr. Velikovsky's views. . . .

In conclusion, I remember that Dr. Velikovsky was a very nice personality, quiet,

modest, and apparently genuinely sorry that I and the likes of me had been so misled by Isaac Newton, Laplace, Lagrange, Simon Newcomb, the great national observatories in all the leading countries. He was, in fact, quite charming, as I remember him. No doubt, from what you say, he is a deep scholar in some fields. I have not yet seen statements from scholars to this effect, and possibly you would not value them highly if they should speak adversely. They squabble among themselves—these philosophers of the ancient times and of the fragmentary records. But it is hard to quarrel with a differential equation, or with numbers; and therefore the trained astronomers and physicists, almost to the last man, will insist on the fallacy of Dr. Velikovsky's celestial mechanics. Even the planetarium lecturer, who is almost totally unknown to astronomers, was evasive in his not unfavorable comments.

In signing off I again apologize for the vigor of my language; but following the precedent of one Galileo, I stand fast on the evidence and assertions that Venus did not participate in the stopping of the rotating of the earth some fifteen hundred years b.c. one cannot be dishonest in such matters and remain a scientist. But I insist on remaining your friend. Neither Dr. V. nor the planet-comet Venus should get between us.

Sincerely yours,

Harlow





April 10, 1950

Dr. Harlow Shapley
Harvard College Observatory
Cambridge 38, Mass.

Dear Harlow:

I have delayed an answer to yours of March 8th until I could examine carefully some of the material to which your letter refers, and examine, as well, the circumstances under which it was written.

You refer to Science News Letter and to Time Magazine as evidences of unfavorable views of Dr. Velikovsky's work coinciding with your own, but unless I mistake certain reasonably clear indications the chief inspiration for these adverse views stems from Dr. Harlow Shapley of the Harvard College Observatory!

You note that you yourself are not writing anything in response to Dr. Velikovsky or Larrabee, and that, in fact, the only hot communication from you was your letter to me.

On the other hand, Mrs. Cecilia Payne-Gaposchkin's article was directly inspired by you, and I am informed by Mr. Gordon A. Atwater that two communications to Dr. Velikovsky's publishers. The Macmillan Company, from you, are so sizzling that your letter to me might seem tepid by comparison!

I do not doubt that many groups, including groups of Harvard University professors, who are by no means ill-mannered, injudicious or dumb—to quote you and agree with you on that score—hold views which coincide with your own; but I should be astonished to find that they had reached their conclusions completely independently of discussion with you.

There is, of course, a further elementary factor which continues to perplex and dismay me; at the time your views were expressed, at the time *their* views were expressed; at the time Dr. Gaposchkin's article was written, not you, nor Dr. Gaposchkin, nor the professors you cite—not one—had read the manuscript or the book. At most, they have read comment upon it, or digests of sections of it, without benefit of reference notes or complete treatment.

I am more than a little puzzled at your paragraph mentioning that “a vice-president of the American Astronomical Society thought that the Council of the Society should

send a protest to Macmillan, the famous publisher of highly reputable scientific books; but I said immediately, and so did many others, that such an action would merely give greater publicity to Dr. Velikovsky's contributions. Freedom to publish is a basic freedom."

The reason for my bewilderment, in view of the foregoing paragraph, is that I have been assured that you yourself wrote on two separate occasions to Macmillan in an effort to frustrate publication of Dr. Velikovsky's work, and that in doing so your language was as severe as that in your original letter to me on the subject.

Would you please assure me that this report is wholly false; or if it is not, let me know how you would reconcile the paragraph I have quoted from your March 8th letter, and would you let me have copies of your letters?

I have, I believe, at least one advantage in this correspondence; and it is, indeed, not only an advantage in the exchange with you, but with Dr. Gaposchkin. . . . The advantage is that I have read the book in question, while I seriously doubt if you or the above named have actually done so as yet. In your own case, I am certain.

After analyzing Gaposchkin's unfortunate statement in *The Reporter* concerning the Venus tablets from Babylonia,* Thackrey proceeded:

. . . it would definitely appear that the criticism that Dr. Velikovsky's book ignores the tablets except in a footnote could not have been written by anyone who read the book.

All this shows that you and Mrs. Gaposchkin made extensive and successful efforts to suppress the book, and damage it by statements not warranted by the text of the book. Into the same category belongs Gaposchkin's statement that Velikovsky confused Ovid and Hesiod. The confusion is hers. . . .

There is another matter about which I am curious: I am informed that Atwater has been asked to resign as curator of the planetarium here. Is it possible that your own reaction to his mild support of Dr. Velikovsky's right to publish could have influenced that decision?

I did note with interest that you feel that you are following the precedent of one Galileo; but I wonder if you would feel it unfair of me to remark that Galileo was advancing the thesis that the accepted science of his time was not yet perfected. I had thought it more likely that Dr. Velikovsky might fairly claim Galileo as a precedent!
Sincerely, Ted

Sincerely,

Ted

Shapley did not answer Thackrey's letter of April 10 until after I had parted with Macmillan. This goal having been achieved, Shapley wrote on June 6, when this parting was supposedly known to only a few persons:

[These tablets preserve a year-by-year record of the appearances and disappearances of Venus. See the later section "Are the Venus Tablets Missing?"]





HARVARD COLLEGE OBSERVATORY
Cambridge 38, Massachusetts

June 6, 1950

Confidential

Mr. T. O. Thackrey
The Daily Compass
164 Duane Street
New York 13, New York

Dear Ted:

To my letter of March 8 you replied on April 10. I should have written you again on May 12, but I was then at our western observing stations.

I wonder if there is much point in writing further about Dr. V. and his remarkably successful writings. Certainly you and he and his publishers should be quite satisfied with his leadership of the best sellers for week after week, and I ought to be satisfied in that I have not yet met an astronomer, or in fact a scientist or scholar of any sort, who takes "Worlds in Collision" seriously. Some referred to the clever promotion; some referred to the rather charming literary style; and some, while fully exonerating Dr. V. (who should do as he pleases in this free country), are unrestrained in their condemnation of the once reputable publisher. This point is made in many of the reviews.

In the annual address to an important scientific foundation, a distinguished American physiologist on Saturday bemoaned the rather bleak future, and obvious decadence of our time. We have failed completely in our scientific teaching, he stated, or the "Worlds in Collision" atrocity would not have caught on the way it has. It seemed to him that Dr. V. and Senator [Joseph] McCarthy are symbols of something dire and distressful. But I do not worry about it. Time has curative properties.

One thing did worry me a bit in your letter—your intimation that in some way I was carrying on a crusade against Dr. V. Of all the astronomers from whom I have heard comment, I am the mildest and most forgiving. You suggest directly that I am back of various hypothetical crusades, and that my letters to the Macmillan Company were scorches. How you misjudge me! I enclose copies of the letters, also a copy of the letter from the President of the Macmillan Company, IN rereading, it seems to me that I am sad, but not savage.

Sincerely yours,

Harlow





July 25, 1950

Professor Robert H. Pfeiffer
Route 1
Westport, Connecticut

Dear Professor Pfeiffer:

As soon as "World in Collision" was published, I had ordered that a copy should be sent to you. Possibly you had already the chance to read it. In this case, I would appreciate it if you would care to communicate to me whatever reaction or criticism it evoked in you.

Cordially yours, Immanuel Velikovsky



SOCIETY OF BIBLICAL LITERATURE AND EXEGESIS

ROBERT H.
PFEIFFER

Route 1

57 Francis Avenue

President

Westport, Conn.

Cambridge 38,
Massachusetts

July 28, 1950

Dr. Immanuel Velikovsky
New York City

Dear Dr. Velikovsky:

Thank you for your good letter of the 25th.

With redness of face and some embarrassment I must explain to you why, with apparent rudeness, I have failed so far to thank you personally for your generous gift of your book, *Worlds in Collision*. I received my copy from the publishers, Macmillan, immediately on publication. Nothing indicated that you, and not the publishers, were the donor. So I took it for granted that Macmillan had sent me the book and I thanked them for it. Will you pardon my failure to write you sooner?

Allow me first of all to congratulate you, not of course for the fact that your book has become "a run-away best seller," but for the magnificent qualities of contents and form of your book. I read it with utter fascination and absorption, being carried away by the cosmic drama which you unfolded before me. I was amazed at the depth and vastness of your erudition, which I have not seen equaled except possibly in O. Spengler's *Decline of the West*. Aside from expressing my admiration, I am unable to make any valuable comments: my ignorance of astronomy, physics, chemistry, far-eastern, and Aztec literatures, etc. is abysmal, complete. I shall have to sit on the sidelines as you and the scientists discuss your theory about the comet which eventually became the planet Venus.

With renewed apologies, warm thanks, and best regards,

Yours faithfully,

(signed) Robert H. Pfeiffer





July 31, 1950

Professor Robert H. Pfeiffer
Route 1
Westport, Connecticut

Dear Professor Pfeiffer:

Your magnanimous letter of July 28th I read and felt that you are generous to me and ungenerous to yourself. Though part of the material of the book does not belong to your field, the Bible and biblical history, Egyptian history, Assyrian and Babylonian material and generally the Ancient East make up more than half of my book.

Scientists (astronomers) try to dispute my theory on the basis of historical material of which they know very little and certainly should sit on the sidelines as the historians discuss my theory; my material is mainly historical.

I believe you will not oppose my showing your letter to my publisher and him using it for his purposes, together with letters of other scholars, among them geologists, physicists and chemists.

It gives me a very good feeling to know that you read my book with interest and this is one of the remunerations of ten years' spent on this and the other book.

Yours cordially,
Immanuel Velikovsky



November 10, 1950

Professor Robert H. Pfeiffer
Route 1
Westport, Connecticut

Dear Professor Pfeiffer:

May I ask your opinion? Finally, after years of delay, "Ages in Chaos" has the prospect of being published in 1951. The publisher, Doubleday, signed a contract with me. They wish, however, to print the book in two parts, with an interval of a few months. You will remember that the argument of the book goes from chapter to chapter, and there is only one thesis in the book. I would like to know your opinion whether the publication of the book, which will be about 775 pages in print, should be divided in time. The reason Doubleday gave for this is that for the full volume they would have to charge between \$6.00 and \$7.50, which is a high price.

On this occasion may I also ask you whether you would be opposed to Doubleday's using some quotations from your letter of July 28, in which you wrote a few kind sentences about the published book "Worlds in Collision." I wrote you on July 31 that I intended to give a copy of your letter to Doubleday so that they should be able to use it to go with sentences from other scientists and scholars for their publicity work.

"Worlds in Collision" was printed in England on September 4, and there was a lively discussion in the press, including also a review by the Astronomer Royal in the Spectator, which I answered in a later issue (October 27).

Translations are now in the process of being made in various countries; in Italy Garzanti will be my publisher, in France Stock, and in Japan Hosei University Press. I am at present working on a volume in which I will submit the geological material evidencing the catastrophes described on the basis of historical material in "Worlds in Collision."

With cordial regards,
Sincerely yours,
Immanuel Velikovsky
IV: mf





SOCIETY OF BIBLICAL LITERATURE AND EXEGESIS

ROBERT H.
PFEIFFER

President

57 Francis Avenue

Cambridge 38,
Massachusetts

November 16, 1950

Dr. Immanuel Velikovsky
New York City

Dear Dr. Velikovsky:

Thank you for your kind letter of the 10th.

May I congratulate you over the marvelous success of your book, *WORLDS IN COLLISION*? It is indeed a great honor and satisfaction for you to have it translated, in various languages, but the wider it circulates the more you will be kept busy in discussing your conclusions with many reviewers and letter writers.

I am happy to hear that your second volume, *AGES IN CHAOS* will be published, at last in 1951. Since you ask my opinion, I shall say that I would prefer to see the book appear in a single volume, since it deals with a single topic and does not readily make it possible for readers to buy only one of the two proposed volumes. Since both must be bought, it will obviously cost more if the book appears in two volumes. A charge of \$6.00 for so large a volume would be very reasonable and \$7.50 would not be excessive. I have noted that of late a number of volumes are sold at \$15.00.

You are free to let your publishers use anything I have said about your books in my letters to you, if they wish to print such statements of mine.

With all my good wishes for success in increasing measure and with my kindest regards,

Yours faithfully,

(signed) Robert H. Pfeiffer





December 1, 1950

Dr. Immanuel Velikovsky
558 West 113th Street
New York 25, N. Y.

Dear Dr. Velikovsky:

Within the last three or four days two persons have talked to me about "Worlds in Collision" in a most complimentary way. These persons are of such intelligence and consequence that I think it worthwhile to tell you about it.

One is Moshe Sharett, the Foreign Minister of the State of Israel. I had presented him with a copy of "Worlds in Collision" some time ago; and when he was at my home for dinner Sunday night, he was enthusiastic about the book and expressed his first opportunity that Sharett will give me.

The other person who talked about your book is a gentile named Sigmund Janas, who is president of Colonial Airlines, and in otherwise an important figure in industry in this country. He is a man of great intelligence. I sat next to him at lunch yesterday and casually asked him if he had time to read at lunch yesterday and casual asked him if he had time to read serious books, as I wished to recommend one to him. He replied that he was now reading "Worlds in Collision" and that he was entranced by it.

I congratulate you upon the impression which your book is making upon men of the caliber.

Looking forward to the pleasure of seeing you and Mrs. Velikovsky again in the near future, I remain, with warmest regards to both of you,

Yours sincerely,

Abraham Tulin



December 6, 1950

Professor Robert H. Pfeiffer
57 Francis Avenue
Cambridge, Massachusetts

Dear Professor Pfeiffer:

I was informed two days ago by the managing editor of Doubleday that this Friday they will run in the *New York Times* an ad with a quote from your letter.

When I received your letter with the permission, I said to myself, "What a man!" You certainly know that many attacked my book, mostly very emotionally; however, nothing fundamentally wrong was exposed by any of my critics. Only recently I received through a friend a reprint of a review by Professor Neugebauer in *ISIS*. I never saw this review before; otherwise I would already have answered it.

Recently I received from Professor Sarton a letter in which he agrees to give me space to answer Neugebauer. The latter found that one quotation from Kugler was not translated literally and was put in quotation marks by me. He quotes Kugler and me to prove how wrong I was, and he compares Kugler's original with my translation. In the quote from my book he has 33° of variance between the motion of the moon and its movement according to the old tablets. In Kugler he quotes 3°. However, in my book it is also 3°, and thus Neugebauer ascribes to me a quotation which does not exist on "Worlds in Collision."

Then he goes on to say about me: "He quotes ancient myths for periodically recurrent cataclysms, without mentioning that the very same texts connect these cosmic periods with the presence of all five planets in the same zodiacal sign, Venus included." However, I have quoted very many ancient references to catastrophes, and I do not know a single case that would substantiate this flat statement of Neugebauer's. Now I sometimes think the motto which I have put on page 220 and kept in Latin so that the general reader should not lose his confidence in scientists should be translated in the next edition and put somewhere else in the book.

Ego sum Dominus, faciens omnia,
extendens caelos solus, stabiliens
terram, et nullus mecum. Irrita
faciens signa divinatorum, et ariolos
in furorem vertens. Convertens
sapientes retrorsum: et scientiam

eorum stultam faciens.
(Prophetiae Isaiae 44:24-25 (Vulgate))

John O'Neill, Science Editor of the *Herald Tribune*, has written to me a letter enclosing a copy of a seven-page letter he sent to Dr. Stephens of the American Oriental Society. It appears that Dr. Stephens tried to influence O'Neill not to support my future book. O'Neill gave his reasons why he was ready to defend me "to the greatest extent possible" and offered, if his reasons were not convincing, to resign from the society.

It is no secret that the emotional outburst against "Worlds in Collision" started at the Harvard College Observatory. It is even possible that a number of reviews were written at the suggestion of Shapley. A review by Haldane, otherwise a clear thinker, gives me the impression of being written in the pattern already known as originating from the Harvard Observatory. It may amuse you to read the reply that I am mailing today to the *New Statesman and Nation* in London.

It is possible that you also will be subjected to attack for supporting me. I believe the air of the citadel of the Renaissance where you were born, and your life-long occupation with the Old Testament with its Hebrew prophets has made your spirit strong and invulnerable to the stings to which you may be subjected.

With kind regards,

Cordially yours,

Immanuel Velikovsky

IV: mf
Encl.





ROBERT H. PFEIFFER

*57 Francis Avenue
Cambridge 38, Massachusetts*

Jan. 27, 1951

Dear Dr. Velikovsky:

In the rush of flying to Zurich next week to give a course of lectures at the University of Rome I have neglected my correspondence. Please excuse my delay in thanking for your letter of Dec. 6 and for letting me see the enclosed rebuttal.

Best wishes for your new book.

Yours faithfully,

Robert H. Pfeiffer

I was gald to see you in New York.



June 28, 1951

Dr. Immanuel Velikovsky
558 West 113th Street
New York 25, N. Y.

Dear Dr. Velikovsky:

I must apologize for not having written you before to thank you for sending me a copy of the June Harper's. In point of fact, I had read that issue of Harper's before your copy reached me; and the first thing that I read in it was your article, Stewart's article and your reply. Talking purely as a layman—and it was presumably to convince laymen that Stewart wrote his article—it seems clear to me that instead of Stewart demolishing you, you very thoroughly succeeded in demolishing Stewart. In other words, your comments on Stewart's article are to my lay mind unanswerable. Moreover, if Stewart's article is the best that the orthodox astronomers can do against your hypothesis, then their case is very weak indeed.

In this connection I read the series of articles which Hoyle had in Harper's between November, 1950 and March of April, 1951, with a great deal of interest. The thing that struck me most about these articles was the ephemeral character of the theories which successive generations of astronomers have been pontifically propounding to the world as "discoveries" of absolute truth. I could not forget that Jeans and Eddington thoroughly discredited Laplace and other early astronomers with their new theories as to the origin of the solar system. Now come Hoyle and Nettleton only ten or twenty short years after Jeans and Eddington, and thoroughly discredit their theories as well. It therefore occurs to me that if the holy script of orthodox astronomy is of so temporary theories and beliefs are the fashion among them every ten years or so, what right have they got to question your hypothesis with such conviction?

I am looking forward with eagerness to reading your next book when it comes out.

My wife and I are leaving for a trip to Europe and Israel in a week or so. When we come back, we shall give ourselves the pleasure of ringing you up and having you and your wife over at our home. In the meanwhile, with warmest regards to both of you, and with admiration for the manner in which you are sticking to your guns, I remain.

Yours sincerely,





July 3, 1951

Dear Professor Pfeiffer:

I wonder whether you and Mrs. Pfeiffer are already back in the States. I trust that your visit in Europe and lecturing at the Rome University brought both of you a great satisfaction.

The June issue of Harper's Magazine carried a debate between me and Professor J. Q. Stewart. Princeton astronomer. The readers are the judges. I have saved a copy for you and shall mail it to you when in New York. My *Ages in Chaos* is in galleys (since February). The publication date of the first volume (Doubleday decided to divide) is in November, of the second about sixty days later: enough time for the readers to finish the reading of the first.

With cordial regards to you
and Mrs. Pfeiffer, also from my wife
Sincerely yours,
Immanuel Velikovsky



ROBERT H.
PFEIFFER
Editor

*57 Francis Avenue
Cambridge,
Massachusetts*

August 31, 1951

Dr. Immanuel Velikovsky
New York City

Dear Dr. Velikovsky:

Upon my return from Europe about ten days ago I found your good and welcome letter of July 3 inside a great pile of mail which had, for unknown reasons, remained in my house instead of being forwarded to me. Please excuse my disgraceful delay, which is involuntary and inevitable, in thanking you for it. This is one of the times I wish I had a secretary.

After I finished my course in the University of Rome, we toured in France and Spain, and then rested in some Italian summer resorts; and finally we flew from Geneva to Boston.

Allow me to congratulate you for the forthcoming publication of your book AGES IN CHAOS, which all readers of WORLDS IN COLLISION have been eagerly awaiting. I in particular am awaiting the two volumes in order to meditate again your revolutionary chronological conclusions. When I return to Cambridge in two weeks (I am now in Westport, Conn., where you visited us) I must ask the Harvard astronomers to return the copy of WORLDS IN COLLISION which they borrowed and apparently intend to keep.

We subscribe to *Harper's Magazine* and I read with great interest your "Answer to my Critics" and the reply of Prof. Stewart. If you sent me a copy of the June *Harper's* please accept my thanks. I have not yet finished going through the printed matter which accumulated during my absence.

With my kindest regards and best wishes,

Yours faithfully,

Robert H. Pfeiffer





September 7, 1951

Dear Professor Pfeiffer:

There are envelopes—and they are not from many people—that when you see one of them in the mail, you know that it is certainly something pleasant, cordial, magnanimous. I was never mistaken about your envelopes.

We like to hear that your visit in Europe was a success and a relaxation. I have mentioned in a letter to my publisher there (Garzanti) your visit in Rome, and possibly he has written to you.

Since the astronomers expropriated your copy of the Macmillan edition of *Worlds in Collision*, I shall take the opportunity to mail to you a British edition copy with an appropriate inscription. I trust the astronomers will need the copy in times to come.

Very sincerely,
Immanuel Velikovsky



ROBERT H. PFEIFFER

*57 Francis Avenue
Cambridge 38, Massachusetts*

October 13, 1951

Dear Dr. Velikovsky:

With some delay (for which I apologize) but with deep gratitude I come to thank you most heartily for the generous gift of the British Edition copy of your famous book, *Worlds in Collision*—after the Harvard astronomers took away my American copy. Your dedication is deeply appreciated even though I do not deserve it. You have always been extremely generous and kind with me, and I appreciate it immensely. Please accept my Italian book as a minor token of my gratitude.

With every good wish,

Yours faithfully,

Robert H. Pfeiffer



October 19, 1951

Dear Professor Pfeiffer:

Yesterday I have received your “Il Giudaismo nell’ Epoca Neotestamentaria”, for which—and for the kind inscription, I thank you and feel much honored. This is for me the right occasion to study Italian: Is not this easy to understand: “La Bibbia ebraica consta di tre parti: il Pentatueco, i profeti, e gli agiografi, etc.” Since many years I have the intention to learn Italian, and since I am intrigued to know what is in your book, I shall make a new start.

With kind regards to Mrs. Pfeiffer, also from my wife,

Cordially yours,

Immanuel Velikovsky

This written from Princeton, N. J., where I have “a retreat” and also a few friends among the scholars. The retreat is 12, Park Place.



HARVARD UNIVERSITY

DEPARTMENT OF SEMITIC LANGUAGES AND HISTORY

CAMBRIDGE, MASSACHUSETTS

57 Francis Avenue

February 5, 1952

Dr. Immanuel Velikovsky
558 West 113th
Street New York 25, N.Y.

Dear Dr. Velikovsky:

It was very kind of you to call me up on the telephone to ask my permission to use extracts from my letters to you during the last ten years in your new book, AGES IN CHAOS.

As I told you, you and your publishers have my full permission to print these extracts in this book. Including the dust-cover, or elsewhere. I do not repudiate anything I have written you.

I am greatly honored by what you are saying about me in the preface of your book, and I assure you of my great appreciation of your courtesy.

With my kindest regards and best wishes,

Yours faithfully,

Robert H. Pfeiffer





57 FRANCIS AVENUE
CAMBRIDGE 38, MASSACHUSETTS

April 10, 1952

Dear Dr. Velikovsky:

Your kind letter from California came some time ago. I have awaited your book before answering.

Yesterday your *Ages in Chaos*, vol. I, with your most generous inscription arrived; today the copy sent out by the publishers came.

I am overwhelmed by your kindness. I am far from deserving your praise, but it is sweet to my palate. Allow me to congratulate you for the publication of your great work and to express my deep appreciation for your generosity for me. I hope your volumes will have wide circulation and deep influence.

With my kindest regards,

Yours most gratefully,

Robert H. Pfeiffer



HARVARD COLLEGE OBSERVATORY
Cambridge 38, Massachusetts

May 1, 1952

Dr. Robert H. Pfeiffer
Semitic Museum
Harvard University
Cambridge, Massachusetts

Dear Dr. Pfeiffer:

At a meeting next week a considerable group composed of Harvard Faculty plus the Nieman Fellows, I am asked to speak on Velikovsky, the dowsers, and the wave of credulity. This is an off-record comment on a number of current unorthodoxies. Dr. Albright has sent me a copy of his review of "Ages in Chaos," published ten days ago in the Herald Tribune, and I have a considerable report on the meeting of the American Philosophical Society in Philadelphia last week when Dr. Velikovsky was present for Mrs. Gaposchkin's paper.

Naturally in commenting on "Ages in Chaos" I shall want to comment also on the jacket, and the statement credited to you on the top of the front cover page. The statement is pretty obviously out-of-context. It occurred to me that you might like to give me the whole of the context., just so that unfair conclusions will not be drawn. And also we should be very happy to know what your reaction is to this use of your correct statement of the facts concerning "Ages in Chaos." I and others would naturally like to show whether the quotation has been used with your permission; and if not, whether you are inclined to protest.

Please do not take these inquiries of mine as criticisms, or as invading your privacies and freedoms. I shall want to present to my Faculty colleagues the actual facts in the case.

Incidentally, Dr. Walter S. Adams, former Director of the Mount Wilson Observatory, wrote a kind letter to Velikovsky with respect to "Worlds in Collision" and he is unfortunately used extensively by the publishers to sell and vindicate that volume.

Sincerely yours,





June 6, 1952

Dear Professor Pfeiffer:

I believe that the reaction of Professor Drioton of the Service des Antiquités to “Ages in Chaos” will interest you: his attitude is similar to yours.

The address of the octogenarian geology professor George McCready Price is 143 Barton Avenue, Loma Linda, California. He is now reading my geological aspect of the events described in “Worlds in Collision”. Only if your way passes through Loma Linda (not too far from Los Angeles), and only if you have a quarter hour to spare, may give him my regards: but *don't* make any detour for this.

With cordial regards,

Immanuel Velikovsky



4 Harley Avenue
Princeton, N. J.

December 4, 1952

Dear Professor Pfeiffer:

Working very slow I have finished the reading of the galleys of the second volume of "Ages in Chaos." The galleys were in my hands for a very long time, and I have reworked the first chapter and added some sections; the work of Claude Schaeffer, "Stratigraphie Comparée" in which he comes on archaeological ground to the identical conclusion, as in my two books, of a natural catastrophe at the end of the Middle Kingdom, will be the subject of the final section. In the preface to the second volume, there will be some kind words of Etienne Drioton.

I have not heard from you in response to my last letter a few weeks ago. Probably the letter did not have anything in it worth responding; and possibly you had no chance to answer it in your busy schedule. But being spoiled in the years past by your singular attention to your correspondents, I started to think: Was an administrative pressure put on you to disassociate yourself from an iconoclast? Or have my critics supplied you with "proofs" of Velikovsky's being discredited? If the last is the case, let me know the proofs and you may have my answer. I believe that with the exception of two quotes in "Worlds in Collision" I have nothing to revoke when a new edition will be made of either of my two books, and quite a number of additional proofs can be added. Actually I am finishing now the first draft of "Earth in Upheaval," the geological aspect of the catastrophes in historical times and their causes.

With kind regards also for Mrs. Pfeiffer,

Cordially yours,

Immanuel Velikovsky



February 19, 1954

Dear Professor Spitzer:

May I ask for an information? Is a difference established in the length of the equatorial and polar diameters of the sun?

This question came up in a conversation with Prof. Einstein and he thought it would be right to put this question to you.

Very truly
Immanuel Velikovsky



PRINCETON UNIVERSITY OBSERVATORY

14 Prospect Avenue
Princeton, New Jersey

February 26, 1954

Dr. Immanuel Velikovsky
4 Hartley Avenue
Princeton, New Jersey

Dear Dr. Velikovsky:

In reply to your letter of February 23 I am writing to say that there is no established difference in the length of the equatorial and polar diameters of the sun. Some observers have reported a small difference but I believe that no such difference has been firmly established.

Very sincerely yours,

Lyman Spitzer, Jr.



December 20, 1955

Dr. Immanuel Velikovsky
558 West 113th Street
New York, New York

Dear Doctor Velikovsky:

I have just finished reading your latest book, EARTH IN UPHEAVAL, and hasten to tell you how interesting and absorbing I found it to be. As a lawyer, I particularly admire your way of marshalling and presenting the evidence for your thesis. I have not yet noticed any published reaction to this book, but it is bound to come and will probably be violent. In my judgment, however, it will take more than violent denunciation to shake your conclusions.

Mrs. Tulin and I are leaving for a holiday in Florida on Wednesday and will be gone a month. On our return to New York I will get in touch with you again.

In the meanwhile, I wish you and Mrs. Velikovsky the compliments of the season, and a very happy and successful New Year.

Yours cordially,

Abraham Tulin



March 8, 1957

Dear Professor Pfeiffer:

If you look fell by chance all these last years on the first volume of “Ages in Chaos” you must have wondered what happened to the second volume. You have advised me to publish both volumes simultaneously or in quick succession, and I often regretted of not having done so; but it was the fatigue after finishing one volume through the press that made me a procrastinator, first with the intent to be only a little tardive, and then—with attending to “Earth in Upheaval”—the geological and prehistorical aspects of my work—a procrastinator of the type I found only in Samuel Johnson, the lexicographer.

Last December I signed with Doubleday a contract for two more books, and the understanding is that first I finish the second volume of “Ages.” They agreed also that I shall introduce into the proofs (the proofs remained with me for over four years) all the necessary corrections: and clearly the archaeological finds and the decipherment of texts in the last few years demand reference in the book and some additional arguments. If I am right, new texts must increase the difficulties in the conventional scheme of ancient history. Thus, for instance, a “Hittite” pictograph on a coin from Commagene in the first century of the present era, must raise the question: How is it that neither the Greek authors or travelers, nor the Latin historians or Roman soldiers, knew anything of the Hittites? But, if I understood correctly the “Hittite” culture as Chaldean, no problem is raised by these coins of the first century. Actually I expected that Chaldean signs would be found to have been used until the time the cuneiform was used.

I have found a sympathetic reader in Claude Schaeffer. He wrote me last fall a ten-page letter, upon reading “Earth in Upheaval”—so much he found in common between my ideas and his, as given in his “Stratigraphie Comparée”; and there are also some external circumstances that make us feel close one to another: he, too, feels isolated because of his insistence on archaeological proofs of a continental catastrophe that repeated itself and laid waste all the lands of the ancient East; the greatest of all of them took place at the end of the Middle Kingdom and actually terminated it and the invasion of the Hyksos was but an aftermath of the cataclysm—all these things exactly as in my “Ages” and “Worlds”—which he did not know when he wrote his Stratigraphie in 1948; neither could I have borrowed from him—you have read my story in 1942. Of course, I must feel a strong support to my point of departure.

Schaeffer also invited me to come over to Syria and Cyprus and participate in his digging and see for myself how correct is the idea of catastrophic interruptions of the

flow of history by the elements of fire, water, and tremor. I could not follow his invitation (he himself omitted to go to Cyprus from Ugarith, because of the political heat around the Middle East); he promised that should I come to Paris he would select with me a few objects for a radiocarbon test.

This and some other developments make me think that it may occur after all that it is not without a profit that the second volume will be published with such a delay, The interest of the readers did not subside, and judged by the letters I receive from my readers, it is kept alive, especially in England. Over a year ago my British publisher wrote me that he had one thousand advance orders, later, two thousand, later, over three thousands, and urged me to finish the book, so that the orders should not become canceled; last week I had another letter from him that orders “accumulate every week” . I do not think that there is a comparative interest in the U.S., where I and my books were subjected to unkind treatment by the scientists in the press, and where the public knows less the Bible and is more given to reading various digests and to following the opinions made for them by others. Yet it was an American boy of 17, a high school senior in Waco, Texas who solved the reconstruction contained in the second volume on the ground he had in volume I. He correctly (from my point of view) identified Pharaoh-Necho with Ramses II and the entire XIX Dynasty as the Saitic (XXVI) Dynasty. Since then he entered college and decided to become an historian. It gave me much pleasure: now I know that at least one young scholar in the future will uphold my views—just because he came himself to the right conclusion, it has a different degree of conviction for him.

I wonder if you have come across any new text or find that appeared to you as another chronological embroglio. I have not followed closely the historical press the last few years, and I do not know whether Bittle has published the cuneiform texts he found in Boghazkoi, and whether, if he did, there are historical references to the Neo-Babylonian history and kings in those texts? Did Benveniste publish the Carian inscription from Milasa that he was postponing to do, and how close is Carian to Hurrian? How perfected is the reading of the Hittite pictographs, do they contain references to the events in the reigns of Esarhaddon, Shamash-shum-ukin, or Nebukhadnezar?

Now it will be in August fifteen years since I visited you first in Cambridge. I am still at the same work; only it grew into many disciplines. Of the reaction in some scientific circles, you are aware; some brick narrowly missed your own window, for showing me a little benevolence.

With kind regards, also to Mrs. Pfeiffer,

Cordially,

Immanuel Velikovsky





57 FRANCIS AVENUE
CAMBRIDGE 38, MASSACHUSETTS

March 13, 1957

Dear Dr. Velikovsky:

Many thanks for your good long letter of the 8th. I was very glad to receive it and to have such good news from you. I am glad of the success that your books have had and I am sure that your future volumes, that are so eagerly expected, will not only be successful, but will convince many of the soundness of your revolutionary theories.

I always marvel at the scope of your erudition and at the vastness of your field of research; it always makes me conscious of my own ignorance, by contrast.

I feel this particularly in connection with your questions. In the last few years I have been occupied with the Bible and have not kept up to date with historical and philological studies. My answers will display my ignorance.

- 1) I do not recall seeing a reference to Bittel's publication of the Boghazkoi texts.
- 2) I have not seen any notice of Benveniste's publication of the Carian inscription from Milasa.
- 3) There are some relations between Hurrian and Carian, but the two languages are far apart. On Carian you might look up: Louis et Jeanne Robert, *La Carie. Histoire et géographie historique, avec le recueil des inscriptions antiques*. Paris, Adrien-Maisonneuve.
- 4) My latest information on the Hittite pictographs is in I. J. Gelb, *A Study of Writing*. University of Chicago Press, 1952. I believe some progress has been made, but that a true decipherment of the inscriptions is not yet possible.

With my kind regards and best wishes,

Cordially,

Robert H. Pfeiffer





August 30, 1959

Dear Dr. Velikovsky,

It is a pity that the Bulletin has not yet reached your place. If you want it, I could send one exemplar to you—it takes about 8-10 weeks by surface mail.

In the meantime, here is a brief excerpt from the summary of the discussion (Bull. Isr. Expl. Soc. XXIII 1-2, 1959, pp. 94).

Yadin Lower Canaanite city ca 700 Dunam (12 times Megiddo). Founded in Middle Bronze, repeatedly destroyed. Second peak about 14th cent. B.C. (El-Amarna period) to the end of the 13th cent. Great destruction, the signs of the fire cover still many buildings. Was rebuilt though on a smaller scale.—Similar observations as to the Canaanite city on the Tell (Strata XIII-XIV). - Above the Canaanite city, but below the city of Solomon, was a tiny Israelite settlement. Similar to those in the Galil of the 12th and 11th century. Yadin thinks that Joshua conquered Hazor (13th cent.). If Debora was at the end of the 13th cent., this would not be contradicted by the excavation either. Y. thinks that both statements of the Tenach are fully confirmed by the excavations, while the extreme dates for the conquest—that which fixes it in the 15/14th cent. B.C., and that which suggests the end of the 12th cent. B.C.,—are both contradicted by the finds.

Aharoni The Tenach is exact in the facts, but not always in the period. A. doubts that the conquest of Hazor ascribed to Joshua was really performed by him, but thinks that it fell in the period of the Judges, i.e., the 12th century B.C. A. thinks that there is not yet enough proof for fixing the date when the Canaanite city was finally destroyed. “But it is known to us that the city B on the lower Tel contained—among others—Mycenaean pottery of the type “Three B”, which was imported during the 13th century, and under no circumstances earlier than 1300 B.C.” There are still differences of opinion as to when this pottery ended—the end of the 13th or the first quarter of the 12th century B.C — Above this city was discovered a later Canaanite city. I A. And now same on the upper Tell two strata later than I B. There is no possibility for exact dating, but there is no reason to put the destruction before the 12th century B.C.

While the question of exact chronology is still disputed, two facts are clear for understanding the settlement of the Galil (1) The Canaanite Hazore was totally destroyed (Stratum I A on the lower Tell, III on the upper) and upon it settled temporarily Israelite tribes (Stratum XII). Confirms Joshua XI. (2) The Israelite tribes used Israelite pottery. This pottery is similar to the Canaanite but with characteristic differences. A. thinks that the Israelites must have spent some time with the Canaanites till they developed this style of their own which would exclude a conquest of Hazor immediately after arrival. To define the exact time of the settlement, the excavations must be continued.

Thereafter spoke to two pottery-experts of the expedition, each of whom was responsible for a separate field of diggings.

Trude Dotan Pottery of the first two strata of the lower Canaanite city. Stratum 2, according to its pottery,

belongs to Late Bronze I. Pottery of Stratum 1 contains local pottery and import ware from Cyprus and Mycenae. Local ware from the 13th and 14th cent.—none from 12th century B.C., and the same is true from the imported pottery (14th to end of 13th century). Stratum 1 is subdivided into A and B, which, however, are not always clearly distinguishable).

Ruth Amiram spoke mainly about the Israelite pottery of the earliest Israelite period. Before Solomon, no import ware. Pottery similar in Galil and Har Ephraim, Israelite immigrants developed the same forms based on those of the former inhabitants. They did not bring with them styles of their own (Sounds to me rather improbable. Ephraimites should not be influenced by Egypt in their styles?!)





April 10, 1960

Mrs. Frank E. Siple
and Mrs. Thomas Palmer
Grand Rapids, Mich.

Dear Mrs. Siple and Mrs. Palmer:

In the yesterday [NY Herald Tribune](#) I have read of the passing of the Rev. Frank L. Siple. I never before read of this case. I find that your husband and father suffered unjustly and, whether he was instrumental or not in the death of his retarded and for life unfit daughter, the law and the judges were inhuman to add to his sufferings the agony of 14 years in prison. Feel, at least, that there are many, like myself, who think of your husband and other like him, with great emotion and great compassion. Even if there was a mercy killing, it could not be performed but in great love to the born in human body but without human facilities to exist and enjoy life, and in unimaginable sufferings of a father loving his child but aware that it cannot go through life happy and free. But, I know, the very guilt is not proven in this case. I suffer thinking of the Reverend Prank Siple and I am ashamed for our human society.

Very cordially
Immanuel Velikovsky



Grand Rapids, Mich.

April 18, 1960

Dr. Immanuel Velikovsky
78 Hartley Ave.
Princeton, N. J.

Dear Dr. Velikovsky:

Your very kind letter of April 10th has been on my heart this past week. This is about the first that I have been able to write with any semblance of intelligence since the death of my most beloved husband. There is such an aching void in my life and heart that it is hard to express myself. . . How very kind of you, a total stranger, to be concerned enough to take the time and trouble to write to my daughter and me! We do deeply appreciate your thoughtfulness.

I would not burden you with a long account of our story. But my husband was a minister of the gospel for thirty-two years before this horrible tragedy came into our lives when someone with a grudge perhaps, or maybe just from jealousy, went to the extent of “suggesting” that perhaps our daughter had not died a natural death seven years before.

The deliberate deception we were put through by the prosecution, the mental torment, our ignorance of our rights and of the true facts, the threats to my well-being which finally resulted in a false confession by my husband, and his subsequent sentence to life imprisonment—this is all a terrible nightmare. Had it not been for our faith in a loving God who somehow works out all things for the good of those who love Him, I am sure we would both have lost our sanity.

But for 14 years I wrote to my husband and he wrote to me, I visited him as often as I was allowed to, I spent over \$5,000.00 on gas, oil and car expense alone, and about \$4,500.00 on lawyers who never did anything for us. Then three years ago Frank was stricken with cancer. If he hadn't had a marvelously healthy body he would have died before, but he made a temporary come-back. I think if he had been where he could have received immediate attention he might have won the battle, but about a year ago he suffered a return of the disease and went downhill continually until by September he had to be hospitalized. I tried desperately to get him out on the basis of his illness and finally in December I went directly to the head man and pleaded with him in person. One month later I had my dear husband home, but he was a dying man and we both knew it. He lived for ninety-nine days. We tried to cram all the love and sweetness of 14 years into those 99 days. People would say, “It's a hard pull for you” but I would answer, “No, every moment is a joy,” and it was. He suffered so much at the last that I was glad for his sake that he could fall asleep, but what an emptiness there is in my life!

For all his long suffering (seven months helpless in bed) my husband never uttered one word of complaint. He had the most wonderful attitude toward life that I have ever seen. He never condemned his persecutors

or made any complaint about the life he had to live in prison. While there he promoted every good cause that would be uplifting to his fellows. Dale Carnegie Clubs, Chess Clubs, Writers Forum, teaching, choir work, a radio broadcast that brought laughs to those who listened, etc. One man who now owns a print shop and a jewelry store in Michigan City, says that Frank put his feet on solid ground and got him started in the right way.

So you see, Dr. Velikovsky, I am proud of my husband. Not proud of his reputation, which the newspapers have given him, but proud of his character and of the real man I know him to be and of the true record in the Book which will some day be opened.

He was so happy to be home that little while. I look back and thank God that I did everything in my power to make those weeks so wonderful for him; it helps to ease the awful pain of being without him now.

I have no children of my own but have two wonderful stepdaughters here who have stood by me night and day. I don't know why Mrs. Palmer was the only one mentioned.

We wondered if you are an M. D. or Ph. D. or perhaps a Doctor of Theology?

Thank you for allowing me to unload my heart somewhat in this way. I hope my letter has not been burdensome to you.

With deepest appreciation,

Sincerely,
(Mrs.) Dorothy L. Siple





27 Dickinson, S.W.

April 24, 1960

Dear Mrs. Siple:

I read your deeply moving letter; nobody could read it without strong emotions. I wish it could be read by many. To you its writing was a last little tribute to your husband, now dead. He was a martyr, and now I know that he was also a saint. Your devotion and your sufferings for him—none of them you would regret—made you, too, from a housewife and a clergyman's spouse to a shining human being on earth.

You ask me who I am. My Dr. stands for M.D.; but in this country, now 21 years, I dedicated myself to historical research in Biblical times and wrote several books. As a sign of my admiration for you and your late husband, I mail you a copy of one of these books,

Cordially yours,
Immanuel Velikovsky



Jerusalem, 14. April 1962

Sehr geehrter Herr Dr. Velikovsky!

Beiliegend empfangen Sie bitte die Kopie einer *Zuschrift an Life International*, welche nicht abgedruckt wurde. Der ursprüngliche Appell Gollancz' war in der Nummer vom 11. September 1961 der genannten Zeitschrift veröffentlicht worden.

Mit der Verwechslung von Angegriffenen und Angreifern (Juden und Amalek-Hyksos), die sich Herr Gollancz gestattet, ist ihm Manetho bereits vor über 2000 Jahren zugekommen. Dieser Irrtum ("accidental or deliberate", *Ages in Chaos* p. 81) ist wohl am treffendsten als Fehlleistung aufzufassen, die der Geisteshaltung der Menschheit, sich von lästiger Dankesschuld zu befreien, am meisten entgegenkommt. Massenpsychosen, die ihre individuelle Form in der Reinkultur der Paranoia finden, bedienen sich dieser Projektion.

"How much stronger is that hatred if the hated ones did not dissolve their national existence a thousand years before on the Arabian peninsula, but are still supposed to exist?" (ibid. p. 98). Warum das Fragezeichen, steht die nationale Existenz des Judentums mit gewissen Wahnideen der Massen in Verbindung und wird es seine Mission erst erfüllt haben, wenn alle Aggression sublimiert sein wird?

Die gestrige Jerusalem Post bringt in der Buchbesprechung unter dem Titel "A New Science - Persecutology" einen Bericht über ein Buch von Léon Poliakov. Der Autor soll es sich zur Aufgabe gemacht haben, "the significance of persecution" zu studieren.

Eben finde ich: "We are most likely to get angry and excited in our opposition to some idea when we our-selves are not quite certain of our position, and are inwardly tempted to take the other side". *Worlds in Collision hat manchen Sturm hervorgerufen, um Ages in Chaos herrscht Schweigen. Hat die Gelehrte Welt inzwischen ihr statisches Gleichgewicht wiedergefunden, das es ihr ermöglicht, ohne Gewissensbisse die Budgets zur Erbauung von Museumshallen nie bestandener Imperia zu verwenden?*

Eine orphische Hymne wurde vorläufig im Staub von Ras Shamra nicht gefunden. Prof. C. H. Gordon kann daher weiter seine Theorie aufrechterhalten, wonach Minoisch Linear A und Hebräisch gemeinsamen Ursprung haben. Die plausiblere Erklärung, wonach Hebräische Lehnwörter in griechische Texte des 8.-9. Jahrhunderts v. u. Z. eingedrungen sind, leuchtet noch nicht ein.

Im Buche *Oedipus and Akhnaton führen Sie aus, wie Freud in seinem Buche Moses und der Monotheismus den ersten Propheten des jüdischen Volkes hinuntersetzt. Freud, der einen tiefen Einblick in das Wesen der Paranoia hatte, hat wohl einen unbewussten Versuch gemacht, des Mannes zu entsagen, der der Welt das 5. Gebot gebracht hat. Moses besass wohl genügend astronomische Kenntnisse und Voraussicht, um sein Volk vor einer kosmischen Katastrophe zu bewahren; er war aber nicht genügend analytisch geschult, um vorausahnen zu können, dass Forderungen wie "Ehre Deine Eltern, damit du lange lebest auf Erden" und "Du sollst nicht töten" , unwiderrufliches Schuldgefühl hervorrufen, welches am Verkünder gerächt wird.*

Ich wäre Ihnen sehr verbunden für Mitteilung, wann die Fortsetzung von *Ages in Chaos*, die Sie ankündigen, erscheinen wird.

Mit dem Ausdruck vorzüglicher Hochachtung,





May 7, 1962

Dear Dr. Rix:

I thank you for your very interesting letter of April 14 which I read carefully, and the copy of your letter to the editor of *Life International*. Mr. Gollancz is one of those “originals” who need not be taken seriously. Would you kindly accept my apology for the tardiness of my acknowledgement of your letter.

Very sincerely yours,
Immaneil Velikovsky.



Jerusalem, 24. April 1963

Dear Dr. Velikovsky,

enclosed please find an exposé of some of the ideas I developed since I wrote to you last time. The thought has never left me that it cannot be mere chance that among so many new and revolutionary theses of *Ages in Chaos* also a whole chapter, applied to the beginning of anti-Semitism, should have found its place there. Concluding that there must be something more in it than to accept how “this mistake [Manetho’s], accidental or deliberate, has played a harsh role in the fate of the Jewish people” . So one of these days the idea of the connexion between the giving of the law and the other events struck me. Most probably this is not altogether news for you, still I would appreciate it very much, could you let me know, why you hesitate to publish the second part of *Ages in Chaos*.

I cannot fully agree with the expression of your letter of May 7, 1962, describing Mr. Gollancz as “one of those ‘originals’ who need not be taken seriously” . The world is abundant of individuals endeavoring to put the Jewish people in the wrong, so that aggressive action should appear justified. This projection-system has already taken the toll of many lives and there is plenty of evidence for the preparation to take new ones.

I think that Jung’s conception of ‘collective unconsciousness’ is still encountering the same resistance, as Freud’s ‘individual unconsciousness’ met with at the beginning of psycho-analysis. You led the way to eliminate this blind spot which seems to be responsible for so many misunderstandings and human catastrophes. I dare not guess how many years it will take until all this will be recognized, but full recollection appears to be the only remedy.

Very sincerely yours,
Rix



April 29, 1963

Dear Dr. Rix:

I have received your letter and the typescript "Offenbarung im Licht und Schatten". I have already looked into it leaving the essay for a later more attentive reading. I am under the impression that you have something important to say. I have myself similar ideas that I intend, time permitting, to write as The Great Fear: in it I would explain many rituals, much behavior, as the result of the great hidden wound in the phylogenetic soul of man, unhealed since the days of the great catastrophes. Your thought that even in the reception of my book, very hysterical on the part of the scientific groups, there was something of this nature, is most probably true. Man does not like to think that he travels on a perilous journey; he did not like to think that his planet moves; how much more unpleasant is it to think that it moves on a road where accidents occur.

I would suggest that you work on your piece, and develop it into a book, if you have material and desire. It would serve the purpose of gradual development of the theme, if you will follow my example and divide the subject into short sections, four to eight pages long, each dealing with a certain part of the whole. Should you succeed you may find a publisher in Switzerland, and in translation, in England or America.

With your manuscript that arrived two days ago there was in the same mail a book written by a Swedish author dealing with my theory. However, I do not read Swedish.

You write, "full recollection appears to be the only remedy" also for internationalrelations. There is much truth in it.

Cordially,
Immanuel Velikovsky



Dear Dr. Velikovsky,

Thank you for your letter of October 25 and your proposal to contribute to the planned series "Worlds and Ages". Indeed, stimulated by the conclusions of your works, I feel myself attracted to an ever increasing state of studying and thinking. New ideas are arising in a pace which makes it difficult to put them to paper as quick as I should like it to do. In my opinion not only history will have to be rewritten, but also philosophy, part of medicine, and also a science which I should like to call Human Relations, and which so far has made itself felt only by its negative aspects. I am very glad to gather from your letter that reviewers are taking a new interest in your work. Harper's and the American Behavioral Scientist of September have yet to arrive here and I shall be very grateful if you would let me know the other publications concerned, which you mention. I am enclosing today another manuscript on which I have been working some time ago, and which shows some new implications which are likely to encounter renewed resistance.

At present I am considering a theory which would explain anti-Semitism as the now unconscious accusation of the Jews as the potential robbers of the sun. This is in conformity to your fundamental disclosure that the Jews were remembered in later days as the Hyksos, a confusion which is due in my opinion to the defense mechanism of projection.

May I draw your attention to the following: "Mnevis was the biggest of the bulls; he was jet-black, for exposure to the sun blackens the body, the hairs of his tail and of his whole body stood erect, unlike those of other bulls, just as the sun runs counter to the sky" (A. B. Cook, I, Zeus. A Study of Ancient Religion, Chapt. "The Bull and the Sun in Egypt", p. 431).

One wonders if Mr. Poul Neumann knew about these tales when he described that the hairs of the Israelites stood erect during the crossing of the Red Sea (re 2 Mos 14, 19). All 3 books of P. Neumann were available at the library here last year, but this year, when I wanted to check up about the above I could not trace them any more! May be you are in possession of the references, and if so, would you kindly let me know the exact wording of the passage concerned. Is the name of the author of the trilogy (Flamberg Verlag, Zürich-Stuttgart 1959), Poul Neumann correct? His titles were: *Die Eherne Schlange*, *Das Ewige Feuer*, and a third part?

On the other hand I was able to find M. Boulanger's *L'Antiquité dévoilée par ses Usages*, chez Marc Michel Rey, Amsterdam 1766. So far I have detected the

following remarkable spots: “Ne vouloit (voulait)-on pas lui dire que ses Dieux n’
toient (n’étaient) que de faux Dieux, où` n’ toient que des allégories des anciennes
révolutions de terre? Vouloit-on lui cacher la funeste catastrophe du déluge?” (Tome
II, Liv. III, Ch. I, p. 12). The lack of our capacity to fix time appears here: “Pour
quitter le style allégorique, tout cela signifie que les mystères avoient non-seulement
rapport aux anciens malheurs de l’univers dont le peuple sçavoit (savait) au moins
une partie mais encore qu’on y annonçait ses malheurs a venir;” (ibid. Ch. II, p. 44).
In “Offenbarung im Licht und Schatten” I have indicated some examples where
comets and their destructions are not described in the past, but are announced for the
future.

Very important is the fear, reported to appear amongst the Mexicans and other
peoples in periods of 52 (!) years (T. III, Ch. IV, p. 12), and may be the tale that the
sun covered her light because of Eve’s sin (ibid. p. 15).

Enclosed you will find a few pages containing some thoughts which I retained after
reading the sources concerned. May be I could have your comment. The manuscript
mentioned above, “Bemerkungen zu Dürer’s Melencolia I” will go by ordinary mail.
I shall immediately start to compile the material collected so far. Would there be a
possibility for translation of German parts? At the present instant I am unable to
foresee the exact subject, form and extent of my future scripts. Would you, please, be
ready to see them or parts of them and advise me regarding their suitability.

Yours cordially,

Rix





Nov. 4, 63

Dear Dr. Rix:

I have received your letter which I read and three pages of manuscript which I intend to read at a free moment.

The author of the three volumes of a historical novel is Poul Hoffmann (not Neumann). I possess these books (the author mailed them to me) but I have not read them. The phenomenon you describe as found in one of his books, could be of electrical nature; but it is necessary to find what were his sources. You may write him: H. Thomsensvej, 30 Birkerød, Denmark.

Although your English is not equal to your German, but should you write in English, a good copy-editor would be able to make it good for print.

I would not subscribe to your idea about the Israelites as guilty in the disappearance of the sun, in the opinion of other races of antiquity. I would suggest again that you concentrate your theme on The Great Fear. I imagine that in a decade from now there will be more than one article and book on the subject. I may even write one myself and actually started it years ago; but other books claim precedence. Should you succeed, your book may be included in the projected series.

Cordially,
Immanuel Velikovsky



December 18, 63

Dear Dr. Rix:

I have received by surface mail your essay on Dürer's Melancholia. I have recently found time to spend two mornings to read your earlier essay that you have sent me last April. I found that you have many ideas and much material to your disposal; but this careful reading confirmed me my first impression at a cursory reading: to be readable you need to rework your material and divide it into themata, in each chapter beginning and ending a single subject.

I found two of your ideas magnificent: The hatred of the Jews because they claim of having the upheaval made for their benefit (the Hyksos actually profited); and the words of the Gospels about the fiery furnaces and Hitler's accomplishing such vision and doom (by expolarizing his own hateful traits). Would you not make these two ideas, in some way also connected, to a theme of an essay or even a book?

Your new paper will need wait some time because at the present I am very busy with ending Ages in Chaos, a work that grew to a 4 volume book.

Cordially,
Immanuel Velikovsky



Jerusalem, Dec. 27th, 1963.

Dear Dr. Velikovsky,

Thank you for your letter of Dec. 18th. It is quite true that so far most of that what I have written has not been understood. But that is not because I have removed myself to some lofty heights where nobody can follow me, but because of the very susceptible theme involved, whose tangible substrate humanity for all its longing for redemption, is not readily willing to recall from its past. Actually to let the patient (cf. the goddess in Ovid's *Meth.* XV. "This present fear of mine does not permit me to remember former woes"), is not easy and demands as in Freud's treatment of hysterics the repetition of repressed emotions, which procedure might be dangerous sometimes.

It should be clearer by now why the genesis of the upheaval was unconsciously projected on the Jews. Anna Freud's saying, "Ein solches Ich (das die kritisierenden Autoritäten als Über-Ich introjiziert) ist intolerant gegen die Aussenwelt, ehe es streng gegen sich selbst wird", covers the mechanism fully. In the September issue of the *American Behavioral Scientist* (p. 26) Prof. Stecchini refers to Kant's famous passage about the starry heavens and the moral laws (concluding the *Critique of Practical Reason*). Continuing he cites the following words of Freud: "This combination sounds odd, for what could the heavenly bodies have to do with the question whether a human being loves or murders another, but it touches a profound psychological truth" (*Über die Weltanschauung*). Our awareness of the connexion of the heavenly bodies with the behavior of man has lately been considerably augmented. Actually all events on the firmament are mirrored on this earth. To pacify these sky-phenomena, in case of their thundering, indignant and wrathful appearance, no handier victims for sacrificial offerings can be imagined, than those very people who are thought to have provoked their emergence and simultaneously evoked the pronouncement of the moral laws (10 Commandments).

We must not overlook in this context (I have cited the relevant part already in some other places) that F. Zöllner, the author of *Über die Natur der Cometen*, introduces the a/m dictum with the following words: "Kant [hat] für Alle, welche nicht nur glauben, sondern auch erkennen wollen, die folgenden ewig denkwürdigen Worte verheissungsvoll an die Nachwelt gerichtet: 'Zwei Dinge erfüllen das Gemüth mit immer neuer und zunehmender Bewunderung und Ehrfurcht [je öfters und anhaltender sich das Nachdenken damit beschäftigt]: der bestirnte Himmel über mir, und das moralische Gesetz in mir'" (Wissensch. Abh. I, S. 286).

Concerning the readiness to identify the Jews with evil-doers I beg you to compare the following parts: "... on the shrine found in el-Arish the story is told of a hurricane and of a prolonged darkness when nobody could leave the palace, and of the pursuit by the pharaoh Taoui-Thom of the flying slaves when he followed to Pi-khiroti, which is the biblical Pi-ha-khiroth. 'His Majesty leapt into the place of the whirlpool!' Then it is said that he was 'lifted by a great force' ." Griffith translates: "Then the majesty of (Seb met her) he found her in this (?) place which is called Pekharti (?) he seized her by force (the palace was in great affliction) Shu had departed to heaven..." . "Under cover of darkness intruders from the desert approached the border of Egypt [...] his majesty of Shou went to battle against the companions of Apopi" .

Apopi was the fierce god of darkness. The king and his hosts never returned; they perished. “Now when the majesty of Ra-Harmachis (Harakhti?) fought with the evil-doers in this pool, the Place of the Whirlpool, the evil-doers prevailed not over his majesty. His majesty leapt into the so-called Place of the Whirlpool.” First passage from *Worlds in Collision* p. 88, second passage from *Ages in Chaos* p. 42.

While there is no question about the identity of Pekharti (Pi-khiroti) with the biblical Pi-ha-kiroth, I can find no foundation for linking the flying slaves, which are familiar to us from the Bible, with the evil-doers engaged in battle by Pharaoh Shou at the Place of the Whirlpool. The term Pi-khiroti appears in the text of the shrine some pages before the battle with the evil-doers is narrated, the names of the respective pharaohs are different and it is stated in the text expressively that the campaign was undertaken to rescue the sungod Ra from the children of the dragon Apep, the evil-doers from the red-country who invaded Egypt. It might be of interest in this connection, that I encountered by chance another source describing evidently the same happenings.

Heinrich Brugsch’ “Die neue Weltordnung: Nach Vernichtung des sündigen Menschengeschlechtes” (Verlag S. Calvary und Co., Berlin 1881) brings the original transliterated text, the German translation and the transformation into fluent speech. Amongst the significant passages there are for instance:

Und es sprach die Majestät des Lichtgottes Ra: “Wohlan! Jene sind geflohen auf das Gebirge, weil ihre Seelen voller Angst sind wegen (meiner Nähe von) ihnen.”

Und sie (die übrigen Götter) sprachen zu Seiner Majestät: “Entsende deinen Augapfel! Er schlage für dich jene, welche sich verschworen haben nach Art der Missetäter und welche nicht hinaufgezogen sind stromaufwärts nach dorthin (wo du weilst).”

Und der Lichtgott Ra entsandte seinen Augapfel und er fiel nieder in Gestalt der Göttin Hathor.

If Hathor was an offspring of Ra, in apparently much a similar way as Minerva descended from the head of Jupiter (Porphyrus testatur Minervam esse virtutem solis, cuae humanis mentibus prudentiam subministrat. nam ideo haec dea Jovis capite prognata memoratus, id est summa aetheris parte edita, unde origo solis est. Macrob. VII, 17, 65-70) then we should have less difficulty to understand the riddle of the sphinx and the human sacrifices which were offered to the effigy of the goddess Tefnut or Hathor, *id est* to the sphinx. (“The slayer of the human race, who had to be appeased and worshiped lest she repeat the bloodshed,...” *Oedipus and Akhnaton*, p. 35). Brugsch’ text, which is taken from a small room connected to the last hall of pharaoh Seti I’ grave, continues:

” ... Und es sprach die Majestät des Lichtgottes Ra: ‘Ich will meine Macht zeigen an den (Bösewichtern fortan), dadurch, dass sie elend sein sollen’ . Dies der Ursprung des Namens der Göttin Sochet, d. h. ‘die Machtvolle’ . Die wechselnde Nacht rollte dahin und man stürzte hin über ihre Blutströme von der Stadt Herakleopolis an.”

(Cf. The man who came closer than anyone else before him to solving the ‘secret’ of the Sphinx was the learned Egyptologist, Prof. Edouard Naville; in the course of almost 5 decades (1875-1924) he published several essays dealing with the problem. ‘The destruction of Men by the Gods, [...] was an early publication of Naville’s pertaining to the subject. The text says: ‘This goddess (Hathor) went out and

killed the men on earth [...] And lo! Sechemet waded with her feet through many nights in their blood, down to the city of Heracleopolis.' Oedipus and Akhnaton, p. 34.)

(Brugsch had cognizance of Naville's publication "La destruction des hommes par les Dieux", he mentions on p. 33: "Die Inschriften, von denen die Rede ist, bedecken mit ihren 95 langen Kolonnen die vier Seiten der Kammer. An der Westwand befindet sich noch gegenwärtig die Abbildung der rothen (!) Himmelskuh, die wir nach der von einem Schweizer Gelehrten, Herrn Naville, genommenen Zeichnung unsren Lesern zum besseren Verständnis der darauf bezüglichen Inschriften auf der Tafel im Angange zu dieser Abhandlung vorgelegt haben."))

The following sentences in Brugsch' text elucidate the motive of all bloody warfares and holocausts and the dangers implied to any group, which subconsciously be considered the descendents of the evil-doers of by-gone days:

"Nachdem jene Menschen (welche stromaufwärts gefahren waren) erkannt hatten, was geschehen war [...], da standen sie da und schauten ihn auf dem Rücken der Kuh. Es sprachen zu ihm jene Menschen: ' (Du Lichtgott Ra bleibe bei) uns! Wir werden fällen deine Gegner, welche sich verschwören in Reden (gegen dich. Vernichten werden unsere Hände) sie.' Da trat ein Seine Majestät in sein Königshaus. (Aber die,) welche zu seinem (Gefolge gehörten,) blieben beisammen mit den Menschen, so lange die Erde in Dunkelheit lag. Aber als die Erde hell geworden und der Morgen angebrochen war, da traten hervor die Menschen mit Bogen und Lanzen bewaffnet und sie (strecken aus) den Arm um zu schiessen auf die Gegner.

Und es sprach die Majestät dieses Gottes: 'Eure Sünden seien euch vergeben! Denn die Schlachtopfer haben beseitigt die Hinschlachtung.' - Dies ist der Ursprung der Hinschlachtung von Schlachtopfern."

I think that eucharistic offerings, holy masses and hosties root in the following: Not always are the sacrifices symbolic only, as the last sentence would make us believe. Recent and ancient history has taught us different. "Die guten Menschen selber übernehmen fortan das Amt der Rächer gegen die Feinde und Gegner des Lichtgottes auf Erden und greifen zu den Waffen, um sie zu tödten. Ra verheisst ihnen dafür Vergebung ihrer Sünden, denn, wie er hinzufügt mit eigenem Munde: die Schlachtopfer (der von den Menschen getödteten Gegner des Sonnengottes) haben beseitigt und überflüssig gemacht das (fernere) Hinschlachten (der Bösewichte durch göttliche Hand). Daher der Ursprung der Schlachtopfer auf den Altären der Gottheiten d. h. gewisser Thiergattungen, welche als Symbole der Feinde des Gottes geopfert wurden." Brugsch refers the reader in a footnote to 1 Mos. 20-21. I would like to refer the reader also to a chapter "Der Ritus der Messe. Das unblutige Opfer abermals durch die Konsekration in ein blutiges verwandelt" (Rudolf Kleinpaul, *Menschenopfer und Ritualmorde* (Leipzig o. J.), Verlag von Schmidt und Günther).

While I am of the opinion that the events described under the pharaohs Shu, Taoui-Thom and the gods Geb and even Re belong to different periods and were only meddled with because of our lack of sense of time, owing to which the crossing of the flying slaves at Pi-hakiroth (which Moses probably understood to

direct according to a time-table which avoided the returning water-masses), got mixed up with an earlier encounter at the Whirlpool, where the pharaoh and all his train perished in the floods, I think there can't be any doubt regarding the nature of the eye of the Sun, which was ejected at the beginning of things by Re and charged to annihilate the enemy. "Die Wüste war in Staub gehüllt, als sie (Tefnut) mit ihrem Schweif einen Reif schlug [...] Die Wüste warf Feuer aus, wenn sie ihre Krallen wetzte. Die Wälder [...] verdorrten, als ihre Nase Rauch ausatmete, indem sehr viele Fliegen aus ihr hervorkamen. Sie liess eine brüllende Stimme ertönen wegen der Kraft ihrer Stimme." (Cf. Le mot /// a causé un petit embarras aux interprètes. La traduction des Septantes, l'Arabe et le chaldéen le dérivent de /// qui veut dire resplendir; la traduction syriaque de /// qui veut dire hurler. (Explication du XIII^e et d'une partie du XIV^e Chapitre du Prophète Esaie. Geoffroi Dürrbach, Strasbourg 1836). The just mentioned text about Tefnut is from *Sitzungsberichte der Königl. Preuss. Akad. der Wissensch.*, "Der ägyptische Mythos vom Sonnenaugen in einem Demotischen Papyrus der röm. Kaiserzeit", vorgelegt von Herrn Eрман am 11. Nov. 1915.

By the way, there is another description of Shu's escapades in Roscher's *Mythol. Lexikon*, Artikel "Shou". Thunderstorm, upheaval and darkness are here subscribed to a punishment for Geb's unlawful love to his mother Tefenet. It is my belief that that what you rightly call *The Great Fear*, was caused by the disappearance of the light of the sun for an extensive period, that this fear consists until this day unconsciously in man, and that he tries to win the deity to his side by all kind of sacrifices. In this way a *circulus vitiosus* is created, because atonement for previous murderous sacrifices implies the offering of fresh bloody sacrifices.

In another, script *Götterdämmerung oder Götterfinsternis?*, I hinted to the relationship between the Nordic Muspilli ("mutspelli kommt wie ein Dieb in der dunkeln Nacht", der sächsische Heiland 2591, 4358) with "the children of the dragon Apep [...] invading Egypt by nightfall" and I think that I put in this context some of the important questions of our age in a nutshell: "Wenn wir uns an Zöllner's Definition der veränderlichen Erscheinungsformen eines unveränderlichen Objektes erinnern, so können wir die Juden als eine von den Muspilli geworfene Schatten-Projektion betrachten. Andere Formen wären die Neger, von denen Novellist J. Baldwin sagt: "I think, if one examines the myths which have proliferated in this country concerning the Negro, one discovers beneath this myth a kind of sleeping terror of some condition which we refuse to imagine" (Life Int., June 3rd, 1963) ??? und die Kommunisten, deren Ursprung vom Red Country von Usheru (Antiqu. Tell el Yahudiyeh), dem Muspellheim der Wüstenstämme die Ägypten überfielen, ja feststeht."

Franz Comont states in *Lux Perpetua* (Chapt. Les Mystères, p. 265): "Apulée a soulevé un coin du voile d'Isis". We have succeeded since then to lift more than a corner of this veil of "the queen of the dead, first of heaven's denizens, in whose aspect are blent the aspects of all the gods and goddesses" (The Golden Ass). But there remains still the question "Warum bringt es Verderben, den Schleier des Isisbildes zu heben? (L. Klages, Vom Kosmogonischen Eros, S. 208). Maybe the answer lies in the following: "Wir fanden nämlich anfangs zu unserer grössten Überraschung, dass die einzelnen hysterischen Symptome sogleich und ohne Wiederkehr verschwanden, wenn es gelungen war, die Erinnerung an den veranlassenden Vorgang zu voller Heftigkeit zu erwecken, damit auch die begleitenden Affekte wachzurufen,... Affectloses Erinnern ist fast immer völlig wirkungslos" (Studien zur Hysterie, Breuer und Freud, 1895).

I would appreciate very much your advice about the potential dangers which a too sudden revivification of the events could produce. On the other hand, I must say that it is not easy to make myself understood, but should I feel justified in expecting the slightest echo, I would shun no effort to make my representations

more comprehensible and popular.

Cordially,

[signed] Zvi Rix





January 2nd, 1964

Dear Dr. Velikovsky,

While perusing some of E. Goodenough's 8 volumes of *Jewish Symbols in the Greco-Roman Period* I was rather surprised to encounter the following sentence: "When Ishtar or Venus became a planet with a predictable course, and even the vagaries of Mercury or Mars had been stabilized" (Vol. 8, p. 179), cf. "The dreaded comet became a tame planet", *W. i. C.*, p. 199). Without going into details or giving any explanation for my interest, I wrote to the author as quoted below and got an answer also rendered literally beneath, which shows that the writer does neither recognize the importance of the sources of his motivation nor really intended to contribute manifestly to their discovery.

"Is there any historical or prehistorical motivation for the following assertion in Chapter 'Astronomical Symbols' : When Ishtar or Venus became a planet with predictable course, and even the vagaries of Mercury or Mars had been stabilized,..." (Vol. 8, p. 179), was there ever any time in antiquity, when the course of Venus was not predictable?

Why do you think it dangerous to say, what the central star between sun and moon on the gravestone from Numidia, fig. 166, Vol. 8, could be? According to C. Bezold in F. Boll's *Stern Glaube und Sterne Deutung*, 1926, p. 12 (this reference is from *Worlds in Collision*) Venus, Moon and Sun became the holy trinity in the fourteenth century before the present era. I think that an answer to the problem of the gorgoneum has been found already which puts it above the declaration 'that a majority of the representations of a theme are a bit of meaningless decorations' (Frothingham, "Medusa, Apollo, and the Great Mother" , *Am. J. Archeol.*, Ser. II, Vol. XV, 1911, 349)."

The answer: "... I am glad you find my work interesting. You ask 3 questions: 1. I have not time to look the matter up again, and here I have not the books, but I should certainly be surprised to find that even a thousand years before the Christian Era Babylonians had not become perfectly familiar with the procession of all the planets. The predictability of the stars was one of the chief foundations for belief in astral fatalism.

2. As to the star between the sun and moon on the Numidian tombstone, it could of course represent what you call the 'holy trinity' . But does it? I have no way of telling what was in the mind of this person. We can establish with considerable probability the meaning of a symbol in general, but not its meaning in an unusual context with other symbols.

3. I still feel that the gorgoneum was often used with only decorative intent, though I cannot even say this of a particular instance."

In some other places I have tried already to show that works as A. B. Cooke's *Zeus, A Study in Ancient Religion*, or the a/m *Jewish Symbols in the Greco-Roman Period* permit a better knowledge of the mythological ages than any written tradition. The gorgoneum is one of the most characteristic symbols of

the time of the upheaval. Space and time are interchanged. Three objects appearing actually simultaneously but in different space localities, are (in disregard of the time factor) projected into one place of the space.

I am sure that you have a very wide experience about the different attitudes of all kinds of people, but I felt I should better let you know about this special case of Goodenough, who came very near to a full understanding but withdrew at the last instance.

Cordially,
Rix

P. S. Aus einer Fussnote zu Fichte's *Versuch einer Offenbarung*:

Ich sehe nicht ab, wie die Bewohner von Hispaniola, wenn Christoph Colon, statt durch seine vorgebliche Verfinsterung des Mondes nur Lebensmittel von ihnen zu erzwingen, dieselbe als göttliche Beglaubigung einer Gesandtschaft von ihm an sie in moralischen Absichten gebraucht hätte, ihm von der Hand vernünftigerweise ihre Aufmerksamkeit hätten versagen können, da der Erfolg dieser Naturbegebenheit nach seiner bestimmten Vorherkündigung ihnen nach Naturgesetzen schlechterdings unerklärbar seyn musste. Und wenn er denn auf diese Beglaubigung eine den Principien der Vernunft völlig angemessene Religion mit völliger Überzeugung so lange für göttlichen Ursprungs halten können, bis sie durch eigene Einsicht in die Naturgesetze, und durch die historische Belehrung, dass Colon sie ebenso gut gekannt, und dass er allerdings ehrlich mit ihnen umgegangen, diese Religion zwar nicht mehr für göttliche Offenbarung hätten halten können, aber doch verbunden geblieben wären, sie wegen ihrer gänzlichen Übereinstimmung mit den Moralgesetzen für göttliche Religion anzuerkennen.”





January 7, 64

Dear Dr. Rix:

I have read with great attention your last letter-article. Again, as before, I find that you have very interesting, even exciting ideas; but your way of presenting them makes your writing to a mine of thought and information but not to a book. You should really try the advice I gave you. In your last writing I would have separated several themes and each handled under its own heading.

One idea:

The meaning of sacrifices, also of hosties, etc. and bloody sacrifices to Hathor of the Sphinx (this not a heading but the description of what you wrote). (This idea occurred to me, too.)

Another idea:

The historical reason for making Jews to sacrificial victims. Also fear of Negroes (actually two ideas and should be elaborated in two chapters).

Third idea:

The bringing back into the collective human mind the memory of the catastrophes would be accompanied by affects and disturbances, possibly on a global scale, and may be dangerous.

Fourth idea:

The prolonged darkness in the time of the catastrophes was the prime cause of engendering the great fear (I would believe that this was only one of many causes: the battles in the sky, the noises of the meteorites, the erupting ocean, the conflagrations, etc).

To this you have added with no apparent order in the narrative your excursion about the fleeing slaves and the children of Apopi and other tangential associations. As to the battle or intended battle at the Red Sea, it appeared to me long ago that the prime purpose of the advancing of the pharaoh's army to the eastern frontier was not in pursuit of the Israelites and the erev-rav but in an effort to protect the eastern frontier

(it could have been the western, at that time) from the invading Amalekites who left already their domicile in Arabia following the plagues of insects etc., and directed themselves towards Egypt. Actually the Hyksos worshiped Seth-Apopi when in Avaris. But I may be wrong and there may have been an effort to halt the fleeing population.

With the very many projected books (3 additional volumes to *Ages in Chaos*, 2 to *Worlds in Collision*, and a few others), I wished that somebody else should write *The Great Fear*; I wondered whether it could be written also by a group of authors, you and I being authors of separate chapters, and some of my correspondents who wrote on the same subject taking over each a chapter or two; Stecchini's article could be reworked and he could write about Lucretius and about the time of Reformation. Now let us make an additional effort. Rework your material and extract from it on the origin of hatred of the Jews; touch the vision of furnaces and hell in the Gospels and tell of what happened in our days in Germany and occupied countries; this is a stupendous theme. Keep all other ideas related to the *Great Fear* in separate chapters, if you like to write them, too.

I hope you understand the spirit in which I make you this constructive criticism. For composing a book it is also good to have the manuscript double-spacedly typed with large margins so that any small corrections or additions can be made in the text and if rewriting of a page is necessary it is easier if it has only 28-30 short lines. These are advices from somebody who has a little experience and wishes very much that you should succeed whether in writing a book or contributing a few chapters to a collective volume.

Cordially,
Immanuel Velikovsky

After I finished this letter I received your letter of January 2 with a quote from Goodenough and another quote from his letter. Thanks!





Jerusalem, February 1, 1964

Dear Dr. Velikovsky,

I have to apologize for being late in answering your thorough-going letter of Jan. 7, 64. Again, I am collecting fresh material and developing new ideas and do not want to make an artificial stop. I intend to sit down and write a few chapters (preliminary perhaps in German) as soon as I have got things more settled and outlined. Your advice and opinion that my way of presenting the subject is wanting, is quite right. Still, after everything gets more crystallized, I might be able to formulate better. Anyhow, the matter is of such dominant importance, it involves not only scholarly discourse, but questions of mental health and survival of mankind, that I can't think it will rest only on my capacity to present it lucidly. So far, indeed, my thoughts have not encountered fertile soil. Prof N. Cohn (historian and author of the *Pursuit of the Millenium* puts it in a nutshell when he writes to me: "... neither I nor the psychoanalysts on our working party (*A study on the holocaust*) would regard Jungian Hypotheses concerning collective unconscious memories as a sound basis for the investigation proposed in "Toward a Study of the Scourge". I had sent to Prof. Cohn 2 of my essays which you know already, and a third one, *Götterdämmerung oder Götterfinsternis*, which includes some new aspects, but scarcely mentions Jung, whom I commence to study only now.

I wonder if you could bring me into contact with one of the Egyptologists who appreciate or show some comprehension for your work. In the course of this letter it will appear why I make this request.

First let me make a remark concerning what you call my "third idea" (it is mainly a certain reservation) in your letter of January 7: "The bringing back into the collective human mind the memory of the catastrophe would be accompanied by affects and disturbances possibly on a global scale, and may be dangerous". To this theme I find the following relevant support: "Daraus ergibt sich aber für den Psychiater das Gebot einer besonderen Achtsamkeit im Umgang mit der Angst seiner Patienten, im Umgang mit allen jenen Verhaltensweisen, die Angst verbergen und die wir eben als seine Abwehrhaltungen erkennen. Die besondere Achtsamkeit, die ich hier meine, liegt in einem, sagen wir, psychotherapeutischem Zeitgefühl für das, was an und für sich richtig, jedoch seinem momentanen Niveau noch nicht entspricht, seine Verarbeitungsmöglichkeiten überschreitet und deshalb auf einen späteren Zeitpunkt verschoben werden muss. Nicht allein in der Fähigkeit, die Wahrheit seinen Patienten zu sagen und diese Wahrheit in den Verkleidungen der psychopathologischen Symptome zu erkennen, liegt die Kunst des Arztes, sondern auch in einem immer wachen Gefühl für die Dosis Wahrheit, die sein Patient ertragen kann, in der

Fähigkeit, warten zu können und in stillem Gleichmut der Angst seiner Patienten zu begegnen.” (Prof. G. Benedetti, “Die Angst in psychiatrischer Sicht” , *Studien aus dem Jung Institut*, Vol. X 1958/9 *Die Angst*.)

It may seem without apparent context, but it still pertains to the problem I want to discuss, when I quote in the following from a letter of Cardinal Montini of Milan (the present Pope) to *La Religion* of Caracas (s. *Jer. Post* 23. 1. 64): “Attitude of protest or condemnation, such as that youth accuses the Pope of not having adopted, would not only have been useless, but detrimental... Let us suppose that Pius XII had done what Hochhuth reproaches him for having omitted to do. His action would have brought about such reprisals and such devastations, that the same Hochhuth, once the war was over, and in possession of a better historic and moral judgment, could have written a drama, much more realistic and interesting than that one which he has produced now so intelligently and ineptly at the same time: a drama about the “Stellvertreter” who, out of political exhibitionism and shortsighted psychology, would have been guilty of letting loose in an already tormented world a still greater calamity, involving innumerable innocent victims, while he himself remained untouched.”

Unconsciously the Pope and most of his contemporaries are reluctant to uncover things and call a spade a spade, to bring about the stoppage of human sacrifices to an imperceptible deity, deemed by unknown fears, to unloosen the luring cataclysmic powers, if not readily pacified. But I think that we may learn to a certain degree from aggressive response to *Worlds in Collision* (of course in comparison this reaction was much less violent in its extent) how and in what dosages to administer truth.

I want to find out about “Das altägyptische Lebenszeichen” (/), as we encounter it in the hieroglyphs, later in Coptic art and still in our time as the orb and cross (Reichsapfel) of the sovereign. Art productions of this symbol of all periods show in the circle a portrait of the forefathers (Ahnensbild). There are fluent transitions from the Gorgo to the imago clipeata (Schutzbild) which contains in later times likenesses of the Saints and Christ. A similar development can be observed on sarcophages, not only in respect to the Gorgoneion, but also regarding transformation of the fishsymbols into representations of Jesus. The connexion with the leviathan, the crocodile, diminishing into a small sized fish and terminating finally in a haloed head is sizable. It is unfortunate that two references (Joh. Bolten, *Die Imago clipeata*, 1934 und H. Dölger, “Fischsymbole” publ. also in *Röm. Quartalschrift* 23, 173) are not available at the library here. The Gorgo-head standing at the top of all this series is simultaneously the primordial cause of all fear (a terrible comet was seen by the people of Egypt). The long extremity of “Das Lebenszeichen” , which shows us a primitive drawing of the monster with the Gorgo or sphynx head, must then be the tail. The crux ansata was the sign of the planet Venus! Ghillany and other authors remind us of this fact. Maria Cramer in *Das altägyptische Lebenszeichen im christlichen (koptischen) Ägypten* compares the ansa to a shell and the long bar of the cross to a shaft. There should be no difficulty about the symbolic meaning. The panicky search of Ishtar and Isis for the lost member of their respective partners Tammuz or Osiris reflects the vivid impression which the possibility to lose such an

important part (in the macrocosm corresponding to the tail of the comet) made on humanity. The parallels drawn in dreams and mythological legends between fire and sperma must be understood in this sense (cf. “Hindu Mythologie und Kastrationskomplex” , C. D. Daly, *Imago*, 1927). The burning seed of Agnis which fell on the earth can be recognized as a fire-stream of meteors. And the fear of the Hindus: “Und warum leiden sie schliesslich unter solch einer entsetzlichen Angst vor der Befleckung?” (a. a. O.) can be readily traced to this background.

I intend to write about this topic and other ideas deriving from it as soon as I feel that nothing more can be expected. But I do not consider my thoughts merely as private property. I would like them to be available in an appropriate form to all concerned as quickly as feasible.

Thanking you very much for any further suggestions, I am very cordially yours.





March 4, 64

Dear Dr. Rix:

Only with a considerable delay I find time to react to your letter of February 1st. I shall refer the question concerning the sign of life in Egyptological literature to Dr. Walter Federn and upon receiving an answer I shall relate it to you.

I cannot but repeat my advice found in my earlier letters. Unless you will separate properly various ideas of yours and dedicate to each of them a separate treatment, you will have no book for a publisher. You are overwhelmed with your associations and all the time go on tangents. Two of your ideas, both concerned with Antisemitism and persecution, could make the ground idea of a book or an article; it could, much to the dislike of many people, Jewish and Gentile alike, provoke much interest. But you go after Symbolik ('Lebenszeichen') and after many other things, and the startling idea is made inconspicuous. Once more I offer you to elaborate on this theme, and after you have succeeded in it, start building out of large block-chapters your building-book. Since I intend to fulfill my old plan and write *The Great Fear* and since there are already from among the ranks of my readers a few men who have original contributions to make, there could be a collective book. Should you succeed to write the first main chapter of your own book and should it be desirous to me and to you, we may consider its inclusion in the collective work.

Cordially,

Immanuel Velikovsky



March 18, 64

Dear Dr. Rix:

I have received from Dr. Walter Federn, Egyptologist, the following information:

“Als Schriftzeichen vertritt Ankh (Crux ansata) das Wort Leben (in allen grammatischen Formen und allen erdenklichen Verwendungen und Ableitungen). Als Symbol, in den Händen der Götter und Göttinnen, bedeutet es das spezifisch göttliche Leben. Sterblichen kommt es nicht zu, wohl aber dem König, teils insofern er ein Gott ist, teils insofern die Götter ihm Leben verleihen. Seiner Herkunft nach ist das A ein Knoten-Amulett. Zur Erklärung des allgemein-menschheitlichen Glaubens an die Zauberkraft der Knoten und der Knotung trägt das ägyptische Material nichts bei, liefert bloss Belege. Für Dr. R.’s Vermutung von Beziehungen zu Schreck-Symbolen finde ich in Ägypten keine Unterstützung. Das Thema, einschliesslich früherer Erklärungsversuche, wurde 1914 erschöpfend in G. Jéquier’s Aufsatz in *Bull. de l’Inst. Français d’Arch. Orient.* XI, 121-136 behandelt. Wie der Artikel “Lebensschleife” in Bonnet’s *Reallexikon d. ägypt. Religionsg.* 1952, 418-20 zeigt, ist seither nichts von Belang dazugekommen.”

I believe, some of my correspondents already expressed the opinion that the sign of Venus must have been derived from the sign of Ankh, or have something in common. You may follow up on this trail.

Cordially,

Immanuel Velikovsky



March 31, 1964

Dear Dr. Velikovsky,

Thank you very much for your letter of March 18, containing Dr. Federn's information. I have just finished a German essay called *Mitteilung zur Sphinx*. This could in my opinion fit into a chapter of the planned book *The Great Fear*, the Gorgon being nothing else than the head of Plinius' terrible comet. The impression it made is reflected in the development of different art products, as e. g. the sphinx, the imago clipeata as well as the ankh, in all of these successions an undeniable trend to glorification is manifested, either by the picture of some pharaoh or, as in the case of the Coptic crux ansata or the christian imago clipeata by the emergence of the representation of Christ. The motif of the Gorgo does actually not only influence art where it sometimes finds its way into consciousness, it dominates our unconscious attitudes and drivings to a much wider degree than we realize. The connection of the ankh with some Schreck-Symbol becomes apparent in the cases only where the ankh bears the Gorgo's head. What I actually wrote was: "The Gorgo-head [...] is the primordial cause of all fear." What I still maintain is that the ankh is the archetypical picture of some comet which in a dualistic way might have impressed humanity as a life-spending and as a destructive power. About this I intend to write in another article. Please, let me know, if you think the manuscript about the sphinx or the intended one about the heavenly marriage might be useful for *The Great Fear*.

Cordially,
Rix



Jerusalem, April 12, 1964.

Dear Dr. Velikovsky,

Attached you will find my essay about the sphinx. While it is difficult for me to judge if it makes readable stuff, I have endeavored to eliminate as far as possible all objectionable motives which might be prone to touch on the guilt-feelings of the reader and arouse his resistance. I think that I succeeded to keep the theme as neutral as possible until I came to the subject of the holocaust, where, so to say, something about the Cairo experts slipped into my pen, which might, first of all, alienate German readers. I would be only too glad to see, once in the time, the tiniest thread taken out of my concepts, to be utilized in some other more acceptable tissue of thoughts, where it might in some unobtrusive manner develop its effects for the general understanding.

I am quite willing, even longing, to write about Antisemitism, where I think I have a few, not yet generally conceived ideas to proffer. But as the subject is still more difficult, I just don't know how to begin. It would be easier had I succeeded already in some other vein, and had only to carry on a theme already started someway.

There is another concept about a cosmic phenomenon which, misunderstood as it is, makes its effects felt in some very harmful way up to our present time, about which I intend to write in some concise manner. It is about the matter which Goodenough calls the divine fluid, but whose substrate is really fire.

I quite agree with you that the sphinx of Gizeh precedes the comet of the Exodus considerably in time, but, as you rightly say, Typhon may have impressed its face upon humanity on several earlier occasions. There is of course the possibility that it got mixed up with some other heavenly body. So at least it happened in later time, as seen in the following: "Und gleichzeitig beschreibt auch Herodot wieder den Typhon geradezu als denselbigen mit Ares oder dem Empedokleischen Neikon..." (A. Gladisch, *Empedokles und die Aegypter*, p. 79, Leipzig 1858).

I am not a psychologist. I am a physician at the present moment not even practicing. I need not stress that I am not pursuing personal ambitions. I am just trying to exploit my time, about which I can dispose just now at liberty as well as possible, but I cannot of course foresee if such a favourable situation will endure for ever.

I am not sure if I have sent you already my *Götterdämmerung oder Götterfinsternis*, which in my opinion contains some pertinent ideas to the Jewish as well as to the whole 'political' question plaguing humanity. Did you find already the time to read

Bemerkungen zu Dürer's Melencolia I, which approaches the problem again from another angle?

Consurgens (“Ein dem Thomas von Aquin zugeschriebenes Dokument der alchemistischen Gegensatzproblematik”). I have not read it yet really carefully, but I think it is another proof that Jung has come very near to the crux of the matter, he has just missed to find the right co-ordinates for the projections of our world-system.

Thank you very much for your letter of April 7, yours very cordially ,
Rix





Jerusalem, 17. Juni 1964

Sehr geehrter Herr Dr. Velikovsky!

Bitte um frdl. Mitteilung, ob das Manuskript Die Sphinx, welches ich Ihnen in Ihrem Einverständnis am 12. April zusandte, in Ordnung angekommen ist. Durch den Poststreik hier sind vielfache Unterbrechungen in den Korrespondenzen zu verzeichnen und die Möglichkeit, dass Briefe verloren gingen, ist nicht auszuschliessen.

Falls mein Entwurf sich jedoch nicht in den von Ihnen vorgesehenen Rahmen einfügt, wäre ich sehr dankbar wenn Sie ihn an

Frau Selma Glanz

112, Haven Ave.,

New York 32, N. Y.

einsenden würden.

Bei dieser Gelegenheit frage ich Sie höfl. an, ob Sie mir eine Verbindung mit dem C. G. Jung Institut in Zürich schaffen könnten. Ich habe inzwischen ein weiteres Manuskript, Die himmlische Hochzeit, welches in vieler Hinsicht die Brücke zwischen Ihren und Jungianischen Ideen schlägt, ausgearbeitet. Es wäre nach meiner Meinung wichtig, wenn das neue Konzept an einer Stelle, die die für das Verständnis voraussetzenden Arbeiten kennt, eingesehen werden könnte.

Mit vielen freundlichen Grüßen, Ihr

P. S. Oder wären Sie bitte bereit, dem C. G. Jung Inst. Zürich,
Gemeindestrasse 27, die Arbeit direkt einzusenden.



June 25, 1964

Dear Dr. Rix:

Your typescript (*Mitteilung zur Sphinx*) pp. I-XXV is safe and filed under your name. If you wish that I should send it to C. G. Jung Institute I would do so; or I would mail it to Mrs. Glanz in New York for that purpose. But before that you must assure yourself that somebody there should promise to take care of the typescript and read it and, if possible, suggest some plan for its publication in the form as it is or revised.

Dr. Kirsch who lives in Los Angeles but every summer goes to Zurich and is a member of the staff(?) of the Institute, corresponded with me and is my follower. At this moment I do not have his first name under hand. His brother in law, Gerhard Danelius, M. D., Forchstrasse 426, Zürich 8, is also my follower who visited me; not too young, he discontinued his X-ray praxis in L.-A. and went to Zürich to undergo a lengthy study and analysis; he is a serious and pleasant man and through him you may reach Dr. Kirsch and through the latter all the rest.

After you make a contact by letters advise me again what to do with your "Sphinx" . Generally I think that in your works there are interesting and important ideas and should the volume *The Great Fear* materialize itself I may come with some proposition as to the partial use of your material. But as you may know everything is slow with me.

Cordially yours,
Immanuel Velikovsky.



30. VI. 1964

Sehr geehrter Herr Dr. Velikovsky!

Vielen Dank für Ihr Schreiben v. 25. d. und für die darin enthaltenen Adressen von Jungianern, die gleichzeitig mit Ihren Ideen vertraut sind und bereits als Ihre Anhänger bezeichnet werden können. Ich werde an Dr. Gerhard Danelius schreiben.

Inzwischen habe ich auf Grund Ihrer Aufforderung, wobei ich mich auch an die mir gegebenen Anregungen hielt, ein Kapitel über *The Great Fear* fertig gestellt. Es liesse sich darüber unschwer viel mehr schreiben. Ich habe mich kurz gefasst, kann aber von meinem subjektiven Standpunkt aus nicht ersehen, wie weit ich mich klar genug ausgedrückt habe. Je mehr ich in das Material eindringe, desto mehr Unterlagen eröffnen sich der Auffassung, dass am Urbeginn unserer aller Nöte die Angst steht, es könnte der Sonne wieder etwas zustossen. So erklärt H. Oldenberg die Sonnwendgebräuche in *Die Religion der Veda*, 1923, S. 443, folgend: "Der Sinn scheint klar: die Sonne ist in Gefahr den dunkeln Mächten anheimzufallen, aber es gelingt, sie dem arischen Volk zu erhalten." Das verbreitetste Kindermärchen der ganzen Welt, die Geschichte vom Rotkäppchen, entstammt demselben Motiv. "Dieser Mythos von den durch Wölfe, Hunde oder Drachen verfolgten und bei Finsternissen verschlungenen Gestirnen ist ziemlich über die ganze Welt verbreitet, und überall glaubt man den bedrängten Gestirnen durch grossen Lärm, Schiessen und Trommeln (um die Ungetüme zu verscheuchen) Beistand leisten zu müssen." (E. Krause, *Tuisko-Land der arischen Stämme und Götter Urheimat*, Kap. 23 "Rotkäppchen", S. 205) Der Autor fährt dann fort: "Denselben Mythos bewahrt das alte Märchen von Rotkäppchen und zwar in seiner allerältesten Form, die Sonne nämlich als Mädchen, der Verfolger als Wolf, der befreiende Himmelsgott als Jäger geschildert" (S. 206). Die Vorstellung, dass die Juden dem Christus (Sol) etwas zu Leide getan haben, eine Anschuldigung, die das Oekumenische Konzil bis zum heutigen Tag zurückzuziehen zögert, ist auf den gleichen märchenhaften, infantilen Hintergrund zurückzuführen. Es wäre an der Zeit, dass ein mit Jungianischen und Velikovskyschen Erkenntnissen ausgestatteter, anerkannter Verfasser der Welt einmal mitteilen würde, in welcher kindlich-einfältiger und gleichzeitig barbarischer, gefährlicher und blutgieriger Entwicklungsstufe sie beharrt.

Um die nachfolgende Stelle zu verstehen ist niemand besser ausgerüstet wie Sie: "Auch die Gesamtheit der Götter opferte sich, um die bewegungslose Sonne wieder zu beleben, genau so wie ihr die Menschen geopfert wurden, und viele von ihnen verkörperten sich gelegentlich in die Sonne, genau so wie die Geopferten sie in engster Gemeinschaft geleiten." (*Mitteilungen der anthropologischen Gesellschaft Wien*, 1903, XXXIII, S. 163; über mexikanische Sitten).

Ferner: "... mit dem Reiben des neuen Feuers wurde das Jahr und die neue 52jährige Periode eingeleitet und von dem Gelingen desselben hing das Weiterbestehen der Sonne ab" (ibid. S. 157).

Es würde mich freuen, wenn das beigelegte Manuskript, ganz oder teilweise für das geplante Buch, *The Great Fear* brauchbar wäre.

Ein weiteres Thema, *Die Himmlische Hochzeit*, (bereits in zwei meiner Texte angekündigt) habe ich ebenfalls bereits abgeschlossen. Es bezieht sich auf ein einschneidendes, in *Worlds in Collision* hervorgehobenes Ereignis, stellt gleichzeitig die archetypische Urscene anschaulich dar und gibt den Freud'schen Grundideen eine überraschende, ins Kosmische hinübergleitende Wendung. Das Grundgerippe, das eine oft angedeutete, jedoch niemals zur Gänze verstandene Idee behandelt, wäre u. U. zur Veröffentlichung reif. Dazu käme noch ein reiches Material an Fussnoten und Ergänzungen, die je nach Ermessen angefügt, durch Umbau inbegriffen oder auch weggelassen werden könnten. Das Ganze ist ziemlich umfangreich und bevor ich es aus der Hand gebe, müsste entsprechend Ihrem Rat: "...somebody there [...] promise to take care of the typescript and read it and, if possible, suggest some plan for its publication in the form as it is or revised."

Da Sie mir schreiben, dass Sie meine *Sphinx* (der aufgeprägte Haarsternstempel bringt jedenfalls einen gewissen Beitrag zu einem uralten nach Lösung drängendem Problem und Fragestellung) ev. verwenden können, bitte ich Sie sie zu behalten und mich am Laufenden zu halten.

Mit vielen herzlichen Grüßen





1. Juli 1964

Sehr geehrter Herr Dr. Velikovsky!

In dem zurückbehaltenem Exemplar des Manuskriptes *The Great Fear* habe ich auf Seite 5(a) eine Ergänzung vorgenommen und schicke Ihnen ordnungshalber davon auch eine Abschrift. Für die Auffassung, dass letzten Endes alle Kriege und Bluttaten ihr Vorbild vom Firmament nehmen, lassen sich noch andere Belege bringen. Da mir mein Beweismaterial bisher nicht genügte, habe ich bisher gezögert, mich in dieser Hinsicht klarer und unumwunden auszusprechen.

Mit vielen besten Grüßen



August 3, 1964 - mailed with delay on Aug. 12

Dear Dr. Rix:

Upon the arrival of your last letter and the manuscript in the first week of July, I have read them very carefully; I also for experimental purpose, tried to edit this manuscript. As before I find that your writings represent a mine of information and regularly some original ideas, but the representation is not "druckreif". The manuscript under my hand became all marked with signs of deletion, transposition, etc. When the time comes, I don't yet know when, to put together the book on *The Great Fear*, I will try and see what can be salvaged from your various manuscripts in order to present a logical and consistent chapter. But should you wish to use your writing in a different way, it is always at your disposal. Read yourself the chapter that you have mailed me last and mark on the margin of the pages the subjects dealt with in each paragraph separately, and then observe on how many tangents you have gone carried away by the richness of your imagination and abundance of associations.

I assume that your attempt to come into contact with some of the people of the Jungian group bore fruit. If Jung's theory is true then there must be subconscious fears going back to the cataclysmic experiences of our forebears.

Cordially yours,
Immanuel Velikovsky



18. 8. 1964

Sehr geehrter Herr Dr. Velikovsky!

Ihr Schreiben vom 3. August habe ich erhalten und danke Ihnen auch vielmals für das beigelegte Bulletin der Doubleday Company. Ich habe vor, sobald ich nur irgendwie dazu komme, die angegebenen Referenzen durchzusehen, soweit sie hier aufliegen.

Ich nehme an, dass die Herausgabe des geplanten Buches *The Great Fear* erst in geraumer Zeit erfolgen kann und bis dahin wird sich manche meiner heute noch flüssigen Vorstellungen gesetzt haben und könnte sich in dem für das Buch vorgesehenen Rahmen festhalten lassen. Zu dem gegebenen Zeitpunkt würde ich nochmals versuchen, das Wesentliche in geeigneter Weise zusammenzufassen und Ihre diesbezüglichen Richtlinien gerne entgegennehmen.

Bei meinen bisherigen Darlegungen hatte ich, wie ich zugeben muss, die Tendenz die Assoziationen nicht zu unterdrücken, da sich auf diese Weise am uneingeschränktesten aufbauen lässt und man ausserdem nie wissen kann, welche Idee bei allfälliger Verbreitung Verständnis finden würde.

Bei dem heute beigelegten Teilmanuskript bin ich mir dessen bewusst, dass es in der vorliegenden Form für eine Veröffentlichung nicht in Frage kommt; ich könnte mir aber vorstellen, dass es im Rahmen einer Arbeitsgemeinschaft Anregung für Meinungs austausch geben könnte. Es würde mich freuen, wenn Sie von dem grundlegenden Gedanken Kenntnis nehmen würden und mir unter Umständen angeben könnten, wer von Ihren Anhängern oder Kontakten sich ev. für den Ausbau der sich ergebenden Implikationen interessieren würde. Bisher hatte ich offen gesagt gezögert, mit der Schrift herauszurücken, weil ich erleichterte Aufnahme erhofft hätte, wenn irgend eine andere meiner Ideen bereits auf fruchtbaren Boden gefallen wäre.

Von Dr. Danelius, Zürich, erhielt ich bisher keine Antwort. Mag sein, dass er über den Sommer verreist ist. Es scheint mir aber selbst unter den Jungianern nicht einfach, ein Echo zu finden. Desto schwerer dürfte es in anderen Fachgebieten sein, deren Vertreter, abgesehen von den präformierten Widerständen, alle eifersüchtig darüber wachen, dass ja kein Aussenseiter in ihr Interessengebiet eindringe.

Dies hat schon F. Zöllner, dem ich auch viel Anregung verdanke, in seinem Buch *Über die Natur der Cometen. Beiträge zur Geschichte und Theorie der Erkenntnis (1871?)* gerügt und dem menschlichen Fortschritt, falls keine Änderung eintrete, keine günstige Prognose ausgestellt. Zöllner hat sich nicht durchgesetzt und die

Menschen haben bisher nicht gelernt, aus entscheidenden Erkenntnissen Nutzen zu ziehen.

Das Manuskript über die himmlische Hochzeit hat noch viele Beilagen, Fortsetzung und keinen richtigen Abschluss. Falls Sie dies empfehlen würden, könnte ich eine Umarbeitung vornehmen, manches in den Text einschalten und Unwesentliches weglassen.

Mit vielen herzlichen Grüßen, Ihr

[Der Schluss des Briefes fehlt]





THE VELIKOVSKY CORRESPONDENCE

1966

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einige Tage vor Beginn des 6 Tage Krieges

26. Mai 1967

Sehr geehrter Herr Dr. Velikovsky,

beim Durchdenken der Motive für Ischtar's Geschlechtswechsel, durch den sie anstatt als Stier später als Kuh verehrt wurde, ist Ihnen das Naheliegendste entfallen. Wohl ist es für eine Kuh charakteristisch, dass sie Milch gibt (ein gehörnter Planet der Milch hervorbringt ähnelt am meisten einer Kuh, vgl. Welten im Zusammenstoß, Kap. "Die heilige Kuh"), aber ein noch markanteres Merkmal für das weibliche Rind ist das Fehlen des männlichen Zeugungsgliedes. Während seiner kometischen Laufbahn hatte der Venusstern natürlich ein männliches Geschlechtsattribut, denn in Koptos in Ägypten wird Horus dargestellt, wie er das Glied des Typhon in der Hand hält (Theodoret. Ad. Antolyt III. 27). Der Rutenstern verlor seine Rute nach einer Periode ausgedehnter Finsternis. Laut der mythologischen Überlieferung entstieg er als schaumgeborene Aphrodite (Venus Anadymone) den Fluten, die das ins Meer gefallene Glied des Kronos umspülten. Erst seit damals kann der Name Kawkabta "the (female) star" , which they, [die Syrer] like the Jews, apply especially to the morning star" angewendet worden sein (cf. Artikel "Al-Uzzah" in *Encyclopaedia of Islam*). Boticelli hat den Vorgang, der u. a. in den christl. Auferstehungsszenen fortlebt, als "Die Geburt der Venus" gemalt. Minerva, bekanntlich eine noch maskuline Vorstufe der Venus, trägt als Reminiszenz das dem grässlichen Kometen (Plin. N. H. II, 91) entsprechende Gorgonenhaupt im Schilde.

Das Henkelkreuz, mit dem die Anhänger Siva's ihre heiligen Stiere seit uralten Zeiten bezeichnen, ist bis zum heutigen Tage das Zeichen des Planeten Venus geblieben. Nicht etwa deshalb weil es ein Knotenamulett ist, sondern einzig und allein weil es den Kometen Venus darstellt. Das wichtige ist der Schwanz und nicht der Henkel. P. von Bohlen beschreibt den ursprünglichen Erregungshintergrund unter allen Kommentatoren am offenherzigsten: "Die Anhänger des Sivas pflegen den heiligen Stieren einen Phallus auf die Hüfte einzubrennen [...] in der Gestalt eines Henkelkreuzes" (Das alte Indien, 1830, I, 209). Wenn man einmal die mit dem Henkelkreuz verknüpfte Grundidee erfasst, wird man es weniger beachtenswert als Hans Bonnet finden, "dass die Götter [...] die Lebensschleife [...] nicht [...] an dem schlaufenförmigen Henkel, sondern am unteren Ende fassen" und "dass man jenes in besonderer Weise gewertet zu haben" scheint (*Reallexikon der ägyptischen Religionsgeschichte*, 1952, Artikel "Lebensschleife"). Jedenfalls E. A. W. Budge (*Osiris and the Egyptian Resurrection II*, p. 96) lässt keinen Zweifel darüber walten, dass "the phallus of Osiris must have played a very prominent part in the beliefs of the Egyptians..." . Es ist verständlich, dass die Menschheit lange nach dem Verbleib

des Kometenschweifes geforscht hat. Trotz eifrigsten Suchens gelang es Isis nicht, den Phallus wiederzufinden, der dem (in der Vorstellungswelt der Ägypter) durch Seth zerstückelten Osiris abhanden gekommen war. Das an die wunscherfüllende Vorstellung von der Kastration des Urvaters anknüpfende Schuldgefühl ist bis zum heutigen Tag von der Menschheit nicht gewichen und führt zu den sich ständig wiederholenden, durch Fehlmotive belegten aggressiven Entladungen.



THE VELIKOVSKY CORRESPONDENCE

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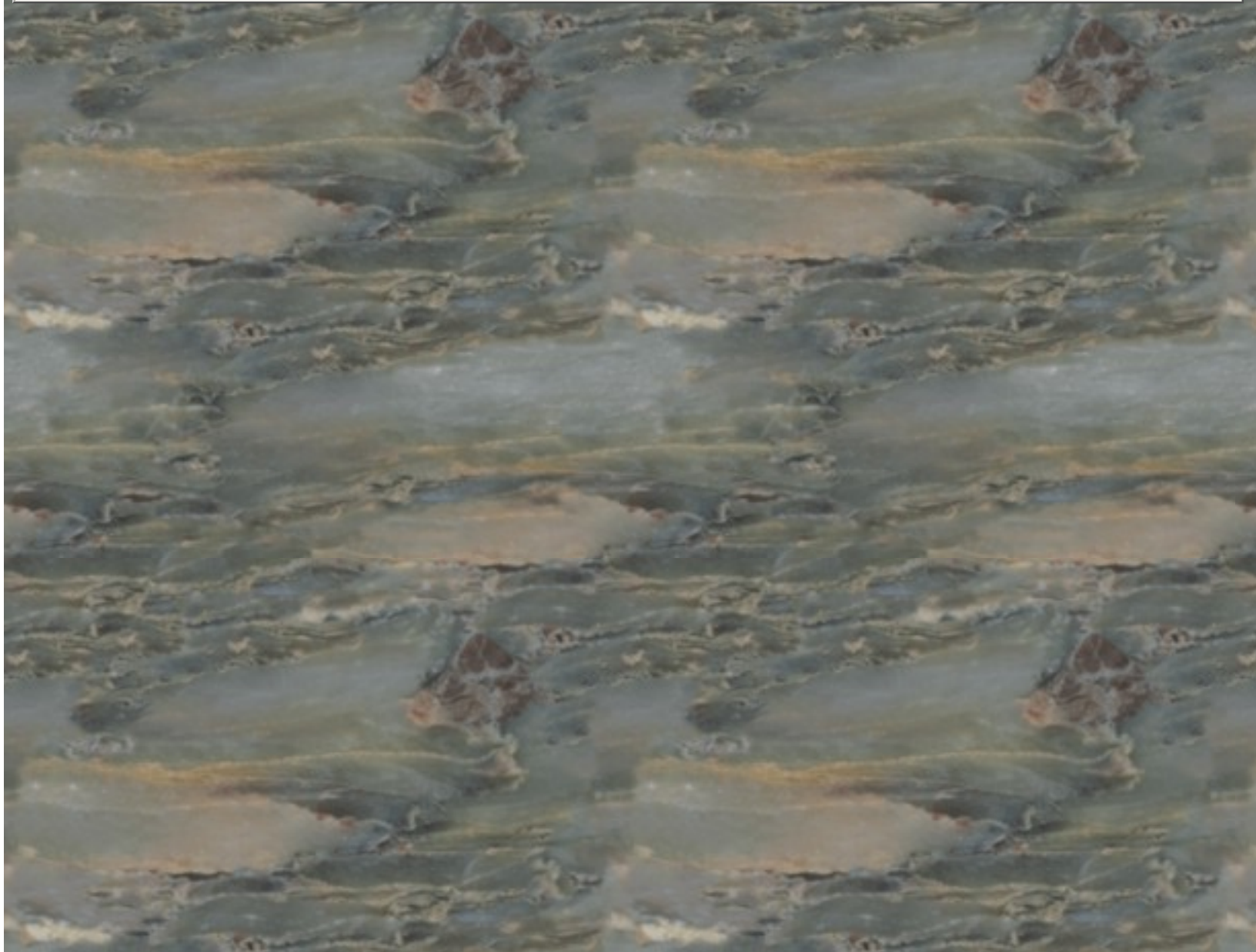




THE VELIKOVSKY CORRESPONDENCE

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Lieber Dr. Velikovsky!

Vielen Dank für Ihren Brief, dem ich mit Freude entnehme, dass die Sache vorwärts geht. Ich beziehe Pensée so regelmässig, wie es die hiesigen Devisenbestimmungen erlauben.

Es gibt ein Thema, das Sie einmal angeschnitten haben und über das sich ein insbesondere ausgeprägtes Stillschweigen - allerseits - ausbreitet. Ich meine den Abschnitt "The confusion of Hyksos and Israelites and the beginning of anti-Semitism". Die dort enthaltene Information ist von grosser Bedeutung, nicht allein für die Juden, sondern auch für sämtliche andere Völker.

Sie haben überzeugend aus den Quellen dargestellt, aus welchem Grund die Hyksos (Amalekiter) sich den Hass ihrer Umgebung zuzogen. ("The invaders were utterly cruel;... They left a deep feeling of hatred in the people of Egypt... They... were unspeakably cruel in many other ways... They left in the people of Israel an intense feeling of hatred" *Ages in Chaos*, p. 90-93). Amalek war die 11. Plage. Das haben Sie im Abschnitt "Malakhei-Roim - King-Shepherds" anhand des missverstandenen Bibeltextes (Psalm 78:49) klar dargetan. In der ??? erscheint übrigens dieselbe falsche Wiedergabe: "??? ???".

Bereits in meinem Schreiben vom 14. April 1962 an Sie habe ich meiner Überzeugung Ausdruck gegeben, dass die manethonische Verwechslung der Hebräer mit den Hyksos weder accidental noch deliberate geschah (vgl. a. a. O., p. 81), sondern eine Fehlleistung darstellt. Diese entspricht einem unbewussten Bedürfnis des Zeitgeistes. Es erhebt sich die Frage, wann und durch welchen Erregungshintergrund die Juden zum Hassobjekt wurden, auf das die zeitgenössischen Völker ihre unbewussten Regungen abluden. Freud hat den Zeitpunkt intuitiv erfasst: "Das Schuldbewusstsein jener Zeit war längst nicht mehr auf das jüdische Volk beschränkt, es hatte ein dumpfes Unbehagen, als eine Unheilsahnung, deren Grund niemand anzugeben wusste, alle Mittelmeervölker ergriffen" (*Moses, sein Volk, und die monotheistische Religion*, 16. Bd., 1932/37, S. 243). Für die Unheilstimmung jedoch findet Freud keine befriedigende Erklärung. Gemeinsam mit Kant bleibt er die Antwort schuldig, auf welche Weise sich der bestirnte Himmel mit der Entstehung der Moralbegriffe verquickt: "Zwei Dinge erfüllen das Gemüth mit immer neuer und zunehmender Bewunderung und Ehrfurcht, je öfters und anhaltender sich das Nachdenken damit beschäftigt: der bestirnte Himmel über mir, und das moralische Gesetz in mir" (vgl. darüber *The Velikovsky Affair*, p. 84). Und doch, es fehlt nicht an Hinweisen, die den Tag der Gesetzgebung

mit bedrohlichen Himmelszeichen verknüpfen. “The approach of a star toward the earth in the days of the revelation at Sinai is implied by the text of the Tractate Shabbata...” (WiC., p. 95). Moses hatte eindringlich an das Sündengefühl des Volkes appelliert: “??? ???” .

Diese Ankündigung impliziert auch die Drohung, dass falls den Geboten nicht Folge geleistet würde, die Erscheinung sich wiederholen könnte. Auf diese Weise macht man sich nicht beliebt. Anna Freud hat die menschliche Natur erkannt. Sie sagt: “Ein Ich [...] ist imstande, seine verbotenen Regungen nach aussen zu projizieren... Das Wüten gegen den Schuldigen in der Aussenwelt dient ihm als Vorläufer und Ersatz des Schuldgefühls” (*Das Ich und der Abwehrmechanismus*, 1946, S. 136). Hier liegen die Triebfedern zum Antisemitismus. Sie sind es, die die Feder Manetho’s lenkten und ihn an Stele von Sharuh Jerusalem schreiben liessen. Schliesslich hat es nur 2 Tage gebraucht, um aus dem Australier Rohan, der die El-Aksa Moschee anzündete, einen Herrn Cohen zu machen.

Das neue Testament fand starken Anklang, weil es an einigen Stellen erklärt, dass der Opfertod Jesus’ die Welt vom Fluche des Gesetzes erlöst hat. Auch Luther wettet gegen das Gesetz und predigt: Wenn das Gesetz nicht wäre, dann gäbe es keine Sünde und keinen Tod. In meiner Schrift *Melencolia I* habe ich darüber mehr ausgeführt.

Der mit der Offenbarung verbundene Schrecken und das mit ihr gleichzeitig erweckte Schuldgefühl haben sich in der Gestalt des Juden symbolisiert. “Kein anderes Volk veranlasst eine derartige Regression zu primitivem Terror [...] unter zivilisierten Nationen” (Maurice Samuel, *The Great Hatred*, 1943, S. 12). Täglich liest man in der Zeitung und hört im Radio, man müsse den Terror bekämpfen. Heute wurde sogar verlautet, es handle sich darum zu definieren, was Terror eigentlich sei. Ich halte das für ein sehr löbliches Unterfangen. Erachte es aber gleichzeitig für vergebliche Liebesmüh, solange man nicht bereit oder imstande ist, der Sache wirklich auf den Grund zu gehen.

Ich glaube, dass *Terror* ein passenderer Titel wäre, als das s. Z. vorgeschlagene *Great Fear*.

Ich halte es auch für erstaunlich, dass bisher kein Psychoanalytiker oder sonstiger Psychologe es der Mühe für wert gehalten hat, sich mit dem Triebverzicht zu beschäftigen, der in der folgenden, am Offenbarungstag gegebenen Weisung liegt: “??? ???” .

Bezüglich der Hyksos möchte ich noch etwas nachtragen. Gleichzeitig mit dem verhassten Stern tauchte dieses Nomadenvolk auf, das das kultivierte Ägypten zerstörte. In der damaligen Vorstellungswelt hielt man sie für Sprösslinge des Unheilsternes. In der Inschrift des Schreines von El-Arish ist von den Kindern des Drachen Apep, von den Übeltuern, die Rede. Die Königshirten (King-Shepherds) verdanken ihren Namen nicht dem Umstand, dass sie etwa königlichen Geblüt’s

waren, sondern der Auffassung, dass sie von ??? abstammen. Auch in dem Wort Amalek spiegelt sich diese Herkunft. Ich will mich nicht zu weit verlieren, aber an sagenhaften Völkern, die bei einbrechender Dunkelheit ein Land überfallen, fehlt es nicht. Die nordischen Muspilli werden aus dem Blut des im letzten Kampfe verwundeten Gewittergottes gedacht. Auch der "bloody star Ra" (cf. *WiC.*, S. 95) litt in der Legende an einer Kastrationswunde (vgl. solarer Typhon). Natürlich waren die Juden schuld daran, denn es heisst: "Liquet igitur, istatui Typhonis exitium, ubi egere Israelitae Augypto egressi, qui eum per diderunt" (Gerardi Joannis Vossii *de Theologia Gentili...*, 1641, *Idolatr? Liber, I*, 193). Hier liegt die Wurzel und der erste Hinweis für den den Juden angedichteten Gottesmord!

I hope, you will take this all in good spirit and remain,

cordially yours





April 30,1973

Chancellor J. Oshiro, M.D.
[The University of Lethbridge](#)
Lethbridge, Alberta

Dear Dr. Oshiro:

Your very amiable letter with enclosed printed material was unduly long in transit—I received it before the weekend. You may be aware that your General Faculties Council followed by the Senate of the University made a selection and an unprecedented decision in the Academia: I have not been yet honored with any honorary degree. This, however, was never a source of disappointment to me: I was aware of the revolutionary character of my studies and findings. Today these views of mine are no more so heretical—much of what I wrote entered the textbooks and the curricula even if in some disguise.

If everything goes well, my wife and I shall come to Lethbridge a year from now. I thank you, dear Chancellor, the General Faculties Council, and the Senate of the University of Lethbridge.

Truly yours,
I. Velikovsky



April 20, 1974

Dear Dr. Velikovsky,

Trusting that you are safely home again and in the mood to receive some clarifications on subjects we have touched in our conversation, I would like to remind you about the following:

Johann Karl Friedrich Zöllner, the author of *Über die Natur der Cometen* (1882), who also wrote about the Venus-Tail in his *Wissenschaftliche Abhandlungen* 2/2, p. 884, is mentioned in your "Über die Energetik der Psyche" (1931), Fussnote S. 27. When you accepted the reference (*Wiss. Abh.*) from me, you looked quite startled, as soon as I mentioned that Zöllner had also occupied himself with telepathy (and with the Judenfrage). Zöllner was a deep thinker who, in my opinion, rightly called his book about the comets "Beiträge zur Geschichte und Theorie der Erkenntnis". It might be quite significant that he is never remembered in any of the corroborative contributions to "Immanuel Velikovsky Reconsidered". He said amongst other things: "... indem nach den früheren Betrachtungen (?) sowohl durch die eigene (my spacing) Temperatur dieses Planeten (i. e. Venus), als auch durch Insolation Dämpfe an seiner Oberfläche entwickelt werden, welche sich bei Abwesenheit einer merklichen Atmosphäre aus permanenten Gasen in Form von Siedeprozessen aus dem Innern der Flüssigkeiten entwickeln, und dann durch analoge elektrische Prozesse wie die Cometen leuchtend werden müssen" (ibid. S. 651). In *Pensée* (Winter 1974) you deal with an emission spectrum (only from hot substances) "only the light that glows through the clouds" (p. 33) after you had stated previously (p. 32): "Of electrical discharges in the short and stormy history of Venus,... there was no dearth."

Is Dr. Bill Mullen, whom you mention in your letter of October 5, 1972, the same as William Mullen, author of "A Reading of the Pyramid Texts" (*Pensée* Winter 1973)? While I cannot subscribe to Mullen's interpretations of Egyptian Mythology, his answer to the question about any influence of an archaic traumatic background to present day's agitations - which you addressed to me - is far more intelligible, than I could have ever formulated it. "... a patient frees himself from past events when he comes to see that they are not as continually threatening as his unconscious had imagined" (ibid., p. 11). He is less optimistic in respect of active therapy: "Somewhere there is still a small voice of sanity insisting that man cannot be saved, only helped" (ibid.). He is, as far as I am aware, the first to speak about a Velikovskian therapy. This consists of the immunization of the noxious archetypes of the past.

To spread an idea against immense resistance is a problem which cannot be solved alone by a good editor and a favorable publishing house. It depends upon the necessary residual sanity for the comprehension of undeniable evidence and upon the readiness of mankind to be helped.

With all the best wishes and kind regards,
also to Mrs. Velikovsky, sincerely yours.

PS What is the position about the planned essay dealing with traumatic amnesia? On June 25, 1964 you wrote: "... should the volume *The Great Fear* materialize itself I may come with some proposition..."





9 July 1974

Dear Dr. Velikovsky,

I got your letter of 3 July and was sorry to learn that in-between the two symposia you did not feel quite well. Thank you very much for sending me the program of “Velikovsky Symposium On Cultural Amnesia” . Each of the subjects is of great interest for me. Somewhere my own notes contain material pertaining to the themes.

In order to recover cultural amnesia the close thought manifests itself to study the cults and symbolic language of the primitives. This was actually done by J. Winthuis (*Das Zweigeschlechterwesen*, 1928). This reference, espec. p. 45, I mentioned to you, when you were here in Jerusalem. Winthuis writes among others: “Der Sinn der Kunst des Primitiven ist dem Europäer vielfach aus dem Grunde verborgen geblieben, weil er ihre Bildersprache nicht versteht” (p. 49). Nearly superfluous to state that most of Winthuis’ material, assiduously collected in the years before the First World War, was destroyed later by “Bilderstürmer” . Should you be interested and have some spare time you find material about the relevant disputes which were quite lively in the late twenties in *Anthropos* Vol. 25, 1930, p. 73: “Kritische Bemerkungen zu Winthuis’ Buch *Das Zweigeschlechtersystem*” . Ibid. p. 1085: “Vernichtung von Manuskripten” (!!!), in *Archiv für Religionwiss.* Bd. 29, 1931, S. 140, and *Dtsch. Lit. Ztg.* 52/2, 1931, 8. Nov., Heft 45, S. 2142 etc., etc. *Archiv f. Religionswiss.* Bd. 33, 1936, S. 363 refers in a footnote to Winthuis’ “Einführung in die Vorstellungswelt primitiver Völker” (1931), which so far I have not been able to get. This piece might contain indications about the connection of observations on comets by the primitives and their sexual conceptions.

I have not yet received Pensée’s 7th issue and regret to understand through your letter that the report there about the Symposium in San Francisco is deficient. Dr. Mullen owes me still some answer to my questions about the planned study center on Naxos. I feel that a more intensive exchange of views could be constructive.

Yours very cordially and with best regards to Mrs. Velikovsky.

PS The hostility against Winthuis went so far that he was “suspected” in the *Germania* (the paper owned by Franz von Papen, who was Hitler’s Steigbügelhalter in 1932) “als Anhänger der Freud’schen Psychoanalyse und als ‘Evolutionisten’ , wie ihm schon vorher ‘Pansexualismus’ vorgeworfen” [worden war].



Dear Dr. Velikovsky!

I hope this letter finds you in good health. I had your letter from July 3, where you wrote that you had this Symposium at the Master University Hamilton in spite of a bout of viral pneumonia. How are things now? I had no time yet to read the report in *Pensée*, Summer 1974. However, I would like to report on Isaacson (Fall 1974).

It seems to me that the Dark Ages find a very sordid explanation in Manetho's hostile pen. It was not merely a slip of the pen, what made him write Jerusalem instead of Sharuhen. Neither is the unreliability of his Egyptian king lists solely due to "a late, careless and uncritical compilation". Manetho was very much concerned to identify the Jews with the Hyksos. He made the Hyksos invasion far in time before the Exodus. His aim, conscious or unconscious, was to incriminate the Jews with the guilt for the obnoxious occupation of Egypt between the two kingdoms. Had he acquiesced with the entrance of the shepherds at the moment the Jews left Egypt, then the Jews could not have been the Hyksos (s. your chapter "The Israelites meet the Hyksos").

As you know Manetho instilled into the heads of his readers very defaming ideas about the Jews. He wrote that Moses was a leper who made bad laws. Being never very scrupulous in his time-table and in the logic of his claims he further stated: "... that the regime of the Shepherds seemed like a golden age to those who beheld the impieties of their [Egypt's] present enemies [the Solomites with the polluted Egyptians]" (Ag. Ap., I, 248).

In my opinion it is an obsessional force which prevents scholars to lower the Egyptian dates for the required 500-700 years, in spite of all the explicit evidence to the contrary (archaeological and historical). Stiebing is begging the question of the chronology of the Bronze and Iron Ages, by granting dates which should be proven. And he is very quick to state that the "Admonitions of Ipuwer" [...] "could not have been contemporaneous with the Exodus and could not have described a cosmic cataclysm which supposedly occurred at the time of Moses. Again he relies on archaeological evidence based on the king lists produced by Manetho's hostile pen. Why should Stiebing be so concerned to establish "that the beginning of the Hyksos period in Egypt cannot be equated with the time of Moses" ?

It appears that the "gloom of the Dark Ages of the ancient world" is just the projection of the present state of things in our world. The obsessional fear which forces mankind to project its destructive guilt feelings on the Jews can be explained

by the dislike of the Law and the inherent catastrophic consequences.

With many kind regards, also to Mrs. Velikovsky,
Yours sincerely Rix



Jerusalem, March 29, 1976

Dear Dr. Velikovsky,

I was very pleased to get your acknowledgment of my contribution to the Festschrift as well as your invitation to write to you. Accepting the later may I ask you the Gretchenfrage?

In your section about Stonehenge which first appeared in a "Rejoinder to Burgstahler and Angino" (1967) and was reprinted in *Pensée* of May 1972, mention is made of the "Slaughter Stone" (Altar Stone) and its shifting location during the ages, so as to be met by the first ray of the rising sun. In this connexion your statement "the shining forth of the first ray of the sun was the moment" demands an amplification! My question is: Is it not obvious that the scrupulosity of the observance was not meant for astronomical calculation alone, but also to fix the exact moment for ritual slaughtering? *Worlds in Collision* quotes from unpublished notes of G. A. Dorsey: "There seem to have been astronomical beliefs connected with the sacrifices" (p. 92). I think that the heliacal rising of the Morning Star after leaving its inferior conjunction was the moment.

Checking my notes, which I feel I should have done already 3 or 4 years ago, I find: "Man nimmt an, dass dort [auf dem 'astronomischen' Stein des Sonnentempels zu Stonehenge] im Augenblick des Sonnenaufgangs ein feierliches Opfer gebracht worden sei,..." (E. Krause, *Tuiskoland*, 1891, Kap. "Griech. Sagen über die Herkunft der Lichtreligion", S. 178). Should there be any doubt about the nature of the sacrifice, or the source which constituted in ancient faith the light-spending power, the following may lend some insight: "Noch die alten Sarazenen opferten dem Morgenstern Venus, der Göttin Al-Uzza, bei ihrem Aufgange das Beste aus der Beute, besonders schöne Knaben, ... Der Morgenstern, Venus (Phosphoros) geht auf und Helios folgt ihm..." (transl. from *Nili opera, Parologia graeca*, Vol. 79, 611ff ed. Migne). A very strong trend prevails to weaken and to repress the impact of the whole issue, to ascribe to it legendary meaning. This can be seen from a paper titled: "Ist der sogenannte Nilus-Bericht eine brauchbare religionsgeschichtliche Quelle?" (Autor: J. Henninger, *Anthropos* 50, 1955). In his conclusion the article says: "Das Ganze erklärt sich viel zwangloser, wenn das Kolorit dieser Schilderung aus der Buchgelehrsamkeit [...] stammt". Initially I intended to give this reference only in passing. However, passing over my notes, I find too many factors relevant to our theme, which I feel (perhaps subjectively) should not be swept below the carpet:

"1. Die Beduinen bringen regelmässig Menschenopfer dar...

[...]

4. Dieses Opfer wird der Morgensterngottheit dargebracht.

5. Deshalb findet es in der Morgendämmerung statt und muss vor Sonnenaufgang beendet sein (solange der Morgenstern noch sichtbar ist).

6. Als Schlachtaltar dienen aufgeschichtete Steine.

7. Das Blut des Geopferten wird als Libation ausgegossen...

[...]

10. Das Opfer hat Sühnecharakter.”

(Pseudo-Nilus-Bericht, Patr. gr. Col. 641 and 680-88).

Your commentary about the 56 Aubrey holes makes Stonehenge a cult-place holy to Typhon. The term “Typhonic Sacrifice” has so far been avoided in Velikovskian literature. But we should go right to the cultural background of things (Original Text fehlt!). But we know from Manetho that red-haired (better blond) human beings were burnt alive as so-called “Typhonians” at the tomb of Osiris (Plutarch, *De Isis et Osiris*, ch. 73) and at Heliopolis (Diod. Sic. I, 88). This custom, justified by all kinds of political beatifications, is continued until this day. This is manifested by Jasser Arafat, who has appeared as the mouth-piece of the offerers at UNO, while the victims are silenced by a hostile audience and even more by their inaptitude to conceive their right for survival.

A few days ago I had a call from your granddaughter, and was glad to learn that you are well and working as usual.

With very kind regards, also to your wife,
cordially yours Rix





February 26, 1976

Dear Dr. Velikovsky:

I urge you to devote your *entire* and *undivided* energy to the completion of *Mankind in Amnesia* and to the completion of the remaining volumes of the *Ages in Chaos* series. Both in the long run and in the short run, that will be the best way not only to deal with your opponents but also to ensure that your work receives the attention it deserves.

In particular, I urge you not to waste any more time with the AAAS people or with their volume that was supposed to be a report of the AAAS sessions on your work held in San Francisco in 1974. The behavior of the AAAS people has been deplorable from the start. Their intention never was to examine or to debate your work; all along, their intention was to find ways to ridicule and to belittle your work before the public.

The AAAS people set up the program so that four panelists would speak against your theories and you alone would be allowed to speak in your defense. (A fifth panelist did speak, but he neither attacked you nor defended you.) Not a single scientist working with you was allowed to participate in the panel discussion. This violated the AAAS promise that there would be as many panelists speaking/or your theories as there were panelists speaking *against* your theories.

All the panelists, including yourself, were to be given "equal time". Each of the four negative panelists then proceeded to enumerate alleged errors on your part and alleged evidence against your theories. Clearly, the intention was that these "equal-time" arrangements would permit them to introduce so many points that you would not have enough time to answer them all.

This same strategy is still being used by the AAAS people, in the arrangements for their proposed volume on the San Francisco sessions. They wish to retain the four-to-one odds, and have still not allowed anyone in addition to yourself to argue in support of your theories. They wish to keep all arrangements for the volume in their own hands, and to prevent any balanced and serious examination of your work. They wish to provide far more space for negative comments from your opponents than for positive comments from you. And they wish to allow the four negative participants to include additional remarks that you will not have an opportunity to answer. It is possible that they will not even show you those additional remarks until the volume has already gone to press. It is also possible that, after you have spent so much time preparing material for their volume, they may suddenly decide not to publish it at all, thus leaving you with little to show for your time and efforts.

This proposed volume is supposed to be an investigation of your work. But the fact is that this volume, like the AAAS sessions themselves, will not be aimed at any serious examination of your work, but rather will be aimed at “educating” the general public that your work is “of too little weight to take seriously” (as Ivan King put it).

When a volume really is devoted to serious examination and criticism of a man’s work, the format and atmosphere are light-years away from what the AAAS people are doing. I have in mind, for example, the Library of Living Philosophers series edited by Paul A. Schilpp. That series includes publications on Einstein, on Russell, and on many others. Each such volume includes a long bibliography of the man’s writings, and a long preliminary essay by him in the form of an intellectual autobiography. There are a number of critical articles included in such a volume, but the man whose work is at issue is given as much time and space as he needs to reply to each criticism, and *he* has the last word. The entire approach is serious and fair; there is debate and argument, but not abuse or slander. And the volume is presented to the reading public as if it were an *honor* and a form of *recognition* for the man who is its subject. What a far cry from the way the AAAS people are treating you!

The trouble with trying to cooperate with the AAAS people is that they do not permit your theories and arguments to receive an objective hearing and evaluation. Even if you do answer their charges and claims, as you did at San Francisco, all they have to do is use that event as an occasion for filling the general and scientific media with their own propaganda. And you are then left with no adequate opportunity to reply, since nearly all of the media outlets that they use are tightly closed to you.

This is an entirely unproductive situation, in which you are forced to choose between two evils: If you refuse to participate in their various proposals, they say that you have failed to meet their challenge, etc. But if you do participate, then they rig everything to their own advantage, and report on these events to the media in whatever way they choose. And at no point in any of this are you being treated as a serious investigator. They merely use you as an object lesson that they can employ in reshaping societal attitudes about science to their own liking.

What course of action, then, *would* be productive or constructive? How can you deal with your critics, and how can you ensure the serious attention that your work deserves? By devoting your *entire* and *absolutely undivided* attention to the completion of *Mankind in Amnesia* and of the remaining volumes of the *Ages in Chaos* series.

You should not permit any other matter whatsoever to divert your attention from those books. If you complete them, you will have provided the best of all possible answers to your critics, and you will have chosen the best of all possible means for ensuring that your work receives the wide and serious attention that it deserves.

Publication of those books is a door that is wide open to you. The AAAS people and

others can make sure that many doors are closed to you. But they cannot stop you from going through a door that is wide open to you. Or *can* they? Perhaps that is exactly what they *have* been doing. They have kept you busy pounding fruitlessly on their closed doors, with the result that you have not had time to go through that wide open door.

My advice is to break with all trivial matters, such as the AAAS projects. Plunge *all* of your energy into the completion of your books, and allow *nothing* to distract you from that effort.

With best wishes,

Lynn E. Rose





Jerusalem, Jan. 20, 1977

Dear Dr. Velikovsky,

May I express my hearty thanks for your generous gift in sending me your fascinating work *Peoples of the Sea*.

I have just started to leaf through its pages, and following your often expressed encouragement, I would like to make a few remarks.

The stele of Merneptah, which says “that Palestine ‘is a widow’ and that ‘the seed of Israel is destroyed’ , indicates that Merneptah obviously inflicted a defeat on Israel...” (*AiC*, p. 9). It is somehow startling that Breasted supplies the happenings recorded on the stele with the Heading “Hymn on the Victory over the Libyans (Israel Stela)” (*Anc. Rec.*, Vol. III, para 602). Libya does not fit either geographically or etymologically into the list of subdued peoples mentioned on the stele.

According to Breasted the text reads: “The kings are overthrown, saying ‘Salâm’” (Fn. “The Libyans are represented also using this Semitic word in Ramses III’s war with them.”).

” ... Wasted is Tehenu (Libya),
Kheta is pacified,
Plundered is Pekanan with every evil,
Carried off is Askalon,
Seized upon is Gezer,
Yenoam is made as a thing not existing,
Israel is desolated, his seed is not,
Palestine has become a widow for Egypt...”

But there are further problems: Merneptah is supposed to have routed at Perire in the Western Delta in his fifth year a coalition of Libyans “with the maritime peoples of the Mediterranean” (*Anc. Rec.* III, 569). This does not tally with F. A. Schaeffer: “Mineptah a commandé à Ugarit des épées de ce (longue) type marquées de son cartouche pour l’armement des troupes auxiliaires qui devaient affronter l’invasion des Libyens auxquels s’ taient joints des contingents des ‘Peuples de la Mer’” (*Ugaritica* III, 1956, p. 173).

Now where was the battle fought? At the gates of Memphis or from Ugarit against northern invaders, who, so we are told, set up camp in Syria? Cf. *Anc. Rec.* III, 604:

“1.) Those who reached my border are desolated, their seed is not (referring to northern invaders).

2.) The Libyans and the Seped are wasted, their seed is not. [...]

4.) Their cities are made ashes, wasted, desolated; their seed is not (referring to the Meshwesh).” (Cf. Velikovsky, *Peoples of the Sea*, p. 53).

According to these a/m inscriptions it would appear that the Meshwesh, “enemies known from the wars of Ramses III” (ibid. p. 76), associated to the Tjekers who patrolled along the Palestinian coast, and invaded Tekenu (Anc. Rec., IV, 87), were already adversaries of Merneptah.

Merneptah received a memorial recording victory over peoples to the north of Egypt. Is it likely that he is the same as Apries who suffered great defeat at Cyrene, and was ignominiously deposed by his general Amasis (Herodot III, 169), or, as Hophra would have to be contemporaneous with the destruction of Jerusalem, by Nebuchadnezzar?

There exists no unanimity regarding the complexion, and therefore the racial or geographical origin of the Tekenu. Although the authors tend to place them into Libya, they differ in their descriptions: “On se rappellera ici que le Libyen typique était blond pour les Égyptiens, qui ont représenté nombre de fois sur les monuments de l’ancien, du moyen et du nouvel Empire, des hommes roux leur servant d’esclaves ou d’auxiliaires... Il y a ainsi beaucoup de chances pour que les Égyptiens, qui sacrifiaient les hommes roux ou blonds, aient été choisir leurs victimes chez les Libyens blonds avoisinant l’Égypte, c’est-à-dire chez les Tekenu des Oasis, lorsque du moins les sacrifices avaient lieu à Abydos, ville rapprochée des Oasis” (R. Lefèbure, “Le Sacrifice humain d’après les rites de Busiris et d’Abydos” , Sphinx III, 1900, p. 155f).

Somehow reserved, but nevertheless, G. A. Wainwright concedes that fair hair and skin is not the monopoly of the inhabitants to the west of Egypt: “Though hardly likely in view of the above evidence for Libya, the possibility should not be overlooked that red-headed foreigners might have come from the north... There is a fair, red-haired type of Jew known as the ‘pseudo-Gentile’ (... and David himself is described as being ‘ruddy’ ; I Sam. XVI, 12; XVII, 42)... Nitocris (a pharaoh of an early dynasty; Herodot II, 100) colouring was also that of Seth, and again he was important in Libya... Whether Libyan or not, in having a fair or red complexion Nitocris was clearly one of the red Typhonians who were sacrificed by fire for the welfare of the people” (*The Sky-Religion of Egypt*, 1938, fn. and text on p. 44).

Seth was particularly important at the eastern border of Egypt at Auaris, and whatever her [Nitocris’] cradle, it is quite revealing that “at least two ladies of the OK, one of whom was a queen” were red [golden] coloured and bore Hebrew names. “Sie [Hetep-

Heres] nennt sich nur noch 'königliche Verwandte', weder Prinzessin noch Königin, aber die auffallende Blondheit und die Namensgleichheit machen m. E. den Schluss zwingend, dass sie direkt von der Königin Hetep-Heres II vielleicht als ihre Enkelin abstammt. Sie führt den Titel "Priesterin der Neith", der ursprünglich libyschen Deltagöttin von Sais, was möglicherweise auf einen Zusammenhang mit ihrer blonden, libyschen Abstammung hindeutet" (A. Scharff, "Ein Beitrag z. Chronologie der 4. äg. Dynastie", *OLZ*, 1928, Sp. 80/1).

This raises 3 points. Hebrew names at the time of the 4th Eg. Dynasty? Athena-Neith somehow as equivalent for Seth! And last not least one is reminded of Ir-haheres (Jes. 19:18), approached to Leontopolis, where Onias built his sanctuary on the ruins of the former temple of the goddess Bubastis (cf. Kautzsch, *Die Heil. Schrift des AT*). According to G. Ebers "Isis-Hathor ist die gleiche Göttin wie die Isis-Paxt oder Sexet und Bast, die Fremdenaphrodite des Herodot und die Venus-Urania, deren Heiligtum zu Bubastis stand" (*Durch Gosen zum Sinai*, 1881, p. 495). The site is located by most scholars at modern Tell-el-Yehudiyeh (*Jew. Enc.*, art. "Leontopolis"), where Greek letters were found on the tiles of Ramses III.

I trust that you are in the best of health and would be very happy if you could respond to above in some way.

With kind regards also to Mrs. Velikovsky, Yours





Immanuel Velikovsky
78 Hartley Avenue
Princeton, NJ 08540

Phone
(609) 924-4275

April 14, 1977

Dear Mr. Marx:

Following the telephone conversation of last week, I expect to hear from you the dates you prefer for the visit. There may be so many items to discuss, and also for you to acquaint yourself with the past and future of my work, that it may happen that if three days should not suffice, you may wish to extend your stay around Princeton for another day.

In our house we can offer you only a couch in the living room—and possibly you will feel more comfortable in an inn. We could place at your disposal a (non-luxury) car, one of our two.

Our telephone number is printed above. Newark Airport is much closer than the John Kennedy Airport, but overseas traffic goes mainly to Kennedy airport - so please find out, give us, please, also a ring from the airport.

I am working these days very strenuously on the completion of the Ramses II volume with the intention of returning, the proofs with a greatly improved version of the book in a week or so—to be free for you when you come. Let me know your schedule—I shall try to bring Prof. Lynn Rose of Buffalo to Princeton when you are here.

With friendly regards

Im. Velikovsky

IV:js





Christoph Marx, Rebgasse 16, 4102 Binningen, Switzerland, 061 47 43
08

Prof. Lynn E. Rose
Dept. of Philosophy
State University of
New York & Buffalo
Buffalo, N.Y. 14260
U. S. A.

May 5, 1977

Dear Lynn,

missing the chance to say good-bye to you, I thought to make up for it after having returned from this invigorating and most instructive visit.

Do let me know, please, where I can help? Perhaps I may keep you informed on developments here by way of correspondence copies?

I am very grateful to Dr. Velikovsky for having provided this opportunity of meeting you.

With my best wishes and friendly regards,

[signed] Chris



Christoph Marx, Rebgasse 16, 4102 Binningen, 061 47 43 08

Dr. Immanuel Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

May 5, 1977

Dear Velikovskys,

it was so good of you to have me with you for those past ten days that I can only make, few words to thank you. As I said, I hope my work will harmonize with what I have received. –

While I was away, a letter by Ullstein arrived, which I am adding to the enclosures. With Scherz-Verlag I telephoned and will have Mr. Streit's reply on his return in about a week's time.

Much work has accumulated, so I must be brief, though not without a word of thanks to Jan for the helpful company to the airport!

With best wishes and friendly regards,

[signed] Marx



Afternoon – Friday, 6 May, 1977

Dear Marx:

You left on Sunday, you called from home on Monday, and today is Friday—and very many things did happen in those few days. I will not write today much—but mention only a few items.

Earl Milton from Lethbridge, Canada, is with us since yesterday and leaves tomorrow morning together with Alfred de Grazia—who just now spent with us some time—and left copies of letters he wrote to Enc. Br. and to NYTimes.

Sagan sent me a new book of his, inscribed “with all good wishes” and a day apart arrived the tape of his this year’s lecture on the yearly theme—Venus and V—in which he indoctrinates future astronomers in their first year with derision toward me and my work the daily paper of Ithaca carried this week a large article with my picture on P. of S., very positive.

Isenberg sent in his lecture at the convention of science writers in Jerusalem (on 26 April)—and it is very good. I am going to cable him, he should submit it to Nature, Science, New Scientist, etc.

I intend to write an article (not letter) to NYT Book Review Section—one night I jotted down many passages for it—and it will be, if published, an answer not just to another of the articles in NYT—but to many others—Gingerich, one of them. It is my conviction that he manipulated the media since 1974.

Mondadori is probably the largest Italian publisher. I will answer them and you will try to deal with them and compare the offers of Garzanti and Mondadori.

I have much more to say—but will only add—I really greatly on you—and it was good to know you

Yours,

Immanuel V.





May 9, 1977
(mailed May 10)

Dear Marx:

This morning we received the first letter from you. It contained also a pleasant note from your wife.

Your letter contained a note from Ullstein and your prompt reply.

Here you will find an inquiry, received via Doubleday this morning, concerning Czechoslovakia. Please find out how good is the firm. I will make arrangements that Spanish rights, in South America and in Europe, should be formalized as a gift to our daughter Ruth Sharon (50 Deerpath, Princeton), and Scott Meredith will handle the contract, whether with Diana or with Pomaire.

The Italian and Scandinavian rights I would give as a gift to our elder daughter, Shulamith Kogan (35A Trumpledor Street, Haifa, Israel), and French rights to our granddaughter, Rivka Kogan, student (25 Rav Uziel Street, Bait V'Gan, Jerusalem) and to our grandson, Meir Kogan, who lives on Kibbutz Yavneh with his wife and child he is an engineer and army officer.

The Czechoslovakian rights I will formalize as a gift to Jan Sammer (domiciled at 781-38th Avenue, Lachine, Montreal, Canada) so that he should be able to go on with his scholarly career for years to come.

The use of the Greek rights I would present as a gift for length of life (she is in her sixties) to Marion Kuhn (90 LaSalle Street, Manhattan, N. Y. 10027). (This I will still consider—an alternative is in making to her regular [twice a year] payments.

Thus the contracts with the publishers will, upon negotiations, be signed by these individuals.

In view of the fact that by now with Ramses II there are six books to offer for foreign rights, it would probably make better sense to separate the Ages series, and have one publisher for history and another publisher for the other books, especially in Germany.

I reconsidered, and wish to suggest the following plans Your share is one eighth (12½ %), but you retain from countries not “gifted” an additional 7½ % for work that furthers our goals—at our common discretion (such will be the case with Germany).

Until formalization (I have to see a lawyer) I may make some changes in “gift of countries.”

Enclosed you will find a letter by Langenbach (May 4) with a copy of his letter to the New York Times (May 2).

With friendly greetings,

Immanuel V.





May 11, 1977

Dear Lynn:

Marx stayed here after you for a full week, altogether ten days, and left for Basel on the first of May. I let him have broad powers to act, and have already the first report from him. He will take over most of the European Continent for contracting my books with publishers, and be a rather central figure in organizing groups of interdisciplinary synthesis, and in opposition to the Establishment.

From Isenberg in Jerusalem I had a report on his participation in the conference of science editors, and a copy of the paper he read on the 26th of April. Sending it to me, he intended it for *Kronos*, but I cabled him to submit it to *Nature*, *Science*, *New Scientist*, and *Bulletin of the Atomic Scientists*, as coming from the convention. (I advised him to terminate the paper on page 8, before he starts to tell of the poll made by Industrial Research.)

The letter of Langenbach is enclosed. It moved me. I am sending it to Earl Longford, president of Sidgwick & Jackson, who is famous in Britain for his fighting in the House of Lords and elsewhere against literary smut. What is going on now at *NYT* is also smut.

I contacted William Safire of *NYT* in his Washington D.C. office; he is, as he says, my "great fan," and I am going to send him some material and take counsel as to how to proceed with the *New York Times*; two days ago they had another attack on me, this time on the *daily* book review column thus occupying both strategic positions—this time at the occasion of a review of Sagan's new book of wisdom. From Sagan I had it sent inscribed "with all good wishes", only a day apart from the arrival of the tape of his annual "Venus and Dr. Velikovsky" lecture, indoctrinating freshmen in astronomy as to who is Velikovsky (comet hardened Pharaoh's heart with cholesterol, diesel oil fed the Israelites in the desert) the regular fare, annually warmed up for academic consumption.

I called Ralph Juergens—and as if in answer to my prayer he already resigned from his job, the 20th of this month being the last day he works for the sanitation department of his town - and I told him that from the next day he is employed, and should visit in Princeton. Next call - and a good room within walking distance was rented for him for two weeks, starting with the 21st of May. Same day, yesterday, I mailed him the letter of Langenbach to the *NY Times* and Zysman's to me to prepare his spirits for the changeover from working in city sanitation to working on sanitation of another kind.

I made quite a few steps here and in Lethbridge for Lorton; here I started with two students visiting me (one was Lorraine, the other a student learning Hittite) a movement to ask for a course in Egyptology, and I believe that about 15 students will join.

I had Earl Milton here from Friday to Saturday, and worked on my paper expromptu-delivered at Lethbridge in May of 1974, three years ago. It was not well-prepared, and I did not like to think of it - but by reading it I found that it was better than I thought and was moved to make improvements and additions—and keeping a copyright, we agreed that I may offer it for pre-publication printing in some journal or journals. It became almost era my desperate appeal to humanity.

DeGrazia was also here, and by last Monday left for a writing vacation at Naxos. He wrote to Lustig, offering himself as the author of the 1977 yearbook of Encyclopedia Britannica entry on me.

Ramses II is being further improved on the eve of its shipment to England. This morning I introduced in a proper place a section narrating the natural-historical significance of -687, and at this occasion went all the way back to -776?. this is desirable, in view of the growing opinion that *Worlds in Collision* was only an episode in my work, and that with the Ages series, one should half-overlook the erratic writing of the pre-Ages period.

Lynn—I splurged probably only a half of what is going on. And on the outside a carpenter-mason builds a room for guests to sleep over, for my wife to play in better acoustics (in a room not stuffed with rugs and books)—and yesterday in a short visit at the building inspector's office, I achieved what no architect could achieve—an overall consent to extend the building in the yard even more, against all zoning regulations—and will have, probably an art studio for my wife.

I had a letter from the widow of Professor Pfeiffer—Shapley lied to her that I let my publisher use her husband's letter without permission and taking sentences out of context.

I spoke with Mainwaring, and will have a complete file on radiocarbon negotiations with the British Museum and with PA Museum in expectation of an attack on my work with radiocarbon dates.

I spoke also to John Holbrook, he is busy and his work is prospering in Washington, so he is rarely at his new domicile at Vermont.

I made Jan the gift of ownership of the foreign rights to my work in Czechoslovakia, so that in future he would always be able to pursue his scholarly urge. In the preparation of the Ramses II volume, he came up with a few very fine observations and ideas.

Marion Kuhn, who copy-edited my first few books, now almost blind, since her third year a polio cripple, will be also bestowed by me with some territorial rights—probably Greece. Christoph Marx will be in charge of these and many other activities. His address is: Rebgasse 16, 4102 Binningen, Switzerland.

I find no time to write a diary, but will circulate the letters I write or receive.

As you have heard from me while in Princeton, Mrs. Alice Miller of San Francisco spent seven years on preparing a very imposing index covering my first four books (*Worlds, Ages I, Earth, and Oedipus*), and my articles in *Pensée* and several other publications; she prepared it in several copies, and I assume that by now you may have received your copy. But researchers and libraries will need this work, now 277 pages, and we have decided here to print it by photo-offset. I inquired of the cost of printing in Princeton, and the estimate I received is by far more expensive than the offer obtained by Sizemore from their printer. We also decided not to postpone the first printing in order to include the index of *Peoples of the Sea* & of my articles in *Kronos*, because next will come *Ramses II* volume and other volumes will follow. Therefore I will suggest that what is already accomplished should be printed with Volume II of Index coming later.

This index is also a big help for those who would undertake the writing of the Index of Deviations—a preparatory step toward the revision of encyclopedias and textbooks.

By the first week of May, *Kronos* sent 1,000 copies of its seventh issue (Vol. II, no. 3) to University and College libraries, asking them to display it, and inviting subscriptions. A number of prominent intellectuals in this country also received free copies.

Jerry Rosenthal of Louisa, Virginia supplied the funds to cover the expenses of the printing and mailing. Rosenthal became aware of my work several years ago while visiting in the Negev (Israel). He worked for a short time on a kibbutz, and upon return to the U.S. he studied my work, and occasionally lectured on it. He and his wife visited me a few months ago; they spoke of a modest beginning, but their interest and involvement will grow, as he writes me. His father owns a chain of drugstores in Maryland.

These days Steve Talbott stunned me, and probably all of you who have read his last Network Communication (dated April 15, but mailed with a delay of several weeks). After introducing the “member” of the Network to the Zetetic and its purpose (one of the main purposes is debunking Velikovsky together with Uri Geller, von Däniken, and Mme Dixon as announced in *Science News* (April 28, 1976). Talbott “communicates” by way of asking and answering:

“All of which constitutes a recommendation that you subscribe to the

Zetetic? Yes!"

The huckster continues:

"Every *Network* member should own a subscription to the Zetetic".

Attached is an order form for the Zetetic (\$10.00 a year) with a couple of other books.

I believe that you and the four other associate editors of the now-defunct *Pensée*, (Lewis Greenberg, C.J. Ransom, Ralph Juergens, and Bill Mullen) should make a common statement and try to reach the subscribers of *Network*, deluded into believing that the *Network* is an organ to defend and protect my work, and that Talbott unselfishly works to that end. One of my great disappointments in people.

Dr. Gowans of the University of Victoria comes back to the fold. Having once written an impressive syllabus of art history following faithfully one revised chronology, and having organized some six years ago an invitation for me to lecture at the University of Victoria, he spent a year at Harvard, and then wrote a letter to *Pensée* presenting himself as maintaining "scholarly objectivity" After the Lethbridge Symposium where he read a paper he invited Dr. Dietrich Müller, my worst detractor, to come to Victoria for a series of lectures. (I have the tapes, but have not listened to them). Now with the publication of *Peoples of the Sea* he returns to the fold.

Jacques Barzun wrote me on April 28, upon reading *Peoples of the Sea*. He is the new President of the New York Academy of Science and Art. He wrote on the stationery of Scribner's, where he serves as literary advisor. He mentioned in his letter that he is also a devout reader of detective stories. I mailed him my *Oedipus and Akhnaton* and challenged him to name a detective story that surpasses it.

Peoples of the Sea already outsold *Earth in Upheaval* (since 1955 II printings) or *Oedipus and Akhnaton* (since 1960 12 printings), though it was hardly reviewed in the press. I think I was completely right to refuse the strong pressure from Doubleday (a three-page single-spaced letter by Sam Vaughan, my former editor there, now "Publisher" and "President of Publishing Division - his official titles) to agree to give my *Peoples of the Sea* as an alternate selection to the Literary Guild. He also offered to take my three earlier books as alternate choices, or "attraction" choices (boxed), giving them much exposure—but I did not give my consent, even when he was telling me that the Literary Guild has millions of readers, and a series of affiliated clubs. I offered instead *Oedipus and Akhnaton* as a full choice—and *Oedipus* got not his response, Doubleday publicizes now Drury's fictional story of Tutankhamun. Several of the viewers of the Tutankhamun exhibition (that will continue till spring 1979 and end at the Metropolitan Museum of Art) wrote me that *Oedipus* should be promoted. I mailed Doubleday a Tutankhamun Exhibition, Washington DC catalogue, but to no avail; (however, the last weekly sales figures show that *Oedipus and Akhnaton* outsold my other books) mainly because its existence was not known even to such of my readers who boasted that they have many times reread "all your

three books”.

Walter Bradbury, my editor at Doubleday, came on April 28 (I think after you were here) and begged me to agree to a postponement of publication of *Ramses II* from November (earlier thought September) to January, 1978, this in view of many additions and changes – (advertized by me, but which he did not yet see), and their heavy schedule (700 titles this year): If we should not be ready for November publication, then all salesmen’s orders would be canceled and a new sales effort would have to start in January. When I realized why he came so sad (he did not dare come out with this), I agreed, and he was greatly relieved.

From London, however, I received a fall catalogue of Sidgwick & Jackson. The last year they earned the Publisher of the Year award, as best publishers in England. They prominently display *Ramses II* book across two pages, scheduled for October of this year. They saved a corner on the bottom-left corner to insert how proud Sidgwick & Jackson is “Sidgwick & Jackson are proud to announce the new volume in Velikovsky’s series “Ages in Chaos.” On a later page, Patrick Moore is modestly displayed for his “1978 Yearbook of Astronomy”, and has to take this pecking order, he being the author of “Do you speak Venusian?”, presenting me as a King of Fools.

I wrote to Sidgwick & Jackson, told of Doubleday’s delay, advised them to go by announced schedules, promised to send them very soon the corrected galleys of Doubleday (1973) - but looking more like a new manuscript, and said that this time the roles should be reversed, Doubleday taking photo-offset from the Sidgwick & Jackson edition (Sidgwick photo-offset *Peoples of the Sea* from Doubleday, but made the book much more massive by an effective cover and better paper).

My letter to Earl Longford, mentioned earlier, with a series of enclosures will go out today or tomorrow. A fighter against pornographic smut, he is called by me to fight against the smut of Thomson, Gingerich, et al. My letter to the Earl will remove mystery from behind their scheming activities. He repeatedly avowed his admiration for my work.

In the meantime *Ramses II* grows beautifully, Jan made six copies—(the first half of one Marx took with him), very impressive, I do not know whether I should send a copy to you. I am afraid to distract you from our agreed plan to write together “The Grand Ballroom”, but eventually, possibly even soon, you will see it. Sagan’s book was reviewed in the *NY Times* by John Leonard in the *daily* Book Section, and a dirty slap was in it for me, though it has nothing to do with Sagan’s book. Earlier in this letter I referred to Sagan.

On the outside, the hammer of the builder sounds like a song—I was warned not to build in order not to be distracted, or at least not to build without an architect, but after having a session with one who came to see me, I decided to go ahead by myself with a very experienced and most pleasant Italian workman, and I hourly change and enlarge my plans—do you know that my real vocation is in architecture, and the

years that I visited the Library on the 42nd Street, I regularly visited also the room with architecture journals, watching for a chance to compete for a plan and construct a public building?

Keep well, act strong, Lynn.

Immanuel





Christoph Marx, Rebgasse 16, 4102 Binningen, Switzerland, 061 47 43 08

Dr. Immanuel Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

May 16, 1977

Dear Velikovsky,

having just returned from Sunday's S.I.S. meeting in London I find your letter of May 9; and I still have yours of May 6 still to acknowledge. Thank you for both! There is so much ahead this week, I'll put down some thoughts at once. -

Of course I will attend to the Italians and the Czechs, you will have copies.

It is so good that you are making arrangements to provide for your family. I have talked to someone knowledgeable in the booktrade (but without interests), and to achieve favourable conditions this problem of stable *continuity* for the rights seems to be rather important. Cases like Thomas Mann or Hermann Hesse are invoked, where publishers have been put on the spot by discords among divided copyright interests. Perhaps you might therefore consider an additional suggestion, "gifting" away the income rather than the rights proper?

Because as you said, two duties will have to be sustained to further your work and your estate: (1) your books, your MSS. and your archive must be attended to for their scientific and literary values; and (2) the output should be managed efficiently. But either duty must find its subsistence.

I'm still inclined towards having a 'Velikovsky Institute' provide for these responsibilities on the basis of owning the world's copyrights. It must have no profit, but to finance its obligations I think that 1/3 of the royalties would not be too high to carry on your work: it would have to cover the agents' percentages or its own negotiations with publishers; the support of your groups in all countries, especially work they should do keeping track of the development of your thinking and thus building up the central archive; the distribution of developments and information among the movement by appropriate means; the investment in peripheral works with the intend of safeguarding the Institute's future.

A secondary question might be whether foreign rights (foreign to the \$-area) shouldn't be managed through a 'Continental scion' of the Institute in Switzerland, in Swiss Francs. If you could favour the idea of an Institute at all, then in any case I

would very strongly recommend to have an American as well as a European side to it.

For the moment, I would leave the suggestion with you in these general terms. Perhaps you would like to send a copy for Lynn Rose's consideration. I would emphasize, however, that even if on the face of the project your "gifting" away at this time 2/3 "only" of the gross royalties of a country or area will actually result in more, because the future is being safeguarded by work that otherwise will not necessarily be undertaken, and that of necessity would probably lack the benefit of coordinated management.

Before I close, a short report on the meeting in London: there were 28 members attending, Mrs. Nel Kluitman, a 70 year old lady and staunch follower of yours, also having come specially from Switzerland. I extended to the meeting your friendly greetings, and they were very gratified to hear about your work from my personal experience. The many questions I answered up to the point where factual replies could also be found in the published materials. To Harold Tresman and the committee only I mentioned your considering a contribution toward the production of their Review, but that they will hear from you or Pollinger's directly. No actual papers were read, but a report on the problems a teacher had come up against when preparing a course of lectures about Velikovsky, and a discussion on Velikovsky's impact on Jewish publications was very interesting.

I must hurry!

With friendly greetings,

Yours

Marx

Still, there is one question left: discussing a reply I wished to write to Kitchen, I'm worried a bit if after all there is indeed no chance of breaking the publisher's confidence? Did you receive Kitchen's letter officially, or might Kitchen think of it as confidential? In that case I would suggest that S&J would send the letter to me also in confidence with the request of writing a reply for them: for in any case I think the hysterics should not remain unanswered. Perhaps you could ask Jan to handle this.





May 17, 1977

Mr. Dieter Curths
UMSCHAU VERLAG Lektorat

Breidenstein KG
6000 Frankfurt am Main

Dear Mr. Curths:

I received today your kind letter of May 12th. I regret that you had so hard a time to come into contact with me. I mail your letter to Mr. Christoph Marx, who is my representative on the continent of Europe, (His address: Rebgasse 16, 4102 Binningen, Switzerland), and who is empowered to negotiate the translation of my books. There was recently quite a number of inquiries for my books in the German language, the most recent from Ullstein Verlag. Since Mr. Marx only a few weeks ago returned from visiting with me in Princeton, I assume that the German rights have not yet been committed.

Sincerely yours,

Im. Velikovsky

IV: js



Dear Marx:

away from
Princeton I will find,
hopefully, time and
jest
to write you a long
letter.
Your Pamphlet was
very well
executed.

19.7.77

Notes to my Collaborators

* Our address during the rest of the summer and part of the fall is:

300 Catalina Avenue (off Rt. 37)
Pelican Island
Seaside Heights,
New Jersey, 08751

Jan Sammer will be with us.

In this all year round retreat I hope to progress on several manuscripts.

* I cooperate with Ralph Juergens on two manuscripts:

1) "Poisoned Arrows" - the arguments raised through the years against my work, mainly *Worlds in Collision*, and the answers in the light of 1977 (Order in the solar system and Stonehenge, Thera and local catastrophism, drifting continents as solution to geophysical changes, absence or presence of electromagnetic interactions in the solar system (and universe), solar or lunar eclipses before the seventh century before the present era, Venus' movements in antiquity ("Ammizaduga Tablets") etc.).

2) "Seventy Odd Ways", a review of the variety of techniques of suppression in science.

Ralph spent 15 days in Princeton (May 21 - June 5)

* With Lynn Rose I cooperate in preparing a historically true and complete account of the Symposium "Velikovsky's Challenge to Science": this will also be the title of our book. The Symposium was a confrontation between myself and the panel (Prof. D. Mulholland, celestial mechanics, C. Sagan, planetary science, P. Huber, Babylonian astronomy, etc.) selected by the astronomical section of the AAAS for the morning and evening sessions of February. 25, 1974. The account will elucidate also the prolonged negotiations that led to my exclusion from the Proceedings as prepared by the organizers (O. Gingerich, D. Goldsmith, and I. King) for publication by the Cornell University Press. This Cornell volume, after several delays is scheduled for the fall, entitled "Scientists Confront Velikovsky".

* Several weeks ago the galley proofs of *Ramses II and His Time* with many corrections and additions that may require resetting of several chapters were returned to Doubleday. At present Jan prepared 32 photographs for illustrations, I still have to write a number of pages before W. Bradbury, my editor at Doubleday, sends the proofs to the printer it is a matter of days only. The publication is scheduled for February, 1978,

* I had a visit of William Armstrong, editor-in-chief of Sidgwick & Jackson, my London publisher of *Peoples of the Sea*. More than - half of the British edition was distributed through "Book Club Associates". Sidgwick & Jackson, like Doubleday, plans the publication of *Ramses II* for February, and advertized it in its catalogue for early 1978.

* The University of Glasgow plans a convention on my work to take place on April 6-7. I wrote to Euan Mackie in answer to his letter that I intend to come, and with me several scholars. I have already extended invitation to David Lorton and Robert Bass.

* In March at the University of Leeds a session with a number of papers presented on my historical reconstruction took place.

* Christoph Marx (Rebgasse 16, 4102 Binningen, Switzerland) engaged Prof. E. Hornung, Egyptologist at the University of Basel, in a challenging discussion. Hornung's present course is on "Ramses II and His Time" (the same as the title of my forthcoming book). Marx printed a "Denkschrift" and it was distributed to all 54 participants of Hornung's course. Hornung then expressed his willingness to debate it. Before this, Marx spent with us in Princeton from 20th April to 1st of May, and acquainted himself with several of my unpublished manuscripts. I gave him wide powers to represent me in academic contacts and arrange for the publication of translations of my books. Upon his return from Princeton he reported to the British Group on his visit.

* An Index of 278 pages, covering *Worlds in Collision*, *Ages in Chaos*, *Earth in Upheaval*, *Oedipus* and *Akhnaton*, also papers that I printed in *Pensée*, *Harper's*, and my *Theses* of 1945, was prepared by Mrs. Alice Miller of San Francisco.

The arrival of the *Index* in April was a surprise to me. She wrote me only once earlier, in December 1970, telling me of her desire to be of assistance.

The *Index* will be out of the bindery in a week and will be offered for sale. It carries the imprint of the Center at Glassboro State College as its publisher. R. Hewsen wrote a preface and I a Foreword. It was printed in 1500 copies, all hard-cover. New subscribers to *Kronos* will be able to purchase the volume for half price (\$6.00 instead of \$12.00). Mrs. Miller started work on the second volume of the *Index* covering *Peoples of the Sea*, *Ramses II and His Time*, and other forthcoming volumes and articles in *Kronos*.

* Eva Danelius' review of *Peoples of the Sea* was prominently printed in the *Jerusalem Post* on Independence Day (April 30) of Israel.

Hyam Maccoby, who published a review in the *Listener* has written a full-length article on the revised chronology for *Midstream*, where it will be published in the fall.

* I had the visit of Bronson Feldman, who works on a new Haggada that will incorporate views found in *Worlds in Collision*, *Ages in Chaos*, and *Earth in Upheaval*. I promised to assist him in his intent to prepare the Haggada already for reading at next spring's Seder.

* Before these notes will be mailed out we expect the arrival of our granddaughter Rivka Kogan from Israel for a visit of several weeks. She is a student at Mikhlala in Jerusalem. Completing her studies at Beth Sefer Real School in Haifa, she wrote as her graduation essay a review of the first four chapters of *Ages in Chaos*, that resulted in a Strong disagreement between the faculty of the school and its director on one side (praising her), and the Ministry of Education (rejecting her paper) on the other side. At that time the Ministry was under Yiga Allon.





Christoph Marx, Rebgasse 16, 4102 Binningen, Switzerland, 061 47 43 08

Dr. Immanuel Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

July 25, 1977

Dear Velikovsky,

how pleased I am that you have found yourself a summer house! And here is already our first proposal for your books in the German language area—facing us with two questions, the answers to which must be pondered carefully.

(1) Instead of dividing Ages I, Mr. Curths from Umschau not only suggested to publish it (hardcover) together with new material as a double volume, but also do the same with Peoples and Ramses, and later with perhaps Greece and Conquest. I was taken aback at first, because it hadn't occurred to me, but on repeatedly turning this thought over I concluded that there are some definite advantages certainly in newly to be developed language areas, coupled however with long term effects also in the English speaking world.

In the new areas, of course, the publishing speed would be doubled. Also, the books can be made to gain in their image as important texts of learning, though retaining their dramatic appeal. And then, when the time comes they can be divided up into soft cover editions (or in special hard cover book club editions) without, I think, diminishing so much the value of your standard text books.

But it would call for a plan of co-ordination with the English language publishers (something I hope for in any case). While we might keep to single volume first editions for future titles, Ages I with the new material may be produced as a double volume, too, again followed by a two volume pocket edition.

And why not re-introduce your books on such a system in countries such as France?

With the double volumes a compromise with the price of two single volumes will have to be considered; but with the changed attitudes toward hardcover books, the pricing because of production costs perhaps still more important, and certainly with our intention of procuring a still wider base for your knowledge, I think that we will tend to gain more from the very beginning.

There it is: what will be your advice?

(2) At this time we should return to the range of ideas regarding the conducive organization of the publication rights. Some time ago I suggested establishing a Velikovsky Institute as a foundation in Switzerland, supervising the European rights. I would very much prefer signing a German contract through such a body, followed by other countries, and keeping track of all further developments, in fact doing in Europe what you do in America. Within the frame of Swiss law, of which I am enclosing the appropriate section and commentary, let me propound it like this:

- Name: Velikovsky Institut
- Vermogen: Copyright für Europa (weitere Länder) aller Werke von Immanuel Velikovsky
- Zweck:
- 1) Copyright-Lizenzvergabe im Wirtschaftsgebiet Copyright-Beaufsichtigung Führung und Auswertung des Archivs
Förderung des einschlägigen Gedankengutes und der Forschung im Sinne des Stifters
 - 2) Vergütung von.. % der Bruttoeinnahmen aus den Copyright-Lizenzen in der vom Stifter verfügbaren Weise an seine Familie
- Verwaltung:
- 1 geschäftsführender Verwalter
 - 1 Sekretariat (im Rahmen der verfügbaren Mittel) Die Wahl des geschäftsführenden Verwalters wird vom Stifter getroffen, sonst von einem (z.B. drei-köpfigen) Stiftungsrat (1 Familienmitglied, ein Mitglied der amerikanischen Organisation, ein beauftragter Anwalt am Sitz der Stiftung)
 - 1 Treuhandstelle zur jährlichen Revision der Geschäfte
- Mit der Lizenzvergabe kann auch ein Agent beauftragt werden

I know a renowned Jewish lawyer in Basel who is acquainted with you: work, whom we surely may ask to work out statutes along such lines, if you agree and wish me to undertake this. I would proceed very economically, however. –

Now regarding the proposal by UMSCHAU Verlag, you will see my opinion from my answer to them. I would not advise agreeing to less royalties from Germany than you are receiving from England. The business I visited in Frankfurt made a favourable impression: it is a block containing large printing works right beside the main station the origin of the business is the 76 years old UMSCHAU in Forschung und Technik, a fortnightly more technologically oriented science magazine; there is a very large selection of Landschaftsbücher about Germany and regions of Europe; and it seems to be the young generation of the owner family Breidenstein to expand their book publishing that has resulted in their active interest in your books.

For the moment I will leave the news at this, attending to some other points in a few

days.

Happy days in your summer sojourn!

Yours Marx





I. Velikovsky
300 Catalina Avenue
Pelican Island,
Seaside Heights,
Ocean Country, NJ. 08751

Princeton, August 6, 1977

Dear Mr. Ellenberger:

I believe there exists an answer to Sachs, either in print or in typescript, but so far I am unable to locate it. I will ask Dr. Velikovsky when I see him tomorrow at Pelican Island, and will send you whatever he suggests be sent.

Meanwhile, you may find the enclosed "Special Report" of the Brown Daily Herald of some interest—it was printed before the discussion.

Your efforts with the NYTimes and with Dr. Fell are greatly appreciated. Dr. Velikovsky received Fell's book from Vine Deloria, who is an ardent follower, and was greatly impressed by it, and I did point out to him the "Pontotoc stele" (p. 159) and its date. For me, this alone validates much of Fell's work. I first heard of him in 1975 when he identified some markings found on two stones near Sherbrooke in Quebec as Libyan script, and read in it the name of Hiram. Prof. Thomas E. Lee, who lives in Ottawa and teaches at the Universite de Laval in Quebec City, published at that time a short report on the find in the magazine which he edits, the Anthropological Journal of Canada, and the report was subsequently picked up by a number of newspapers. But when some six months later I went to see Prof. Lee, he still had not received any substantiation from Fell as to the manner of his decipherment, and was rapidly losing confidence in Dr. Fell's work. But now, after reading his book, I would say that there is very little doubt that his case is very strong.

However, he has not contacted Dr. Velikovsky as yet.

Yours sincerely,

Jan Sammer (Mr.)

assistant to Dr. Velikovsky.





I. Velikovsky 300
Catalina Avenue
Pelican Island
Seaside Heights
NJ 08751

August 30, 1977
Sent Sept. 2

Dear Marx:

I feel culpable for being at this end so little in touch with you. The move to Ocean County slowed down various programs. At this time, Ramses II is re-scheduled by Doubleday for April, and Sidgwick & Jackson will have to wait. Doubleday also decided to reset the volume in view of the many corrections. Thirty pictures were prepared and delivered by Jan. I left quite important sections to insert in the galleys which may arrive in a month or so, especially dealing with:

- a) "Hittite Syrian city-states of the first millennium, like Marash, Malatya, Karatepe, etc.
- b) the languages of the Boghazkoi cuneiform archives;
- c) the (partial) decipherment of the pictographs.

In November Cornell will publish a volume—page 2 of their catalogue is enclosed. I discuss with my paperback publisher a volume on the same subject for February. In the meantime Greenberg of Kronos intends to spend the complete issue of November on the same AAAS meeting.

Of course, the correspondence between the organizers of the AAAS meeting, the Cornell University Press, and myself, shows clearly that Sagan was the cause of the delay by two years. By April 1976 it became clear that in view of many strictures I would not participate—and Prof. Huber is misinformed.

Of the negotiations that you had with Umschau and Universitas: I would not consider any options on the Ages series or any other book to publishers of *Worlds* and *Earth*—certainly we should not put ourselves in a position of denying ourselves the rights on these books, which another publisher could take up immediately, I would consider it detrimental to the spreading of our ideas among the young if the paperbacks have to wait for two years past the publication of the hardcover, and I do not understand the reference to five years. In the US paperbacks usually appear a year after hardcovers, sometimes even half a year apart.

I have purposely not mailed you the British edition of *Earth in Upheaval*—it is poorly made; if you have not mailed them out, don't (and if possible, return them)—the American edition is so much more impressive—and even the paperback of Abacus looks better than the hardcover British edition—I will suggest to Sidgwick & Jackson to print anew.

You will remember that it was planned that you should meet a representative of Scott-Meredith Literary Agency in New York before boarding your plane, but you could not make it. I visited the Meredith office nine days ago and met Mr. Vicinanza, head of the foreign rights department. I wondered, not hearing about the results of their negotiations of the Spanish translation, the royalties for which I ceded to our daughter Ruth. Mr. Vicinanza showed great eagerness to represent me on a broader basis. Regarding the Spanish rights he told me that he obtained an offer for 500,000. But was trying to improve the figure. In the meantime, I let him (in an oral agreement) to handle Latin America, offering *Worlds*, *Earth*, and *Oedipus*. As to Europe, I explained to him your role and he suggested that I increase the commission from 20 to 24% and divide it three ways in the case that one of their foreign agents is involved—if not, the commission should remain at 20% and be split two ways. He declared that he intends to obtain for *Worlds in Collision* in 18 months on the world market \$750,000 in advances. He said that the new book of Sagan earned in two weeks \$150,000 in advances on foreign contracts. I question whether he has a realistic estimate. He judges probably by the offer from Mexico for *Worlds in Collision* and the figure from Holland. Against such figures the offers made to you appear miniscule, especially in view of the fact that *Worlds in Collision* has by now had close to 90 printings and the new edition of Pocket books sold out the first printing of 300,000 between March and May, and a new printing of 100,000 was made. Mr. Vicinanza's figure of \$750,000 is impressive, even if it needs to be quartered. I would therefore advise that you should not finalize any of the negotiations. What do you think of the Meredith offer? Your interests should not suffer, but the books should find distribution in many countries before long.

I cannot know how the massive attack by the Establishment will reflect itself on offers for my books, whether positively or negatively. The Sagan group will use all media and assure wide spread of their book, and may make inroads. On the other hand *Earth in Upheaval* has been published by Pocketbooks—the advance copies have just arrived, and some bookstores, especially in New York already have the book. There will be a campaign of promotion. *Earth in Upheaval* in Pocketbooks now has a new Foreword and Author's Note (dealing with Continental Drift); articles in *The Humanist*, *Midstream*, *Kronos*, *The Harvard Crimson* etc. will appear this fall; a number of other media have approached me, and there will be a renewal of interest in my work, but certainly also a campaign of abuse. Those who read Sagan's piece find it very weak, and shall I be in good form, I shall answer forcefully.

To the list of errata:

I wish to thank Mrs. Marx for going through the Abacus edition of *Ages in Chaos*. On

page viii, line 9 from the bottom, the word “but” fell out, and with it the irony of the story. On page 41, last line—a half-sentence fell out.

We enjoy our new home, and since July 20 we have only twice, for three or four days each time, come to Princeton.

I hope you will enjoy your new home in Oberdorf.

With friendly regards, also from my wife,

[signed] Immanuel V.

IV: js





Christoph Marx
 Schulstrasse 17
 4436 Oberdorf,
 Switzerland
 061 97 91 88

October 16, 1977

Dr. Immanuel
 Velikovsky
 78 Hartley Avenue
 Princeton, N.J. 08540

Dear Velikovsky,

more than a month already since reading your letter! But I wished to await the developments before answering. Here they are:

Mondadori in Italy offers a total of \$ 9,000.-for WiC and EiU in a somewhat distinguished pocket book range, but without scientific merit. I shall wait for Garzanti's reply regarding PoS before going on with the discussion.

Bertelsmann is now the third serious offer from Germany, and though they propose the same advance as Universitas, and therefore less than Umschau, from 50,000 copies sold we would achieve 15 % instead of 12 %. Their remark about the earlier "bad German translations" makes me somewhat suspicious about the language they intend to apply: would they emulate the idiom now popular throughout the vast range of Däniken-style books? The contract would initially cover WIC only, all other works falling under an option.

Umschau, the earliest applicant, has additionally agreed to an advance of DM 15,000.- (\$ 6,000.-) for WIC, i.e. twice as much as the others. They are also best with initial royalties.

| | <u>\$ advance</u> | up to <u>5000</u> | <u>10000</u> | <u>20000</u> | <u>50000</u> | <u>more</u> |
|--------------|-------------------|-------------------------------------|--------------|--------------|--------------|-------------|
| Umschau: | 6,000.- | | | | | |
| -translated | | | 10% | | | |
| -new transl. | | 8% | 9% | | | |
| Bertelsmann | 3,000.- | 6% | 8% | 10% | 12% | 15% |
| Universitas | 3,000.- | without gradation WIC 10%, EiU 7.5% | | | | |

Of course I shall try to better Umschau's proposal by those 15 % after 50,000 copies

sold. But I have come to the conclusion, that we should prefer their offer in any case, even in time for WIC being able to appear in spring 1978. I think so mainly for the following reasons:

Their business policies and setup are most suited to our purposes, and the personal engagement in pursuing to obtain your rights has left with me a favourable impression (see also the enclosed reprint about the company).

While the scientific activities are more on the technological side, I think that they are serious enough to make the fact known, that on the Continent at last your books are breaking the barriers put up by the earlier generation of scientific establishment. This may prove valuable against Sagan, etc.

Even at 12 % (which I hope to improve), the break-even point in royalties will come at 65,000 hardcover copies sold - a figure that may be achieved by WIC only within a reasonable period of time.

We shall have the advantage to chose the best offer for pocket editions among a number of competitors; Bertelsmann, of course, would consider but their own Goldman Taschenbücher.

Though none of the publishers will consider a title without options to the rest, Umschau has agreed to publish besides WiC also AiC and PoS in very reasonable time by autumn 78. The others obviously are putting off publishing depending on the success of WIC

I am glad that according to Mr. Curths, Umschau will not follow the current trend in Germany of publishing "historical" quasi Nazi books; and they will also not go into sex literature.

I find it most difficult to believe in Mr. Vicinanza's figures. I am quite sure that the large German publishers having made an offer have not been cheating on us; and after considering the not so very fantastic offer by the Italian publisher, I just cannot imagine other language areas providing the difference to make up the amounts estimated by Mr. Vicinanza. Also, neither in German nor in French can I find traces of a Sagan book that might lead publishers to enter into contracts for a new title of his in the range indicated. For certain, I shall always assist if Merediths bring up a proposal on such an unusual scale, and if it is in our interest; but I would not like activities of their's to hinder serious developments.

Therefore, I would like to finalize with Umschau toward the end of this month. Please telegraph or call if you feel I should not do so. I think, however, that since April we have achieved a satisfactory beginning on the Continent.

Now I would like to sign the agreements with Umschau already in the name of the

“Velikovsky Institute” I have been proposing earlier. Have you thought on this? If you agree in principle I would then sign a preliminary go-ahead agreement with the necessary provisions.

Even if we could not reach agreement about the Institute I have planned to invest as much as necessary of the 20 % into establishing a European base for taking care of the scholarly developments I expect from the new German editions. Of foremost importance I still consider to be the microfilming and indexing of your archives. I have available a follower of yours, experienced in this job, willing to undertake this work during next summer, against travelling and simple living expenses. With Kodak I can arrange for the necessary apparatus here and on your side.

By separate mail I am sending you a book by Prof. Dr. Max Thürkauf, a scholar at Basel University, who as a nuclear physicist has for moral reasons and as an opponent to evolution theory waived his ordinary professorship. He is about my age, I have asked him whether he knew your work, and he has invited me to make a personal contact next month. I would like him to consider a possibility of inviting you for a lecture in case you do come over for Glasgow, and to which perhaps Prof. Heinsohn (have you ever written to him?), and perhaps Dr. Zvi Rix, with whom I have correspondence now, might also be able to contribute. Together with efforts by Umschau and a PR build-up throughout the winter season we might be able to achieve an event of importance.

Your offer to try using my chart in Ramses is most kind and pleasing. I should have started long ago to translate it into English, but now I have seriously started on it and you shall have it sometime during November.

As soon as we are clear with Umschau I will take steps to help their PR with your story, also offering to have lectures throughout Germany, Austria and Switzerland. We have already talked about such efforts, and I shall be ready enough with articles for journals such as Der Spiegel.

I am most confidently looking forward to our second season!

With kind and friendly regards, yours

Marx

PS: Please do arrange for the American copies of EiU, I shall return the Gollancz copies. At the same time I am asking for some further copies of PoS at Sidgwick. Could you also get me some of the Pocket Book copies?





Christoph Marx
Schulstrasse 17
4436 Oberdorf,

October 20, 1977

Dr. Immanuel
Velikovsky
300 Catalina Avenue
Pelican Island
Seaside Heights, N.J.
08751

Dear Velikovsky,

Mr. Curths has called by phone to propose a royalty of 15 % from 75,000 copies. Pending your not disagreeing completely, he also offered to visit me toward the end of this month, when for two or three days we would work out all the details of the contract along the lines already drawn up in our correspondence, I feel sure we now have achieved a fine deal: first book out early next spring, two further books out in proper time for next years Frankfurt book fair, and the last ones within 18 months from now – pocket editions to follow after that. I am itching to begin a similar effort in the French language area already.

Umschau in due course will wish to have proper signatures to the contract. You would have to empower me accordingly. I have been thinking, if for this and after drawing up the detailed German contract we should meet again; what is your advice?

Best wishes, and friendly regards, yours

Christoph Marx



23.10.77

Brieftelegramm

christoph marx
schulstr 17
4436 oberdorf (switzerland)

please dont sign agreement with umschau wait my explanatory letter
greeting

velikovsky

col 17 4436

nnnn 23/10/77 0051



24.10.77

Please yet await my letter 10-20 confirming Umschau 15 % stop

Greetings Marx

24.10.77

Velikovsky 78 Hartley Avenue Princeton

NJ 08540



Christoph Marx
Schulstrasse 17
4436 Oberdorf,
Switzerland
061 97 91 88

November 1, 1977

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky:

here is the proposal for a contract with Umschau, resulting from the visit by Mr. Curths to my home. You will see that we have returned to single volume publication because I do not think the time factor having to take precedence over economic aspects, namely (1) your royalties, and (2) the market potential.

As a fourth title definitely sold now we will have *Earth in Upheaval*. At my suggestion this book, however, would be in larger format, and richly illustrated with photographs and diagrams - black and white and possibly coloured if we can prepare it for other languages as well. Instead of paying an advance (which has no effect on our income in any case), Umschau undertakes to provide all these pictures and the artwork, for our subsequent approval, of course. We shall then gain about two thirds more on royalties from the higher price of the book. As a further advantage the publication of this work even in addition to the half yearly intervals of the regular titles will not hurt the sale of those, due to its different aspects. And lastly I have also thought in this way to get around Doubleday's copyright clause.

Deliveries of *Welten* should begin end of February / beginning of March, *Peoples* in August, *Ramses* then again in February 79. So translation on *Peoples* should start at once, and for the first book trade advertising must also begin immediately, quite apart, of course, from setting the text. Trade adverts have been prepared for December 2, 9 and 27, and publication advertising in the general media will extend to DM 50,000.- (\$ 20000.-) I have agreed to tabelize an appendix to *Welten* in the sense of a Record of Success, and that you might wish to write a special Vorwort for the second German edition.

Finally, a press release would appear as soon as I have your general approval to the contract. Compared with other proposals we have here everything to wish for: I therefore urgently await your good news!

With friendly wishes,
yours

Marx

Copy to Seaside





08.11.77

jab 5349
christoph marx
shulstrasse 17
4436oberdorf (switzerland)

Proposed contract not acceptable
velikovsky

nnnn 08/11/77



21.11.77

Marx
Schulstrasse 17
4436 Oberdorf (BL)

Postpone proposed contract for several months also in the interest of Umschau my
book do not sell now are returned by thousand due to Cornell book and other adverse
publicity regards

Velikovsky



Brief Telegramm Velikovsky 22.11.77

Just returned from Germany stop your telephoned and other objections resolved plus improvements stop please await contracttext and letter stop sorry about developments America but trust my actions on the continent sto thank you and kindest regards marx



22.11.77

Brieftelegramm

jgx4496 lt
marx
schulstrasse 17 4436
oberdorf

umschau proposed contract needs substantial changes also legal
infringements not cleared must postpone for longer time and not sign
anything greeting velikovsky

nnnn 22/11/77 0354



Christoph Marx
Schulstrasse 17
4436 Oberdorf,

November 28, 1977

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky:

Let me first thank you for your advice on the telephone, and by cable. I have acted on it, primarily by clearing the objections you mentioned? secondly on my thorough conviction of being intimately familiar now with our Continental aspirations, available opportunities and possible infringements; and thirdly by my sincere desire to initiate a sound and powerful new basis toward your success in the Old World. My decision to come to terms with Umschau then was rather strengthened by your telegram of the 21st (telling of setbacks in the U.S.); and it could not have been reverted to after reception of your last one by the 23rd.

Let me present the details: –

(1) *Sequence* of publishing the Ages series. Europa Verlag, as you know, had become guilty of selling *Zeitalter im Chaos* to second hand trade at ridiculous conditions. There are still some of these books in the shops, and obviously any publisher reprinting the title at a new and proper price now would appear rather silly! The market for *Ages I* may be developed again *only* by making it the required companion to the other volumes. I have therefore not just agreed to this publishing sequence, but indeed supported it. I feel even further supported by the importance of the supplement to *Peoples of the Sea* as a perfect link to *Worlds In Collision* and a vindication for any serious scholar to look at your evidence.

(2) *Requirement to publish*. As perhaps you remember, the law of Continental Countries is codified in all respects. Thus practically all necessary requirements in our case are already part of the law, under the title “Verlagsvertrag”, of which I am sending you the appropriate commentary. A publisher *cannot* make a contract without being bound to publish in adequate editions. This already resolves one of your main objections!

(3) Indeed, keeping these provisions in mind, the contract may be substantially *shorter* than the one you have, e.g., with Doubleday. Put into similar small print, our text now

with Umschau would read a third of their page only. And a further improvement I have been able to introduce you will find under (8), namely the rights falling back in case the publisher (e.g. by selling the company) is changing his whole image. Such provisions you *don't* have in your other contracts!

(4) I am satisfied we are not favouring Nazi sympathizers on three grounds:

a) On page 30 of the reprinted *Börsenblatt* article I sent you, the first sentence mentions a contract by the American Forces to print a Germany Book for the GIs. As this occurred immediately after the armistice in 1945, the American Administration must have been quite sure of a non-, if not an anti-Nazi environment.

b) The whole management, together with Mr. Curths, the lector, are of the young generation, having been born in the late thirties or even during the war.

c) Neither the older scientific nor the popular catalogues show any Nazi titles. With everybody else just now jumping at anything related to Hitler- and Reich- "history" it would be quite hard even to find somebody as steady.

(5) Temple's Sirius book, I understand, was the first result of expanding into alternative scientific views. True, experience and expertise may have been lacking. But on the other hand, Mr. Curths without Temple's index would not have heard of you? and secondly, it is not at all easy to find alternative science books in the German market, as the standard your work is setting in the English speaking world is lacking here completely. But the Sirius title at least had the merit of experiencing a book on Der Spiegel's bestseller list. I would also gather, that with any new book Temple may now be confronted with arguments drawn from your own work. Meanwhile I feel hurt much more seriously by the policy of your American publisher Doubleday, and what I imagine their salesmen are saying when selling the Krupp title.

(6) *Earth in Upheaval* in its suggested new form is the book "of stimulating wonders" I would like to see motivating students and laymen alike to find the problems' solutions in your other works. It puts the questions, and it must do so not only in writing, but equally well in pictures, graphs, and tables. It will appear more comprehensive, though even perhaps without or including a more timely appendix. Umschau have absolutely perfect equipment to produce all necessary art work (to be used in lectures and courses later, tool), and we shall therefore get a perfect book in every sense. What I will do, however, after we have agreed to the layout and picture material, is to contact the other publishers in the hope of producing it in several languages at the same time. This is commonly being done nowadays to keep down costs and sell at advantageous prices. There is no question, of course, of Umschau publishing without our approval, as you will see from the contract.

(7) I hold that the rights to the *German translations* have to be viewed preclusively according to the clause in Europa Verlag's last contract, where all rights fall back to you. According to my correspondence I am enclosing, all they do not agree to is to compensate you by giving us the rest of their Oedipus stock, knowing well they will now be able to clear it because of the re-edition of the other works. Thus if anything is still open at all, it's the question of recompensating you.

(8) Perhaps I have relied too firmly on your pledge to come to terms with Doubleday with regard to *Oedipus'* foreign rights. However, I do not consider this single problem as being really detrimental, and I would tackle it when the time comes to find the solution, if you have not done so already.

(9) There is one point I had to surrender, however, of which I know not to find your support: even the most serious scientific books in Germany are now being printed with all notes collected after the main text. It will be impossible for us to deviate from this custom, which has probably resulted from production costs on the one hand, and the view that reading is easier when not interrupted by reading notes on the other. To which I disagree completely on both counts, but on which I could not jeopardize an otherwise excellent contract. I'm sorry, nevertheless. –

(10) I have legally signed the agreement as your proxy within the frame of German and Swiss law. At this point I again wish to thank you for the powers you have entrusted to me, which I consider as a wide obligation toward you and your family. I realize the difficulty of continually finding the golden mean between not burdening you with too many details? with problems peculiar to Continental circumstances; or with questions you do not immediately wish to answer, and coming to decisions being called for because the proper moment has come; the most appropriate conditions have been reached; and the stage is set to display still more important efforts.

Though the Umschau contract does not deviate from your other agreements - except when improving on them - I would of course still be glad to have your comments on anything you would think needs further elucidation. The most immediate questions on my mind, however, are now (1) whether you wish to have a new preface (perhaps we could use the one you wrote for Earth in Upheaval?); and (2) having ready in time a short but impressive table on the success of your advance claims to include with Welten IM Zusammenstoss. Would you let me know at a very early moment?

Best wishes and friendly regards, yours

Marx





Christoph Marx
Schulstrasse 17
4436 Oberdorf,

November 30, 1977

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky,

please instruct me regarding the employment of the royalties from Germany. May I now propose more definite steps toward the establishment of the Velikovsky Institute?

Meanwhile the money will be kept in a special German Marks (DM) account. For the last few months our currencies (Marks and Swiss Francs) have steadily been gaining on the \$, which of course is to your advantage. But on the DM-account there will be no interest and 1/2 % commission to the bank, while leaving it in Germany on account there would be interest, but connected with all sorts of international tax agreements etc., again connected with higher costs.

If we agree regarding the Institute, the money for the time being may be converted into Swiss Francs and thus receive taxless interest for the Institute. If you let me act in a preparatory way I shall contact the lawyer I mentioned to you in an earlier letter to first of all advise us on the further steps to take.

With friendly regards, yours

Marx



Christoph Marx
Schulstrasse 17
4436 Oberdorf,
Switzerland

December 8, 1977

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky,

here's already the cover to Welten, and I find it very impressive, I'm told that the colours will be a bit more brilliant, and that your name will become better to read. And this is the schedule:

- Dec. 13 to 22 the galleys become available, which I shall help to correct day by day.
- Dec. 22 to Jan. 6 page-proof.
- Jan. 10 Ms of index to printer.
- Jan. 13 to 20. the pages must be authorized for print.
- Printing Feb. 3 to 13.
- Binding Feb. 14 to 27.
- Deliveries will start on Feb. 28.

This is indeed a tight and efficient schedule. A new or additional foreword I should have by Dec. 20: a possibility would be for you to have it telexed (e. g. through Doubleday) to Umschau. Their telex number is Germany 411 964. On the other hand, if you feel it better to refrain for the time being, the concise tabellized record of success would just as well update the book for today's readers.

Good luck and best wishes!

Yours Marx





I. Velikovsky 78 Hartley Ave., Princeton, NJ 08540

December 14, 1977

Dear Chris:

We were surprised and quite upset that you signed the contract without Velikovsky's approval, while you were asked repeatedly not to sign and to wait.

We understand your enthusiasm: but now there are difficulties. In regard to *Earth in Upheaval* which is still, as well as *Oedipus and Akhnaton*, Doubleday's foreign right, we are not sure if and when Doubleday will hand over those rights. Since you signed already *Earth in Upheaval* as sold instead of as option which we would have insisted on for all volumes excepted *Worlds in Collision*, Doubleday will, of course, rightfully insist on their 25 % commission, and we cannot be expected to pay commission twice.

Velikovsky would have insisted that footnotes should be at the bottom of each page; if Umschau did not concede this, a Swiss publisher would have done it, as Europa Verlag did; and it would have been more fortunate for our feelings. Though what you write about Umschau's stand in regard to Nazism and Neo-nazism is reassuring, still we don't know happened during the war and Hitler years.

We also think that you should have made Umschau aware, for their sake, of the great attack on Velikovsky, which may reflect on sales.

We would have asked to wait till 1978 with the payment of the advance royalties. For now, please leave the money in the account, until we know better how to proceed.

As for the Velikovsky Institute, Velikovsky is not in favor of the idea.

In acting as you did, you overstepped the powers that Velikovsky granted you: no literary agent can sign an agreement without the author's approval. You can negotiate an agreement, but the final decision must be with Velikovsky.

As to Holland, we ask you not to involve yourself there; if there are any problems outstanding, Mr. Kluwer should communicate with us directly.

One final point: since you write that the German translation is free, and having negotiated with Umschau as you did, it is now your responsibility if any difficulties arise from Europa Verlag.

We did not study the contract carefully, since it is already signed; there may be other points which we would have asked to change had we seen the contract *before* signing.

Meanwhile, *Kronos* has just published a special AAAS issue and on the whole it is quite a good rejoinder to the Cornell volume. *Ramses II and His Time* is now scheduled for April.

With friendly greetings,

Jan





State University of New York at Buffalo

DEPARTMENT OF PHILOSOPHY

FACULTY OF SOCIAL SCIENCES AND
ADMINISTRATION

December 22, 1977

Mrs. Elisheva Velikovsky
78 Hartley Avenue
Princeton, New Jersey 08540

Dear Mrs. Velikovsky:

Yesterday I sent Jan xeroxes of four of the pages of the Assyrian Conquest material from the 1952 page proofs of *Ages in Chaos*, Volume Two, that he has been preparing for publication. On these four pages (also enclosed for you) I made a few trivial suggestions. But it occurred to me that I should say something more: namely, that Jan did a beautiful job of editing this material for publication (which is why my comments are so few and so minor), and that I strongly support his suggestion that this material be published in the next issue of KRONOS.

I also support the proposal that *The Velikovsky Affair* be reissued in paperback by KRONOS Press. It has been unavailable for too long.

Sincerely,

Lynn

BALDY HALL BUFFALO, NEW YORK 14260 TEL. (716) 636-2444



Christoph Marx
Schulstrasse 17
4436 Oberdorf,
Switzerland

December 26, 1977

Mr. Jan Sammer
78 Hartley Avenue
Princeton, N.J. 08540

Dear Jan,

many thanks for your communication. I deplore the fact that it is one of very few - I do hope we may be able to improve on them, especially as from now I am expecting many new inquiries to come from European publishers, once *Welten* is a success.

If perhaps you read again my long letter of Nov. 28, I have to add very little to the points you make in yours:

If I had acted but as an agent, it might have meant little to me to let things slip out of grasp. But primarily I acted as a friend.

It is very unrealistic of you to believe a Swiss publisher (covering the German and Austrian markets, too) could have been found at all, after Scherz had withdrawn, and just to have footnotes at the bottom of the page. Conditions have changed tremendously since the fifties, and even the sixties'

To give Umschau an option only on a title would not change a single condition once they take it up: so why not rather make a sale? An option would be an advantage to the publisher only, *not* to us.

Umschau is quite aware of the attack on Velikovsky, I have shown them Sagan's paper etc., and Mr. Curths has come to the same opinion as I, namely that this "American" way of "scientific" attacks will not have any influence on sales, at the utmost providing some useful attraction.

Of course I shall take responsibility regarding the German translation, and on all other points I am free to act on.

Is it true that the Glasgow meeting has been cancelled due to Dr. Velikovsky's ill health? Please do remember that I have to rely on you even for unwelcome news. So let me hear from you!

With kindest regards to all,

Chris





Christoph Marx
Schulstrasse 17
4436 Oberdorf,
Switzerland

December 27, 1977

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky:

thank you for letting me know through Jan about your reactions to the German edition, and I feel indebted to your good will.

Since the middle of this month I have been hard at work reading through the newly set Welten. I'm sorry a new or additional foreword was not possible in time; the page-proofing is now too far advanced, however, to have it in the first edition. But I am enclosing a copy of the appendix to be tabularized within the pattern across two pages, i. e. four columns: Advance Claim (I am using "Analyse - Prognose" in German); Contemporary Doctrine, Reported Evidence; Today's Dogma. Your columns will be emphasized in italics. Please ask Jan to write very quickly in case you find a correction should be necessary.

Next, in the first days of January, I shall have the first 20 pages of Peoples to judge. I shall then have to decide with Mr. Curths if the translator. Dr. Joachim Rehork, who has translated an English range of books (ed. Sir Mortimer Wheeler) on archeology, should go ahead, and what problems will arise for the German edition.

From the enclosed copy of a background report in "Buchreport" you will see how nicely the handling of Europa Verlag is paying off - I'm quite proud of the fact that Dr. Rumpel himself is putting Kohlhammer on the spot!

Of course, now that the media are beginning to take notice, my own work (through PAF, or personally) to correct and further increase publicity will begin to rise, and I'm looking forward to that: so a surely fascinating new year is approaching.

I do wish you all the best for it!

Your Marx





I. Velikovsky 78 Hartley Ave., Princeton, NJ 08540

January 9, 1978

Dear Chris:

Thanks for your letter of December 26. While you answer some of our questions, the important ones are still left outstanding.

You should not have taken it upon yourself to sign a contract on Velikovsky's books without Velikovsky's authorization, and actually against his wishes, as expressed in two telegrams. Whatever *you* may think is best for Velikovsky, you cannot make decisions for him. That any contract would need Velikovsky's approval was clear to all concerned when you left here on May 1; and you knew it as late as October 20 when you wrote: "Umschau in due course will wish to have proper signatures to the contract. You would have to empower me accordingly." Your obligation was to consult with Velikovsky at every stage of negotiations, leaving him to decide what is acceptable in a proposed contract and what is not (footnotes in the back are, for instance, not); You were required to take his advice on all points and await his instructions before finalizing any agreement. You do not have the power to conclude contracts, only to negotiate. It was with this understanding that Velikovsky let you negotiate with publishers in Europe.

Some of your actions have already been damaging: Your opening an account for Velikovsky in December 1977 instead of January 1978 was undesirable for practical reasons.

If you would have followed Velikovsky's advice, as you were obligated to do, and given option on the remaining volumes instead of selling them outright, *we* would not now be repaired to pay a 25% commission to Doubleday. As it is, Doubleday is the agent, whether active or not, and the commission belongs to them; you cannot, of course, expect to receive any on top of this. (I refer to *Earth in Upheaval* and *Oedipus and Akhnaton*.)

I repeat what I wrote in my last letter, that Velikovsky is against the setting up of a Velikovsky Institute.

In scientific matters, writing to scientists and scholars in Egyptology etc., you cannot act for Velikovsky in any official or even semi-official way. If you want to act on your own, as a private person, I can only offer advice: to deliberately provoke scientists is counterproductive and can be very damaging. If a scholar wants to have nothing to do with Velikovsky, leave him alone!

We would also like to know if there are any negotiations going on with other European publishers.

In your letter to Velikovsky dated December 27 you write that you feel “indebted” to his good will. We are a little puzzled at this statement, seeing that Velikovsky did not give you any reason to think that he approved of your actions.

Finally, you ask about the Glasgow conference: the meeting is on, so far as I can tell. Velikovsky was invited to come, but originally the SIS did not count with his presence, and they will continue without him.

We would appreciate a quick response to the above.

Yours sincerely,

Jan Sammer
assistant to I. Velikovsky





Christoph Marx
Schulstrasse 17
4436 Oberdorf,
Switzerland

January 22, 1978

Mr. Jan Sammer
78 Hartley Avenue
Princeton, N.J. 08540

Dear Jan:

while you're puzzled by a cordial observation of mine. I'm somewhat worried about the greater part of your exposition. So let me give an overview of my understanding:

1) While Dr. Velikovsky gave advice about the points he would like to have improved in the contract, I really was never under the impression that apart from these points being resolved there was any principal opposition against the Umschau contract after my letter of October 16. According to our cable exchange of October 23/24 I did not yet *sign* (as your telegram implied I could) with Mr. Curths when he visited at my home on October 31. Immediately after this visit Dr. Velikovsky called by phone to inquire how things had gone, my wife (in my absence) understanding that signing should be put off by a fortnight to coincide with the publication of Sagan's book (and the phone call I regarded as compensating the letter promised in the cable of October 23). I accordingly informed Umschau of your principal acceptance, and that I could sign that future date, but also pending perhaps some minor changes that might yet come from Princeton. Next I had your cable of November 8., alarming me at first, but finding during a phone talk with Dr. and Mrs. Velikovsky that but the length of the contract, the duty for Umschau to publish, possible Nazi past, the translation rights and some really minor questions had led to the telegram. While I promised to clear these points, a letter of the same day, at the latest of the following day was also promised in case anything had been forgotten. Again I got into touch with Mr. Curths, and we resolved all objections within the frame of a newly formulated contract, and the ten points in my letter of November 28. When I did not have your letter with any additional changes within a reasonable 10 or 12 days, I confirmed the contract to Mr. Curths just before I had your cable of November 21 about the possibility of harming Umschau because of the Sagan publicity. I certainly couldn't go back on my word, even if this whole Sagan business hadn't really been old stuff in my discussions with Mr. Curths, as I have explained before. Another night letter arrived on November 24, now really too late, and also not giving a single clue about the substantial changes I had not been told about in time. I feel taken aback when being told that I did not consult, or did not make the effort to consult with Dr. Velikovsky on all points, or that I was not willing to await his advice. I also do not have any doubts about knowing what is

acceptable in a contract and what is not. Mentioning the footnotes as an “instance”, I would indeed like to see further instances of points that are not considered acceptable. And with regard to these footnotes I consider myself empowered enough to be able to decide on this side point whether we have to accept this admittedly silly German usage in an otherwise better contract than you could have hoped to have, or not. In addition I’m mystified by the suggestion that I had not been empowered to sign with Umschau on the conditions set out above - a further consideration being my understanding of how distasteful Dr. Velikovsky would regard a duty to sign a German contract personally.

2) Again I would invite you to mention the additional actions of mine having been damaging to you, as the wording “some” seems to imply. The point you mention here about the account really is of no relevance at all, because you are still free to make any arrangement you like with me; and for the very practical reasons you mention I had also proposed the Institute to hold the foreign rights of Dr. Velikovsky. -

3) While *Oedipus* actually *is* an option according to your own ideas. *Earth in Upheaval* as you know will have a format extended by illustrations. We shall talk about this when the time has come. However, Dr. Velikovsky expressly pointed out to me in Princeton, that I must not worry about these rights, that he would settle this matter with Doubleday at the earliest opportunity. And even then, from the very time I left Princeton, it was clear that for Germany at least *Worlds* and *Earth* should be sold together. Why, then, would you wish to relieve me of the commission?

4) I’m sorry about Velikovsky’s stand on the Institute because I do not know one reason for his rejection of the idea, while I can see a number of positive ones (as I have explained before). If his decision is final, I would consider it a loss to him and the movement.

5) I thank you for your advice regarding scientific matters, it being completely equivalent to my own convictions. Where you refer to Huber, I would say that my correspondence goes initially back to 1974, and that my questions to him, considering our Swiss environment, were quite legitimate: there was no reason to burst in, putting a relation into peril that may be valuable here in future. And where you refer to Hornung, neither the initial nor the provocation of last summer was damaging or counterproductive, especially when taking a long term and overall view of our interests.

Now this point needs some additional discussion when viewing developments in the German language area. To promote Velikovsky’s work I have offered to support special selling days in bookshops with “questioning, answer, and discussion sessions”. It may be expected that “Einführungsvorträge” will follow from this, and indeed I’m already anticipating such a small lecture to be organized with “Israelitisches Wochenblatt”, in Zurich. Thus I hope to gain experience for the time when larger audiences or the media may have to be satisfied.

Of course I will act *not* as the representative of Dr. Velikovsky, but privately as one of

his followers, which is obvious; and officially as somebody versed well enough with the subject to assist the publisher with his promotion. This policy is also in line with the appendix of *Welten* (which I have now adjusted accordingly, receiving neither advice nor corrections from you in time). For my answers I shall draw on nothing that has not been published, but all of that, including *Theses* and *Cosmos*. I mention this expressly because in some discussions with students I have found, that once Velikovsky's method is understood, and the reconstruction is considered correct, it is not difficult for a lively mind to close the not yet published gaps with the source material, following the *Theses*. It may be imagined, that if after *Ramses* the last volume will not become available in time, the pressure of public and publisher might provoke a secondary *Conquest*; what is our position? Has work been progressing on this book?

Please take a look at the correspondence copies with *Der Spiegel*, and *Buchreport*. I would like from you the copy of the letter of May 17, 1954 by the German correspondent who wrote to Velikovsky about Kohlhammer's refraining from publishing *Ages*, and giving up *Worlds* (perhaps you remember we didn't find the letter at the first try, during my visit).

6) You have copies of all negotiations with other publishers, and also my thoughts on them. I am postponing further efforts on purpose, awaiting the results, and then the new inquiries from what we expect to be a successful launching in Germany.

This answers, I hope sincerely, your questioning satisfactorily (your letter with the date of January 9 arrived here on the 20th). On the other hand, when you go through my own letters, you will find still a number of points to discuss. Will you be able to take these up, or should I again make a list of them?

I'm sorry, Jan, to put what I realize to be quite a strain on you. Please pass my friendliest greetings also on to the Velikovskys, and that I shall write to him after this working week personally, too.

Yours Chris





Christoph Marx
Schulstrasse 17
4436 Oberdorf,

January 29, 1978

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky,

I am glad and grateful that you have allowed Jan to carry on with the necessities of business. I hope this long hoped for running information about current topics may be kept up by him.

But learning from events and having concluded our first deal, so to say, I wish in time to be prepared for future duties. When I left you, I hope I had imparted to you, and your family, the assurance of being able to creatively take care of such matters as you might entrust me with; but that, on the other hand, I would not have felt able to take along, e.g., full power of attorney. I was sure this would have seemed unfair, after we had corresponded so little only, and after a visit all too short, perhaps. Now that we mutually have gained experience I only want to confirm that at any time you see fit to do so I shall accept any of your or your family's instructions on matters you might yet entrust me with.

Now with regard to my work as your agent, after my explanations to Jan all I wish to say, really, is that I feel it necessary to be able going on in the way I did with Umschau, in other countries, too. I am expecting new and better inquiries. As up till now, I shall keep you fully informed about negotiations, and my views. I again would expect your advice, including reasoned arguments I can pass on and act upon. And within the range of common sense, again, I shall consider no news as good news, and problems I have resolved being not problems any more. A contract mirroring the German one I would sign on your behalf.

Let me here repeat my suggestion that you regulate your foreign royalties through a foundation in Switzerland, being supervised by your trusted friends, and providing the means to further your work. I just thought that "Velikovsky Institute" may be a good name for it, but this is just my own opinion. It will allow adjusting the royalties coming to you or going to the persons you have endowed according to individual conditions most suited to private circumstances, quite removed from the conditions arranged with the publishers. Let me propose such an organization, please.

Here are some questions that Jan may deal with, though about *Welten* I would say again how profoundly sorry I am that we do not have a new or additional foreword from you, and that no advice has enabled me to improve the appendix. The first printing will be 20'000, and the sales going well from what I hear, I sincerely hope we may introduce at least a short note by you in a second printing (due, I expect, within a year from now!).

- Please advise me on the number of copies of *Welten* you require.

- Do let me have an early copy of *Ramses*; may I instruct Sidgwick to send me ten additional copies when they become available?

- I'm certain that Prof. Hornung could not resist reading your new book: will you send him one, or should I do so?

- I am enclosing the list of contributors to *Lexikon der Aegyptologie*: please mark the names you may wish to send a copy of *Ramses* to, and either I shall look up or find out their full addresses and send them to you, or send them the British edition directly from here.

- I have not yet received Doubled y's new edition of *Earth*, of which you instructed them to send me ten copies.

The correspondence around Kohlhammer Verlag I sent to Jan by now has all appeared in *Buchreport*, adding thus impact to the interest for your work within the trade—and, I'm sure, to any story that *Der Spiegel* may prepare.

With my best wishes and friendly regards, yours

Marx





I. Velikovsky 78 Hartley Avenue Princeton, NJ 08540

February 12, 1978

Dear Chris:

We have your letters of January 22 and 29: but they still do not deal adequately with the points we raised earlier.

At this time you should do nothing regarding offers from other publishers, awaiting further word from Velikovsky.

As to the Institute, Velikovsky does not want it, and his decision is final.

I would advise you not to bring "Cosmos Without Gravitation" into discussions with the public and the media. It was published privately and was not meant for public dissemination

Yours,

Jan Sammer
assistant to I. Velikovsky



20.02.1978

Dear Jan:

I'm unable to detect any questions still unanswered by me, and I'm sorry if I have overlooked any between the lines. Let us, therefore, put the matter "ad acta" until the time of a more elucidative letter from you.

However, a greater number of "dayly business" questions I put to you in my January letters remain open, I know not why. Please do find a bit of time for them, even if only in "Stichworten".

Many thanks and best wishes,

February 20, 1978

Chris



March 1, 78

Dear Marx:

Your recent letters of January 22 and 29 have not diminished our apprehension about the way you took it upon yourself to sign a contract no in accord with Velikovsky's wishes, before the terms of the contract were accepted by him and without his written authorization to sign.

Our lawyer says that it was illegal and that the whole contract is voidable. He says that you had no legal authority to sign the contract in Velikovsky's name and he cannot understand how the publisher was satisfied with your representations.

Remember your letter of October 20, 77 to Velikovsky? "Umschau in due course will wish to have proper signatures to the contract you would have to empower me accordingly."—which means that you were well aware of the fact that you had no written authority then, and you do not have it now.

How could you then write on Jan. 22, 78 "I am mystified by the suggestion that I had not been empowered to sign with Umschau..." From this remark and several others in your recent letters (Jan. 22 and 29) we see that you continuously try to explain away every point of disagreement and never even once admit that you are at fault.

You make it also clear in your Jan. 29 letter that you intend to repeat your actions; that you would again "sign a deal that mirrors the Umschau contract," that you would listen to what you decide are "reasoned" arguments, and that you would consider "no news, good news."

Also your remark of an intended full power of attorney is baseless.

You must understand that we cannot work with you together under such conditions. Therefore we demand that you not negotiate with other publishers for any of Velikovsky's books.

As for personal and scientific matters for the future, Velikovsky decided already last summer to keep everything within our own family.

And he definitely does not want an institute of any kind.

We all admire your remarkable charts and appreciate your talent, effort and time you

put into this work. Had you translated the chart, which my husband had considered to include in the Ramses II volume, this would have been a fine contribution. Maybe there will be another occasion.

Please read this letter with care and understanding and accept our decisions gracefully.

With best regards

Elisheva Velikovsky





I. Velikovsky 78 Hartley Avenue

Princeton, NJ 08540

March 1, 1978
(6 März 1978)

Mr. Christoph Marx
Schulstrasse 17
CH-4436 Oberdorf
Switzerland

Dear Chris:

Regarding your letter of January 22, in which you wrote: "The point you mention here about the account free to made any arrangement you like with me." If that means that the money was not deposited in Velikovsky's mane directly, let us know without delay. Otherwise it has to be reported no the 1977 tax return.

Had Velikovsky concluded the contract to his liking, one of the points would have been to deposit the advance royalties in January 1978 instead of December 1977.

Yours,

Jan Sammer
assistant to I. Velikovsky



Christoph Marx
Schulstrasse 17
4436 Oberdorf,

March 12, 1978

Tel. 061 97 91 88

Mrs. E. Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
U. S. A.

Dear Mrs. Velikovsky,

I have read your letter of March 1 carefully, coming to the conclusion that in fact you wish to terminate the agreement your husband had proposed and I had accepted on my visit of last year: whereby I am to negotiate, to conclude and to secure contracts, at good pace, for the publication of Velikovsky's works in non-English speaking countries, especially on the Continent. It was obviously understood that the very nature of this business would demand my long-term involvement, this also being reflected in some further directions I received from Velikovsky. Equally obvious is the delegation of wide powers to conduct this business according to my own judgement along the guiding thoughts that Velikovsky had explained to me in our daily discussions (which I noted down at the time), including many details as well as general information. We shook hands on this.

You wish to terminate this agreement—at the very moment of our first achievements—on the basis of a sentence you are quoting out of all context of the developments that with your intimate knowledge had been leading to the successful German contract (and which I shall not repeat again here). Even now you are unable to give a single practical reason that should have kept me from signing, saying instead that against the true sense of my agreement with Velikovsky I should have abided to a code of conduct that was never foreseen. If this really had been anticipated, Velikovsky would and should never have left the many dispositions and decisions to me, which had to be reached about the numerous questions I put to him (repeatedly, in many cases) throughout our correspondence. Indeed, it is this very way of carrying on that has distinguished our dealings, and which I honour. (Otherwise, if this hadn't been mutually understood, I should have felt terribly let down, in the fewest instances only to have received adequate answers even in possibly pressing matters such as *the* planned new Vorwort to "Welten im Zusammenstoss"; or improvements to its appendix; or completing my "Ramses" MS. for finishing the chart you are reminding me about...)

I wonder, then, why you should call my expectation of formalizing my power of attorney "baseless", now that first objectives have been achieved. It strikes me as odd,

that only today I should hear of a decision “already last summer to keep everything within the family”, which I certainly would have liked to learn about at the proper time, from Velikovsky personally. And I disagree with your view, coming on top of all this and being obviously uninformed, that the UMSCHAU contract is “voidable”. Isn’t it asking a bit much, finally, to request my being content with such remonstrations?

I disagree, therefore, that by “demanding I must not negotiate with other publishers for any of Velikovsky’s books” an agreement should recklessly be violated when it is producing gratifying results, showing much promise for the future, and in which I today have vested interests, besides the time, expenditure, and connections already invested on long-term thinking. Much would become lost with nothing to go on compensating for it.

In the last instance, of course, on the basis of my ten days dialogue with Velikovsky, I simply must have his own word on such all-important topics. I’ll be going to the Glasgow conference, and hope to meet him there for discussing these plus other, still unanswered issues. Or in case he cannot come, I offer to put in a visit to Princeton either immediately before or after the conference (which takes place from April 7 to 9), if at that time the existing agreements can be replaced by formal ones of the same significance. Substantial changes, however, I would like to be able to consider before having finally to decide about the journey.

Do please arrange for this, and give my best and friendly wishes to your husband.

With kindest regards, yours

Marx





Christoph Marx
Schulstrasse 17
4436 Oberdorf

March 13, 1978

Tel. 061 97 91 88

Mr. Jan Sammer
c/o Dr. I. Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
U. S. A.

Dear Jan,

indeed Dr. Velikovsky is free to arrange for any date of having the advance royalties deposited to his name. Due to the rapid decay of \$ and DM as opposed to the Swiss Franc I exchanged DM 25,000.- (according to contract payable to me) for SFr. 23,648.- (rate of Dec.28,77), which since then, of course has gained substantially against the \$. I explained to you before that foreign accounts in Switzerland are liable to negative interest of 10 % p. a. plus other "punishments", so that I would advice Dr. Velikovsky not to transfer it to his own name. Perhaps the most useful way would be to consider actual royalty settlements only, as they will be accounted for by the publisher. I could suggest such an arrangement once I know Dr. Velikovsky's mind on this, and subject now to what further news I shall have from him: a letter by Mrs. Velikovsky has left me in a very uneasy state of mind.

I'm including two self-explaining copies; "Bild der Wissenschaft" is the Scientific American-type magazine of Germany (and very much uniformist, too), so that it is a tremendous advantage for us to see them choose this particular reviewer for Welten.

Best wishes,

Yours Chris



23.03.78

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marx
schulstrasse 17 4436
oberdorf

substantial changes are made therefore no purpose princeton visit greetings
mrs velikovsky

nnnn 23/03/78



Christoph Marx
Schulstrasse 17
4436 - Oberdorf

March 26, 1978

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
U. S. A.

Dear Velikovsky,

February 19 I sent you correspondence copies regarding Prof. W. Petri's resignation as a contributor to the UMSCHAU scientific magazine. I am now enclosing the publisher's answer to Petri, which is very good.

A cable by Mrs. Velikovsky would tell me that substantial changes to our agreement should be made—surely it is saying I shall have your ideas about their nature in due course for discussion.

There are some questions on page 2 of my letter of Jan 29, to which I still have no answers. Please let Jan handle them, and please see that I have early copies of *Ramses*.

Thank you, and best friendly regards, yours

Marx



Christoph Marx
Schulstrasse 17
4436 - Oberdorf

April 13, 1978

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky,

I have just returned from the Glasgow conference, where I enjoyed meeting many of your followers, and people I have only been in correspondence with till then. About the proceedings I wish to report to you with the enclosed copies, (1) of a comment I prepared for UMSCHAU to pass on to the media, and (2) of the letter I wrote to the editor of the S.I.S. Review: it is about a development I wish to bring out for discussion in time.

On the way to Glasgow I met with Mr. Kluwer, your Dutch publisher, in Holland. We should extend his contract to cover *Peoples* and *Ramses*, and I will see to it that the royalties now should be based on Swiss currency, and whether the conditions realistically follow past and intended future sales. There was also an inquiry from Sweden, by Berghs, which at the time I am investigating.

I feel it necessary here to say that I'm still faithfully proceeding according to your original instructions, and that I shall not depart from our agreement without mutually having found a better solution, if you think a change should be considered at all.

I heard that you have not been in the best of health recently, and I would be grateful for an open word on this. I like to think back of the time a year ago, of our lively discussions, and I hope that again springtime and the continuing success of your work, and much that we have achieved in the meantime will by now have had their good effect.

With my very best wishes and friendly regards, yours

Marx





I. Velikovsky

78 Hartley Avenue

Princeton, N. J.
08540

May 17, 1978

Mr. Christoph Marx
Schulstrasse 17
Oberdorf 4436
Switzerland

Dear Chris:

Thanks for the report from Glasgow. Several other participants also wrote and it seems that on the whole the meeting was a success. Your letters to the *New Scientist* and *SIS Review* were well done. Thanks also for the chart in English possibly it can be put into Assyrian Conquest.

The two readers letters were both requests for autographs. Please forward all correspondence addressed to Velikovsky. But generally, should this not be Umschau's responsibility?

To your questions of January 29: Velikovsky will let you know later if he needs copies of *Welten*. He actually had the book only for a few moments in his hands. As all of us, he thinks it is well produced: but he still objects to the footnotes in the back and wants the other volumes Umschau contracted to have them at the bottom of each page. Velikovsky also noted that the birthdate given on the jacket is incorrect: he was born in 1895. The two pages of yours at the back, right next to Velikovsky's text, not even with a blank page in between, were a surprise. You sent us tables for checking, but we knew nothing of a "postscript." It is usual that this kind of write-up appear on the jacket only. It goes without saying that in the future any additional material must be approved by Velikovsky, or by Mrs. Velikovsky.

We received a bill from Sidgwick & Jackson for ten copies of *Peoples of the Sea*, and another ten of *Velikovsky Reconsidered*, Now as you know, we do not foresee that you will need *Peoples of the Sea* to send out to publishers; (in any case, they would have to be paid by you from the 7½ percent designated for expenses connected with your efforts to arrange for translations). As for *Velikovsky Reconsidered*, this book belongs to Steve Talbott of Portland, Oregon, Velikovsky gets no royalties for it. You have to arrange with Steve if you want to handle it, and get the books from him.

One thing which we would like to have cleared up is how exactly did you sign the contract with Umschau. This is something which Velikovsky's lawyer, and also a New

York literary agent, told us you could not have done without a written instruction from Velikovsky to sign this specific contract in his name; yet you wrote that you did it in accordance with German and Swiss law, and Umschau wrote you (letter of Mr. Curths of Nov. 29, 1977) concerning the money transfer; “für das Sie eine Vollmacht haben.” Could you explain? Otherwise we can of course ask Umschau what happened.

As to Holland, I wrote you to leave that country alone, Velikovsky does not want you to involve yourself there. He made an agreement with Mr. Kluwer four years ago, and if there are any problems Mr. Kluwer should write Velikovsky directly.

Velikovsky is well and working on his books; it seems unfair to burden him with business matters at this time—but several times he spoke of his intention to write you.

Ramses II is now published, and I think he will send you a copy soon

Yours sincerely,

Jan





Christoph Marx
Schulstrasse 17
4436 Oberdorf

March 23, 1978

Tel. 061 97 91 88

Mr. Jan Sammer
c/o Dr. I. Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Jan,

your letter has just arrived, and I am glad for the good news regarding Dr. Velikovsky's health and working spirit.

Regarding the footnotes I am constantly belabouring Mr. Curths, with some success up till now. A special inquiry at book shops his salesmen are undertaking I hope will provide further support for our concern.

By separate and air mail I'm sending you a collection of reviews and publication notices. But one of them, having appeared in the largest circulation Sunday paper (2.4 Mill.) I am enclosing. You will note that one of the points most fascinating for reviewers appear to be the advance claims compared to the data received from the space probes: it is very fortunate to have these in the book.

Sidgwick & Jackson made a mistake in sending you an invoice for books I ordered in the name of PAF for commercial selling to readers who are writing to us on studying *Welten*. You would do me a favour, though, if you could send me - instead of the ten copies of *Earth in Upheaval* I was to receive once - two or three copies each of the American editions actually in print.

The German contract again, and very briefly put: There is a mutual agreement between Dr. Velikovsky and myself, covering also actions of mine in Continental and Near Eastern countries. Your letter of May 17, 1977 to Mr. Curths certainly tells UMSCHAU VERLAG of my full authority, on which I always acted. But certainly according to; Swiss "Obligationenrecht" our mutual agreement need not be in writing and I therefore do not see the point your lawyer wishes to make. Perhaps you can ask him to write to me directly. Also I do *no* understand your question about Mr. Curth's question where to send the money to: according to the contract I had to name the account, and perhaps he wondered whether perhaps there were special arrangements in Germany. Please feel free to write to Mr. Curths, who has repeatedly asked me whether

he should write to Dr. Velikovsky, expressing his sincere engagement with the publication of his books Having heard that Dr. Velikovsky was ill, and having little good news from Princeton, I said that instead of friendly phrases it might be more helpful for us to produce good sales reports and getting on with business with so much less fuss.

Now, Jan, you say yourself that it seems unfair to burden Dr. Velikovsky with business matters, and I fully agree, because I feel quite able to take care of them. Then where is this preoccupation with the German contract coming from? And with lawyers and Merediths? This seems hardly productive for our efforts, and looks a foreign element in our understandings.

I have not taken up any problems Mr. Kluwer might have with Dr. Velikovsky, I simply talked about a contract for *Peoples* and *Ramses II*. I would expect in my capacity as agent for the Continent to make such a contract, if there isn't a serious reason for not publishing these titles in Dutch. And I cannot believe that there is one. It is understood that the books must be published under the separate range of Ankerbooks, and that the translation should be reviewed by (Ms) Dr. Kerkhof. But I have heard nothing further yet from Holland.

There have been inquiries from Israel and France, and I shall write about them when there appear to be results.

During the holidays season I shall probably be away for perhaps up to four weeks in July and/or August. Will you also be going to the summer house again?

Best wishes, and friendly regards to all,

Chris

PS: Please don't forget to provide me with the list of those European scholars who will receive a copy of RAMSES II. For myself I have asked Sidgwick & Jackson to send me ten author's copies when they become available by July.





Christoph Marx
Schulstrasse 17
4436 - Oberdorf

June 6, 1978

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

Umschau Verlag's Fall catalogue will be mailed in this envelope. I use it to send you more *Welten* reviews, some of which I commented with reader's and/or personal letters. And I hope I can do something toward reconciling the British with original situations, but I still consider their deviation a very dangerous development from all points of view. Meanwhile, I am also at work checking through the translation of *Die Seevölker*

This letter may reach you on your birthday. My very best wishes, and friendly regards,
yours

Marx



Christoph Marx
Schulstrasse 17
4436 - Oberdorf

July 14, 1978

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky,

before leaving for some three weeks of holidays I'm sending you some more reviews of WELTEN—they are getting more serious now I believe.

I have just finished testing the computer programs I developed for building up files about orthodox vs. revised chronology. The lists I'm enclosing are just samples to demonstrate the possibilities neither the general text nor the definitions should be regarded as final. I have taken a few key words from *Lexikon der Aegyptologie* as a basis, and though such kinds of works may be especially worthwhile for entries (e.g. the *Cambridge Ancient History* for references in English), any book or article can be included, of course. The output, of course, can be worked into any kind of listings desired, and the samples I'm sending you are showing (1) a list showing a particular author's publications, and where they conflict with your work, or (2) a list that will present to a publisher where his authors should rethink their views; and (3) a list that will show up everybody responsible under a particular key word.


I intend to try this initially with *Die Seevölker*, sending the contributors to *Lexikon der Aegyptologie*, who's articles are being involved, a reading copy plus their "personal" list, with a recapitulation to the publisher at the same time. For the media I expect such listings may have a special appeal for providing definite data about conflicting views on a variety of interesting points.

How is *Ramses* selling? I hope to see my first copy when in London next week.

Kind regards and friendly greetings, yours

Marx





Christoph Marx
Schulstrasse 17
4436 - Oberdorf

October 22, 1978

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

for the final time I am now correcting the proofs of *Die Seevölker*. It was not an easy job: the first translator, Dr. Rehork, was so much involved with established views that we couldn't continue; and with Dr. Wagnuth, the second translator, I found it necessary to very carefully check and re-check the text in MS and proof. Then much persuasion was called for to have the typesetting conform to your directions: footnotes are now on the page, paragraphs are with indentations, and the whole book will look very much like the original. However: because in the introduction you are referring to "The Pitfalls of Radiocarbon Dating", I decided to include this treatise as supplement No. 2, "Die Klippen der C14-Datierung". We cannot very well ask the German readers to look up Pensée, and experience has now taught me, that reviewers are sadly lacking background material.

I always trust you will let me know once you wish to receive fuller reports. Meanwhile, here's a mistake that should be corrected in *Peoples*: p. 130, line 5 from bottom, must read "nineteen" instead of twenty-nine days.

And, of course, it would be fine to hear that you are well and active. With best wishes and friendly regards, yours

Marx

+ Bimson 22.10





Oct. 30 '78

Dear Velikovsky,

Thank you for the transcript that Jan made of our telephone conversation (your portion of it). I did not recall everything that you said, so it's good to have it in writing.

First, I still have had no word from my advisor on whether he will permit me to change topics to the Dark Age—which, for me, is a crucial consideration, so I have written to him again. I might not do it even if he approves, but I will not if he does not.

As to Mycenae, I comes along, though slowly. Hardly any of the original piece remains as it was. I find the whole thing frustrating since it takes so long, but there are important considerations. First, despite your offer, this may be the last thing I do on archeology, and I want to to be perfect for that reason. Beyond that, when the piece went into *Pensée*, with its limited number of readers (most of them already convinced of your ideas and also most of them ignorant of Aegean archeology), and when the pieced did not have “Eddie Schorr” as the by-line, while I tried to make it as good as possible, still there was comfort knowing that nobody well-informed would likely read it, and even if someone did, he wouldn't know I was the author. The situation is different with the book, which will go to a mass readership, many of them experts, many of the already hostile and looking for any mistakes to use as ammunition against the case, and my name will appear—so it's scarier for me, and I want to put forth something that is air-tight, up-to-date, correct in all details, with no room for attack. Attack will come anyway, but I don't want it to be easy for a critic to say that I have overlooked something or misrepresented something, so I'm striving for perfection. The piece will be longer than before, as I indicated, and you agreed. It may be too long to suit you, but I will still make it as long as seems appropriate to me, and you can then eliminate sections or reduce them in size, or even take some from my paper and put them into your section of the book to make it more up-to-date and less reliant on debates 70-90 years ago. I still hope to finish it soon, but it is difficult under the circumstances. What is most distressing is reading something several times and finding things that I should have found the first time, and known that I must have overlooked them before, and may be overlooking other things even now. One case that I used to think worked for use, definitely works the other way (11th-10th century tombs *over* a Mycenaean III B building, which by your scheme must be 8th century). That is disturbing. It is still only one case out of numerous ones that work *for* you and *against* them, but I can't ignore it just because it hurts the case.

It is ironic regarding the supplement that I thought I'd do practically no changes; now I'm doing a lot of revision and expansion. More ironic is the fact that I really am not

that anxious to print it. I don't look forward to the pepercussions and the blasts it will draw. It will be the best thing I am able to produce, but I know that it won't be perfect and that bothers me, especially for knowledgeable, hostile critics to see it. You have in your cause someone who would be thrilled to contribute to your book, and is probably insulted that I was asked and he was not. He lives for the glory of having his name in print and his ideas (either foolish, wrong, non-germane or plagiarized) published. He has no great concern for perfection or even rudimentary accuracy and fairness. I got the assignment which would have thrilled him but distresses me. I'll do it to help you, but not for my personal glory (I am more concerned about criticism than about praises). If it were just for me, I think I'd drop the matter, but to help you, I'll do it (how different his attitude and mine).

Regarding the "bright future" that you see for me, I don't share your vision. That may be because I am by nature pessimistic, or it may be that you know something that I do not. From my point of view, things look bleak. I don't know what you have in mind since you did not spell it out. Whatever it is, there is a good chance that I won't follow it. As to the 5 months, If that is time spent on the road to something better, that's one consideration. If it's a dead end, then it's time wasted for me and time I should use to find real employment, I cannot place my life on your optimism unless I know what prompts it and unless it seems realistic to me, cause me to be optimistic. I am pragmatic. Life requires that I make money to pay bills. I'll do that at whatever I have to do. And that choice will be mine, based on what seems best to me. Your hopes and Jan's hopes for my future are only that—nothing tangible that I can see and I can't base my life on someone else's dreams. I have to do what seems best to me. I'll consider seriously any offer you have, since I would rather do research than go into business, but I may not decide to follow your offer if it seems impractical, insecure, unethical, etc. I will not take a university title under false pretenses, for example. I will not take something that has no real future to it. I will not take something that is meant for someone who is not like myself. The idea of my writing books is unrealistic. It takes me too long to write things and they would not sell well to the general public. That is the nature of my research and my style of writing. Neither will change, so I cannot expect to make a living as you have—I'm too slow and few would purchase what I write, plus I am not confident enough to publish. That is an unrealistic occupation for me. A job that I could do, but which has no real future or security is unrealistic for me. Taking money from someone like Bruce and pretending that it comes from a university is something I would not do. I am nearly 30 years old and I need to look for something I can do for the next 30 years, something I would enjoy, something that will pay well, something I could do, and something with security. I don't want a 2-year post that is a dead-end, so that I'll be 2 years older and still have to look for employment—then, instead of now. I want to settle down, feel some security, know I have a steady paycheck, know I can afford to get married and have a family—I don't want to stay uncertain about my future and about my financial situation, about where I'll live and what work I'll do. If that means working for a company with a guaranteed salary, with increases with time, with stability, with benefits, with a knowledge of what's expected of me and a knowledge that I'll have steady work and regular paychecks and how large they'll be and what I

can afford, I'll take that, if it's the best offer.

I'm willing to listen to any proposal you have, but I may not take it if it doesn't give me security or if it is something that I cannot do. So far, the only proposals I've heard are ones that do not fit me (like a temporary "instructor", or an author—they are not realistic for me). I also am not going to gamble my life on the chance that maybe some day some school will want to hire an expert on your revised chronology. You may be optimistic on that. I am not. I know those people better than you do. Even if they privately conceded that you're right, they will publicly be against you for a long time to come (except for a few places of no real significance). Maybe you're right about colleges accepting your work and I'm wrong, but until I believe that you're right, by my seeing things happen as you hope they will, I won't gamble my life on your dreams. I need to see something more tangible. So, for now, till I know what causes your optimism, I do not share it, and will not gamble my future on it.

As to your offer for me to work for 5 months, that is tempting, but there are considerations. First, I need my advisor's approval for a new topic. Second, while Houston does not have the research facilities of Princeton, I have learned over the last 2 years that I cannot tolerate northern winters. The cold is more than I can bear, so I don't want to be there in the winter. I've also learned that as unhappy as some aspects of my life here are, I have friends in town and by living with my parents I am not alone. In Cincinnati, when I was alone in my apartment, I went through severe depressions. There, too, I had some friends, and there were things to do and places to go. Princeton is as small town with little to do beside work, and I have no friends there. If I lived alone there, I could be absolutely miserable at any time of year, but especially winter. As to you, it would be good to have something to supervise my work, check on my progress, and give encouragement which I lack here, and had very little of in Cincinnati. But, realistically, beyond work, on the personal level, you and I do not get along well any longer. I find that you expect more than I can deliver, and you always lose your temper with me, causing big fights between us. I simply cannot live up to all your expectations, either for the quality and speed of my work, or for my opinions on things which do not always match your own, for which I'm considered a traitor or a rebel or a liar or a psychotic. Our last get-together led to my bleeding ulcers. It is best for both of us to realize that our being in the same town, under those circumstances, will probably lead to friction, fights, anger, frustration and hurt feelings all around. So, I don't think it wise for me to come there. As to working for 5 months here, that is feasible, but I still need work from my advisor and I still need to know if those are 5 months which lead to the "bright future" you see, or if they are a dead end and 5 months I should spend toward seniority with a business that will provide me with the king of future, stability, finances, security, etc., that, at this point in my life, I need.

I know how ungrateful I *sound* over all this. I am *not* ungrateful. But I'm trying to be realistic, to consider the past and to consider the future. We both know someone who would be thrilled if you offered him half of what you're offering me, but he and I are different. He would fight viciously to get what you offer, while I am resisting that

offer, as attractive as it sounds, until I learn more about it. In the past, it has cost me to put your interests ahead of mine. I am doing that now again with the Mycenae article, so that your book will benefit from it, but I won't do that for the rest of my life. If your interests coincide with mine, that will be terrific for us both. If not, then, for the first time, I'll put my interests first, and do what I need to do to feel secure about my future. I shall not take on anything that leaves me as insecure or even more insecure than I feel right now. That much I owe to myself. I've had enough depression and enough bleeding ulcers. From now on, after that article, I look for security and something with a real future that is suitable to me as I really am, not as others would hope I was (e.g., a popular author—which I am not).

If your plans for me seem good, I will certainly follow them and bless you for them. If they are unrealistic, I will not take them. It is as simple as that/ I'll listen very carefully to them, consider them, but I will determine if they are good for me, or work against my happiness, my security, and my peace of mind. If they are not right for me, I won't take them. Still, I'll wait to hear your proposal.

In the meantime I will send Mycenae as soon as I can. Thereafter I promise nothing. If I can help, I will. If I cannot, I won't. I'd still advise you to consider this as possibly the last thing I shall write on archeology. If things work out, terrific. If not, then forget about "my" book, as there will be none. At this point in my life, if I have to choose security, peace of mind, something with a future, and if your proposal does not provide those, I'll reject it and do other things. I might do archeology on the side, but that's doubtful. Still, I'll await your comments and your proposition for *what happens after 5 months* and for the next 30 years.

I do appreciate your interest, concern and attempt to help, and I may accept if it sounds good, but don't take it personally if I leave all this behind to do what seems best for me in some other area.

Sincerely, Eddie





Oct 30, 78

Dear Jan,

I wrote [the enclosed letter to V](#), but after re-reading it, I decided to mail it to you instead. You can read it and inform him of the contents. Unless I miss my guess, he'll be very perturbed by what I say, but I said what I need to. My answer to his offer is very provisional and is more likely to be No than Yes, depending ultimately on further details which I'll have to evaluate. This is all reminiscent (to me at least) of the offer he cooke dup with Cyrus Gordon and Bruce, when Bruce would pay me and I'd pretend to be paid by a university for a job I wasn't really doing, all backe dby Gordon, who not only did not agree to it (contrary to V's impression), but personally advised me against it. When I did turn it down, V went into a tantrum about all he did for me (none of it requested by me, all without my knowledge, none of it to my liking, and all, as far as *I* was concerned, for his own benefit, not mine) and how hard he tried to get Hewsen and Greenberg to forgive me, and how I didn't follow through (again he did that without my knowledge and I hold both of them in contempt, I don't care if they bless or curse me, and *I* haven't forgiven *them*, whatever they feel toward me). So, I expect him to be angry that he worked so hard "for me" for so much ingratitude on my part. I *might* accept his offer, once I hear and evaluate it, but if it is at all like past offers, I won't. From now on (after I send him "Mycenae"), I look out for me first, not him first (something that has cost me plenty and gained nothing for me). If our interests coincide, wonderful. If not, I give mine top priority. I do want to hear more, but I think it best if I hear from you, since I'll get a less polemical response if it's from you than from him. Meanwhile, you'll know my thoughts and reasons for them from the letter.

Sincerely, Eddie

P.S. Before mailing this, I received a type copyu of part of the 1974 Mycenae chapter. Since it bears little resemblance to the piece as it will appear in my revision, I won't bother to deal with it.





Christoph Marx
Schulstrasse 17
4436 - Oberdorf

December 22, 1978

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540

Dear Velikovsky,

it's too early to know of any serious results in the media, but the enclosed copies will show that I'm not just sitting back watching results coming in. Isn't it remarkable, how the results of this 200 \$ undertaking are being played down

Die Seevölker will be out January 15. My kindest personal regards and friendly greetings,

yours Marx



Princeton
January 14. 79

Dear Jan:

You probably follow to some extent the deliberations re Venus probes. The file on the subject is growing, a swell of public interest reaches me via phone calls, letters, printed letters, etc.

We spent till 23 Dec. in Princeton, next 18 days on Pelican island (some days we have been the only strollers on the boardwalk—in sleet and wind, for a couple of days the bay froze; but there were also sunnny and balmy days. Since 5 days we are again at Princeton.

At Ocean County I spent time on sorting papers and whenever I observed an achievement of yours, I felt gratitude. But the *Assyrian Conquest* I have not delivered, I permitted Lewis to print the Haremhab chapter in the next *Kronos* issue, also the Venus—Youthful Planet from Yale.

[one sentence on private financial matters omitted]

Elisheva mailed you a carbon copy of my letter to Prof. Bond. If you need some recommendation I will prepare it for you. For instance, a college—university, or any other purpose.

With Eddie I discussed on phone, before the end of the year, advised him to divide his effort on Mycenae into two stages—to prepare something that I may (or may not) use and at the same time a preliminary exposé of a projected PhD dissertation. (But, he said, his advisor already wrote him that he does not believe in moving the Mycenaean Age by centuries closer to the Ionic time). I did not tell him my idea of involving Dr. Connor into my plan, if Thomson is not responsive.

I dissipate my energies on bringing papers, manuscripts, correspondence, etc. into order, and today I started to answer my correspondents. New offers for big TV exposure (“You won,” told me the planner, from Washington, asserting that the Public Relations man at NASA gave him this information—he worked with the man in the press—he thinks big—12 hours on CBS). But Pollack, Mazurski and others are “the interdisciplinary scientists”—total 10, who would assess the work of the many specialists.

I do not ask about your visits to the psychologist, the tests, the plans, etc. It is up to

you to write me when you clear up your plans for the next few years.

Happy 1979

Immanuel





Christoph Marx
Schulstrasse 17
4436 - Oberdorf

January 15, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

a copy of *Die Seevölker* will shortly be under way to you directly from Umschau Verlag. Also by separate mail I'm sending you, if for filing only, a set of the conflict lists as sent to the publisher, the editors, and to forty five scholars being involved with *Lexikon der Aegyptologie*, as well as to more than thirty reviewers in the media. Will it start a crack in the facade? I really have no idea - judging by the non-impression my weekly Venus bulletins have left I'll remain prepared for the utmost silence, hoping it's the one before the storm.

Still, the new year is already promising some action, and I'm wishing very much it will all prove successful for you.

Best regards, and friendly greetings, yours

Marx



March 9, 1979

Dear Immanuel,

I was glad to see the *New York Times* story. The *Times* may redeem itself yet!

January and February were mostly a loss, because of my pneumonia, but I am fully recovered now and am making progress on a number of simultaneous fronts.

Enclosed are copies of pages 18, 26, 27, and 28 of my "Philolaos" paper, about which you had several suggestions.

The circled sentence on page 18 needs to be changed, but I don't know what the truth is here. Do you accept the "Sun of Night" label for Saturn? If not, perhaps I should just say that you have not committed yourself on this matter.

Your concern that I may have put into the mind of Philolaos ideas that were never there can perhaps be eased if I call your attention to the paragraph on the bottom of page 26 and the top of page 27. For I have not actually claimed that all these "variations" were ever in the mind of Philolaos himself; instead, I enumerated four different possibilities.

The circled material on pages 27 and 28 is new, and has been added in response to your reminder that you had referred to a weight reduction that was caused by a change in Earth's *charge*. I hope that this new material will make that point clear to the readers.

As I indicated in our telephone conversation, yes, I would be interested in writing to people who have contacted you but whose letters you have not had time to answer. Whenever you wish, such letters can be passed on to me and I will answer them. I agree that we should not miss the opportunity to keep in contact with such people.

Best wishes,

Lynn





Pelican Island,
Wednesday

Dear Jan:

We stayed for 8 days in Princeton after you left and since Sunday we are here with Kogans. The coming evening also the Sharons will be here for Seder.

In Princeton Lewis and Warner came to see us, and especially Lewis was impressed by the accumulated mail (which I left him to read while I went upstairs to take a nap.)

Yesterday I had a call from Antoinette and Lynn—they have some young student who would like to work with me during the summer and he will come to see me soon, I can use more than one helper.

I lectured at Ruth's class.

We had here the visit of Dr. Lewis of U. of Texas, Austin.

[one sentence on private financial matters omitted]

Let us hear from you.

Im. V.



April 16, 1979

Dear Velikovsky,

I certainly owe you a letter after so many months without contact, especially since you've never seen any return on the \$500 you sent me. I wrote you a pretty lengthy letter after your last call, but decided not to send it. That call, like most of your more recent pieces of communication, especially oral ones, really upset me. You presumably have the tape of it on hand. It was in itself like a tape recording of other soliloquies wherein you list the sacrifices and selfless efforts that you imagine that you've made solely for my benefit, and you list the cases of my ingratitude, judgmental errors, and misdeed that you imagine I've shown. I emphasize the three words "that you imagine" in both instances, since our perceptions of both categories are not at all similar. More often than not our perceptions are diametrically opposed on most items in both lists. Anyway, it was something I've heard before repeatedly, do not care to hear again, and did not appreciate then, but enough on that matter. My final remark on it is that to a very large degree, my declining to come to Princeton to work for you was based on the feelings you expressed in that and similar conversations.

On other matters, I've considered returning your \$500, and thereby feeling less guilty about not sending you anything on Mycenae. The months I spent on the paper were worth a lot more than that, but you were paying for the finished product, which you have yet to receive, rather than for my time. I decided not to limit the piece to a few pages or even to a somewhat expanded paper, but to treat it as a book-length topic, using Mycenae as its main subject and also using it as a point of departure to bring in relevant material from across the Aegean and Levant, which had an effect on or was affected by the material and the problems at Mycenae. So it grew and grew. The time spent on research also grew considerably, as did that for writing and documentation. I am nearing the completion of the first of two major component parts, and shall send it to you when I have finished it—the second part to follow at a later date. I expanded on much that was in the *Pensée* piece and added several new sections, all pointing to the same conclusion, viz., that the discoveries at Mycenae, dated by Egypt, have 500-year - 700-year problems in every aspect of culture and material remains. The results should please you, though they will be far longer than the short piece that we both at first envisioned. If it is not too late for the publication of your volume, you may excerpt from the piece. I plan to submit the completed product to my advisor for his consideration as a doctoral dissertation. He has so far opposed it, and may finally reject it, but I plan not merely to send him a few pages but a massive case, which he cannot simply brush aside. I hope that your offer to have someone type it still stands. I'd like not only for him to see it, but others of my professors at Cincinnati and other people as well, such as Prof. Thompson in Princeton. They will *all* see how compelling the case is for your revised chronology on the basis of *plenty* of examples from their own

disciplines, which they tend to disregard singly, but which form a cohesive and all-encompassing whole when put together and examined under the standard reckoning, which leads only to perplexity, and then explained under a redating.

The piece will take a while longer, though the first section is, as I said, close to completion. I worked on it to the exclusion of everything else of consequence until a couple of weeks ago. I turn 30 *very* soon, and while that probably seems pretty insignificant to you at your age, it seems pretty formidable to me. For a long time now I've had no real source of income and have watched money go out without any substantial sums coming in. Additionally, no longer being a full-time grad student, yet simultaneously not being employed, has left me feeling pretty uneasy. It's had its effect in all areas of my life, to the point where I feel almost ashamed to talk to old friends, and find it difficult to meet new people. A large sense of my personal identity is in what I do, and right now I am an unemployed guy, nearly 30, still single, still living with his parents, with little money to spend, and no sense of where I'm going in life. So, I'm not actively hunting for a job here in Houston. I'm not sure what will turn up, but each day I go to a few more interviews, and hope that something will turn up soon. I plan to keep working on archaeology as an avocation, but it will not be my vocation. My plan is to get a job with good pay, security and benefits, and then work on other matters in my spare time. This seems the only realistic way to keep doing what I was doing and to have real employment. I don't say this to prompt any special response from you, and not to hear any counterproposal, or remarks on my lack of dedication or my greed. I'm simply informing you of how matters stand. To the extent that I'm able I'll still be carrying out the work I've done on your behalf for the past 10 years—I'm not abandoning it or you, but I shall be doing other things which will take up the lion's share of my time, and which should do more for me than archaeology has so far, particularly since it is dead end in so far as employment goes.

That in brief is how matters stand. I'll send you what I have on Mycenae (section 1) when I've finished it, and section 2 sometime later. I still hope to get a Ph.D on the basis of that writing, but prospects of that are not bright. Whether I get it or not, I shall not seek a full-time career in archaeology, but will instead seek other employment; and whether I get the degree or not, I intend to keep studying and writing in the field in the time I'll have free to do so. Such is my decision. I really don't care to hear anything negative you may feel on that decision. As for the \$500, you'll get much more than you originally requested, but it will take some time. I think that covers fairly succinctly everything I wanted to say. I'm sorry that a lot of things have turned out as they have—the long time to write the paper, the need to change careers, our not being as close as we once were, etc.—but so it is, and I do owe you an explanation, particularly since I still have your \$500 and you've seen no return on your money.

I do wish you well in your work, which I still support, as you'll see when I send the vast material I've chronicled on Mycenae, and wish you and Mrs. Velikovsky well personally. I look forward to seeing new publications, especially the final volumes of *Ages*, when they appear, and wish you both continued good health, strength and

contentment.

Sincerely, Eddie

P.S. I was sent a copy of SIS Review containing James's criticism of Ramses II. Some points struck me as wrong or weak, but others are troubling. They concern matters beyond my specialization and knowledge, so I can't rebut them, but I'd be most interested in any response that you or any of your other supporters who are familiar with the material have to those objections. Unanswered they do look pretty problematical, so I hope that you or someone else competent do do so, answers them.

P.P.S. Considering past calls, however well-intentioned, I really don't want another lecture on how you imagine I've failed you and myself, which I'm sure I'll get if you decide to call. If Jan is there, I suggest that if you have any message, you relay it through him. Direct contact has done more to separate than to unite us.





Christoph Marx
Schulstrasse 17
4436 - Oberdorf

April 17, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Mit Umschau -
Abrechnung 8.3.79

Dear Velikovsky,

this very minute I wrote the last word of the Ramses translation (Zauber, for your charms). The work has taught me much, and if I did it mainly because nowadays it seems impossible to find translators not dependent on high productivity, I did it very gladly. Mr. Curths will now check it for style, and then I shall decide about his proposals, and after that it will be set in type to be published this autumn. Of some misprints I noted in the American edition I am sending you copies.

As you have heard, I couldn't keep myself—at the last minut—from paying a lightning visit to NASA's press briefing at S.F. in February. I was told at the airports that Eastern flights were cancelled due to snow, or I would have called you to perhaps see you very quickly. But just by telephone alone I didn't wish to disturb you.

I shall report to you at some later time about my activities and future plans, in a fortnight or so, I expect. But I did want to write a few words and not prolong a silence, which was imposed on me by lots of work.

And you know, a personal word from you or better still, comments, would satisfy one of my keenest wishes. Though of course your works must take precedence over everything else—and I'm also not at a loss of what to do.

All my best wishes and regards!

Yours, Marx





April 18, 1979

Dear Mrs. Velikovsky,

It seems that nearly every time your husband and I are in direct communication, one of our feelings gets hurt—maybe both. If Jan were there, I'd send this to him, but I'm not sure that he is any longer, so, reluctantly, I involve you again. I wrote [the enclosed letter](#) to your husband to inform him of how matters now stand with me. It is meant to give information, not to hurt feelings, but it could have that effect, so I'm sending it to you, so that you can either inform him of the contents, or give him the letter, if you think it won't upset him too much. I think the letter itself explains things, and my feeling about things pretty well, so I shall not repeat its contents now.

Sorry to involve you again, but I'm glad you're there, to act as mediator. Direct contact seems destined only to hurt him or me, or both of us. That isn't my intent (I am not so sure about *his* intent), but it's usually the result, so, while I hate to put you in the middle, it seems best to use your services again. While things between him and me are not close any longer, I still respect him, his work and his feelings. The same applies to you, with the additional remark that I'm very fond of you personally. Although I am no longer in his good graces, if he still has Greenberg et al. around, he should find some consolation in that. I have no more to say about that relationship than I have in the past.

Anyway, the enclosed letter tells how things now stand, so you'll both know. I wish you both well.

Sincerely, Eddie

P.S. While I must confess some relief that I did *not* hear from your husband in some time, since his communications tend to accuse and criticize me for all sorts of things, mostly unfair and insulting, I hope that the lack of contact does not signify that either he or you is in poor health. I do not wish a revival of the kind of contact (abusive) he's made lately, but I do hope that you're both well and happy.





June 1979

DEAR VELIKOVSKY PLEASE CONSIDER

ONE AM NOT HOME EVERY DAY DUE

COMPUTER JOB ZURICH TWO WISH

DISCUS DISPOSABLE

GERMAN AMOUNTS PERSONAL

CORRESPONDENCE WHILE THREE

TODAY RECEIVE KLUWER

SIGNATURE MAKING AVAILABLE

GUILDERS 9600 ACCOUNT

ZEEVOLKEN WITH CONDITIONS

UP TO FIFTEEN PERCENT STOP

SHALL CONFIRM LETTER WITHIN

DAYS STOP PLEASE WRITE ALSO

GREETINGS MARX

IMMANUEL VELIKOVSKY

78 HARTLEY AVENUE

PRINCETON NJ 08540





07.06.79

jgx9137
marx
17 schulstrasse

dear marx urgently needed up to date financial detailed statement please cable fully dated information greetings immanuel velikovsky

nnnn 07/06/79 2253



9.06.79

Dear velikovsky see enclosure to my letter april 17 for detailed statement 1978 stop next statement then including seevoelker and ramses too will follow after december 1979 only stop balance subject agreements and debits and tax proceedings stop indeed would appreciate personal communication where supplementary matter required stop greetings and tomorrow many happy returns

Marx



20.06.79

jgx3276
immanuel marx
17 schulstrasse
4436 oberdorf (switzerland)

duplicate and corrected copy 4-083325e170 tdrn seaside heights nj
dear marx need balance accounting 1978 also inform what amount today at our
disposal. please cable whether you did sign any translation contracts give details
dates country etc greetings
velikovsky

nnnn 20/06/79 2138



28.06.79

jgx9631
immanuel marx
17 schulstrasse
4436 oberdorf (switzerland)

dear marx your interference with kluwer contract was damaging please send contract
to me signing contracts requires my written authorization please transfer umschau
advance royalties first national bank of princeton greetings
immanuel velikovsky

nnnn 28/06/79 2251



June 28, 1979

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

I promised to send the Dutch contract, and here it is. It is similar to the German one, along the lines of *WiC* and *EiU* which you have through Doubleday. From Ms Kerkhof I have a letter certifying the translation, which is also incorporating the corrections from *Die Seevölker* (about which I wrote at the time), and it also includes “Pitfalls” as an addition to the appendix. I’m sending you a copy by separate mail; instruct me if you need more or wish to have some sent to particular people. I’m including a statement of Mr. Kluwer’s sales up to the beginning of this year.

In the nick of time I had the chance to check through the translation of *Velikovsky Affair*, which Goldmann will publish in October. They are calling it *Immanuel Velikovsky: Die Theorie der kosmischen Katastrophen*, a title I do not feel to be quite correct, but to which I have raised no objections. However, the translation was very uncarefully made, e.g. original German texts having been retranslated—for simplicity’s sake!—from the English. They’ve accepted all corrections, though, and if there’s time I may perhaps add a short piece about the affair in the German language area. Goldman, of course, belongs to Bertelsmann—you’ll probably remember that somewhat nasty correspondence we had in 77.


The proofs have arrived for *Ramses*, another fortnight’s work, and then I’ll have to proceed with *Erde im Aufruhr*, on which I started last month. And the weekend I’ll spend in Frankfurt to go through the pictures for Ramses.

When I receive it, and if I do not hear from you to the contrary, I shall send on Dutch royalties as they are, settling by DM accounts. I expect you to write in due course to discuss those.

Best wishes and friendly greetings, yours
Yours, Marx

PS: There will be some more corrections to *Ramses* and a suggestion for *Peoples* which I shall send off to you in the near future.





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

July 9, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

you will forgive my calming down for a few days after having read the latest telegram on my return from Frankfurt. By such messages I am feeling to be confronted with problems that I cannot solve by adhering to cabled instructions—an unprovided for way of correspondence. Will you please write! And at the same time explain, why “damaging”? Why “interference”? Or why should I suddenly require your signature to contracts made under our standing agreement? Long ago Jan and even Ms Velikovsky were raising such reproaches, but with never an explanation. The last word in the matter was, about one and a half years ago, that I would stick to what we mutually agreed on.

On the other hand, I have here quite a basket full of expectations — see my correspondence for some about which I have queried repeatedly — which will have to be discussed, once I hear from you. To be responsible for and meet your requirements — implied or otherwise — I enjoy even without the support I’m still expecting: we shall, however, have to consider a counterbalance

Ramses is now ready for the makeup, and I’ll therefore perhaps be able to take a few days off. Meanwhile I expect there’ll be some news from you.

With friendly regards, yours

Marx





Herrn
Christoph Marx Schulstr. 17

CH-4436 Oberdorf / Schweiz

25. Juli 1979

Lieber Herr Marx,

nach unserem Gespräch in Frankfurt am 29. Juni möchte ich Ihnen die vereinbarte Optionswahrnehmung für den ersten Teil der "Zeitalter im Chaos" -Reihe gerne noch bestätigen.

Dabei danke ich Ihnen für die Zustimmung, dass eine Honorar-vorauszahlung erst bei Vorliegen der vorgesehenen Zweiteilung oder nach der endgültigen Klärung der vom Autor versprochenen Aktualisierung bzw. Ergänzung fällig wird. Der Erscheinungstermin wird sich nach dem Vorliegen dieses Materials richten müssen, das spätestens für den ersten Band bis Januar 1980 bereitgestellt sein sollte. Dieser Termin würde dann um ein halbes Jahr verschoben, wenn bis dahin DIE ASSYRISCHE EROHERUNG oder ein anderer neuer Titel vorlage.

Im übrigen möchte ich mich noch einmal dafür bedanken, dass wir in der Uebersetzung von RAMSES II UND SEINE ZEIT so erfreulich und präzise zusammenarbeiten konnten.

Mit den besten Grüßen

UMSCHAU VERLAG
Verlagsleitung

I.V. Dieter Curths





August 15, 1979

Dear Mr. Marx:

Please transfer money due me to my account at the First National Bank of Princeton. Please forward all accounting. Please inform me immediately by cable that you did not sign any other contracts besides Umschau and Holland.

I suggest to bring order into the situation, namely, that you put in writing that you will inform me of negotiations from the start, and that you will send any proposed contract to me and wait for my approval and written authorization. Otherwise, I have no alternative but to immediately follow my lawyer's advice and revoke any authority which may have existed between you and me to negotiate book publishing contracts.

Kindly respond promptly to the above requests, at which time I will cite to you errors in translation, map, etc. in *Seevölker*, and enumerate to you other grievances in an effort to avoid further mistakes. First, however, before we can continue any further dialogue I expect the money transferred to my Princeton account, a cable as requested, an accounting and a written statement signed by you as requested.

Greetings.
Sincerely,

Im. Velikovsky



Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

August 24, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky!

I'm glad to have the letter of August 15 (sent by Ms. Velikovsky from New York) as a lead to possibly finding a new "modus vivendi" which, even if you were not so emphatic personally, your family is certainly striving after (according to your wife's letter of March 1, 1978). Practically it is two years to the day (August 31, 1977!) since I had the last letter signed by yourself, and it is of course this very fact — of receiving neither supporting nor reasoned data or criticism or reactions for such lengths of time — that makes it impossible for me to wait for your approval and written authorization before concluding a contract (of course I would inform you — as I have done — of any negotiations in adequate form and consider reasoned arguments in businesslike manner). Therefore indeed (according to the letter) you may wish to revoke your authority for me to negotiate any book publishing contracts in further countries.

This, of course, will have consequences which, however, have already appeared even, e. g. if it were just for never having received Continental inquiries having reached you since 1978. I therefore have not, and I also could not, signed any other contracts than Umschau and Kluwer (covering the German and Dutch language areas, i.e. including Switzerland, Austria, etc.). This, your revoking your authorization (which I obviously have to accept as a fact, not being able to comply with your proposal for a fundamental change), and a list of pending problems that should have been met with a long time ago (foremost those points that we agreed on in 1977: microfilming your archives; delivering the sections for extending *Ages I* into two parts for the German edition; making available the Einstein title; or even such points as explaining, why in your view both the Umschau as also the Dutch contracts are claimed to be "damaging") I must consider myself as damaging to a degree to be evaluated at not less than the returns from German language rights. As I do naturally not wish to lose more than necessary in what I could fairly expect to acquire from our agreement as it has been standing up till now, and toward which I have invested and expended much time, effort, and money, I

cannot transfer to you the money from German royalties until your commitments have been realized, or subject otherwise to a new agreement.

So there! Your letter is speaking of “grievances”, “mistakes”, and “bringing order into the situation”. Out of our deal I cannot imagine grievances other than my own. Not a single mistake has been explained to me. Though paralyzed by your revocation, affairs are in perfect order. And accounting according to our 1977 agreement (though now subject to what I said above) you could easily do by subtracting 20 % each from the German and Dutch amounts, settled both on the DM-account. To bring into this “errors in translation, map, etc. in Seevölker”, instead of telling me about them in a straightforward way, seems strange indeed!

Nevertheless we must, I hope, find an amicable solution. I suggest — and, not having your personal word within reasonable time, would assume for granted — that in return for the annulment of our actual and implied 1977 agreements you will transfer to me the German language rights including the Umschau contract for a nominal 5 % of the royalties (so that you and your family automatically know about German business, and we do not lose sight of each other). This will set you free to negotiate any other language areas at your will, or you may wish to use my services to negotiate, or to make arrangements say for the checking of translations, on a simple expenses-paid basis, without my participating in royalties or your renouncing your right of approval and authorization. As you know, such German monies are not going toward an enrichment of myself; I have already invested thousands of Francs of my own money in our cause, of which I would have asked you to share some part — a question I would now, of course, do without. No other people in the world need your works as urgently than the German speaking peoples.

Let me repeat, however, that I look on this as a conciliatory proposal on which my losses would seemingly be equated by the gains only because I could count among them your relief from some agitation and worries. Nothing, of course, will change in my stand for your analyses, and against revisionism.

Sincerely, yours

Marx

PS: In Tuesday’s letter I put the question, whether we should meet. The letter I had from you since, and the one I now had to write, makes me feel there would be too little time (due to my being pressed for it) to talk and think everything over in case we don’t agree. And for what I wanted to say about taking some initiatives with regard to the present NASA experiments and therefore opportunities of advancing our objects being lost over and again, there would appear to be too little enthusiasm now anyway — I’ll have to put these ideas to paper. So I suggest we shall meet again at some better suited opportunity.





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

August 25, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

from a reader of *Die Seevölker* I hear that Fig. 1, "Persian Guard" seems not to be of a guard, but of a nobleman presenting some gift to his sovereign. I would therefore suggest to use a picture of an actual guard soldier, the one in the copy of a photograph I'm enclosing. In a reprint I shall have it exchanged, and if you wish I could send an appropriate photo copy to you. But you might find it just as easy to obtain an original from Chicago.

To *Ramses* I'm enclosing further corrections, mostly to footnote errors. In the first set I sent to you, on page 141, in footnote 4 second line, only the n in "in" should be replaced by m: "Boghaskoei" and "Kappadocien" of course should remain as they are. Note, however, that in the synchronical table page 254 Amasis has been forgotten.

I take this opportunity of enclosing Ms. Vera Kerkhof's statement, and also a confirmation by UMSCHAU. *Ramses II und seine Zeit* is to be published September 20, and of course you will be sent a copy at once. I hope you will be good enough to let me know any errors in *Seevölker* or *Ramses* which you have or will detect.

Best wishes, yours

Marx



I, Immanuel (Emanuel) Velikovsky wish to state as I already stated repeatedly since August 1977 that I do not wish Mr. Chris. Marx of Basel (now Overdorf Switzerland) to represent me at my lifetime or after my lifetime. More and more his approach to my work, my family, my wife, & myself alienated him to me.

Im. Velikovsky

Witness:

[signed] Robert J. Pinto

Dated: September 5, 1979



IMMANUEL VELIKOVSKY
78 HARTLEY AVENUE
PRINCETON, N. J. 08540

Sept. 7, 1979

Dear Mr. Marx:

Enclosed is a formal letters that terminates our business relationship. You have been three days in Calif., & in Wash., D.C. but did not give a ring to Princeton. I will, next, explain the “damage” referred earlier, and the mistakes in geography and text of translation.

Sincerely,

Immanuel.



IMMANUEL VELIKOVSKY
78 HARTLEY AVENUE
PRINCETON, N. J. 08540

Sept. 7, 1979


Dear Mr. Marx:

In answer to your letter of August 24, 1979, be advised that I do not agree with any of the proposals which you outlined..

I hereby revoke any authority which may have existed between you and me to negotiate book publishing contracts.

Sincerely,

Immanuel Velikovsky



Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

September 14, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

I was glad to have your personal word. As indicated in my letter, I thought it better to leave the initiative of a call to me at S.F. to you—I trust you know that no discourtesy was intended. I might also add that in a sense I have become shy of telephone calls after all but two years of one-sided communication and so many unanswered questions, which would take us all of a week to discuss.

I have informed my two contractants of the step you thought expedient to take, as you will see from the copies I'm enclosing. But do you think you are treating me quite fairly? In any case I do not wish to leave any doubt that I do not intend to suffer a loss either in my exertions on the behalf of your work especially in the German language area, nor financially. The 5 % from German royalties you do not wish to accept I shall use to keep part of your pledge to the British, in a way I see fit.

Apart from the information you promised in your note, and I shall be very grateful indeed for what you will have to say about *Seevölker*, I hope also to receive the material for making *Ages I* into two parts (note that "Sulman Tempel" is already part of the German edition), as well as indications on the publishing plans of the other works we talked or agreed about.

Sincerely, and with best wishes, yours

Marx





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

September 23, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

PERSONAL & CONFIDENTIAL

Dear Velikovsky,

returning from Frankfurt, where I was already shown two letters initiated by KRONOS, I saw myself confronted by a perfect barrage of indignantly presented reasons for not allowing our journal to reprint some KRONOS material (some 14% of what has been published by now). Among such reasons is supposed to be “evidence for [my] business activity”, and of “countless hours and great efforts”, that KRONOS staff had to expend, “to deal with matters originating with” me. As up to the moment we had decided on a list of KRONOS material we wished to publish (a prerequisite for making contacts in the first place) I never had anything to do with KRONOS at all—except for simple issue ordering—such “evidence” or “great efforts” may hardly have its source from anywhere but your own house. I would hope this to have happened without your knowledge, and certainly without your approval. And I would therefore also ask you to mediate for the publication in the German language area between the KRONOS people and me. One year of publishing the main work from the English language area will, we expect, call for at least an equal amount of work from Germany and Switzerland, which will then in turn be available to KRONOS and SISR: gratis, too, as long as our journals are not popular, profit-oriented magazines.

But I hope you will be able to put a stop to that tendentious trade in news which seems to be going on between unidentified sources and some of your followers being in charge of affairs. You must agree that we have more important matters to attend to.

Sincerely, yours

Marx





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

October 25, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

here's a copy of the German *Velikovsky Affair*: didn't I warn you by rights (December 27, 1977) of what a Bertelsmann company would do? Had I known they were going to put your name so prominently on the cover as if you had written the book (thanks only to Mr. Curths from UMSCHAU they must have refrained from displaying Prof. de Grazia's name in small type), I should not just have asked them about using the original title (never getting an answer on this). What really annoys me, however, is to see the book now published under "Fringe Science"; the carelessly and misleadingly written text on the back cover; and the typical ads for "historical" books from Nazi times.

I hope such people won't get their hands on *Reconsidered*, or such work.

I'm still looking forward to seeing your criticism of the *Seevölker* translation—and possibly about *Ramses*, too, now?

Best wishes, and sincerely, yours

Marx



1716 Brightseat Rd * Apt 104 * Landover MD * 20785
November 7, 1979

Dear Dr. Velikovsky,

This is for your information and to provide a record of the conversation Chris Marx and I had Tuesday September 4th in the coffee shop of the Capitol Hilton when Chris was returning to Switzerland from San Francisco.

Our entire conversation, except for a some small talk and remarks about W.I.Z. Products (the Tee-Shirt venture), concerned Marx's crusade to enlighten the German people about the Holocaust being another manifestation of collective amnesia. He claimed, and gave some examples, that official statements by the early Nazi regime and from the Vatican at the same time were couched in the Venus symbolism expounded in *Worlds in Collision*. He told me that Zvi Rix had many manuscripts documenting and elucidating this interpretation of German-Jewish history. When I asked him what you thought about his ideas, he replied that he did not care what you thought, that this insight was too important to be subjected to any possible censorship by you should you not approve and that the ideas you liberated in 1950 have ramifications that have outgrown the need for your personal stewardship.

Marx is a zealot who will stop at nothing to further this *idée fixe* of his. He said in no uncertain terms that his primary interest in your work is its applicability for explaining the Holocaust. I hope this recounting helps your deciding on a firm course of action to take regarding Marx's activities.

Respectfully yours

Leroy Ellenberger





IMMANUEL VELIKOVSKY
78 HARTLEY AVENUE
PRINCETON, N. J. 08540

November 11, 1979

Mr. Dieter Curths
Umschau Verlag
Lektorat

Dear Mr. Curths

I am in receipt of a copy of a letter from Mr. Marx to you dated September 14, 1979. In that letter he refers to a Power of Attorney "laut der Ihnen vorliegenden Vollmacht." Since I have never signed any Power of Attorney giving Mr. Marx authority to sign contracts on my behalf, I would appreciate receiving a copy (preferably a photo copy) of the Vollmacht to which Mr. Marx refers in that letter to you.

Thank you for your cooperation.

After receiving your reply I intend to write to you clarifying other publishing matters.

Sincerely,

Im. Velikovsky



State University of New York at Buffalo

DEPARTMENT OF
PHILOSOPHY

FACULTY OF SOCIAL SCIENCES
AND ADMINISTRATION

November 12, 1979

Mr. Malcolm Lowery, Editor
Society for Interdisciplinary Studies Review
11 Adcott Road
Acklam
Middlesbrough
Cleveland TS5 7ER
England

Dear Mr. Lowery:

This is a rather belated reply to your letter of August 9th.

The fact that the Glasgow chronologists may admire Velikovsky for stirring up the waters and challenging the conventional chronology does not change the other fact (the one to which I was referring) that the Glasgow chronologists do “entirely reject” Velikovsky’s revised chronology for the post-Theban periods. They deny that Haremhab was a contemporary of Sennacherib, that Ramses II was a contemporary of Nebuchadnezzar, and that Ramses III was a contemporary of Plato. They leave nothing of the post-Theban revised chronology intact. And they do leave much of the conventional chronology intact, such as the conventional placement of Haremhab at the end of the eighteenth dynasty. If you feel that it is needed, however, I would not object to adding the words, “part of the revised chronology that is covered by the”, between the words “the” and “three” of line one of paragraph two, to prevent any misunderstanding such as yours.

Of course the Glasgow chronologists think that the post-Theban part of the revised chronology does not work. To say that they reject it because they think that it does not work is very nearly tautologous, almost like saying that it’s wrong because it’s wrong. This does not even begin to get into their reasons. Their reasons *are* unclear, as I proceeded to explain in the rest of paragraph two and in the subsequent paragraphs.

I see little similarity between the work of the Glasgow chronologists and some of your characterizations of that work. You speak of how they “are feeling their way one

obstacle at a time, and a good many difficulties still remain”; you also speak of “interim findings and tentative partial models”. Is that really how you would describe the tone of James’ review of Ramses II and His Time? There is hardly anything very *tentative* about James’ rejection of some of the main theses of that book.

I do indeed “expect to get away with saying, “The Glasgow chronologists have already provided us with numerous instances of their uncritical acceptance of theory-laden ‘data’ that have been offered by the (conventional chronology,” without giving a single one of these instances in evidence” . The instances are readily available for anyone who wishes to look at what has been written so far.

The last paragraph of my letter avoids any mention of MacKie, Cardona, or others, but I think that it does indeed have a “place in the present discussion” . I see the present discussion mainly in terms of evenhandedness and consistency. If it is open season on Velikovsky, what’s wrong with a few shots at one of the founders of the S.I. S.? (I do admit that the word “the” in line one of my last paragraph should be “some,” and I request that you make that change.) Readers will see the *point* of my allusion, even though the *dramatis personae* are left unnamed.

On the same general subject, but with reference to a different document (your own cover letter to KRONOS that accompanied your joint letter with James), I would like to comment on your reference to “a false impression of Dr. Euan MacKie which is apparently prevalent in North America” and on your remark that “MacKie would go the same way as Atwater (and no doubt equally painfully) if he declared in the specialist press his willingness to entertain Velikovsky’s ideas—a problem which Bimson also had.” I know of no Velikovskian who wants to see any other Velikovskian “go the same way as Atwater.” There are some people who have found it necessary to pursue their academic careers under their own names and to publish their Velikovskian writings under pseudonyms. Even in their “orthodox” work, however, they say nothing that is incompatible with Velikovsky’s theory. I have never heard *any* criticism of such people. Perhaps that is the course that MacKie and Bimson and any others in that predicament should follow. But they cannot expect to have it both ways. Insofar as they continue to publish those portions of the establishment line that are incompatible with Velikovsky’s theories, they will inevitably be attacked by Velikovskians.

Sincerely,

Lynn E. Rose
Professor of Philosophy

LER:mf

P.S. This letter, like yours, is not intended for publication (at least, not in the twentieth century, say, though it is to be hoped that many such letters as ours may eventually be published as items of minor historical interest). But I have no objection

to your sharing this letter with anyone who you think might be interested in it.

BALDY HALL BUFFALO, NEW YORK 14260 TEL. (716) 636-2444





cc.: Herrn Marx

Immanuel Velikovsky
78 Hartley Avenue

Princeton, New Jersey
USA

UV Cu/ca. -253-

22. November 1979

Dear Dr. Velikovsky,

thank you kindly for your inquiry. I am enclosing your letter of May 17, 1977, which is in effect the "Handlungsvollmacht" according to which Mr. Christoph Marx acted in signing your mutual contract. It agrees with what you said in your "Notes to my Collaborators" of 19th July 1977 (a copy of which we have received from Mr. Marx) with Swiss and German law; and of course with your consent, as implied ever since 1977.

We have always been, and are, keeping to the letter and intent of our contract with Mr. Marx and your kind self. If you have in mind any changes to our agreements, as perhaps you might be implying in your letter, then I would suggest your discussing them directly with Mr. Marx, who I am sure will present your intentions to our mutual satisfaction.


May I also be allowed to say, that to a substantial part the success of your works in the German language area has been due to Mr. Marx's exertions, and that also in future, within the frame of our contract and for complementary efforts, we shall expect to count on him. Your also sustaining our mutual purpose will be much appreciated!

Every possible care and attention will as always be expended by our house also on your books to come, and I do hope that the titles we have produced up till today will remain a convincing proof of this.

Sincerely yours

Dieter Curths





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

December 4, 1979

Tel. 061 97 91 88

Prof. Lynn E. Rose
Dept. of Philosophy
State University of
New York & Buffalo
Buffalo, N.Y. 14260
U. S. A.

Dear Lynn,

I was deeply grieved to hear of Dr. Velikovsky's death.

Two and a half years ago he had told me that he would entrust you with his literary estate, and he asked me to assist you. Other duties and intentions had also been talked about, and I pursued those I was able to.

However, I surmise that perhaps not much is left of those plans and without being called upon I shall of course refrain from taking any action, though keeping to the tasks according to the agreements standing for the German and Dutch language areas.

Do let me know about points you wish to see perhaps more clearly.

I very much liked your careful discussion of Saturn in the last KRONOS issue.

I'm enclosing a copy of the obituary in The Times, together with my letter to them.

Best wishes,

Marx





State University of New York at Buffalo

DEPARTMENT OF PHILOSOPHY

FACULTY OF SOCIAL SCIENCES AND
ADMINISTRATION

January 15, 1980

Mr. Christoph Marx
Schulstrasse 17
CH-4436 Oberdorf
Switzerland

Dear Chris:

I have received your letter of December 4, 1979.

You seem to believe or to hope that I am not aware of your activities.

I am very much aware of such matters.

We both know that there are no "agreements standing for the German and Dutch language areas" and indeed that there are no "agreements standing" regarding any other matters whatsoever.

The party's over.

Sincerely,

Lynn E. Rose
Professor of Philosophy

LER: mf

P.S. Whatever you yourself may think about the Holocaust, your effort to persuade the *Times* that *Velikovsky* saw the Holocaust in terms of collective amnesia is a *deliberate misrepresentation*.





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

January 22, 1980

Tel. 061 97 91 88

Prof. Lynn E. Rose
Department of
Philosophy
State University of
New York
Buffalo, N.Y. 14260
U. S. A.

Dear Lynn,

when you came down from Buffalo to meet at Velikovsky's house it was his expressed understanding that you would be responsible for his literary estate, and that I should look after his rights in all non-English speaking areas. Arrangements were to be made about some particular areas, I received some special instructions about proceeds from Germany, 15-5 % of new royalties in my area, and \$ 1000.- closing the deal. We were aware that neither his wife nor her daughter were pleased with these decisions, and I was told why. A year later I had a personal letter from Ms Velikovsky to the effect that she was going to change all this, and I'll be glad to send you a copy. One and a half years after that Velikovsky after more than two years sent me a note originating from his own hand, canceling my authority to contract new publishers; you are welcome to a copy of that, too. I withdrew with as fair a compensation as possible, and I'm satisfied that you have kept your own original responsibility. And I'm indeed satisfied that agreements in the German and Dutch language areas are standing, books now and in future being printed and distributed.

(2) If I expect anybody in the States to be aware of my activities, it certainly is you. And if I wish not to draw anybody into the silly fight with the family, it certainly is you.

(3) I gave Holocaust as one of several examples of collective irrational behavior, which according to Velikovsky is a product of collective amnesia. To say he looked on Holocaust as an example of rational collective or individual behavior would therefore be an act of deliberate misrepresentation. Your taking exception to this point is very surprising to me.

(4) From checking though the sources for the translations I have quite a number of little

corrections, especially to footnotes, on the English editions. Velikovsky promised me some corrections on Seevölker; how do we proceed?

(5) I was going to pilot the parting up of *Ages I* into two volumes: are you willing to coordinate and make editions identical?

As you say, Lynn, the party's over—and I'm glad for it, because I don't really like parties; so lets tackle the real issues. Please.

Sincerely,

Marx

PS: I would very much like to see you in Iceland.





State University of New York at Buffalo

DEPARTMENT OF PHILOSOPHY

FACULTY OF SOCIAL SCIENCES AND
ADMINISTRATION

March 21, 1980
mailed 26

Mr. Christoph Marx
Schulstrasse 17
CH-4436 Oberdorf
Switzerland

Dear Chris:

Nearly all of your claims about who said what, who did what, and who knew what when are fiction and fabrication. When you do occasionally throw in a sentence that happens to be true, it is in such a context of dissimulation that it too is presented only for purposes of deceit.

Your efforts to represent your opposition as a small group or even as one person are fooling nobody. Velikovsky himself opposed and repudiated you, and all of Velikovsky's associates see you for exactly the avaricious and untrustworthy dissembler that you are.

Sincerely,

Lynn E. Rose
Professor of Philosophy

LER: mf

BALDY HALL BUFFALO, NEW YORK 14260 TEL. (716) 636-2444





KRONOS

Journal of Interdisciplinary Synthesis

Editorial office:
KRONOS

Glassboro State College
Glassboro, N. J. 08028
(609) 445-6048

April 3, 1980

Dear Mr. Marx,

After due consideration, I am returning your contribution of \$100.00 to the KRONOS Endowment Fund. We wish to make it clear that we disapprove of your continued distortions of the facts concerning Velikovsky; it is therefore inappropriate to accept your donation. My initial impulse was to accept the money if, for no other reason, for the trouble you have caused Prof. Greenberg and myself, to say nothing of the anguish you have caused Dr. Velikovsky and his family.

I have been more closely associated with the Velikovsky family for twenty five years than anyone presently associated with his work and I can tell you, that no other individual has caused Dr. Velikovsky more pain, more trouble, more heartache than you. I cannot tell you how many hours I spent with him drafting letters, discussing ways to stop your activities. He finally decided to write you in his own handwriting disavowing you as his agent but still you persist in inventing the idea that it was his wife who opposed you. This is a total fabrication; I was in their home on a daily basis and there was never a disagreement on this point. The last year of Dr. Velikovsky's life was almost totally taken up with the question of how to put a stop to your activities. He rued the day he ever met you. I hate to be so blunt but it seems the only way to get through to you.

On the other hand, I think you know perfectly well what the facts are and that you have used Velikovsky for your own self interest.

Sincerely

Warner Sizemore





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

April 6, 1980

Tel. 061 97 91 88

Prof. Lynn E. Rose
State University of N.
Y.
Department of
Philosophy
Buffalo, N.Y. 14260
U. S. A.

Dear Lynn,

I am sorry to see you so agitated. I simply must put up with it until you put questions and ask for answers. And until then, too, I shall not stand up against each and every imputation raised against me.

At the request of UMSCHAU VEPLAG I have explained the position to them in context. I think you should know about this, and I therefore enclose this letter. Would you say that Mr. Pinto was not informed about the letters by Velikovsky refuting his statements so easily? What, do you think, is the impression left by a document requested from (or even dictated to, for all I know) a dying man under the eyes of witnesses whose own interests are involved?

But the moment Velikovsky's own words have been accepted — when the impossible denials of my agency and rightfully concluded agreements have been dropped—we can freely enter discussions on how to proceed in future. Otherwise your policy is forcing us into a legally clear and easily defensible position, from which, however, we cannot offer any help for solving your problems.

I am enclosing also a short list of errors in *Earth* (Pocket Books). Tell me too, please, whether you have the corrections I had to make for *Peoples* and *Ramses*. Also I should like to know about “mistakes” Velikovsky mentioned he found in *Seevölker*, but which he didn't detail to me—especially he named the map we included. And I ask you again about the parting up into 2 volumes and the extension of Ages.

Sincerely,





Christoph Marx
Schulstrasse 17
4436 Oberdorf,

April 11, 1980

Tel. 061 97 91 88

Mr. Warner Sizemore
KRONOS
Glassboro State
College
Glassboro, NJ 08028
USA

Dear Mr. Sizemore,

if what you say in your letter of April 3 were representative of the facts I would have heard from Dr. Velikovsky a long, long time ago. Your writing like this after the event of Dr. Velikovsky's death to me is further proof 1) of his having actually been pressured into disavowing mutual and written agreements, and 2) that he has withstood this pressure for months, if not years, until he was very weak of old age indeed.

Again, you do not state a single fact why Dr. Velikovsky and I should have been in disagreement, nor do you explain how I am supposed to "have used Velikovsky for my own self interest". What I do know, however, is, that profound differences of opinion exist between Ms. Velikovsky's and your own faith in religious matters on one side, and the thinking of Dr. Velikovsky, as also expressed in writing, on the other side. These matters have been quite clearly exposed lately on the Holocaust question.

If we do not draw a line now, agreeing to disagree on the fundamental question of the significance of Dr. Velikovsky's work, and if you do not stop switching this disagreement to attacks against perfectly legal and above-board business agreements, you will hardly ever allow me to offer assistance, even by little steps, in the years to come. Take those one hundred Dollars as such a step, even if you consider them as an acknowledgment of the trouble you and Lewis Greenberg have to bear.

I shall attend the S.I.S. meeting in London on the 26th. If you wish to let Prof. de Grazia communicate a message, and if he agrees to take it, do so. I have asked our German publisher to join me there, too.

Sincerely,





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

June 20, 1980

Tel. 061 97 91 88

Mrs. Elisheva
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Mrs. Velikovsky,

at his lecture in Kassel I was able to talk with Prof. Heinsohn. Noting his profound impression I asked him to come down to Frankfurt next morning for an informative meeting with Mr. Hans-Jürgen Breidenstein, the publisher.

Primarily, I have reached the firm conviction (and a brief exchange with Prof. de Grazia, when I saw him in London, has also helped me) that I must apologize to you for what you could not but understand as irreverent, possibly even disloyal actions on my part. I hope you will accept my apology after the solving of our problems has satisfied any remaining doubts as to my sincerity.

Secondly, I have agreed with Mr. Breidenstein's request that the royalties should be settled in a first effort to come to terms. The blocked account will be dissolved; the amount of DM 28'400.- will be sent to you, and three points must be mentioned in regard to this:

(1) From Prof. Heinsohn we learned that other books (e.g. *Mankind im Amnesia*) than the ones already contracted for will be prepared for publication: it seems fair to agree with Mr. Breidenstein, therefore, that for the present he should forward advance royalties on the actually available books only (*Oedipus*, and *Ages I*).

(2) Velikovsky had impressed on me how much he wished all proceeds from Germany to go to a program dedicated to research on the Continent generally (a copy of his archives, e.g., was to be financed by this means), and toward sustaining efforts in a younger German generation at overcoming their recent past, based on his new insights, particularly (nothing proved to me more his deep human kindness, and his convictions; do consider this, when judging my actions). Not being able to count on your confidence, all I presently can help is to propose to return this charge (financing and

commission) under the original provision that such programs should be directed by native, informed opinion only, to your own judgment.

(3) A total of DM 37 '345.- has been paid by the publisher directly to me, and I consider it proper to set off against this sum my 20 % (or 15 % respectively for originally "gifted" countries) from all royalties falling under my agreement with Velikovsky, covering contracts established between June 1977, and September 1979, the time Velikovsky revoked my authority. According to this accounting; (as attached) I owe you SFr. 19' 250.- under the terms of the contracts, assuming none of the 15 % kind exist, that this amount will include my repaying expenses incurred with my activities under (2) above, and that you agree. Then would you please instruct me regarding the balance in your favor.

Thirdly, *Mankind in Amnesia* and other books not definitely planned yet with Umschau Verlag being now scheduled for publication (as Prof. Heinsohn informed us), I have also accepted that Mr. Breidenstein will discuss the options and his requirements regarding these new titles directly with you.

A small point that Prof. Heinsohn mentioned was your not being in favor of parting up *Ages I* into two volumes. This, of course, had been Velikovsky's own original idea, not mine, and if none of the promised additional material (needed to extend each half into a separate volume) can be realized, indeed there is no problem in re-publishing the volume in its present form. You should be ware, however, that already the original German Europa Verlag edition included "Sulman Temple" in addition to the English edition, and that "Jericho" was proposed by Velikovsky as a further section (see Jan's letter 6-13-77). Even if only with one supplement each (and several possibilities offer themselves), Velikovsky's intended two-volume edition would better serve the purpose of presenting his work in a still more closely knit form. We must also not forget that Europa Verlag did much damage when they sold off cheap their *Zeitalter im Chaos*, which can still be found "neuantiquarisch" in some shops, and that the publisher has therefore taken a special risk making the work available again; it is a further reason to follow Velikovsky's opinion.

Fifthly, the difficult and difficile approach to Holocaust, anti-Semitism, and Nazism weighs most heavily on my mind, as long as my thoughts appear to be so far estranged from your own, though to me for no apparent reason. Indeed, I felt extremely shocked by Lynn Rose's view, in January, that I was, in a letter to the *Times*, "deliberately misrepresenting" Velikovsky; and I also have here a copy of Mr. Kitov's letter to Dr. Rix, requesting him on your behalf to communicate to me your obviously deeply felt displeasure. From all material available to me, including Velikovsky's own opinion stated in correspondence, I cannot make out the offense I caused. Naturally I am very much willing to listen to arguments, and for the moment therefore all I can say regarding this subject is, that it should come up for discussion, so that I can learn to understand your opinion.

With sincere regards,





78 Hartley Avenue
Princeton, New Jersey
USA

May 12, 1977

Re.: PEOPLES OF THE SEA

Dear Dr. Velikovsky,

it was hard work to obtain your address. Immediately after hearing of your book in January I contacted the European agent of Doubleday and asked for a proof copy. Then in April of this year the agent told me, that Doubleday controls the translation rights. I wrote to Doubleday and they informed me, that the rights are controlled directly, by the author o. k. Are the German rights still free and if they are available, can you send me a proof copy (I fear they don't)?

By the way UMSCHAU VERLAG is the publisher of a leading scientific journal in Germany and is publishing a book list with some fresh approaches. For example we are the publisher of the Doubleday book Henry Miller, "Insomnia or the Devil at Large" - Denis Postle, "The Fabric of the Universe" (Crown) - Walter Sullivan, "Continents in Motion" (McGraw Hill) - Robert Temple, "The Sirius Mystery" (St. Martin's Press). The latter we have pushed at the moment to the best seller list in DER SPIEGEL.

It would be nice to hear from you.

Yours sincerely
UMSCHAU VERUG
Lektorat

Dieter Curths





Christoph Marx
Schulstrasse 17
CH - 4436 Oberdorf

August 21, 1979

Tel. 061 97 91 88

Dr. Immanuel
Velikovsky
78 Hartley Avenue
Princeton, N.J. 08540
USA

Dear Velikovsky,

I'm thinking of attending for 2 or 3 days the NASA Pioneer briefings on the Saturn encounter in about 10 days time. Tell me if we should meet. My only difficulty is to be present on weekly scheduled, and at the moment crucial computer runs in Zürich, which however may be adjusted for a few days within a particular week.

Prof. Heinsohn (Bremen University) was staying with me a week ago for several days. We have discussed a German language journal and decided to begin publishing from January 1980, with the help of UMSCHAU VERLAG. I'm enclosing our jointly worked out initial editorial statement. During the first year of bimonthly issues we hope mainly to acquaint the German speaking readers with much that has appeared in Kronos. I have suggested and agreed to use some of your own papers, and regarding the translation and use of other articles I shall of course get in touch with Lewis Greenberg. I'm attaching a tentative schedule for the first 6 issues.

With best wishes and friendly regards, yours

Marx



Robert Pfeiffer

In April 1940 I conceived the scheme of *Ages in Chaos*. In the summer of 1942 Horace M. Kallen of the New School wrote a letter to Harry Wolfson of Harvard and mailed to him my (first version) manuscript. Wolfson gave the mns. to Robert H. Pfeiffer, who upon reading it answered him with some criticism. Now in August 1942, visiting Wolfson, and being given Pfeiffer's letter, I soon met with the latter for a longer discussion. The correspondence presented here followed.

Oxford University Press kept my manuscript for fourteen months, but decided against it upon the advice of Ephraim Speiser (the author of the Hurrian grammar), as I realized upon finding the mns. still in Speiser's envelope. It so happened that later also, due to unobservance, the name of the negative critic for the Harvard University Press was revealed to me.

Having been examined and rejected by these two publishers, the mns. was submitted one after another to six or seven commercial publishers; then in the late summer of 1946 I started the round of eight publishers with the mns. of *Worlds in Collision*, and saw both my works rejected. Almost all refusals were based on the same opinion—the book with so many references (footnotes) needed to be published with some outside support. Macrillan took a different attitude, and accepted *Worlds in Collision*.

The correspondence of the mid-1950s centers around my efforts to obtain samples of organic material of the time of the New Kingdom, and have them dated by radiocarbon tests.

Immanuel Velikovsky





May 16, 1958

Dear Mr. Velikovsky:

Thank you for your very moving letter of sympathy in my great sorrow—what a tragic time of loss we all have! Indeed my solitude gets harder and harder to bear from day to day. It's a comfort to know that Robert was universally loved and admired. Thank you for inviting me to come to Princeton. I hope we will meet again.

Yours,

Matilde Pfeiffer



January 28, 1976

Dear Dr. Rix:

In December I was presented with a collection of papers, among them a paper of your hand. I thank every participant for the work contributed.

Slowly I go through the papers and find many original ideas or observations. Yet I did not wish to postpone any longer the expression of my thanks with detailed reaction to each paper.

I would like to hear from you. With best regards also from my wife, Yours



Claude Schaeffer

In the summer of 1957 Elisheva and I traveled to Europe, and at Lake Luzern in Switzerland met Schaeffer. We were charmed by his personality. He was immersed in reading *Ages in Chaos* and inseparable from the volume. Schaeffer and I became friends.

After traveling through Italy, we went to Greece, we met Schaeffer once more. He took me to the cemetery in Athens where Heinrich Schliemann, the discoverer of Troy and of the Mycenaean royal graves is entombed. There he placed a wreath of flowers at the foot of the mausoleum. He felt that much injustice had been and was still being done to Schliemann. Through the years we continued to correspond and met again in Paris in 1974.

After more exchange of letters, I traveled to Switzerland we spent six days together on the Lake of Luzern. His appearance is captivating and so is his personality. His great experience and success in archaeology, and his knowledge of myriads of details, were kept entirely in the background; he was eager to discuss with me numerous points of *Ages in Chaos*, vol. I, the historical and chronological work, the subject and content of *Earth in Upheaval* being accepted by him in toto and not requiring any more discussion. We had daily at least two sessions; and even at the beach, in bathing trunks, Schaeffer would not part with *Ages in Chaos*.

After we parted—and a true friendship sprang up during that stay in Vitznau, I mailed him the page proofs of the second volume of us *Ages*, as they were set in 1952, over five years earlier.

We met again for a day in Athens. He with Mrs. Schaeffer traveled on a cruise of the Greek islands, and the French translation of *Earth in Upheaval*, went to Venezia and Rome to follow the paths of Diego Pirez and Giordano Bruno, two of the heroes of a work that I felt like writing—*Three Fires*, the third hero being Michael Servetus, who was burned in Geneva. Schaeffer too felt a desire to write a book of biographical nature—*Three at Troy (Trois a Troi)*—the life story of Schliemann, Doerpfeld, and Blegen who dug at Troy. It appears that our experiences awoke a wish in each of us to arise in defense of wronged men of the past.

I came to Greece to visit Mycenae and the valley of the Argolid (Argive Valley), of which I write in volume 2 of *Ages* and to see the riches excavated by Schliemann in the new museum in Athens. Schaeffer he came to fetch me for his homage trip to the tomb of Schliemann. We drove to the cemetery and there Schaeffer bought some flowers in front of the gate and put them at the foot of the mausoleum of the man

wronged by official science in his days, and still in ours, as Schaeffer believes.

From Cyprus I received a letter from Schaeffer that I am permanently on his mind as he makes the first effort to check, on a new excavation of a grave in Enkomi-Alasia, on my historical scheme. As I write this—it is as far as we went. I mailed from Israel to Schaeffer the schedule as I develop it in *Ages in Chaos* volumes I thus expect that in digging he will repeatedly find the fourteenth century Egypt in one level with the ninth-century Assyria, and the thirteenth-century Egypt with the seventh-century Babylonia, and twelfth century Egypt, that of the XXth Dynasty, contemporaneous with the very definite and late Helladic history. The Egyptian levels among themselves will consistently show a “wrong order” : objects of the so-called Libyan and Ethiopian Dynasty will be found not above but below the levels with the objects of the XIX (that of Ramses II) and XX (that of Ramses III) Dynasties.

I do not expect an immediate success; only after repeated checks, in Enkomi-Alasia on Cyprus, and in Ras-Shamra in Syria, the first insecurity in the accepted and never before challenged schemes will gnaw the assurance, instilled in school and watered in years of teaching and writing; but was not Schliemann a schismatic who called upon himself the wrath of his contemporary academicians?

I intend to meet Schaeffer again in Paris upon his return from digging in Ras-Shamra-Ugarit, and my return from Israel—presently we cannot correspond, since no mail is exchanged between Israel and Arab countries; then we shall select objects for radiocarbon tests, and discuss in more detail the plan we conceived on the Lake of Luzern: to write under a common title: “World-wide Catastrophes in Historical Times,” a two-volume work, of which Schaeffer would write the volume on “The Archaeological Evidence from the Ancient East,” and I the part “The Evidence of Geology and Literary Relics.” On this score we are united—and how could it be different, if each of us, unaware of the work of the other, on entirely different material—he on archaeological strata in the excavated sites from Troy close to the Dardanelles to all over Asia Minor, Caucasus, Mesopotamia, Persia, Cyprus, Syria and Palestine, and I on the literary relics of ancient culture from the hieroglyphs of Mexico to the scrolls of Japan, China, the Vedas of India and the Hebrew Bible and Egyptian papyri, epics of northern races—came to the very same results about the great catastrophes, about their number and about their exact dates closing hours of the Old Kingdom in Egypt and again at the closing hours of the Middle Kingdom in Egypt—and several times more, always at the very same historical moments.

We actually both attempted to use the fact of these catastrophes for construing a synchronical table of history. My effort is embodied in *Ages*. Possibly, because I came to the field of history, archaeology and chronology at a mature age, I was at the advantage of seeing things in a newer light. Thus I could also delve into the fields of geology and paleontology and find a complete correspondence with my finds in literature and folklore—the collective human memory, and with Schaeffer’s in the field of archaeology.





Grand Rapids, Michigan, April 9 (AP).—Frank E. Siple, sixty-seven, former Grand Rapids minister convicted in 1946 of the poison-murder of his retarded eighteen-year-old daughter, Dorothy Ann, died last night at his home.

Gov. G. Mennen Williams commuted Siple's life sentence last December 29 "as an act of mercy" after prison physicians said Siple, ill of cancer, had a life expectancy of thirteen weeks or less. Siple survived a few days beyond thirteen weeks.

The ex-minister confessed the 1939 murder to police but later retracted the statement, claiming he had made admissions under coercion. The case attracted wide attention through the long period of prosecution. For a number of years Siple fought to reopen the case but unsuccessfully.

Siple wife, to whom he had been paroled, and a daughter, Mrs. Thomas Palmer, never lost faith in his innocence.



The Weizmann-Velikovsky Correspondence

Chaim Weizmann

[Weizmann to Velikovsky - January 23, 1924](#)

[Velikovsky to Weizmann - 1927](#)

[Velikovsky to Weizmann - January 19, 1927](#)



Friday [January] 23, 59

Dear Dr. Federn:

Here is another bunch of questions. Several of them I could probably find myself, but I try to concentrate presently on writing; to other questions of importance I think you could find an answer, not myself. To the last group belongs this:

1. Gardiner, JEA, 1957, p. 21, fn.: “Is it possible that in youth Akhenaten was not expected to live long...” (which was the case with the infant Oedipus), on the basis of the meaning of “great in his duration” epitheton constans “even on his earliest monuments.” “It is sometimes followed by di ’nh dt nhh”—and follows some excursus on this epithet. What does it mean?
2. The expression “where three roads meet”—does it bring to you any association to any Egyptian expression or geographical point?
3. Where all all boundary steles of Amarna translated?
4. Against whom Tutenkhamen warred according to his basreliefs or picture in his grave?
5. Whether a full record of German digging at el Amarna was eventually published?
6. Whether Thutmose IV oracular dream was before the sphinx of Gizeh, possibly of Thebes?
7. Where is a description of Adrian’s (emperor) visit at the Memnon colossi?

If you wish to come to Princeton, let me know and we will arrange this. Don’t hurry to answer more than an unhurried time permits. You certainly must not write me every week, only let me feel that we are in a permanent contact.

Warm regards from Elisheva.

Very cordially,

Im. Velikovskiy





THE VELIKOVSKY LECTURES

1950

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THE VELIKOVSKY LECTURES

1952

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THE VELIKOVSKY LECTURES

1956

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THE VELIKOVSKY LECTURES

1959

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THE VELIKOVSKY LECTURES

1976

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THE VELIKOVSKY LECTURES

1977

Date

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THE VELIKOVSKY LECTURES

1979

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Cultural Amnesia

The Submergence of Terrifying Events in the Racial Memory and their Later Emergence

I thank you Dr. Holmes for the introduction. My comments tonight consist of informal remarks on material that I cover in a systematic fashion in the book that I am writing. This book, *Mankind in Amnesia*, elaborates upon new aspects that follow from my other published works.¹

Catastrophes

In *Worlds in Collision* I describe two series of catastrophic events: The first took place in the middle of the second millennium before the present era, the second in the eighth century before the present era. The last of these catastrophic events occurred on 23 March -686.² Fortunately, men were not illiterate at the time of these catastrophes.

One of the first clues as to what had happened I discovered in a book written over one hundred years ago, by a French missionary who worked in Canada, but who wrote about Mexico, C.E. Brasseur de Bourbourg.³ He wrote several books on the subject of ancient Mexican beliefs and ancient Mexican history. He also wrote a small book investigating possible connections between Egyptian and Mexican beliefs.

When I read Brasseur's books on the ancient history of Mexico I found it strange that he, being a clergyman, did not observe, or did not dare to report that in the Scriptures many pages deal with the very same events he was describing. He reported that cataclysmic events had been found in Mexican lore, events also described by several Spanish historians of the sixteenth century. These were events of great violence. Mountains rose and moved; many volcanoes erupted from the North-Pacific Coast of North America all the way to Tierra del Fuego at the southern tip of South America. The ocean rose like a wall and moved, accompanied by terrific winds. Fiery bodies were seen fighting in the sky. Stones descended from above, followed by rains of naphtha. Men were maddened by the din and the paramount danger. Houses collapsed and were carried away, hurricanes tore out great trees of whole forests with their roots. If such a great catastrophe occurred today, what impression would it leave in the survivors?

The catastrophe of the second millennium has been remembered on very many pages of the Biblical Prophets and the Psalms. Our whole life is pervaded by influences

originating in these and other catastrophic events that took place in earlier ages. The catastrophes survive in the liturgy still used today, only we choose not to examine them as such. Whatever area of life we select to explore we find some vestige of the terrifying events of the past. The calendar is a good example, either the Jewish calendar or the Christian calendar or that of any other creed. Throughout the year the holidays are reflections of catastrophic events. The midwinter holiday celebrated as either Christmas or Hanukkah, the Week of Light, is a renewal of the Roman Saturnalia. If you read about the Roman Saturnalia you recognize immediately almost all of the rites of Hanukkah or Christmas, now celebrated at the end of December. They commemorate events of the days when the planet Saturn exploded into a nova, long before the events that I describe in *Worlds in Collision*. Seven days before the Universal Deluge began, the solar system became illuminated as brilliantly as if by a hundred suns. In the Deluge, not only the Earth but other planets of the solar system were engulfed. Nature was wanton: the destruction was great. Mars, Mercury, and the Moon, as the space pictures now reveal, became flying cemeteries. Nothing living remained, although probably there was once life on those planets — its destruction was complete. In comparison, the Earth fared well and thus mankind could call itself the “Chosen People” : not because all men survived, not because there was no destruction; in fact there was decimation, even extinction of whole genera, and massive mutations, caused mainly by cosmic rays and X-rays emitted by Saturn. Subsequent to the Deluge an environment was created on Earth in which life could not only exist, but could flourish, with an abundance of water, a change of climate with changed seasons, with a magnetosphere now giving protection from cosmic rays and an ionosphere giving protection from ultraviolet rays. The new orbit the Earth circled was not too close to the Sun, not too far from it, a climate unlike that of Mars (too cold) or Venus (too hot).

The Universal Deluge was not the first catastrophe to decimate life on our Earth: other calamities preceded it. Dim memories from these more ancient times survive in mythology. Before the age of Kronos (Saturn’s “Golden Age”) there was the age of Ouranos.⁴ Egyptian myths of great antiquity relate stories of battles and changes in the sky and of vast destruction on Earth, changes that we neglect to investigate and know in our desire to believe that we live on a planet that is stable and safe.

Amnesia

The phenomenon of racial amnesia occupied Freud’s mind in the last decades of his life, in fact it became his obsession.

Initially Freud claimed that the impressions made upon a child’s mind dictate the child’s future and cause also neuroses in juvenile and adult life. Later Freud reversed his thesis and claimed that man’s destiny is triggered by images which exist within the racial memory, deep within the unconscious mind.

From psychoanalytic studies we know that a traumatic experience, either of a physical or psychological nature, leaves a strong vestige deep within the human soul.

Such vestiges are in the heritage that comes to us from antiquity. They are found in most of the written documents that survive from the civilizations of the past; from Mexico, China, Iceland, Iran, India, Sumeria, Rome, Greece, Egypt, and) idea. They also survive from traditions carried from generation to generation, by word of mouth, in races that do not know how to write. These latter traditions eventually are written down by anthropologists, who collect together stories of catastrophes from north and south, from west and east, from Lapland and the South Sea Islands. We ask why we do not recognize this evidence the vestiges of which exist within the souls of men. The answer is that because these vestiges are buried so deeply we are unable to see the evidence before us.

The story is repeated in the records of the stones and bones uncovered at every latitude and longitude.

Chief Mountain⁵ that you can see from here, was once overturned. The fossils that belong near Chief Mountain's summit are found at its base. The Matterhorn in the Alps has been moved to its present location northward from Lombardy and overturned. In several different places in the Bible you can find verses describing mountains moving or overthrown. Such biblical verses appeared even to fundamentalists as metaphoric expressions. Today many theologians prefer to regard the Old Testament as a book of poetry rather than what it seemingly is. The inability to see evidence which is clearly written down and evidence so clearly presented by nature is a psychological phenomenon. Because the evidence was so clear, it was not necessary for me to look far to find it. When I started to collect the material for *Worlds in Collision* it was not the scarcity of material but its abundance that was my impediment. I was able to use but a small fraction of what exists in the surviving literature.

Amnesia is one of the defense reactions of man. Those who immediately survived did not necessarily become victims of amnesia, though this may have occurred. We know the effects of battle-shock on soldiers. It is likely that the larger amnesia took some time to develop.

In the older Greek authors, the Pythagoreans and the Stoics, you find definite statements indicating that catastrophes which occurred in the history of the human race and in the history of our Earth were not abnormal events, they were actually dominant, repeating themselves again and again. But from the historical records we see that the knowledge of the catastrophes disappeared slowly into oblivion.

Plato described cataclysms in several works; he wrote about worlds destroyed and rebuilt. In his *Timaeus* he noted that the Greeks do not remember ancient catastrophes, besides the Deluge. He adds that the people of his time, as the priests of Sais told Solon, were unable to remember these catastrophic events. In another work, whose authorship is probably wrongly ascribed to Plato, he is presented as believing in a peaceful universe. Plato's pupil Aristotle refused to believe in catastrophes. The

scholarly world has accepted Aristotle's view that the planets can never change their motions. He, more than anyone else is responsible for the continuing belief that we live in a safe world, on a planet to which nothing like collisions can happen. Aristotle argued that those who believe in celestial catastrophes should be brought to trial, and if convicted, punished by death.

In the first century before the present era Lucretius knows of, and writes about these catastrophes and their terror. Cicero, like Aristotle, denies the possibility of the planets changing their orbits and advocates that people believing this should be brought to court and severely punished.

Armageddon

At the beginning of the Christian era, or in the century before it, mankind awaited another catastrophe. This catastrophe was expected because seven hundred years had separated the last series of upheavals of the eighth-seventh centuries from the one of the fifteenth century. This expectation created an eschatological literature and the appearance of Messiahs. The Book of Revelation is one of the great books of this eschatological literature. The end of the world is painted with the experience of the past serving as a model.

Look at Michelangelo's *The Last Judgement*. Sadism is as predominant as masochism in this Christian description of the events of the Last Day. The catastrophe, the Last Day, has now been transferred into the sky, into heaven, but not an astronomical heaven; these are different heavens. In reality Michelangelo is painting events already described by the prophets Isaiah, Joel, Amos, and Micah, who lived during the catastrophes of the seventh and eighth centuries before the present era.

Because of man's aversion to knowing his past, science has been greatly retarded, pretending unreality to be as truth. This explains the fury of the opposition that declared war on my book. *Worlds in Collision*. If the book were fantasy, would it not have had its season and died down? It has not died down. It survives. But scientists have not investigated my claims nor tested the evidence presented, nor have they searched for new evidence. Instead, scientists have chosen to oppose me and my book in most ingenious ways, substituting name-calling and mockery for discussing and testing. Scientists are followers of a cult, defending dogmas with which they do not wish to part. Scientists have proclaimed these dogmas to be established laws, when in reality they are nothing but views, and erroneous ones at that.

In my book *Worlds in Collision* there are footnotes which allow the reader to check the sources of my claims. In twenty-four years those scholars who have taken time to check my sources have found that my quotations have not been taken out of context. But, of course, I do not claim infallibility. Establishment scientists, despite their proclaimed idealism, deserve to be labeled pseudo-scientists. In science, claims are accompanied by proof; in pseudo-science proof is omitted and any discussion that questions the dogma is suppressed. In the discoveries of the Space Age there is now

an independent proof of the claims made in *Worlds in Collision* and *Earth in Upheaval*. The Moon, and Mars, and Mercury, and also other planetary bodies went through paroxysms.

The subconscious desire of man to know his past was the basis of progress which led to the development of science. The aversion to accepting the truth about the past inevitably blocks the road. Scientific efforts are directed away from the right channels, and so science briefly progresses, and then regresses. For a full hundred years Darwin not only advanced, but also retarded the development of science. My work has also produced both a positive and a negative effect. Claims have been maintained that would not have been maintained if the scientists had not felt obliged to contradict the iconoclastic views expressed in *Earth in Upheaval* and *Worlds in Collision*.

Suppression and Regression

In postulating that the Earth was a planet travelling around the Sun, Aristarchus was the precursor of Copernicus. Copernicus realized this, because in the original preface to *De Revolutionibus*⁶ he referred to Aristarchus, but removed the reference before the book was published in the year of his death. Between these men are seventeen centuries yet both were opposed by the scientific minds of their day. Mankind has the need to live in an unreal world. Men did not wish to believe that their planet travels through space. A moving planet might not be safe, it could collide with something. The thought that the Earth could collide is by itself traumatic.

No ancient scientist is considered greater than Archimedes. Archimedes was irreverent toward his senior contemporary, Aristarchus, for believing that the Earth revolves around the Sun. Archimedes won, and after the time of Ptolemy (second century of the current era) the victory was complete. Science accepted this untruth, not just for centuries, but for more than a millennium.

Despite the fact that Aristotle did not profess beliefs which in any way resembled the beliefs of Christianity, a strange symbiosis developed between the writings of Aristotle and the Bible. Aristotle was the authority that dominated Christian thinking for many centuries. Copernicus' theory was rejected, not because of the Bible, but because of Aristotle.

In this century there was great opposition when I proposed that the Earth had nearly collided with other planets. Science, too, is torn between the desire to know and the aversion to knowing. But my revelation was really just a rediscovery, the evidence was always there. I did not read any hidden texts, the words were clearly written, they were shouting at me from all book shelves.

The Darwinian Revolution was also a regression. Disturbing evidence was ignored; it was as if he worked with closed eyes. Darwin proposed that only the fittest survive.

He believed that, through competition alone, the first unicellular bodies could evolve into more complex life forms, as different as man, worm, and bird. Darwin did not know about mutations.

His notebooks from the only field trip he ever undertook contain descriptions of cataclysmic disruptions. He wrote that nothing less than the shaking of the entire frame of the Earth could result in the mass annihilation of life forms that he observed. On the continental scale he observed that life forms, large and small, were extinguished or decimated from Tierra del Fuego to the Bering Strait. Darwin did not accept the implications of the evidence that he saw with his own eyes.

The Darwinian Revolution was the rebirth of Aristotle, whose ideas had lost ground, if not at the time of the Renaissance, then in the Age of Enlightenment. Even in the Age of Enlightenment men espoused ideas of a peaceful earth. Jean Jacques Rousseau believed that there was a happy beginning to the human race and that because of man's sinfulness, he has become what he is today. That paradise existed in the past is another dream.

In the days of Rousseau and Voltaire there lived in France a man whose name is probably not familiar to most of you. He was an engineer named Nicolas-Antoine Boulanger. He wrote an article on the Deluge for the great French *Encyclopédie*, published by d'Alembert and Diderot. Boulanger also wrote *l'Antiquité dévoilé par ses usages*, a work in several volumes. Voltaire and Rousseau and other great names pale in my eyes before Nicolas Boulanger. At my request, Dr. Mullen⁷ was kind enough to bring two of these volumes from the Princeton University Library. I have displayed them on the floor as material evidence of Boulanger's work.

I discovered Boulanger rather late in my research. First I read about him in Stecchini's paper in the September 1963 issue of the *American Behavioral Scientist*".⁸ Although I still have to study Boulanger's work carefully, his findings surprise me greatly. I realized that he was the precursor of Freud, and in many respects of myself. I do not know what led Boulanger to his discovery. He writes mostly of the Deluge, but not only does he realize that there were catastrophes, he draws some conclusions about the mental effects they caused.

The recognition of past cataclysms opens new vistas in all fields of inquiry, even in morals and ethics. I wish to draw your attention to a book by Pitirim Sorokin⁹ in which he discussed calamities like world wars and famine. He discovered that two reactions occur. One reaction is to help (a humanitarian reaction), and the other reaction is to harm (a destructive reaction); he saw evidence for this in the excesses of the Russian Revolution. Sorokin's idea of dichotomy is illustrated on the one hand by the way the escapees from Egypt interpreted the noises caused by the folding and twisting of strata, noises of the screeching Earth described also by Hesiod — the Israelites heard in them a voice giving ethical commands.

Elsewhere on the tortured Earth, other races responded differently: compare Olympus to Sinai. The Homeric scandals on Olympus occurred at the time of the cataclysms; this was the other reaction. Another example comes from Heraclitus¹⁰, who compared the different descriptions of the Pantheon by Plato and by Homer. We see then, past and present, both reactions to calamity.

Planet Gods

The inability to accept the catastrophic past is the source of man's aggression. Astronomy preoccupied all ancient peoples — in Mexico, in Babylonia, and elsewhere. It was the dominant occupation of the sages. The ancients watched the planetary bodies because they were afraid that another disaster would occur. Astrology has its beginning in the deeds of the planets. Many of the liturgies since antiquity are echoing in catastrophic events. Around the world peoples of all faiths worshipped astral bodies. Great temples were erected to the planetary deities. The Parthenon was built to honour Athene. In Athens, a few columns of the temple to Zeus are still standing. Temples were erected to Jupiter in Baalbek, and to Amon (Jupiter) in Kamak. The worship and sacrifices to the various deities of the past have the same genesis, as do the establishment of priesthoods and priestly rituals, many of which are still used. Even in the Christian era, temple architecture has memorialized these events. The Gothic buildings of the Middle Ages refer to unconscious catastrophic memories and to lingering mnemes of terrifying apparitions exemplified by the dreadful figures of Notre Dame. The greatest feat of engineering of the past, the great pyramids of Egypt, were royal shelters against possible repetition of catastrophic events.

In his *Despotisme orientate*, Boulanger discusses those ancient kings and tyrants who behaved as if they wished to be regarded as earthly equivalents of the planetary gods. Only rarely did they desire to be called sun gods because the Sun was never the supreme deity. Today, we find this strange because we do not recognize the catastrophic history of our Solar System. Macrobius, a Latin author of the fourth century identified Jupiter of mythology and of religion as the Sun. Modern authors do the same thing when they say that Amon was the Sun, or Nergal was the Sun; they were not. Around the world mythology and folklore testify that some ancient terror underlies the origin of many social institutions. The sacred prostitution of the past became the secular prostitution of today. Warfare has its origin in the same terror. As the ancient Assyrian kings went to war they compared the destructiveness of their acts to the devastations caused by the astral deities at the time of upheavals. In creating symbols, men were depicting battles in the sky; the Mogen David of ancient Israel or even of Israel of today, the five-pointed star of Communist Russia and China, and of the US Armed Forces are emblems of Athene-Pallas. The dragon, be it Chinese, Assyrian or Mexican, or the dragon fighting with St. George or with Michael the archangel originates from the apparition first seen on the celestial screen in the days of the Passage of the Sea. All Mayan, Olmec and Toltec monuments and temples are constructed to Quetzalcohuatl, the planet Venus and other planetary bodies which superseded in their dominance one another in planetary ages.

Quetzalcohuatl is omnipresent in Yucatan, a winged serpent or dragon, exhaling burning water or naphtha.

War

The after-effects of what took place millennia ago do not lose their grip on the human race. If anything, the trend continues and accelerates. Wars made by irrational nations led by irrational governments have been recurring since the time of the Assyrian kings, and have been growing in scale as preparations for war continue. In the last century the Russian philosopher Vladimir Solovyov recognized that almost all technology for peaceful uses had firstly originated and developed to serve destruction. The awarding of the Nobel Peace prizes has been of no help in preventing military conflicts.

Freud exchanged with Einstein famous letters on the subject of 'Why War?' — but he resigned to the unavoidability of human carnages. Due to the persistent urge for destruction in man, already early in the development of his theory he realized that traumatic experiences, whether of physical or psychological nature, cause amnesia in the individual; and further, as years passed, he realized that the victim of traumatic experience, whether still on his conscious mind, or submerged in oblivion, urges the victim to live once more through the traumatic experience, and sometimes, more often than not, making somebody else the victim. But Freud thought that man was reliving the regularly-repeated drama of the murder of the father by his grown-up sons which occurred in the caves of the Stone Age. Freud believed that an indelible vestige of this prehistoric trauma lurks deep within the human mind, and as years passed he came to the thought that possessed all his thinking. Racial memory of some traumatic experiences dominates man and society to the extent that the human race in his diagnosis, lives in delusion. But he did not know the true traumatic nature of the historical past, namely, the outburst of wantonness in nature itself, and so he insisted that each individual relives the catastrophes of the past, which he believed to be the murder of the father, the Oedipus complex. He opposed the biological view of his day, and of today, too, and insisted that this imprint was transported through the genes from one generation to the next. He did not come to know the true nature of the Great Trauma — born in the Theogony or battle of the planetary gods with our Earth, brought more than once to the brink of destruction — which was the fate of Mercury, Mars, and Moon. Freud died in exile from his home, when a crazed worshipper of Wotan was preparing another Götterdäm-merung.

The great riddle unsolved, Freud closed his eyes when the hakenkreutz (another ancient emblem) carrying troops marched into flaming Poland.

Another generation rose since the end of World War II. The technology of destruction since the days when a mushroom rose over Hiroshima has advanced tremendously. The human urge to repeat the traumatic experiences of the past did not subside, but grew, and he who tried to reveal them was reviled. How many atomic submarines have been built? How many mushroom clouds can be produced? In how many ways

can we destroy all life on this Earth? A Damocles sword hangs over the human race. The planets have finally retired into peaceful coexistence. But mankind, though not in the center of creation, still, in its optimal place, is a pandemonium of races and nations, while the blueprint of Armageddon is on the drawing boards, and the arsenal to incinerate this globe and degenerate whatever population will survive is growing from day to day. The adversaries on both sides of the Atlantic, with many small nations emulating them are as if living with the urge to see again the unchained elements in a nuclear multi-head explosion over every locality of the Old and New Worlds.

I feel that I must speak out on this subject whenever and wherever I can. We are in a race, and I do not know if I can help, but I must try.

Unfortunately my attempt to cure the mental illness which afflicts mankind cannot use the methods of good psychiatry. You cannot put the human race on the couch. You cannot expect to cure using blunt statements about the past. Without preparation, without giving the patient a chance to prepare himself, you cannot slowly release from his subconscious mind the necessary recognition of the traumatic past. Above all others, the scientific community has experienced great paroxysms, and reacted in fury against the disclosures of a modern book.

The price for my revelation has been high, but what choice did I have? The enemy is time. I conclude with a verse which is not my own, and I don't remember it exactly, but the hour is late, and I will repeat it:

We are in a race with the Reaper
We hastened, he tarried, we won.

I wish I could hope that it will be that way, and not the other way around.

References

1. *Worlds in Collision* (1950), *Ages in Chaos, Vol. I* (1952), *Earth in Upheaval* (1955), *Oedipus and Akhnaton* (1960).
2. The astronomical way of indicating 687 B.C.
3. See *Worlds in Collision* (Macmillan/Doubleday, 1950) page 122, footnote 10; (Pocket Books, 1977), page 134; (Abacus, 1972), page 127, footnote 3.
4. See [In the Beginning](#), section [Uranus](#).
5. *Earth in Upheaval* (Doubleday, 1955), pages 71-72, footnote 5, (Abacus, 1973), pages 64-65; (Dell, 1968), page 75; (Pocket Books, 1977), pages 66-67.

6. *De revolutionibus orbium coelestium* was published in 1543.
7. Dr. William Mullen, Hodder Fellow in the Humanities, Princeton University.
8. “The Inconstant Heavens,” pages 19-35,43-44: this article has been reprinted in de Grazia, Juergens, and Stecchini eds. *The Velikovsky Affair* (University Books, 1966) pages 80-126.
9. *Man and Society in Calamity* (Greenwood Press, 1968).
10. Heraclitus, author of *The Homeric Allegories* (1st century present era) not to be confused with Heraclitus of Ephesus.





Afterword

The symposium draws to a close. I appreciate the effort made by the organizers on behalf of this University and the members of the faculty who participated as moderators; the dedication of those of you who came from afar to read the prepared papers, and of those who have followed my work with interest and devotion, some over many years since 1950, others who have become new adepts. I appreciate those who participated in this symposium by listening to two days of papers on the subject of "Cultural Amnesia."

My work has ramifications in many fields of knowledge. Once I had begun to understand that global catastrophes caused by extraterrestrial agents had occurred, I had to face problems in many fields.

First I had to check in each field to determine the current situation and evaluate the prospects for revision. As soon as you accept that a global catastrophe has occurred, many problems thought to be insoluble solve themselves. In geophysics the origin of mountains is not established, nor is the origin of ocean salt. Palaeomagnetic changes and reversals create unsolved problems. The cause of dramatic changes in climate is not understood. Exactly at those times when I determined that the catastrophes took place there were records of unexplained changes in the ocean level.

Since its inception in 1859 the theory of evolution has altered the ways in which we think to such a degree that even philosophy has become a branch of Darwinian evolution, and is helpless to solve the problems that it creates for itself. Before the theory of evolution emerged it had been maintained that our Earth was created in six days. Slow evolution replaced instant creation. But was Darwin's theory right? No, it was only partly so. This has become increasingly apparent in the last twenty years, and it should have been apparent early in this century when mutations were first observed.

There are problems in astronomical cosmology where we attempt to explain how everything came into being and how it attained its present state. Neither the Nebular theory nor the theory of tidal disruption can fully explain the creation of the Solar System. Neither the Big Bang nor the Steady State theory explains the beginning of the Universe. No single solution exists, no one theory is flawless.

In celestial mechanics the dogma persisted until very recently (and still persists today with some astronomers) that gravitation and inertia are the only forces that affect celestial motions. Yet many astronomical motions are more readily understood when electric and magnetic forces are included as the evidence now clearly requires.

Frequently, I am called upon to speak to gatherings of space-scientists. On such occasions I ask the assembled physicists and engineers if there is anyone present who still claims that Jupiter with its magnetosphere can travel through the interplanetary magnetic field without being affected, or if the satellites of Jupiter can travel through the magnetic field of Jupiter without being affected by it. Thousands have heard me lecture, yet I have never seen one arm raised, whether I spoke at Harvard, Princeton, or NASA.

In 1950 my claim that electric and magnetic forces acted in the cosmos was considered my greatest offense. Even before *Worlds in Collision* was published, Einstein warned me that the importance I placed upon electricity and magnetism in cosmic problems would be violently attacked by other scientists. But I stood my ground. Especially it appeared to me that sun-grazing comets are carried around the Sun by electric and magnetic forces in preference to gravitational forces. This is, of course, not yet proven.

Other critics told me that the greatest minds of the past had established with exact precision the ability to predict eclipses centuries in advance on the basis of only gravitation and inertia acting in the cosmos. But I was not dismayed, I met the competition head on, whether the opposition criticized me fairly, as in the case of Einstein with whom I argued often for long hours and exchanged quite a few handwritten letters' or whether the criticisms were attacks and defamation. The attacks do not help me to complete my work.

Several other fields besides celestial mechanics must also be re-examined. How must global catastrophes affect the interpretation of ancient civilizations? What significance do the surviving relics of those civilizations have for the archaeologists and historians? We have to re-examine the meaning of mythology. The Freudian ideas that traumatic experiences cause the human race to be possessed by irrational motives, such as the urge to self-destruction, is of fundamental importance.

In 1950, the appearance of my work created a new phenomenon in the politics of science. Never in the history of science has there been anything comparable to what has happened in the last twenty-four years. In the 15th and 16th centuries when there were no newspapers, radio, or television, wholesale repression of an idea was extremely difficult. Communication was slow, usually by exchange of letters' But even when more rapid communication became possible, nothing occurred which could be compared to the violence and the dishonesty of many incidents in the "Velikovsky Affair." As a subject of discussion, of papers, and of graduate dissertations, the "Velikovsky Affair" has become a favourite subject on campuses across the country (although I speak about the United States I assume in Canada too) for sociologists and historians of science.

No one can possess the knowledge required to be an expert in so many fields. Equally, we cannot understand the happenings in various fields if those fields are examined in isolation. Nature is one: it is not subdivided into departments or

separated compartments. No one can spend enough time to emulate the ancient philosophers like Seneca or Aristotle who discussed all of the knowledge of their day. Yet the understanding of nature becomes a question of interdisciplinary synthesis. Generalization is increasingly being favoured by the scientific press.

It is clear that no progress can be made discussing an interdisciplinary subject as a whole. This is why I published different evidence in separate books, like *Earth in Upheaval*, where I deal with stones and bones and evolution. There is not a single reference to anything from our human heritage. There were many references in Pliny, Strabo, Herodotus, and the ancient Egyptian sources that I could have used profitably in that volume, but I resisted. The geological evidence had to stand on its own merits. Although we recognize the interconnection between fields, each field needs to be discussed within its own frame of reference.

In defense of my theory I have had many confrontations. In particular, I remember one confrontation at Brown University, some seven years ago, when I was pitted against four specialists: one in Babylonian mathematics, one in astronomy, one in physics, and one in geology. I stood alone.

At the AAAS meeting in San Francisco just two months ago I participated in a similar debate which lasted seven hours. The audience showed by their standing ovation that they took my side, the side of the heretic. I had shown that the very same problems which plagued scientists in one field were identical to the problems in the next field. Common problems plagued the astronomer, the geologist, and the historian of Babylonian mathematics. Each of these specialists spoke about the very same subject without recognizing it.

This year there are five symposia discussing my work. At each I will face assembled experts and defend my work in each separate field.

I have now a more serious problem. The new idea which I have provided now spreads like wildfire. Discussion on one campus leads to invitations to other campuses, the invitations increase in geometric proportion. Just two hours ago I received an envelope containing an invitation to travel to Montreal for another series of lectures.

I have much to do: I started late in life. I was forty-four when I arrived in this country for an eight-month sabbatical. I have remained thirty-five years, the prisoner of an idea. I did ten years of work before the publication of *Worlds in Collision*. Shortly thereafter, my second book, *Ages in Chaos, Volume One* was published. The second volume of this latter work was already in page proofs and I called them back for elaboration. For the past twenty-two years I have elaborated upon *Ages in Chaos*, making the original second volume into four new volumes.

I must now ask the question, at my age, with only one short year and a month away from being an octogenarian, can I continue to attend meetings and debate these issues? Can I continue to answer questions which are sent to me? Can I advise

scientists, and write articles for *Pensée*? Each task is a heavy load by itself.

At the same time I will do my utmost while I am still physically able to finish those books which are now partially complete. I have a manuscript for a book which discusses catastrophes which precede those described in *Worlds in Collision*. I mentioned something of these catastrophes in my talk yesterday. Most important, I must complete the manuscripts for the four remaining volumes on ancient history. *Ages in Chaos*. I would like this series, my *Opus Magnum*, to be as complete as possible. It is my *Opus Magnum* even though the main problems are in cosmology, psychology, and geology, and not in ancient history. When I asked the question, could the catastrophes that are described in the ancient sources be correlated between Egyptian and Biblical sources, I discovered a systematical chronological error in ancient history. To my amazement, I discovered that descriptions of ancient history were confused; accepted dates meant nothing. For the past twenty-four years scholars have debated whether the beginning of the reign of Ramses the Second should be moved from -1289 to -1303. As I show in *Ramses II and his Time*, this debate has absolutely no meaning if Ramses belongs at the end of the seventh or at the beginning of the sixth century before the present era instead of centuries earlier.

Another volume deals with the Dark Age of Greece. In it will show how the Homeric Problem can be eliminated. No documents or buildings have survived from the Dark Age, the ancient Greeks never mentioned it and seemingly knew nothing of it. Its removal gave me great satisfaction, and should exhilarate Greek scholars, because the last link to a misguided Egyptian chronology can now be severed from Greek history. The traditional Egyptian chronology was devised hundreds of years before the first hieroglyphics were ever read, and was based upon erroneous astronomical calculations. In a recent issue of *Pensée*¹ published a paper discussing the astronomical basis of chronology. Can anyone who has read this paper seriously believe in the traditional chronology based upon fallacious astronomical calculations?

Imagine twelve hundred years of ancient history as the span of a bridge. Though this span does not include all of ancient history, it does cover the period from the end of the Middle Kingdom to the time of the second Ptolemy. I tore down one abutment in Volume One of *Ages in Chaos* (which not every critic has seen or read) and now I am ready to do the same thing to the second abutment in my next book. *Peoples of the Sea*. How can the middle span between two abutments survive? It will topple down. Even with the revision chronological problems will remain, but their number will be greatly reduced.

I need more of you to follow my path, I need help from those of you who can take my work seriously, read my books, consider what I say, agree with my principal thesis, but then dig a little deeper to find its flaws. I don't need more critics who never bother to read my books (like the critic from this University who obviously never read *Ages in Chaos* before speaking critically about it). I can't expect all critics to be positive, but critics who are negative should at least be constructive.

Wherever in my studies I encountered an apparent difficulty on the way to a solution, experience has shown that the difficulty usually opened a doorway to a new pathway; beyond it lay a whole new vista. New solutions in one field provide the way to new understanding in other fields. Of course, I have left many problems unsolved, I am not omniscient. My work is not without error: I am dedicated, but I am only human.

I realize the scope of what I have discovered and I have been fortunate to live to see parts of my theory confirmed. So many innovators have not lived to see any of their claims confirmed. The history of science abounds with such cases. All innovators are iconoclasts. They never start with a majority; always they begin as a minority of one.

I believe that now is the time for me to go into seclusion and wait. When my new volume appears in print I must let the storm that may occur blow itself out. If I take time to visit universities I will do so only to find dedicated young men, capable of following new ideas: men of courage who are willing to consider ideas which are not very acceptable when they are first put forward. *Such men must be prepared to drop their ideas when facts show them to be wrong.*

Here on this campus I heard to my satisfaction that my ideas have been seminal, that members of the faculty belonging to various departments that once had no common interest now have much to discuss. This evening at the Chancellor's Dinner I will stress how my effort has provided a common coefficient for scholars in different subjects.

I ask for help from the younger generation who have already educated themselves in one or another field which touches upon my work, to do those tests that I cannot perform, to supply me with literature that I have no time to find, and to give me criticism when I err.

I want to hear from those of you who already do such research. I want to hear in what fields you do your research and how it is proceeding. I am interested in your work, whether it is the study of the ancient kings, geology, or genetics.

In this auditorium I am probably the oldest in years, but in spirit I am among the youngest. I invite the younger among you, not just those who are young in age, but the young in spirit to add your efforts to my own. Don't just be listeners, don't just be autograph seekers. If you can, do your share. I have started, you must continue.

I am not the best listener, my eye is better than my ear. Yet I am a very slow reader, but what I read I usually remember. Sometimes I quote from books that I read as a child and have not seen for seventy years. My memory is very selective, I can't remember telephone numbers, but I remember chronological data with ease. If I must memorize a telephone number because I call it frequently, I connect it with some chronological dates, and then I can retain it.

I appreciate the efforts in preparing the papers for this symposium. Certainly something has been achieved. There are many new ideas included in the papers presented here by de Grazia, MacCregor, Mullen, Wolfe, Grinnell, and Doran.

And with these words, I repeat my thanks to President Beckel, Chancellor Oshiro, Vice-President Holmes, to the members of the Senate, to the members of the Faculty, to those who read papers, and to those who came to listen to somebody who was once a heretic, but whose prayer is that his works should never become a dogma.

Again, I thank you all.

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Address to the Chancellor's Dinner

The University of Lethbridge Cafeteria

Friday 10 May 1974

Introduction by Dr. Ian Q. Whishaw, The University of Lethbridge:

When I came to the University of Lethbridge four years ago I found that the University was formed with a philosophy that it devote itself to a multidisciplinary approach to learning. A year later when we moved to this new campus, I found that the building was specifically designed to foster interaction between various academic departments. To go anywhere in the building one has to use the main concourse and this creates an interaction between people who would not ordinarily meet. Well, philosophy and architecture can help foster, but cannot completely guarantee, a broad approach to learning. For someone like myself who has specialized for four years in the study of the hippocampus, the methodology which we were to use to foster a multidisciplinary approach to learning was not clear.

Last year it became a little clearer to myself and others after reading Dr. Velikovsky's book *Worlds in Collision*. We were struck not only by the imagination and scope of his ideas, but more specifically were profoundly impressed by the way in which he had gathered evidence from such a vast number of academic fields as disparate as mythology, psychology, and physics. It was out of respect for his approach to knowledge and a belief that the ideals which he expressed were ideals which this University would like to incorporate that we proposed Dr. Velikovsky for an honorary doctorate in Arts and Science.

We were aware at the time, and became more aware as time went on, that the nomination would cause controversy. After looking at the architecture of the building, however, we felt that a little controversy would not shake it off its foundations.

In regard to controversy, I have a story to tell. Cajal, a Spanish anatomist and Golgian Italian anatomist, through their studies came to quite opposite ideas about how the brain was structured. In 1906 they jointly received the Nobel Prize, although the evidence overwhelmingly supported Cajal. What is so interesting in this case is that Cajal came to, and could only have come to his correct understanding by using the technological and methodological procedures developed by Golgi, and it was the controversy between these two men which led to the neuronal theory of brain

organization which is the foundation on which modern neuroscience is established. What I think this shows is that we should not fear controversy or turn our backs on controversy, for controversy may be an essential ingredient for the advancement of knowledge.

I would now like to introduce Dr. Immanuel Velikovsky, who has had such a tremendous influence on our thinking over the past year, and who, I am sure, will have a continuing influence on our ideas in the future. I give you Dr. Immanuel Velikovsky.

Dr. Velikovsky:

Chancellor Oshiro, President Beckel, Members of the Senate, Guests.

Originally I came to this University in response to the invitation from the Chancellor, who wrote explaining that the Senate had by unanimous vote invited me to accept an Honorary Degree in Arts and Science. I accepted this honour and responded that I would repay the honour by making this University the first and the only one from which I would receive an Honorary Degree.

I announced earlier today at the Cultural Amnesia Symposium it is very questionable whether I accept any other Honorary Degrees in the near future if they demand appearances and participation in various ceremonies or dinners.

Considering the time left to this mortal, considering the gift for procrastination with which I was endowed, postponing my work, postponing the publication of many volumes until this decade which will make me an octogenarian (in less than thirteen months), I believe I cannot permit myself the luxury of any more time away from my work, excepting to go to symposia.

After I accepted the offer of the Honorary Degree, a second invitation came, asking me to participate in a Symposium dedicated to one special aspect of that revolution of which I was by chance the originator — Cultural Amnesia. This Symposium has produced much discussion over the past two days, including two long speeches which I have already delivered today, so I will not fatigue either you, or myself, with a third long speech; I will only say that it has been worthwhile coming here, because I have discovered that a greater honour was accorded me here than just offering me a degree of Doctor of Arts and Science. It pleases me to know that in this University the various departments, which have been separated from one another by the very nature of their disciplines, have suddenly found a common ground. They have started to communicate with one another: physicist to historian, historian to biologist, biologist to geologist, geologist to astronomer, and so on. They have found a common subject, a common theme, they have found a way to realize the purpose and idea behind the statement of philosophy for this University, which is to create an environment in which interdisciplinary synthesis can occur. And so here I have found that my work has brought ferment, and this is a great satisfaction to me.

I was pleased to find that scientific research has already begun in some of the departments, based upon ideas that were expressed in, or that followed from, my own work. I heard of the work of Dr. Stebbins (Department of Biological Sciences) and of Dr. Parry (Counselling Centre). If the ideas that these men have in their minds can be substantiated, they will produce great revolutions in their field of endeavour, and I will be very happy if I have in some way contributed to their beginning.

I asked myself the question: should I accept the Honourary Degree? If I agree to accept an Honourary Degree I lose my virginity. Until now, I had no Honourary Degree nor did I care for any; my only distinction was a gold medal from the gymnasium. I considered that my books were proof of my scholarship, my credentials. Those who read them can see from the references, which I give in the footnotes, the amount of work that has gone into my books. It is therefore of more satisfaction to me to know that in some universities there are special courses which discuss my work. I believe there are almost one hundred such courses. To me this is a distinction: Not every man who has an Honourary Degree (and some have fifty Honourary Degrees) will see his work studied during his lifetime. I thought I would die an iconoclast, and that the next generation, my children or grandchildren, would be privileged to see me honoured.

It gave me pleasure to find truth, or at least to search for truth; and what I found gave me satisfaction. And sometimes I even found pleasure by being able to hold back my ideas for many years, knowing I was the only one to possess this knowledge. This is part of the reason why some of my books are still in manuscript form when they should long ago have been in print.

And so I decided to come here to receive this Honourary Degree in the name of all those who were initiators, who followed their pursuits in solitude — the iconoclasts, the scientific revolutionaries who are always in the minority: actually a minority of one when they started. If it were a question of opinion, if it were a question which could be voted upon, they all would have been voted down. If it had been a question of authority, none of them would ever have reaped the harvest of their pursuits, because authorities always oppose new ideas. To cite an example: Lord Kelvin, who was the most eminent physicist in the late Victorian days and in the beginning of this century, staunchly opposed the electromagnetic theory of James Clerk Maxwell. Maxwell's theory is the basis of the quantum theory, of the theory of relativity, of all modern physical theory. Kelvin had the lowest possible opinion of Maxwell's scholarship. And when young Rutherford became interested in the new idea of radiotelegraphy, proposed by Marconi, it was the same Lord Kelvin who tried to dissuade Rutherford: *Keep away, there is no future in it at all, the most that will be produced will be a connection between lighthouses where it is difficult to put in an undersea cable.* It was Kelvin who produced the calculation which made feasible the installation of the sub-Atlantic telegraph cable. Most of you who watch television or listen to the radio never think of de Forest or Marconi or the other pioneers who made broadcasting possible. Kelvin also didn't believe Roentgen, the discoverer of X-rays.

Not only didn't Kelvin believe Roentgen, but he accused Roentgen of being a charlatan. I cannot remember exactly in what year I broke my arm while doing calisthenics in a gymnasium, but it was probably 1907 or 1908. I remember being brought to a doctor who had the only X-ray machine in Moscow. I saw my broken arm on the screen for myself. This happened about the time when Kelvin died, he might still have been alive. Certainly Kelvin did not alter his view that Roentgen was a charlatan to the time of his death in 1907.

I am here to receive this degree in the name of all those who started humbly, and who started alone, often working under very difficult conditions, who never received recognition or acclaim, unlike the pioneers I mentioned now. Somebody once said *A man of talent is one who can, but a genius is one who must*. Take the case of Dolomieu, the mountains in the north portion of the Adriatic Sea carry the name Dolomites in his honour. Dolomieu served under Napoleon during the French invasion of Egypt. He was later imprisoned in Napoli for several years. There he wrote his classic work on geology without having either pen or pencil, or paper upon which to write. The only object he was permitted to have was the Bible, and so he used the soot of a candle and the oil of a lamp, and he wrote his famous book on geology on the margins of the Bible. Even under difficult conditions the one who is possessed by an idea must follow it. It is not by desire, by caprice, by a need of some external goal, nor for fame, or for riches, but because something leads him so that he cannot stand still, he must follow the call. A man's name becomes great because of what he does, degrees do not make a man great. Darwin, who is not one of my heroes, had no degree, no doctorate in the sciences, no degree in geology or in evolution, or in paleontology, he had only a humble bachelor's degree in theology, nothing more. The lack of a degree did not mean that his ideas and his work could not become the dominant idea for four decades into the twentieth century. Since the middle of this century his ideas have started to give place to better ideas.

I understand this University is not like other universities, and this is what made me accept its invitation. I understand there is a liberal spirit here, a spirit which is symbolized in this building. I attended several universities in the course of my studies. In my day, students wandered as they did in the time of Goethe, they spent two years at one university, two years at another, a year here, three years there, studying history, poetry, and philology, and politics, and other subjects, as they felt the urge. In earlier days it was even more so; but I do not intend to give you a long lesson in the history of scholarship.

I understand that this University will soon have a bridge, a bridge crossing over this valley and river, connecting the University with the town, and so both will prosper.

I think of the greater bridge that this University is already building. There are some innovators here, they are men who carry torches, who do not just repeat that which has already been repeated many times before. They are men who do not swear by *Verba Magistri*, the holiness of their school wisdom. They are men who do not say: *this is what we were taught, this is what we will teach* in passing knowledge from one

generation to the next. They are men who do not avoid the sacrilege of questioning fundamentals. They are like the iconoclast, who, by his very nature, must question. Without questioning there can be no progress, and without progress we would remain stagnated. Scholarship is a matter of questioning.

I understand that the policy of this University is to seek a bridge into the spiritual world, into the wider community, into other cultures. If it does, then despite the fact that this is a young University, scholars will flock here, and students will follow. The Senate, when it convenes, will not only have to advise wisely, but it will have to take some responsibility to see that things are added to the University that government and fee-paying students could not accomplish. Maybe not all of the Senators can, but some of them must. This responsibility should be a pleasant yoke because nothing can give more satisfaction than to know that you have helped to put together the material foundation for something that is growing spiritually.

Accepting the Honourary Degree will not, I hope, deprive me of companionship within the circle of those who died not having seen honours for their many works and achievements in their lifetimes. And so in their name, I will accept tomorrow the honour of being proclaimed and admitted to membership in the Convocation of this University as a recipient of your Honourary Degree. For this I thank you.





Address to the Convocation Dinner

Lethbridge Exhibition Pavillion

Saturday May 11, 1974

Introduction by Dr. William E. Beckel, President, The University of Lethbridge:

We start this evening with an Honourary Graduate of the University of Lethbridge: Immanuel Velikovsky.

Dr. Velikovsky:

Today I joined the alumni. In the old country the usual way of celebrating the end of school was to sing *Gaudeamus*, which means: Let Us be Joyful, Let Us be Cheerful, Destroy our Notes, Burn our Books, and Listen no longer to anything which is serious or scholarly.

But tonight I wish to say something serious to you, I want to discuss Scientific Conscience. I direct my remarks particularly to those of you who intend to continue your career as a student, to the few among the two hundred of you who are considering an advanced career in science, or in the humanities. My words come from experience. Although this will be a very serious speech, I promise you one cheerful note toward the end.

To be a scholar, or a scientist, means that you must dedicate yourself. Scholarship is not a part time job, it requires a lifetime of dedication. At some point in your career you have to specialize in some field that calls you, a field that leads in the direction that you desire to walk along the road of life. But do not specialize completely, prepare yourself by becoming acquainted with many other fields.

Read widely, keep an encyclopedia in your house, keep a volume close to your bed. Often when I cannot fall asleep, I read from my encyclopedia. I usually choose a short article, something that I know a bit about, but I'm not acquainted with the details, or something that I have heard about and seek a first glimpse of its essence. When you read a book, studying for some particular purpose, make notes: preserve these notes, file them for the future.

Don't seek to be original at any cost but also avoid trivial issues. It is of no value to walk the easy road trodden many times by those before you. Select your tutors from those who can guide you with an open mind, who will not demand that you only

follow the accepted views in blind fashion. Because science progresses by trial and error, look for newways to do old things. Learn to ask yourself questions, and if someday you come upon what seems to you to be an original idea, don't rush to make it public, preserve it, carry it around inside yourself, give it time to develop and to grow in your mind. But don't follow it blindly because it is your idea and you wish to be original.

When you have perfected your idea, consult others who may give you good advice. If you find out that somebody has already proposed your idea, don't pretend that you were the first, give credit to those who were before you. But if you believe that you are original, try honestly to convince yourself that your idea is consistent with an facts mat you can collect. Don't Hold on to an idea when the facts are against it, but do maintain your convictions if it is only opinions that are against you.

Have courage, and by all means do not fear crossing the barriers between different disciplines. Do not trust everything to memory, keep notes even as you develop new ideas. Keep a diary, it could be useful to you some day if you have to establish your priority to an idea. Think of the Chinese proverb *The palest ink is better than the strongest memory*. And remember, ideas have their time. When it seems appropriate to retreat, retreat. When it is time to advance, advance. When haste is necessary, rush, for the appropriate moment is often short. But if the time has not yet come, stand back and wait for your time. To illuminate this last point I will tell you a story:

Once, at a railway station the stationmaster in charge of starting the train observed a group of three scientists returning from a scientific conference. They were intently discussing something of great importance. They seemed to be there to board the train, nevertheless they weren't paying attention to the stationmaster who was impatient to signal the train's departure. Finally the stationmaster could wait no longer, and so he signaled to the train, and the train began to leave the station. At this moment all three people ran after the train, two boarded it but one could not make it. The stationmaster turned to the one who was left behind and said: "Well, it's not so bad, two out of three made it," and the man answered: "But they came to see me off!"





On Mankind in Amnesia

I admit to having being guilty of frequently putting aside this my study in the collective psychology of the human race for the benefit of other research, being urged by my readers to complete *Ages in Chaos*, being urged by my collaborators to complete *Test of Time*, the record of confirmations in the fields of geology, astronomy and archaeology; I myself, however, consider this one, of all the works with which I am being occupied, to be of perhaps the greatest urgency. First I thought to call it *The Great Fear*; but later I decided on the title *Mankind in Amnesia*. It has to do not only with the past, like my other books—the past of the solar system being the theme of *Worlds in Collision*, the political and cultural past of *Ages in Chaos* and natural history of *Earth in Upheaval*—primarily it has to do with the future, a future not removed by thousands or tens of thousands or even hundreds of thousands of years, but the imminent future, on whose threshold we now stand.

The theme of *Mankind in Amnesia* is the psychological aspect of that one theory which unfolds itself in so many directions, as far apart as the theory of evolution, origin of religion, and celestial mechanics—implying the participation of electricity and magnetism besides gravitation and inertia. This psychological aspect is called upon to answer several questions stemming from mankind's past experience, namely, the grandiose events which took place not only in pre-human and prehistoric times, but in historical times as veil. I coined in *Worlds in Collision* the term *collective amnesia*; in general I do not coin new terms and this is practically not a term, but a formulation of the situation in which humanity finds itself as a consequence of the catastrophes which took place in historical times. And it can be observed in the literature from classical times and the early Christian centuries and later—the process can be followed of the events that had occurred in earlier ages falling into oblivion.

First, there were people who knew; I should caution that there is no such thing as a collective amnesia such that those who were affected by the events, those who suffered through than, did not know—of course they knew, and they described them. So if it be asked, who are my precursors, those who preceded me, I would answer: It starts with Isaiah. He lived in the time of the catastrophes, and he described them. He described them so that he could not have described them more clearly than he did. Everything is there. What is going on in the sky, what is going on on earth, what is going on with the sea, what is going on with the mountains, what is going on with the people, the migrations of entire nations, earthquakes—everything is described—nevertheless, we read it, and we think that it is only a political description, some metaphors. Imagine how many people read the book of Isaiah and other Old Testament prophets through all the generations since those people wrote; and in how many languages they read it, into how many languages it was translated. No other book. was read so much and discussed so much and commented so much upon—

nevertheless, the very fact that catastrophes took place at the time of the Exodus and then in the second series of catastrophes in the eighth century before the present era, in the time of the prophets Isaiah and Joel and Micah and Nahum and Hoshea and Amos and Habakkuk—all of them speak almost only about these catastrophes—went as if unnoticed.

Of course the prophets also speak about the vengeance of the Deity, they call on the people to mend their ways; all the nations, especially the nation of Israel, should lead a moral life and try to appease the Deity, try to persuade it to keep the fated disaster from coming. And then we can see the awareness of what happened continuing through the generations, even intensifying in the first pre-Christian century and the first century of this era. How the catastrophes occupied the mind not only of the Jewish nation, but of all the nations of the world, till the possibility of their repetition became a probability, even a certainty. And in later ages, in different places and cultures there appears a visionary, a poet: suddenly, he has as if a door opened before him and a light shining through, and he sees the past; but for reasons that we will discuss, for most of mankind the message has submerged into the unconscious mind. This is a phenomenon not discovered by me, but well known: namely, a human being, after suffering a traumatic experience, whether the trauma be psychological or physical, may become affected by amnesia—it could be only partial amnesia, dealing with these events alone. The person thus forgets the event which may be exactly the one most decisive in his life and in the development of his character. This phenomenon was already well known in the early years of psychoanalysis. In the manuscript of my book I wrote on the subject as follows:

A victim of amnesia may live in the next block without you being aware of his plight. He maybe employed, he may be married and behave, on the surface, as anybody else. But he forgot everything back of a certain date. He does not know his name and he assumes a new name to hide his own perplexity—he does not remember his childhood and adolescence or maturity prior to that date; he does not know the town or city from which he came and how he came to his new habitat; he does not know whether he had been already married and whether he has children. If he comes into conflict with the law, as for instance for bigamy, he may wind up in a psychiatric clinic; in most cases victims of amnesia voluntarily seek psychiatric help.

Amnesia can be not all-erasing but cover only certain facts in the past. Such cases are very numerous and rarely a neurotic personality is free from some oblivion; characteristically, the oblivion erases the most painful or terrorizing reminiscences. Psychoanalysis, as Sigmund Freud defined it, is a tool for bringing into the conscious

mind the memories that sank into the unconscious stratum of the mind. This dredging of a partial amnesia, if successful, destined to heal the person from his irrational behavior; irrational, or pathological reactions and pursuits are symptoms of a neurosis. In the early days, psychoanalysis was called by Freud ‘catharsis’ because by letting the sick person live once again through the painful scene, he was successful in restoring the mental health of a patient and freeing him or her from pathological reactions. Freud’s very first patient was a young lady who became victim of a paralyzing neurosis, upon having submerged, as Freud found, the most painful memory of the circumstances of her father’s death whom she nursed.

This phenomenon of “patched” amnesia is much more ubiquitous among men and women than the reader may think and he himself, most probably, “succeeded” in erasing from the conscious memory some small or great painful occurrences that his ego cannot face. Much of the maladjustment, failure and floundering, of guilt-feeling and self-punishment, of aggressiveness, hatred and hostility, of pathological inclinations and sexual aberrations, criminal impulses and acts, suicide and murder, or detachment from reality and flight into madness, can be traced by correctly applied analytical procedure to impressions erased from the conscious memory, traumatic occurrences obliterated, in short, to contents submerged; from the mind’s dark recesses they pilot the personality toward its bizarre behavior and, not seldom, toward a repetition of the traumatic experience or some other disaster. This repetition is sought for, whether in the form of a return to the scene of first experience or in a fixation on abnormal sexual objects, or in selecting an occupation that offers a regular substitute of an act repressed from the conscious memory.

In *Jenseit des Lustprinzips* (Beyond the Pleasure Principle) as also in several other works of his, Freud developed the thesis that “the patient cannot recollect everything he repressed—and quite possibly the most important part of it stays repressed.... He is, however, urged to repeat the repressed instead of recollecting it.”

Freud spoke of this compulsion of repeating as of “demonic” quality (*triebhafter, dämonischer*

Character); the one possessed by it “lives in a dark anxiety (*dunkle Angst*) afraid of awakening something that would be better left asleep.”

Although Freud did not yet develop the other thesis—of submerged racial fears and urges, he referred to them in a definite way in *Jenseit des Lustprinzips*.

Here I have to interrupt myself and say: When I wrote this several years ago I was not aware of how Freud in the very last years of his life took up the idea that he earlier had dropped here and there, and became not only a clear believer, but quite possessed by the idea that it is not just the personal, private traumatic experience that is the cause of a neurotic condition, but that racial inheritance of traumatic experiences of ages past is the main, the most important substratum out of which merely by a secondary process a personality takes over the submerged racial traumatic inheritance. In the *Jenseit des Lustprinzips*, one of the early references, he wrote: “In the phenomenon of heredity and in the facts of embryology we have the most telling proofs of the organic repetition compulsion.” He wrote also: “Since the organic urges have been historically accumulated, they are directed toward repression and also toward re-living of the past.”

I will return to Freud; before this, I wish to say something about Jung. With Carl Gustav Jung is connected the term ‘collective unconscious mind.’ He started as a disciple of Freud, but soon they parted, for in Jung the idea of collective unconscious mind became a point of disagreement with Freud. He considered Freud at that time as one who sees in the private experience of a personality the cause and the beginning of the neurosis. Jung, however, became convinced that man’s actions are to a large extent determined by the unconscious collective mind that belongs to the entire human race. In his psychoanalytic experience he found that subjects of widely different backgrounds displayed the same pattern of anxieties and strivings, and reported the same repeating pictures, symbols and figures. And he saw that these same images are present also in religion and in mythology, or collective human experience. Human dreams, human memories, imagination, poetry, could be grouped and analyzed according to these patterns, and he gave them a name: archetypes.

As to these archetypes, one cannot find in Jung what exactly was the cause that implanted them in the human race—it was as if man, on growing out of his animal state to a state of intelligent being, on becoming *homo sapiens*, was already possessed of these mysterious patterns. So the answer to the question, what planted the archetypes in the collective unconscious of the human race was never given by Carl Jung or by the Jungians, his followers. The archetypes were an inheritance from times immemorial, coming into being under circumstances about which Jung did not even ask; Jung did not even raise the question of what put them in. This is how man was created; he was created with these archetypes. And occasionally, in dreams and imaginations, in neurosis, the archetypes come to the surface—otherwise they remain submerged, though not inactive, in the collective unconscious mind.

Man is not by himself a person apart from the collective—it is not the question that was recently again much discussed, whether man is entirely a segregated individual who can keep his thoughts and feelings to himself; it is more than this. Jung became rather convinced that the unconscious mind, whether by telepathy or in some other way is a common possession of the entire human race; but it is not only constituted of the experiences of this generation, we who interact in this world today, it includes the cumulative experiences of all generations past. This is more than just telepathy, but something which is brought down from generation to generation; and this became his main idea, to the extent that he looked upon the personal experience of a patient as secondary, and his personal life unconsciously dominated by these archetypes, acquired through heredity: not heredity from certain generation down, but from the time man is man. If by some experience, by some situation, the personality comes into disorder, these archetypes, which are powers, become demonic powers (and now I use a Freudian word) that make him suffer: in order to free him from it, it is not the personal experience but these archetypes that need to be discussed and brought up to the surface, explained to the patient, and made conscious to him.

By 1913 Freud parted with Jung who tended to mysticism and with Adler, who tended to socialism. In that year he published *Totem and Taboo*, an analytical study of ancient and partly also of modern folklore, culled mostly from Frazer's *Golden Bough*; Freud endeavored to evince from various rites and observances the surviving traces of the patricide practices in the cave of prehistoric man: the grown-up sons used to kill their fathers and possess their mothers, a violent act in consummation of the Oedipus complex, the son's sexual attachment to his mother. Freud "felt that religious ceremonials and individual psychological reactions still bear witness to the unconscious persistence of memories of archaic situations, anxieties, feelings of guilt, and various reaction formations which are beyond contemporary experience."¹

Freud came to this understanding rather late in his analytical work. For almost a score of years he ascribed the origin of the neuroses exclusively to the traumatic experiences in the early life of a person, usually in his second to the fifth year.

Freud moved slowly toward the new orientation. That he used to name unconscious was the personal unconscious or, if we prefer, the subconscious; in deeper recesses of the mind were stored racial memories; instincts, too, belong to racial heritage.

The longer Freud sat behind the couch and the more he listened and thought, the more did the guilt feeling for acts committed by ancestors grow in persuasiveness. Archetypes inborn in primogenitors of man were foreign to Freud: the ancestral man *acquired* the guilt feeling when he committed the act of patricide and he committed his issue, not seldom an incestuous progeny, to repeat his own act and to will to generations to follow the urge to imitate and suffer guilt or at least to imitate in an unconscious urge and still to suffer guilt. A traumatic experience in an individual asks to be repeated; to traumatic experiences of his ancestors he is an heir. Freud did not know of any other paramount trauma that could become a source of a universal guilt feeling.

In his “From the History of an Infantile Neurosis” (1918), Freud explained the universality of certain symbolic expressions in speech and in various fantasies, usually connected with parental coitus and the related castration fears, as grounded in persisting unconscious memories of archaic situations.

“We must finally make up our minds to adopt the hypothesis that the psychical precipitates of the primeval period became inherited property which, in each fresh generation called not for acquisition but only for avakening.... We find that in a number of important relations our children react, not in a manner corresponding to their own experience, but instinctively, like animals, in a manner that is only explicable as phylogenetic acquisition.”²

A neurotic state results from triggering an explosive precipitate inherited from ancestral generations.

“Early trauma—defence—latency—outbreak of neurotic illness—partial return of the repressed. Such is the formula that we have laid down. for the development of a neurosis. The reader is now invited to take the step of supposing that something occurred in the life of the human species similar to what occurs in the life of individuals: of supposing, that is, that here too events occurred of a s.exually aggressive nature, which left behind them permanent consequences but were for the most part fended off and forgotten, and which after a

long latency came into effect....”³

Here Freud assigned equal weight to the personal and to the inherited trauma.

“As a rule there is a combination of both factors, the constitutional and the accidental. The stronger the constitutional factor, the more readily will a trauma lead to a fixation and leave behind a developmental disturbance; the stronger the trauma, the more certainly will its injurious effects become manifest even when the instinctual situation is normal.”⁴

But can the “instinctual situation” be normal if everyone in the human race is a carrier of traumatic experience of earlier generations? Freud is not yet clear. Averse to use any Jungian terms or concepts, he delineated as “id” the unconscious domain of a person, a repository of the phylogenetic and instinctual heritage and equally so of personal repressed and forgotten experiences and reactions due to their traumatic character.

“It [the *id*] contains everything that is inherited, that is present at birth, that is laid down in the constitution—above all, therefore, the instincts, which originate from the somatic organization and which find a first psychical expression here in the *id* in forms unknown to us.”⁵

Later he wrote: “Some portion of the cultural acquisitions have undoubtedly left a precipitate behind them in the *id*; much of what is contributed by the super-ego will awaken an echo in the *id*; not a few of the child’s new experiences will be intensified because they are repetitions of some primeval phylogenetic experience.”⁶

Since many instinctual reactions and arrangements serve the species and even enable it to survive, a demarkation line needs to be drawn between the heritage of instincts of beneficial purpose and the deep imbedded phylogenetic memories of violent traumas.

Now the question of course is, did Freud find the answer to the main question, what was the traumatic experience of the human race? Was it just the killing of the father

by his grown-up sons who wished for themselves their mothers in the cave of the stone age?

It is still to be proven that these things were not single phenomena, single family dramas. Was this really the phenomenon which till today leaves its mark on the human psyche, or was it something else? Toward the end of his life Freud expressed himself in the sense that other phenomena, other things took place which could perhaps be clarified through anthropological research.

The fact is that catastrophic events *have* taken place—not just in a cave here or in a cave there, but events of indescribable violence, such that no human being who succeeded to survive could be free from the traumatic effects—traumatic effects, as I say, indescribable. Imagine: suddenly, time is no more time. The day does not move into the night; the ocean does not just beat at the coast of the Atlantic, it moves over the continent; not even moves over the continent: continent and sea just change places. Where were plains, mountains are thrust up in a matter of hours; the air is filled with loud hissing noises of meteorites falling down, and all volcanoes erupting simultaneously—not just the volcanoes that existed, but thousands of new volcanoes coming up and blazing; and rivers losing their beds, and earthquakes removing cities from their foundations. Man and animal run to escape where-ever they can, whether in caves, or trying to go up the trees, and the trees themselves breaking and flying away. What we have now in the polar regions, and at every latitude, actually; masses of fractured trees, torn apart animals whose habitat is Africa, and their heaped-up carcasses are found in the polar regions, all mixed together, arctic animals with tropicals—this is the testimony of a traumatic experience which could not have been not implanted. Few escaped; entire species were destroyed to the last, and many species, destroyed on one continent, survived as a few individuals on another continent. All horses in the Americas were destroyed, though there were very many of them, and even though the ecological base was very good for them—as was proven when horses were re-introduced by the Spaniards. While many species were destroyed to the last, all others were decimated, from insects to the marine animals, to the quadrupeds and birds and to man. At this moment I speak about the catastrophes preceding those that I described in *Worlds in Collision*, and that which occurred in the time of the Middle Kingdom of Egypt coming to an end. Perhaps the catastrophes of the eighth century were not of that very extent, they may have been a little more merciful: still, they destroyed cities, uprooted populations, and terminated civilizations.

Freud asked the question; under what conditions does the traumatic experience enter into the collective mind?—he did not like the term “collective,” because he did not like to repeat the Jungian expression, but this is what it is. And now Freud, the longer he sat behind the couch, the longer he thought over the things deep into the night, started to realize that something conceivably fatal for mankind is hidden in the deep recesses of the human mind: this, after forty-four years of working in analysis, from 1895 to 1939.

“If we consider mankind as a whole and substitute it for a single human individual, we discover that it, too, has developed delusions which are inaccessible to logical criticism and which contradict reality. If, in spite of this, they [the delusions] are able to exert an extraordinary power over men, investigation leads us to the same explanation as in the case of the single individual. They [the delusions] owe their power to the element of *historical truth* [and ‘historical truth’ he himself put in italics] which they have brought up from the repression of the forgotten and primeval past.”⁷

And he says that “no individual is spared such traumatic experience, none escaped the repression to which they give rise.” But these are not just sexual traumatic experiences, guilt feelings of the men of this generation, the descendants of the cave-man, for the crime of their ancestors.

This is something that Freud did not fathom, namely, destructions in the natural world, of which all civilizations that left any vestige in writing speak: clearly, and not in a way given to misunderstanding, and to which stones and bones, as I tried to show in *Earth in Upheaval*, testify. There is no argument against this testimony, only evasion. It can be claimed that erratic boulders were moved by ice-cover, but what caused the ice-cover to form? And how did they come to be high in the mountains, and how is it that they are found in the tropics? It can be claimed, as some one wrote me recently, that the mammoths perished because of slowly-approaching ice. Well this ice that advanced and retreated over tens of thousands of years, as the present-day Ice Age theory has it—not the glacial theory of its originators, like Louis Agassiz, but how it was re-worked in terms of uniformitarianism—cannot possibly account for the sudden death, most likely by asphyxiation, of the vast mammoth herds that roamed the Siberian plains at a time when the climate differed radically from what it is today. Such facts are a stumbling block for uniformitarianism, which means the theory that nothing happened in the past that we do not observe happening in our own age. But this is not a philosophical, or even a logical approach, that nothing could have happened in the past that does not happen today. This is an escape. This is what in psychoanalysis is called repression—not to see, explain away, not to know.

What I tried to do by presenting some passages from my manuscript was to show that the two men who till today are supposed to dominate the field of psychology of the unconscious mind, though approaching the question from almost diametrically opposed standpoints, converge on this idea of racial inheritance. Of course, there were many schools, and many people try to understand analytical neurotic situations by any number of explanations, but Freud and Jung remain the two great figures in psychoanalysis. And so they have cleared up that we are carriers of experiences that are not our own. We were born with this stigma of trauma, and we are fated to will to our children and grandchildren this heritage from our ancestors.

Neither Freud nor Jung, however, came to grips with the trauma itself. They saw the result, they understood, Freud especially, that they were in conflict with the biological teaching of our time that the acquired characteristics are not inheritable.

Freud said he knew it, he knew that he was in conflict, but he could not do otherwise; this was his understanding, and he did not know of any other explanation for his analytical findings. It took him decades of thinking and working with the patients. He filled twenty-three large volumes with his writings—but this finally became his main idea, and the twenty-third volume is from beginning to end a series of articles and books, like *Moses and Monotheism*, where he not just promulgates, not just defends the idea of racial inheritance—he carries it as his last testament.

Now we have to take over this and see where he can be helped. He asked himself whether man can be helped by this realization, how to bring it together, where is the healing. Of course, in order that the neurotic situation should develop in a person, something must come which is of the same nature as that which happened to the ancestors. Nothing is heard any more about the other part of it, an idea that was rather early in his mind as analyst, namely that a traumatic experience not only goes into oblivion, but dealing there with a demoniac power, requires repetition. In his later work he also refers to this compulsion neurosis of two kinds—some persons require repetition, while others try not to know and repress and protest any knowledge. But if there are many who require repetition, then we are actually rather doomed, because it is not experience only of my ancestors or of your ancestors; it is the experience of the entire human race; and if, as Freud wrote, the human race acts as a single individual, and wishes to repeat its early experiences and is in the grip of urges that are possessing it, actually delusions, then we must realize that it is facing possible self-destruction.

For the reality of the traumatizing events we have evidence from the natural sciences combined with the testimony of ancient writings from all early civilizations—the same testimony repeated thousands and thousands of times; yet we are as if deaf; we are not willing to listen; we are like patients of traumatic experiences who refuse to know what happened to them. But if man's urge to repeat the experience should assert itself—and he now has all the necessary tools to recreate the destruction witnessed by his ancestors—he may turn this planet into an uninhabitable place. Since we are acting, as Freud said, in collective delusion, and if every one of us, and we together as a collective, are irrational, then it is not again a celestial mishap, not a disaster that may come from the sky which endangers the future of life on this planet: it is man himself with his collective unconscious. He does not know what is hidden in this unconscious, he does not wish to know it, and when it comes to revelation, reacts as a neurotic patient, with violence, as the history of the reception of my work has shown; a violence that has not a precedent in the history of science. Something was touched to which people reacted almost instinctively, and themselves did not understand the reason.

Man lives on a planet that is the optimal place in the solar system—not the central, but the optimal place. Yet he is in the process of making out of this planet a Gehenna, a hell. But do not ask me the question, how can it be helped?—here, I do not know. I have not come with a panacea, but I warn of the danger inherent in our present situation, and that by being aware of it we might turn aside before the precipice. I say

this with a sense of urgency, for who knows when the irrational in man may take control? We are carriers of memories that go probably to prehistoric, and maybe pre-human times. And to open these recesses of our minds is, in my understanding, the main, the chief, almost the only task of the true analysis of man.

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On Saturn and the Flood

Worlds in Collision comprises only the last two acts of a cosmic drama—one that occurred in the middle of the second millennium before the present era; the other during the eighth and early part of the seventh century before the present era. Prior to the events described in *Worlds in Collision*, Venus—following its expulsion from Jupiter—was on a highly eccentric orbit for a period of time measured certainly by centuries, perhaps millennia, before its near-encounters with the Earth.

While the actual beginning of the drama is shrouded in the mist of grey antiquity and difficult to pinpoint with exactitude, there is a point at which a clearer picture emerges. This is the time when the two giant planets—Saturn and Jupiter—approached each other closely. Possibly they were close for a long period of time, passing near one another as they traveled along orbital paths quite dissimilar to those of today.

Saturn and Jupiter are so often associated in cosmological history that sometimes I even considered the possibility that they may have constituted a double star system, of which there are many in the universe. I said that Saturn and Jupiter were stars, though today we know them as planets. Actually, in *Worlds in Collision*, in the last chapter, I also used the word “star” in referring to the two giant planets. There I wrote, with respect to the future, that “some dark star, like Jupiter or Saturn, may be in the path of the sun, and may be attracted to the system and cause havoc in it.”¹ At that time it was said that they were planets, not stars, while today it is known that Jupiter and Saturn, too, are star-like, producing several times the amount of heat they receive from the Sun.²

Today Jupiter moves on an orbit of twelve terrestrial years and is about half a billion miles away from the Sun, whereas we are some ninety-three million miles distant. Saturn is much farther: it is the next planet beyond Jupiter, approximately another half billion miles outside Jupiter’s orbit. They are presently not of the same size or volume. Jupiter is more than three hundred times more massive than the Earth, but Saturn only ninety-five times. In volume, Jupiter is about thirteen hundred times that of the Earth, whereas Saturn is only about eight hundred times that of the Earth. Today Jupiter is actually more massive than all the other planets, Saturn and the rest, put together.

The cosmological thought of ancient peoples conceived of the history of the Earth as divided into periods of time, each ruled by a different planet. Of these the epoch of Saturn, or Kronos, was remembered as a time of bliss, and it was made to precede the period during which Jupiter was the dominant deity. Insofar as I could understand the

physical events that affected the globe in times preceding the Middle Kingdom in Egypt, I was able to explain them as the results of a disturbance in which both Jupiter and Saturn participated. Various peoples witnessed the events and described them, as a celestial-human drama in different forms: the Greeks, for example, had Jupiter-Zeus, the son of Saturn-Kronos, dethrone his father and banish him, and take his place to become the supreme deity. In Egyptian folklore or religion the participants in the drama are said to be Osiris-Saturn, brother and husband of Isis-Jupiter. And it is not that the wife dethrones the husband, nothing of the kind — there is, instead, a fight going on in the sky in which some body, described as Seth, attacks Osiris and kills, actually dismembers him; and after this Isis travels in search of the dismembered parts of Osiris. You see how the two dramas are hardly at all alike. I believe that my long experience in interpreting dreams and associations of my fellow men probably was of help to me to see similarities where the similarities were not easily seen.

An Egyptologist, one of the most prominent Egyptologists of the last forty years (he died several years ago), Sir Alan Gardiner, wrote—and I read it twice in his writings³ — that he could not understand who Osiris was. Osiris occupied an extremely important role in the religion, folklore, and rites of Egypt. But who was he? Was he a king who had been killed? — Gardiner could not figure it out. He did not understand that Osiris represented a planet, Saturn, as did Tammuz in Babylon. Sir James Frazer, author of *The Golden Bough*, describes in the volume *Adonis, Osiris, Attis* the great lamentations and crying for the fate of Tammuz. Similar rites were observed in Egypt for Osiris; and it should be understood that these lamentations were actually for Saturn, because the time of Saturn—the Golden Age of Saturn, or Kronos—came to its end when the supreme god of that period, the planet Saturn, was broken up.

The Tractate Brakhot of the Babylonian Talmud, points to the celestial body Khima as the source of the Deluge; Khima is to be identified with Saturn.⁴

Also in the Mexican codices it is said that the first world age, at the end of which the Earth was destroyed by a universal deluge, and which was therefore called “the sun of water” or Atonatiuh, was presided over by Ce-acati, or Saturn.⁵

The ancient sources all point to Saturn; but how did Saturn cause the Deluge? What did really happen?

Suppose that two bodies, such as Jupiter and Saturn, were to approach one another rather closely, so as to cause violent perturbations and huge tidal effects in each other’s atmospheres. As a double star, or binary, they might interact to the extent that, under certain conditions, their mutual perturbation will lead to a stellar explosion, or nova. If what today we call Jupiter and Saturn are the products of such a sequence of events, their appearance and respective masses must formerly have been quite different. Prior to its cataclysmic disruption and dismemberment Saturn must have exceeded Jupiter in size. At some point, during a close approach to Jupiter, Saturn

became unstable; and, as a result of the influx of extraneous material, it exploded, flaring as a nova which, after subsiding, left a remnant that the ancients still recognized as Saturn, even though it was but a fraction of the size of the celestial body of earlier days.

In Saturn's explosion much of the matter absorbed earlier was thrown off into space. Saturn was greatly reduced in size and removed to a distant orbit—the binary system was broken up and Jupiter took over the dominant position in the sky. The ancient Greeks saw this as Zeus, victorious over his father, forcing him to release the children he earlier had swallowed, and banishing him to the outer reaches of the sky. In Egyptian eyes it was Horus-Jupiter assuming royal power, leaving Osiris to reign over the kingdom of the dead.

My conclusion that, as a result of its interplay with Jupiter, Saturn exploded as a nova, I found confirmed in many ancient sources, in which Saturn is regularly associated with brilliant light; but I was led to this idea first of all by a certain clue contained in the Biblical account of the Deluge. The story as found in the book of Genesis starts with these words: “And it came to pass after seven days, that the waters of the Flood were upon the earth”(Genesis 7:10). It is not explained, after seven days of what? Some words seem to be missing here from our text of the Old Testament. It is clear, however, that Isaiah refers to the same seven days in his description of the messianic age to come, when “the light of the moon shall be as the light of the sun, and the light of the sun shall be sevenfold, as the light of the seven days...” (Isaiah 30:36). It is conceivable that the Earth was, at that time, a satellite of Saturn, afterwards possibly becoming a satellite of Jupiter.

With the end of the seven days of light the Earth became enveloped in waters of cosmic origin, whether coming directly from Saturn—and Saturn is known to contain water—or formed from clouds of hydrogen gas ejected by the nova, which combined, by means of powerful electrical discharges, with the Earth's own free oxygen. There are definite indications of a drastic drop in the atmospheric oxygen at the time of the Deluge—the survivors of the catastrophe are said in several sources to have been unable to light fires. The Midrashim and other ancient sources describe the waters of the Flood as being warm;⁶ in addition the waters may have been rich in chlorine, an element which in combination with sodium forms common salt. Marine geologists are unable to trace the origin of the huge amounts of chlorine locked in the salt of the Earth's oceans, the Earth's own rocks being rather poor in this element and incapable of supplying it in the needed quantities. Chlorine may thus be of extraneous origin; being a very active element, it could possibly be present in some different combination on Saturn.

After the Deluge many new forms of life came into being, especially plant life. Thus it happened that Saturn was later called a god of vegetation. Frazer in his *Golden Bough* considered Osiris and Tarmuz to be nothing more than vegetation gods—so strong was Saturn's connection with the new forms in the plant kingdom that appeared following the Deluge.

The Midrashic sources relate that, during the Deluge, all volcanoes erupted;⁷ and other ancient accounts assert the same. Changes took place in the lithosphere as well as in the biosphere. Most pronounced, however, were the changes in the hydrosphere — the volume of water on the Earth was vastly increased. And it is of interest that the Atlantic Ocean was called by the ancients “the sea of Kronos”⁸—indicating that it came to be only after the Deluge.

The memory of these stupendous events survived for millennia and vestiges of the cult of Saturn persist even till today. One of these memorials is the feast of light, celebrated in mid-winter: Hannukah or Christmas, both stemming from the Roman Saturnalia. These are all festivals of light, of seven days’ duration, and they commemorate the dazzling light in which the world was bathed for the seven days preceding the Deluge; in their original form these festivals were a remembrance and a symbolic re-enactment of the Age of Saturn. It was said that in that age there had been no distinction between masters and servants — thus in Rome, for the duration of the Saturnalia festival, the household slaves were freed, and were actually waited on by their masters. Also the statue of Saturn which used to stand in the Roman Forum was for a time released from its bonds. This statue, which had bands around its feet, represented the planet Saturn with its rings — it was understood that it was Jupiter that had bound Saturn with these bonds after he had overthrown Saturn. Astronomers are unable to explain their origin, but they must have formed in that event in which Jupiter disrupted Saturn.

There is evidence that the ancient Maoris of New Zealand were also aware of the rings around Saturn. They called the planet Parearau, which means “her band quite surrounds her.”⁹

Saturn was the chief deity of, among other peoples, the Phoenicians and the Scythians —in cuneiform sources the Scythians are called Urnman-Manda, or “the people of Saturn.” The Phoenicians used to bring human sacrifices to the planet, calling it Moloch, or “king.” Usually children were the victims, consumed by Moloch, as Saturn had devoured his own children. Porphyry records the persistence in some cities of the Greek world of human sacrifices to Saturn well into Roman times.¹⁰

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DR. IMMANUEL VELIKOVSKY

526 WEST 113TH STREET, NEW YORK, N.
Y.

PHONE: MONUMENT 2-2225

July 6, 44.

Dear Mr. Hatcher:

The address of Dr. R. H. Pfeiffer is 57 Francis Ave., Cambridge, Mass.,
of Prof. H. M Kallen (humanist and historian) - 411 West 114th Street, N.Y.C.

In my Mns. on the p. 88 (first chapter) there is a reference to a work on natural catastrophes. The 'Ages in Chaos' investigate the catastrophe for its chronological value ("when?"). The investigation in the nature of the upheavals of the past is the theme of another work important for the natural history. This other Mns ("Worlds in Collision") will be ready sometimes next winter, when the historical work, with God's help, may leave the press.

With kind regards
yours faithfully

Im. Velikovsky

[Ed. note: This handwritten letter appears to be an unsent draft]



January 27, 59

Dear Dr. Federn:

I have received your letter of January 25—and thanks! I made some notes about matters to inquire, but presently will limit myself to a few words concerning Osorkon—and Ramses II. The conventional chronology made it inescapable to interpret Osorkon as usurper and Ramses II as usurped. But I assume that a careful re-examination of all instances will show that the case was reverse. Suppose we see on a stone with a basrelief incisions in it another design of a different age, overimposed on the first design. Should we declare that the deeper incisions were made later we may be mistaken. I image that before a new design was made on a stone that had already a design, either the former design must have been chiseled flat, and in such a case only very shallow marks of it would be found left; or the stone had to be covered with a layer of plaster to hide the earlier design and the new design would be made on the plaster only a little penetrating into the stone; in such a case the later design would be shallow and the earlier in deep relief. Here can be a place for misjudgment by an archeologist.

That Montet can easily go a wrong direction is obvious to me from his identification of Tanis with Avaris. Yet he published a booklet, *Les énigmes de Tanis* (1952), and, if you can, read through this short book, and per chance he will disclose a few embarrassments that would be intelligible in a different chronological scale. Let me know if you find there anything of value.

You still have various problems (like the beginning of the conventional scheme - the dating of Ramses III, etc.) in your hands. I will add a few questions in my next letter.

With kind regards from Elisheva and myself,

Cordially yours,

Im. Velikovsky

January 28, 59

A few more lines. I have before me the Hebrew translation of *Ages* vol. I, presently of first three chapters. The publisher in Israel demands

a prompt return of the translation with my corrections. So I must ask you to let me know as soon as possible whether new discoveries were made or old discoveries published covering the first four chapters. If I am right, there is a new stela of Ahmose or Kamose concerning the siege of Avaris. Where is it printed?

I have purchased a copying machine that in less than a minute makes a photocopy of a letter, or a page in a book, and that can be taken with me to the library; it can take pictures from drawing or photographs. I hope it will be of good help where many passages must be copied, or where I wish to have a copy of an illustration. Elisheva, too, may profit from this machine in her art work. I send here a page from JEA, 1957, from the article in which the brother-sister relation between Tiy and Ay are proved, and also father-daughter relations between Ay-Nefretete. The last point is also important, because it explains why Ay to the side of Nefretete (his daughter) against Akhnaton and Tiy (his sister). The family traits in Akhnaton and Nefretete are understood as due to their relation of cousins.

Cordially,

I. V.





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