

Why the Sun Stood Still

A Preview by Fulton Oursler of Dr. Immanuel Velikovsky's Sensational New Book: "WORLDS IN COLLISION"



Of "Worlds In Collision"* Clifton Fadiman has said: "It may well turn out to be as epochal as The Origin of the Species of Darwin or the Principia of Newton." In the light of its new deductions and speculations, Dr. Gordon A. Atwater, chairman and curator of the Hayden planetarium of the American Museum of Natural History, suggests that "the underpinning of modern science can now be re-examined"; and John J. O'Neill, science editor of the New York Herald Tribune, declares: "This magnificent piece of scholarly research raises world history to a level of superlative interest."

The author of this exciting new volume, Russian-born Dr. Immanuel Velikovsky, studied natural sciences at Edinburgh University, history, law and medicine (M.D.) in Moscow, biology in Berlin, the working brain in Zurich, psychoanalysis in Vienna. He came to this country in 1939. Worlds In Collision has been written after ten years of extensive research in which the author consulted with scholars and specialists all over the world.

About 25 years ago, a small-town schoolmaster in Tennessee told his boys about Darwin's theory of evolution. For this violation of a state law which forbade instruction contrary to the Bible, the teacher was arrested, and the world sat back to watch one of history's most extraordinary trials.

Called to the witness box as defender of the faith was a three-times candidate for the Presidency, William Jennings Bryan. The defender of John T Scopes, the schoolteacher, was Clarence Darrow, eminent agnostic. Furiously Darrow attacked the wonder tales of the Bible, cross-examined Bryan as a believer in myths and fairy tales.

"Mr. Bryan, do you believe that Joshua made the sun stand still?"

"Mr. Darrow, I do!" "Wouldn't have been the earth itself that stood still? An if that is what you believe, don't you believe that if the earth ever stopped turning it would be converted into a molten mass of matter?"

The indignant Darrow seemed to be speaking with exact knowledge. But science is never so dogmatic. A quarter of a century after the Scopes trial, a scientist is

publishing a book declaring that within historical times the earth did pause in its daily rotation, and that for more than a day the sun remained visible over Joshua and his troops.

While this is only incidental to the author's purpose, the book tends to confirm the Bible in other miraculous accounts; familiar tales of wonder emerge not as myths but as accurate reporting of actual events.

The savant who raises these possibilities, Dr. Immanuel Velikovsky, calls his book *Worlds In Collision*. As Darwin did, he sets up certain original hypotheses, and buttresses them with impressive scholarship. Like a detective among the sciences, (archaeology, paleontology, geology, astronomy, psychology, anthropology, physics) he has put together by deductive reasoning a chain of circumstantial evidence that may deeply affect the world of thinking men.

The links of his reasoning are forged out of the history and literature of ancient and modern tribes and nations from all over the earth. Text and footnotes sparkle with confirming data from the Bible and the Talmud, from Egyptian papyri, Babylonian astronomical tablets, Mayan and Aztec calendars, from the folklore of Arabia, India, North America, Tibet, China, Peru.

The tale of the sun standing still illustrates one of his principal methods for getting at the facts. Clearly if the sun "hasted not to go down about a whole day" the phenomenon could not have been merely a local spectacle. The whole area of the earth had to be affected: if the sun hung in the morning sky over Gibeon, then elsewhere in the world twilight or darkness was prolonged for the same period.

Dr. Velikovsky produces records from all over the earth which agree as to the time and as to the altered portions of daylight and dark in each area. Similarly concerted testimony repeats itself again and again in other wonder stories. For every such incident which he analyzes, Dr. Velikovsky quotes dozens, scores, even hundreds of confirmations.

For the Bible's most incredible story - the standing still of the moon and sun while Joshua routed the foe - there is worldwide evidence. says Dr. Velikovsky at the start of a long series of citations:

"Allowing for the difference in longitude, it must have been early morning or night in the Western Hemisphere. We go to the books with the historical traditions of the aborigines of Central America. In the Mexican Annals of Cuauhtitlan -- the history of the empire of Clohuacan and Mexico, written in Nahuatl-Indian (Nahuatl) -- it is related that during a cosmic catastrophe that occurred in the remote past the night did not end for a long time. We could follow a path around the earth and inquire into the various traditions concerning a prolonged night and prolonged day, with sun and moon absent or tarrying at different points along the zodiac."

Which he goes on to do. What happened, then, on that mysterious day? The theory of Worlds in Collision rests on catastrophes caused by a great comet that passed near the earth twice, first about 1500 B.C., at the time of the Exodus, and again 52 years later, in the time of Joshua; and a repetition of the earlier catastrophes on a smaller scale due to several near brushes with the planet Mars some 700 to 800 years later. These astral cataclysms caused strange things to happen on the earth and in the sky.

The explanation of Joshua's miracle is that if a large enough comet were ever to come near the earth just such spectacular things would come to pass. The encounter would slow down the earth in its daily turning, and people who think the sun goes around the earth would see, among other mystical sights, the sun and moon as if suddenly halted in the heavens. That, Velikovsky maintains, is exactly what occurred.

The mysterious outlaw in the firmament, the comet which caused the seas to part, raised a pillar of cloud by day and a pillar of fire by night, was actually a sky-rover born and cast out by spontaneous eruption from the boiling mass of the planet Jupiter. The new comet whizzed around us in space until after centuries it was caught and trapped as a permanent member of our solar system, settling down brightly into a circular orbit, and changing into a showy but contented planet revolving on schedule around our sun -- the beautiful star which men call Venus.

The strange birth of that morning star is what Velikovsky's book is really about. All the other parts of his case are dependent on that prolonged and spectacular cataclysm.

In presenting his theory, Dr. Velikovsky begins with humility, confessing the ignorance of science, of "homo ignoramus." What man does not know would fill a bigger book than all the books written. He has yet to learn the simplest and most essential things: what life is, or how it came to be. Man cannot tell whether life in any form exists anywhere else in the star-hives of the sky, nor what is the mysterious force called gravitation. The birth of the solar system is still beyond the understanding of scientists.

The first step that a scientist should take is to study one planet, the one under our feet; "then, by the deductive method, to apply the results to other members of the solar system." This Dr. Velikovsky is trying to do, bringing into his reasoning the new knowledge of electromagnetism and nuclear physics.

He holds that what happens in the heavens is akin to what happens in an atom, where electrons revolve around the nucleus like planets around the sun. But once in a while the electrons shift their positions. Someone objects: "We do not read in the morning paper that all of a sudden Saturn and Mars changed their places." True; we do not read it in the newspapers because it is not a daily occurrence, but we do

read about it in the ancient records quoted in this new book. In an atom, a planet goes around its sun millions of times in a second. It may go through billions or rotations, or atomic years, without changing its orbit. But then the atom absorbs a bit of energy and the electron moves to a higher orbit where its year is longer; or the atom emits a bit of energy and the electron drops to an orbit nearer the nucleus and its year becomes shorter. On the grander scale of the solar system, centuries or even millenniums may pass between a corresponding event there and its recurrence.

Once the author's idea is understood -- that the violent and cataclysmic changes on a miniature scale within the core of an atom have been enacted on a grand but equally sudden scale in the universe of suns, planets and comets -- light begins to shine on some old and stubborn mysteries.

Of course, every astronomer knows that contact with another body of sufficient mass could disrupt the earth's rotation and rhythm. To this day comets by the millions are loose in space, a danger to us, remote but still actual. We know that our earth can and does collide with masses of meteorites; often such sizzling stones fall to earth. They even this knowledge is very recent.

As late as the time of our great grandfathers, no one in the scholarly world believed that a stone could fall from the sky. That skepticism was shared by Copernicus, Galileo, Kepler and Newton, among many others up to 1803, when a shower of meteorites falling at L'Aigle in France was investigated by the French Academy of Sciences. Then, for the first time, educated man recognized that some wild thing in the sky could collide with us.

In the Bible accounts the author finds extraordinary confirmation of the presence of a comet during those bewildering days. If, for example, the head of a comet approached the earth, a rain, a very torrent, of meteorites would assuredly fall upon us. In the book of Joshua, only two verses before the sun is suspended on high, we read how the "Lord cast down great stones from Heaven." Although the man who wrote the Book of Joshua knew nothing of the connection between the stones falling from the sky and a stoppage of the earth, he gives a vivid and scientifically accurate description.

The period of the first visit of the comet was the time when Pharaoh kept the Jews in bondage in Egypt and Jehovah sent plagues of frogs and locusts, showers of blood and fire, and a darkness that would not lift, to force the old king to change his mind. All these tales Bryan would have believed and Darrow would have scoffed at, but neither could have proved anything, one way or the other. Velikovsky sets out to prove that all happened, just as recorded, the Biblical story of the Israelites closely following the astronomical order of events.

For example, during the plagues the world turned red. One of the first signs of the encounter with the comet was rain of particles of rusty pigment as the comet brushed the earth with its gaseous tail. It seemed to turn lakes, rivers and seas into

blood; the earth itself looked rusty all over. There are eyewitness accounts of this red saturation not only in the Bible but in the Manuscript Quiche of the Mayas, and in an Egyptian papyrus by Ipuwer, who himself watched the phenomenon. "The river is blood," he lamented, and this corresponds with the Book of Exodus: "All the waters that were in the river were turned to blood." The pollution of fresh waters killed the fish, "and the river stank," says the Book of Exodus. They "could not drink the water of the river." The Egyptian reporter agrees and exclaims: "Men shrink from tasting; human beings thirst after water. What shall we do? All is ruin!"

And not only in the Middle East. The red-stained dust, which irritated the skin of men and animals, and raised boils, causing sickness and death, is reported also in many other lands.

Came next the final Egyptian plagues, a reign of darkness that lasted seven days, climaxed with violent upheavals. Naturally so, too, says Velikovsky, because the body of the comet approached the earth. This approach, the contemporary reports would indicate, was followed by a rain of rocks and boulders and stasis of the earth; it shuddered and missed some rotations before righting itself and spinning on.

Nations and tribes in many other places have traditions about a cosmic catastrophe during which the sun did not shine; the long darkness is remembered in Finland, Babylonia and Peru, by the American Indians, by peoples all over the world. Hundreds of thousands of men and animals were killed during an upheaval that shook the world.

According to the Bible account, which Velikovsky does not quote, after those frightening experiences of darkness and earthquake Pharaoh consented to let Moses' people go. But as life became normal again he regretted his decision and with his army rode forth in chariots to force the fugitives back -- thus riding posthaste into a miracle about which prophets were to give thanks to God for centuries to come: the crossing of the Red Sea.

Did any such thing happen historically? The logical Velikovsky is sure that it did. The swift shifting of the atmosphere under the impact of the gaseous parts of the comet, the drift of air attracted by the body of the comet, and the rush of the atmosphere resulting from inertia when the earth stopped rotating, all helped to produce winds of enormous velocity and force, just as described in the Old Testament. The theme of such a cosmic hurricane is reiterated in Mexico, India, Persia, and the South Seas. But that was not the full story.

In the midst of such a windstorm, a comet with a head as large as the earth itself, passing sufficiently close, would terrifically affect the ocean tides. The comet raised the waters of the ocean miles high. From Japan to Peru, among the Choctaw Indians and in tribes on the other side of the world the memory of this rip-roaring tide persists, of seas rent asunder, an event so unusual that it became the most

impressive recollection in the long history of peoples. For all nations were first blasted by the same plagues and fire, the shaken by the same fury.

And now there came to pass a pageant in the sky that was profoundly to impress the imagination of men and their literature. The heavens seemed a battleground, a scene of unparalleled terrors and splendor. For by this time the head of the comet, having previously passed close to the sun, was on fire. Candescent and spectacular, it swung into the earth's own orbit, and thus the wandering Jews followed a pillar of cloud by day and a pillar of fire by night. Meanwhile, the head of the coiling comet became entangled in its tail, and that struggling in the midst of the firmament must have looked like a battle between a globe of fire and a dark column of smoke.

No wonder that, as their songs still tell today and their epics, people in many parts of the earth believed they were beholding a fight between a sky monster in the shape of a serpent and the light god, who won the victory and saved the world. It is difficult to find a people or a tribe on earth that does not include at the same motif in its religious beliefs.

So now came one forever-to-be remembered phenomenon. A tremendous spark sprang forth at the moment of the nearest approach of the comet, when the earth's waters were heaped at their highest and before they fell down. Many peoples recall this spark as a lightning bolt thrown down by a god at a world covered with flood and fire. Exodus reports: "And the Angel of God, which went before the camp of Israel, removed and went behind them; and the pillar of the cloud went from before their face and stood behind them... and it was a cloud and darkness but it gave light by night." An exceedingly strong wind and lightnings rent the cloud. In the morning the waters arose as a wall and moved apart... "And the children of Israel went into the midst of the sea upon the dry ground: and the waters were a wall unto them on their right hand and on their left. And the Egyptians pursued. ...And it came to pass, that in the morning watch the Lord looked unto the host of the Egyptians through the pillar of fire and of the cloud... And the waters returned and covered the chariots, and the horsemen, and all the host of Pharaoh that came into the sea after them; there remained not so much as one of them."

Actually, all the earth was pausing through those same events. In China, Yehou's time was the time of Moses in Palestine; in Chinese chronologies you will find the following reports: The sun did not set for a number of days; the forests were set on fire; a high wave, "reaching the sky," poured over the land.

After the earth paused in its rotation it started spinning again. And here we encounter a fascinating mystery. Our planet now rotates from west to east. Has it always done so? The ancient charts seem to suggest otherwise. There are charts painted on the ceiling of an Egyptian tomb which show the heavens as they were, over the Middle East, before and after these cataclysms -- and there is a complete and unmistakable reversal. Plato wrote in the "Statesman" of the "change in the rising and setting of the sun and other heavenly bodies, how in these times they

used to set in the quarter where they now rise." And a little later he added: "At certain periods the universe has its present circular motion, and at other periods it revolves in the reverse direction. Of all the changes which take place in the heavens, this reversal is the greatest and most complete."

Velikovsky turns to the natural sciences for an explanation. He points out that this globe of ours is a huge magnet. When a thunderbolt strikes a magnet, it reverses the magnetic poles; what before was north is now south, and vice versa. On a grand scale, a short circuit between the earth and a celestial body, such as the comet, could result in the magnetic poles of the earth changing places, instantaneously.

Geological records indicate that something of the sort must have happened. Velikovsky quotes from Alvin Greene McNish, the geophysicist: "Examination of magnetization of some ingenious rocks indicates that the polarity of the earth has been completely reversed within geological times."

What had Venus to do with these catastrophes that brought the world to the brink of destruction? "Here," says Dr. Velikovsky, "is a question that will carry us far, indeed."

As he sees it, there followed seven centuries after Joshua during which peoples already decimated by gigantic catastrophes never lost the fear of new disasters, a fear which their best intellects confirmed; more trouble, the prophets said, was on the way. Meanwhile, these years saw the coming of a new planet when from the fetus of the comet Venus was born, and took her low and lovely place in our sky.

Is there historical evidence of this? Yes, says the author. By asserting that the planet Venus was born at this time, he has to prove that before then only four of the sun's planets were visible, and that in astronomical charts of this period no Venus can be found. This proof he brings forward; in the Hindu table of planets drawn up about 3100 BC Venus alone among the visible planets is absent, although Brahmans of a later period knew of five planets. So it is in Egyptian astronomy. The Babylonians called Venus "the great star that joins the other great stars." And in every country of the ancient world there are vivid myths of the birth of the planet Venus.

Venus finally became stabilized in its present orbit after a brush with the planet Mars -- a flirtation often referred to in mythology. This encounter jarred Mars out of its orbit, and at 15-year intervals Mars also passed near the earth. In 747 BC and 687 BC Mars came so close that there was a repetition of the earlier catastrophes.

Of the second series of catastrophes, the records are much better preserved, for this was the era of the Hebrew prophets. Those inspired ancients were first-rate astronomers as well as poets and seers; they could and did accurately predict two upheavals of their time. Amos was put to death for his gloomy forecasts, but the

catastrophe arrived on time; King Uzziah was at the altar when a great breach was torn in Solomon's Temple by the quaking of the earth. This calamity was only a prelude. "The day thick with night" foreseen by Isaiah came upon the land; "the earth," as the Bible reports it, "utterly broken down."

And then the long Biblical drama of the army of Sennacherib, for of Israel. It is described most laconically in the Book of Kings.

"And it came to pass that night, that the Angel of the Lord went out, and smote in the camp of the Assyrians a hundred fourscore and five thousand; and when they arose early in the morning, behold they were all dead corpses."

The identical story is repeated in the Book of Chronicles, the Talmud, and other ancient sources.

Obviously, the simultaneous death of tens of thousands of warriors could not be due to a plague; this spectral massacre happened overnight. The Bible says: "A blast fell from the sky" on the camp of Sennacherib. The death of those enemy hosts of men is explained in the Talmud as caused by gaseous masses, penetrating the atmosphere, which could, in certain areas, asphyxiate all breath.

Again, such a phenomenon would not be localized, and it was not; the fire in the sky and the gases falling to the earth are also reported in the Bamboo Books of China, in Mayan inscriptions, and in records in other parts of the world.

On the evening before the destruction of the army, according to the Bible, the shadow of the sun returned 10 degrees. In China and elsewhere the same reports occur. They agree that the date was March 23, 687 BC.

What changes in motion of all the earth resulted from these near earth collisions and readjustments which extended over a period of 200 years, or even longer? Many ancient peoples devised accurate calendars. before 747 BC the Israelites, Egyptians, Mayans, Chinese and others used calendars showing 12 months of 30 days each, a 360-day year. It is unlikely that a mistake of five days would go unnoticed, for within a few years there would be a marked change in the harvest season. In 747 BC a new calendar was introduced in the Middle East, and during the seventh century BC all these peoples added five days to their calendars. This, Dr. Velikovsky writes, means that the orbit of the earth changed at that time, causing the yearly journey around the sun to take longer.

Great geological changes also occurred. The ice ages seem to have ended with the catastrophic suddenness; regions of mild climate moved instantly into the polar circle; the ice sheet in America and Europe started to melt. One does not have to be a scientist to look at a map and see the picture for himself. A circle centered somewhere near the east shore of Greenland, embracing the region of the ice sheet

of the last glacial age, will exclude northeastern Siberia but will include the valley of the Missouri down to 39 degrees north latitude.

In the last century scientists were puzzled by the extermination of the mammoth, an animal far better developed than the elephant which survived. They fancied that perhaps slow changes in the land had forced the great beasts up into bare hills where they gradually died off from starvation. But we now know that the mammoths did not die for lack of food. Their bodies have been found, preserved in northern ice, and their bellies were filled with undigested grass leaves. That undigested foliage grows today, not in the region where the beast died but a thousand miles away. Only sudden natural catastrophes of far flung violence could explain these and other cosmic conundrums.

The question is inevitable: Was not the North Pole at some time in the past 20 degrees or more distant from the point it now occupies, and closer to America? So, too, the South Pole would be closer to Australia. The sudden alteration explains why the mammoths were wiped out all at once, as by asphyxiation or electrocution, either of which was possible. They lived in a moderate climate. Came the catastrophe and the mammoths died. In a few hours northern America changed from the frigid zone of the polar circle into a moderate zone, while northeastern Siberia moved in the opposite direction from the moderate zone to the polar circle.

It is natural that at the close of his book the author should speculate on what can happen to the world in the future. The solar system is not changeless; if catastrophes have fallen, they may repeat themselves with perhaps a different, even fatal result. There exists a possibility that a collision between two planets may someday occur. Trouble might come from the moons of Jupiter which cross their orbits, or from the planet Pluto that crosses under an angle of the orbit of Neptune.

Moreover, comets -- like Venus before it became a star -- may again come near or even strike the earth; a large comet could run into one of the planets and push it from its orbit; then chaos might start anew. So an end to the world, as we know it, is by no means impossible.

This, in substance, incompletely stated, is Velikovsky's theory.

Thus a single scholar has sought a synthesis of knowledge and reason in fields of science, legend and religion. The result is a theory of earth's history as a planet, fascinating as a tale by Jules Verne, yet documented with a scholarship of worthy of Darwin or Eans.

To science, *Worlds in Collision* opens up a vast new debate; to millions of true believers in the Old Testament, it will come as an unintended and reassuring answer to the rationalist criticism of the last 75 years.

How strange all this would seem to Clarence Darrow, and equally to William Jennings Bryan, if they could know.