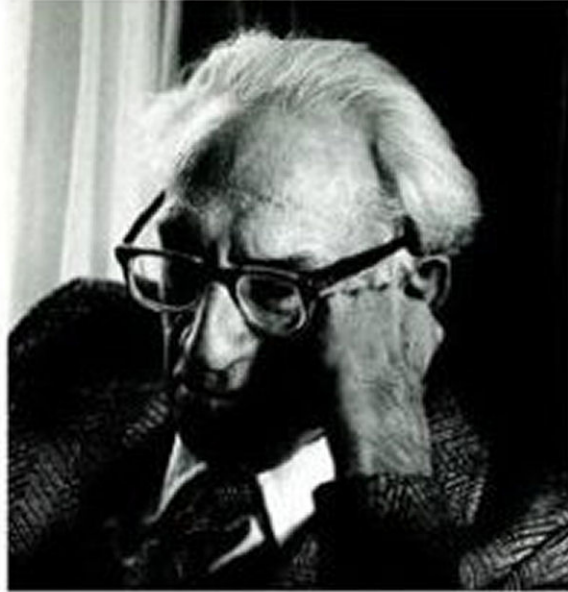


# Immanuel Velikovsky

A Study in Anger in The Name of Science and Pride

## Immanuel Velikovsky The Truth Behind the Torment



Ruth Velikovsky Sharon, PhD

In 2003 a book was released entitled "Immanuel Velikovsky The Truth Behind the Torment", by his daughter Ruth. The book documents the hate and prejudice against him and hints at the pain of rejection that he went through. Putting aside the brilliance of this one man momentarily, the event of the rise against him by accepted mainline scientists is worthy of serious attention and study. If for no other reason, but yet perhaps the most important reason, to see the mistakes of man when faced with a challenge to his/her pride. It strikes deeper than nearly any other instrument of emotion. This is clearly shown in the aforementioned book and in the few articles we will be posting on this page in the coming weeks and months. I recommend that you purchase the book, so that you can see the treachery for yourself as you read the articles that we post. The articles that we will post are some that have been previously published in magazines and periodicals mentioned in the book. These are not found on any other site on the web that we know of, but appear crucial to the understanding of the event. The impact on us in our day is evident. When we look to NASA for answers concerning the moon, Mars, or any other subject relative to our search for truth, you will see who you can trust and who you cannot trust.

In the first installment we look at the initial Harper's Magazine article that really got the fire going. It was written by Eric Larrabee, a Harper's editor at the time (January 1950). It was a prelude to the release of Velikovsky's first published book, *Worlds In Collision*. It's a supportive article and puts a "best foot" forward for Velikovsky. But the article created a firestorm that hasn't stopped today.

# Harper's

## MAGAZINE

### The Day the Sun Stood Still

*Eric Larrabee*

The Old Testament describes an event over Palestine, when the Hebrew tribes were led into the battle of Beth-Horon by Joshua. "And he said in the sight of Israel, Sun, stand thou still upon Gibeon; and thou, Moon, in the valley of Ajalon. And the sun stood still, and the moon stayed, until the people had avenged themselves upon their enemies. Is this not written in the Book of Jasher? So the sun stood still in the midst of heaven, and hasted not to go down about a whole day."

The sun over Gibeon was in the forenoon sky. It would have been night or very early morning in the Western hemisphere.

There is a Mexican tradition, recorded in the Nahuatl-Indian in the *Annals of Cuauhtitlan*, that once in the remote past the night did not end for a long time. Friar Bernardino de Sahagun, a Spanish scholar who came to the New World a generation after Columbus, wrote that the American aborigines told of a great catastrophe, in which the sun had risen only a little way above the horizon, and then stood still. These are but two of the many traditions from all parts of the world which refer to a disturbance in the earth's orderly rotation.

It is conceivable that a large celestial body approaching the earth could exert an attraction sufficiently powerful to slow down its turning and make the sun appear to stop in the sky. The heads of comets are assumed to be composed of clusters of meteorites. If a comet were to come close to the earth, it would be accompanied by meteors falling in a torrent. The Old Testament, two verses above the description in the Book of Joshua of the sun standing still, contains the following passage: "As they fled from before Israel, and were going down to Beth-Horan... the Lord cast down great stones upon them in Azekah, and they died..."

In a book to be published in a few weeks called *Worlds in Collision*, Dr. Immanuel Velikovsky will present a great body of evidence to show that about 1500 B.C. a comet, a new member of the solar system, *did* pass close to the earth. This he places at the time of the Exodus of the Israelites from Egypt. Fifty-two years later, at the time of Joshua, the same comet returned. At both of these two meetings with the comet, in Dr. Velikovsky's words, "according to the memory of mankind, the earth refused to play the chronometer by undisturbed rotation on its axis." *Worlds in Collision* is the first of four or more volumes in which the same author will maintain that not only on these two occasions but many times has the earth

undergone vast and disastrous catastrophisms in which its rotation was interrupted.

This article is an attempt, necessarily condensed and incomplete, to offer a preview of Dr. Velikovsky's findings. It is impossible to give here any idea of the extent of the material he has assembled to substantiate his argument. In the descriptions which follow, for every piece of evidence mentioned, *Worlds in Collision*, the first volume alone, contains scores more; and every statement in the book is supplied with numerous references.

Dr. Velikovsky's work crosses so many of the jurisdictional boundaries of learning that few experts could check it against their own competence. The main body of evidence in *Worlds in Collision* is historical, and the details are drawn from - among other sources - the Old Testament, the Talmud, the Egyptian papyri, the historical texts, traditions, and the legends of Rome, Greece, Babylonia, Arabia, Persia, India, Tibet, Finland, Iceland, West Africa, Siberia, China, Japan, the Pacific Islands, Mexico, and Peru. Dr. Velikovsky describes the area of his investigations as "anthropology in the broadest sense," concerning itself with "the nature of the cosmos and its history."

This universal student was born in Vitebsk, Russia in 1895. He studied natural sciences at Edinburgh, and law, economics, and history in Russia. He studied medicine at the Moscow Imperial University and medical law at the University of Charcow. Later he received his M.D. in Moscow.

During the early twenties he studied biology in Berlin. He founded and edited the *Scripta Universitatis*, a joint work of Jewish scholars out of which grew the University of Jerusalem. Dr. Chaim Weizmann asked Dr. Velikovsky to direct the inception of that University, but he declined and in 1923 went to Palestine, where he practiced as a physician. Beginning in 1928 he studied psychoanalysis and the function of the brain in Zurich and Vienna, with Eugen Bleuler, Wilhelm Stekel, Alfred Adler, and other pioneers in the field. In 1937 he delivered an address to the International Psychological Congress, "On Psychological Roots of Hatred Among the Nations," and in 1939, five weeks before war broke out, he came to this country.

Dr. Velikovsky brought with him to America an unfinished book on *Freud and His Heroes*. In the study of Moses and Ikhnaton in preparation for this work, he came upon the idea that great physical catastrophes might be used to synchronize the records of the ancient peoples of the Near East, and before the end of 1940 the main outlines of his work were clear. It is so far composed of *Worlds in Collision*, a natural history of the world catastrophes, and of two further volumes called *Ages in Chaos*. The latter (completed first though they will be published second) contain the elaborately documented rewriting of ancient history assumed in *Worlds in Collision*. "I ask a credence of the reader," says Dr. Velikovsky, "that he allow me to use this chronology until *Ages in Chaos* is published." He has been working on both books concurrently for the past nine years.

Professor Horace M. Kallen, former dean of the New School For Social Research, was among the first to read the manuscript of *Worlds in Collision*. "Even if I thought that Velikovsky's theories were entirely ungrounded," writes Professor Kallen of Velikovsky's historical and archaeological work, "I would treat them as an extraordinary achievement of the scientific and historical imagination....But it is my belief that Velikovsky has supported his thesis with substantial evidence and made an effective and persuasive argument." Gordon A. Atwater, curator of the Hayden Planetarium, wrote to the Macmillan Company that, "the theories presented by Dr. Velikovsky are unique and should be presented to the world of science in order that the underpinning of modern science can be re-examined....I believe the author has done an outstanding job. In fact, he has gone beyond what normally be expected of a single individual."

II.

The comet, at the first of the two meetings reconstructed in *Worlds in Collision*, touched the earth with its gaseous tail, and one of the first signs of the encounter was a rain of fine, rusty pigment. The world turned red. "All the waters that were in the river," reads the Book of Exodus, "were turned to blood." The Manuscript Quiche' of the Mayas tells of the rivers turning to blood, and so does the Papyrus Ipuwer of the Egyptians. Then, as the story continues in the Visuddhi-Magga of the Buddhists, the fine dust turned to coarse dust, "and then fine sand, and then coarse sand, and then grit, stones, up to boulders as large... as mighty trees on the hilltops."

And with the shower of meteorites the earth stopped turning.

It came to rest so faced to the sun that a long night, darkened by the cosmic refuse sweeping in from interplanetary space, fell on Europe, Africa, the Americas, and the valleys of the Euphrates and the Indus. The Babylonians, the tribes of the Sudan, the Finns, the Greeks, the Peruvians, and the American Indians all have traditions of a long night accompanying a catastrophe which the earth did not survive. Further east, the Iranians saw the sun suspended several days in the sky. In china, it is said that in the reign of the Emperor Yahou the sun did not set for a number of days and all the forests burned.

We suppose that if the earth stopped turning it would destroy itself, as HG Wells imagined it would when his "man who could work miracles" commanded the same act. Our idea of momentum - and the Law of Gravitation, about which Dr. Velikovsky has much to say - leads us to assume that the earth's surface would fly onward in the direction of its rotation and be torn apart. A great global catastrophe, with seas and continents changing their places, is in fact described in the traditions of mankind. The world gave every sign to its inhabitants of being on the brink of destruction.

Approached by the body of the comet, the earth was forced out of its regular motion; a major shock convulsed its entire surface. The major shift in the atmosphere caused by the approach of the comet and the stasis of the planet, itself

produced hurricanes of enormous velocity and force. "The face of the earth changed," writes Dr. Velikovsky, summarizing the Mayan account from the Manuscript Troano, "mountains collapsed, other mountains grew and rose over the onrushing cataract of water driven from the oceanic spaces, numberless rivers lost their beds, and a wild tornado moved through the debris descending from the sky."

The human population was decimated and many species of animals perished entirely. The surface of the earth burst. Three Mexican manuscripts tell how everywhere in the Western hemisphere new mountains came into being. New volcanos opened and fissures in the flat land threw forth fire and smoke and liquid basalt. The rivers steamed and the sea boiled. The Zendi-Avesta of the Persians says that a star made the sea boil. The Polynesians say that a star caused new islands to appear.

It was the tenth plague of Egypt, the night of Passover, when the Lord passed over the huts of the Israelites and struck the mansions of the Egyptians (the light rush houses would survive and earthquake more easily than heavy stone ones). "There was not a house where there was not one dead," says the Book of Exodus, and St. Jerome wrote that "in the night in which Exodus took place, all the temples of Egypt were destroyed either by an earth shock or by the thunderbolt." The head of the comet came close to the earth, breaking through the darkness of the dust cloud, and the Hebrew tradition tells that the last night of the Jews in Egypt was as bright as the noon of the summer solstice.

The blow fell at midnight. Dr. Velikovsky observes in passing that as the Israelites counted the days from sunset it was for them the 14th Aviv; and, ever since, the Passover has been celebrated on the fourteenth day of the first month of spring. The Egyptians counted from sunrise, as we do, and for them it was the 13th Thout, a day forever after unlucky. As for the thirteenth of any month, said the Egyptians, "thou shalt not do anything on this day." The Aztecs also counted the day from sunrise, and in their calendar it was noted that on the 13th Olin, a month called "earthquake," a new world age had come into being.

When a comet encounters a planet, it may become entangled and drawn from its path, then forced into a new orbit, and finally liberated. This is what happened to Lexell's comet, which was captured by Jupiter and its moons in 1767 and did not free itself until 1779. Some form of balance between attraction and inertia was maintained for twelve years; Jupiter and the comet did not crash together. Neither, according to Dr. Velikovsky's thesis, did the earth and the comet that came near it in 1500 b.c. They exchanged discharges of electrical potential.

The action of the sun and the moon on the earth produces the ocean tides. If the earth were to slow down, the seas would first recede toward the poles; but the attraction of a large comet close to the earth would draw them back toward itself and heap them high in the air. The story of the seas divided and then rising to break over the land is widespread. The Choctaw Indians say that when the land was in

darkness a bright light appeared in the north, "but it was mountain-high waves, coming nearer"; the Peruvians say that the ocean left the shore and inundated the continent; the Chinese annals say that in the reign of the Emperor Yahou a great tidal wave broke over the mountains into the Chinese Empire and flooded the land for decades.

The tides carried huge rocks along them. For instance, the Madison Boulder, near Conway, New Hampshire, is a ten-thousand-ton piece of granite quite different from the bedrock beneath it. An early nineteenth century explanation of this and other "erratic" boulders was that great tidal waves, originating in the north, must have swept the rocks and geologic till (clay, mud and gravel) across the land. According to the calculations based on the amount erosion under them, the boulders were deposited in their places less than six thousand years ago. It has been assumed that the stones were drawn along by the glacial ice sheet, but the disquieting fact is that accumulations of rock were moved from lower latitudes to higher latitudes - and even uphill toward the Himalaya, through the existing glaciers push stones down, not up, the slopes.

At the Sea of the Passage the Israelite tribes saw the water drawn aside and heaped up in a double tide; and, after they crossed, the waters of the Mediterranean fell and broke into the Red Sea in a great wave. "It was an unusual event," writes Dr. Velikovsky, "and because it was unusual it became the most impressive recollection in the long history of this people. All peoples and nations were blasted by the same fire and shattered in the same fury. The tribes of Israel on the shore of a sea found in this annihilation their salvation from bondage. They escaped destruction but their oppressors perished before their eyes. They extolled their Creator, took upon themselves the burden of moral rules, and considered themselves chosen for a great destiny."

Here is what Dr. Velikovsky's description of the pageant that took place in the sky: When the tidal waves reached their highest point, and the seas were torn apart, a tremendous spark flew between the earth and the globe of the comet, which instantly pushed down the miles-high billows. Meanwhile, the tail of the comet and its head, having become entangled with each other by their close contact with the earth, exchanged violent discharges of electricity. It looked like a battle between the brilliant globe and the dark column of smoke. In the exchange of electrical potentials, the tail and the head were attracted one to the other and repelled one from the other. From the serpent like tail extensions grew, and it lost the form of a column. It now looked like a furious animal with legs and many heads. The discharges tore the column to pieces, a process that was accompanied by the brilliant globe buried in the sea, or wherever the meteorites fell. The gases of the tail subsequently enveloped the earth.

To the peoples of the earth below who witnessed this spectacle, the head of the comet and its tail seemed to be two separate bodies, The bright globe fought the

"crooked serpent" and destroyed it, thus saving the world from further harm. It would be difficult, Dr. Velikovsky writes, "to find a people or a tribe on earth that does not have the same motif at the very focus of its religious beliefs." The great spark that flew between the comet and Earth is remembered as the bolt of lightning, placed in the hand of a god who threw this thunderbolt at a world overwhelmed by water and fire: Zeus of the Greeks, Odin of the Icelanders, Ukko of the Finns, Wotan of the Germans, Mazda of the Persians, Marduk of the Babylonians, Siva of the Hindus. The pattern of conflict between the comet and its tail takes almost identical form in the battles of Zeus with Typhon, Isis with Seth, Vishnu with the Serpent, Indra with Rahu, marduk with Tiamat, Ormuzd with Ahriman. "A terrible comet was seen by the people of Ethiopia and Egypt," wrote Pliny in his Natural History, "to which Typhon, the king of that period gave his name; it had a fiery appearance and was twisted like a coil, and it was very grim to behold; it was not really a star so much as what might be called a ball of fire."

The earth was wrapped for decades in the gases of the comet and the dust of exploding volcanoes. No green thing could grow. The Chinese called this time the Valley of Obscurity and the Somber Residence; the Nordics called it the Twilight of the Gods. According to the Annals of Cuauhtitlan there was darkness in Mexico for twenty-five years. The American Indians say that it was not until the fifteenth year that plants would bloom. And for the Hebrew tribes, who had been led out of bondage by the pillar of smoke by day and of fire by night, this was the Shadow of Death.

How did mankind live when nothing grew? The tail of a comet is composed of carbon and hydrogen gases, and these elements were in suspension in the earth's atmosphere after the comet departed. The Hindu Vedas, the Egyptian papyri, and the Hebrew legends say that the wind smelled sweet, and eventually the carbohydrates combining in the air precipitated. Mankind fed on morning dew, say the Icelandic traditions, and the Vedas tell of the honey-lash falling - as the Greeks say ambrosia all fell - from the clouds. Where the honey-frost fell on the waters, it turned them milky and sweet. Ovid, the Vedas, and the Egyptians say the rivers flowed with milk and honey. The precipitate also fell among the Israelites, they called it Manna.

### III.

The astronomical records of the ancient past raise perplexing issues. A scholar who examined the computations of the longest and shortest shadows observed at noontime in China about 1100 B.C. remarked that "they do not really represent the true lengths." The Hindu astronomical tables compiled by the Brahmans show a uniform error of 21 degrees 46'. The astronomical tablets of Babylon of the eighth century B.C. present three different schedules of planetary motion. The Venus Tables of Babylon, excavated by Sir Henry Layard from the ruins of the library of Ashurbanipal at Nineveh, show an irregular behavior of the planet Venus that differs from modern observations not by minutes but by weeks and months. The water clock of the Amon Temple of Karnak is consistently inaccurate for day and night, at

any season, in the latitudes of Egypt. The shadow clock found at Fayum, Egypt, originating in the eight century B.C., will not show time correctly at Fayum or anywhere else in Egypt. And in the tomb of Senmut, the architect of Queen Hatshepsut of Egypt, there is an astronomical panel in the ceiling which refers to an earlier period; it is completely reversed and shows Orion Sirius group proceeding in the wrong direction.

Dr. Velikovsky presents historical evidence that these ancient records were not incorrect at the time when they were made. Astronomers will find this particular suggestion difficult to take, as the calculations of contemporary astronomy are precise and the play of mechanical forces on which they are based has been well understood for over two hundred years. Celestial mechanics, in fact, is one of the few sciences that has not been rudely disturbed by the discoveries of the past century, for the behavior of the solar system can be predicted so accurately on mechanical principles that no one has been able to replace them by another. Even with the tiny discrepancies which need the modification of the Theory of Relativity, the planets follow the immutable Law of Gravitation. They roll on and on, but only because the primeval inertia implanted within them.

Dr. Velikovsky willingly conceded that the behavior of the earth and the comet in his description is not in accord with the celestial mechanics of Newton. Indeed, it invites skepticism as to the infallibility of the law of Gravitation, a law heretofore so firmly established that it has never been successfully combined into one system with the laws of electromagnetics. It is Dr. Velikovsky's contention that over three thousand years ago Nature performed a great experiment, in which it was demonstrated that the electromagnetic laws are as supreme in the heavens as they are inside the atom. Niels Bohr was one of the first to compare the atom with the sun and the planets. The nucleus is like the sun, and the electrons are like the planets - but in applying the quantum theory to the atom it was found that things happen inside it that are not supposed to happen in the solar system. John J. O'Neill, science editor of the New York Herald Tribune, has written this description of the atom's peculiarities:

In the atom, electrons revolve around the nucleus of the atom in a quiet, orderly, orbital, rotation, just like the earth moving around the sun, and may go through billions of rotations, or atomic years, without any major changes taking place. Suddenly the atom emits a quantum of energy, and [an] electron drops to an orbit nearer the nucleus, where its "year" is shorter, or the reverse may happen: a quantum of energy is absorbed by the atom, and [an] electron jumps to a higher, or outer orbit, where its year is longer.

In the same article from which this quotation is taken, Mr. O'Neill discussed the probable impact of Dr. Velikovsky's research on the comfortable assumption that the planets and the jumping electron have nothing in common. "Dr. Velikovsky finds evidence for new planets appearing in the sky," wrote Mr. O'Neill, "and for the earth being struck by and passing through tails of comets.... [His work] presents a stupendous panorama of terrestrial and human history which will stand as a



challenge to scientists to frame a realistic picture of the cosmos.

A charged body which rotates creates a magnetic field. The sun is a charged body, and it rotates, and charged particles arrive from it in a continuous stream. The earth is a charged body, and it rotates, and it possesses a magnetic field. If the magnetic field of the sun were to govern the earth's motion, then after an encounter with a comet the earth could resume its rotation, though on a changed orbit. If it is true that the comet and the earth exchanged electrical discharges, as Dr. Velikovsky maintains that they did, then there may be even reason to suppose that the earth's "inertia" is electrical in character. How do we know that the earth and the planets are so different from the electrons inside the atom. The answer has been phrased thus: "We do not read in the morning paper that Saturn and Mars have changed their places." But we do read in the ancient records, says Dr. Velikovsky, that Venus, Mars, and Earth have changed theirs.

Venus is the Morning and the Evening Star. It is the most conspicuous of the planets. Early astronomers observed its motion with great care, and the Mexicans computed the day when they thought the world would end by a cycle of fifty-two years based on Venus. So bright is Venus in the sky, in fact, that it is most remarkable to find no record of its existence prior to the second millennium B.C.

Early Babylonian astronomy counted four planets and four only - Saturn, Jupiter, Mars, and Mercury. In the Hindu table of the planets attributed to 3012 B.C., Venus alone is missing, and it is said that the Brahmans "never mentioned five planets." Later Venus is called "the great star that joins the other great stars" by the Babylonians. In all traditions the Morning Star is described as having a special birth, an event of great significance to the Tahitians, the Eskimos, and the Buriats, the Kirghiz, and the Yakuts of Siberia, as well as to more sophisticated peoples. Hesiod said the Phaeton, whose name means blazing star, drove the chariot of the sun too close to the earth, disturbing its rotation and was later changed into the Morning Star. The Chinese tell of a "brilliant Star" that appeared in the region of Yehou, and a Samaritan chronicle says that during the invasion of Palestine by Joshua "a star arose out of the east against which all magic is in vain." At the time of great catastrophes, Quetzalcoatl, the Venus of the Mayans, appeared in the sky for the first time. And the Chaldeans and the Chinese are in agreement that Venus "rivalled the sun in brightness."

Dr. Velikovsky brings strong evidence to bear that the comet which so terrorized the earth was in fact the planet Venus - newly born, by eruption from a larger planet. While it was still a comet, Venus wandered erratically, which is why its course was so closely watched, why the Venus Tablets of Nineveh do not seem to make sense, and why the appearance of a comet has always aroused premonitions of disaster everywhere in the world. The dreaded comet Venus that was later to become a planet had many names -- Tistrya, Ishtar, Astarte, Isis, Baal, Beelzebub, Lucifer. Often it was confused with Jupiter (Isis in Egypt and Ishtar in Babylon were first names for Venus), for Jupiter was the planet from which Venus erupted as a planet.

Student of Greek and Roman mythology may object that according to legend it was Pallas Athene, or Minerva, who "sprang full grown from the brow of Jupiter." The classical scholar may wonder, however, why Greek mythology contains no deity for the planet Venus and no planet for the deity Pallas Athene. The Greek equivalent of the Roman "Venus" was Aphrodite, who was identified with the Moon. The answer, once known but long forgotten, is that Pallas Athene was the Greek name for the planet Venus. (Plutarch said that Minerva of the Romans and Athene of the Greeks were the same as Isis of the Egyptians; Pliny said that Isis was the planet Venus.) The birth of Pallas Athene was "a day of wrath in all the calendars of ancient Chaldea." During the birth of Athene, described in a Homeric hymn, the earth reeled and the sun stopped for a "long while".

For many centuries the inhabitants of the earth were in such fear of Venus that human sacrifice was practiced in both hemispheres in the hope of placating its wrath. The Mexicans were so profoundly affected by the fifty-two year interval between Venus' two encounters with the earth they adopted the period in their calendar and made bloody sacrifices to Quetzalcoatl - the feathered serpent" who was identified with the Morning Star - when fifty-two years passed without harm. The years of terror lasted until the seventh century B.C. Venus, as the result of an encounter with another body, took up its present orbit and changed from a wild comet to a tame planet. Venus' flirtation with another planet - that is, with Mars -- is a common theme in mythology. This meeting, a battle of Athene with the God of War, is described in the Iliad, a conflict in the heavens which took place at the same time as the siege of Troy, "It is the conjunction of venus and Mars," wrote Kucien, "that created the poetry of Homer.

The encounter between Venus and Mars disturbed Mars' orbit, and at intervals of fifteen years Mars also passed close to the earth. On two days in particular - February 26, 747 B.C. and March 23, 687 B.C. - Mars caused a repetition of the earlier catastrophes on a smaller scale. In the year 747 B.C. a new calendar was introduced in the Middle East. It began on the 26th of February, and in the calendar of Mexico the 26th of February was also counted as New Year's Day. It is during this period that the worship of Mars came into prominence among peoples whose institutions were not fully formed. The Romans had a vigorous cult of Mars and regarded Mars as their national god, the founder of their state, and father of Romulus. The chief celebration of the Romans Mars cult was on the 23rd of March. On the night of the 23rd of March, 687 B.C., the army of Sennacherib, the Assyrian king who invaded Palestine, was destroyed by a blast of fire from the sky. "On the 23rd of March, 687 B.C.," wrote Edouard Biot in his catalogue of the meteors which were observed in ancient China, the fixed stars were not visible but, "in the middle of the night stars fell like rain."

The battle between Venus and Mars ended with Venus, shorn of its power to disturb humankind, rotating on the serene orbit it now occupies. Venus seemed to have fallen from its earlier eminence. This was the period of the Hebrew Prophets, men of

astronomical skill who from watchtowers built in Judea, as elsewhere in the East ("Watchman, what of the night?") recorded and predicted Mars' fifteen-year approach to the earth and warned the people and their kings of coming catastrophes. After an upheaval that took place in the eighth century B.C., "Isaiah, Joel, Hosea, and Micah insisted unanimously and with great emphasis on the inevitability of another encounter of the earth with some cosmic body." Their prophecies were fulfilled on the days when Mars came close to the earth and moved it from its place.

Finally they observed that a hated enemy - Beelzebub, the Morning Star, who had provoked pagan worship - was no longer powerful. Venus, which had "weakened the nations" and had tried to ascend on high, was cut down to the ground. "How art thou fallen from heaven," wrote Isaiah, "Oh Lucifer, son of the morning."

#### IV.

The history of the calendar is often used to exhibit the conquest of ignorance. Gradually the errors seem to have been removed from its first primitive efforts to codify time, until now we pride ourselves on a system that closely approximates the actual movements of the earth and its moon. Yet it is curious that the ancients should have used such hopelessly inaccurate calendars when their measurements of celestial motion were so carefully made. The Mexicans knew that the synodical moon period consists of 29.5209 days, a computation more exact than that of the Gregorian calendar, which was not introduced into Europe until long after America was discovered.

The introduction of a new calendar in 747 B.C. indicates to Dr. Velikovsky that the orbit of the earth - the length of the year, the months, and the seasons - had actually changed. Previous to this time the Chinese, the Hindus, the Persians, the Assyrians, the Babylonians, the Israelites, the Egyptians, the Romans, and the Mayans all used a calendar of twelve lunations of thirty days each, a year of 360 days. During the period of Mars' meetings with the earth, the length of the seasons changed repeatedly, but at some time during the seventh century B.C. all these nations add five days to their calendars. The Persians called the five days Gatha days, the Egyptians' called them "the days which are above the year", and the Mayans called them the "days without a name". If the earlier calendars were merely mistakes, then in a man's lifetime an error would have accumulated of an entire year, a dislocation in harvest cycles which could not have been ignored even in the most primitive of agricultural societies.

But more than the development of the calendar hangs on the assumption we make today: that the earth has rotated through millions of uninterrupted years, each consisting of 365 days, 5 hours and 48 minutes. Philosophy, science, religion - there is scarcely an area of knowledge or conviction invulnerable to Dr. Velikovsky's detailed and documented denial that the earth's history has been one of peaceful evolution. The long erosions of wind and rain, the slow buckling and folding of sedimented rock, and the infinitely graduated series of the developing species have

hitherto provided a background of certainty. Now these orderly images have been challenged, and in their place a scholar has offered a basis of evidence for the astonishing pattern of catastrophe implicit in the world traditions. "If Velikovsky's thesis should withstand the test of time and become generally accepted," Clifton Fadiman writes, "revolutionary consequences ensue; and prevailing views in a dozen fields - including evolution, mythology, gravitation, and particularly classical and Biblical history - will have to be radically revised".

"Collective amnesia" is the phrase Dr. Velikovsky uses to describe the "psychological phenomenon ... [in which] the most terrifying events of the past may be forgotten or displaced into the subconscious mind," obscuring the real meaning of many archaeological discoveries and historical texts. Trained in psychoanalysis as well as in history, he is aware of the parallel between the reconstruction of buried events from the past of an individual and his own effort to bring to light the shattering experiences that affected all mankind.

In view of the cosmic upheavals of the past, our own time of trouble is dwarfed. There is also a hidden purpose in Dr. Velikovsky's book, a warning to the world that threatens to explode with hatred among the nations: the cosmic catastrophes may repeat themselves. "This world will be destroyed;" reads a passage from the Visuddhi-Magga which serves as motto for his final chapter, "also the mighty ocean will dry up; and this broad earth will be burned up. Therefore, sirs, cultivate friendliness; cultivate compassion."

Bringing to this perspective all the apparatus of learning - from astronomy and physics to folklore, religion, geology, paleontology, biology and psychology - Dr. Velikovsky has undertaken the awesome task of making an "inquiry in the architectonics of the world and its history" and of applying the techniques of scholarship and psychoanalysis to the entire human race.

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