

THE FLOOD,

THE EXODUS AND

THE DAY OF THE LORD

Roger Waite

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THE FLOOD, THE EXODUS AND THE DAY OF THE LORD

By Roger Waite

"For after seven more days I will cause it to rain on the earth forty days and forty nights, and I will destroy from the face of the earth all living things that I have made."(Gen.7:4)

"Then the LORD said to Moses, "Rise early in the morning and stand before Pharaoh, and say to him, 'Thus says the LORD God of the Hebrews: "Let My people go, that they may serve Me, for at this time I will send all MY PLAGUES to your very heart, and on your servants and on your people, that you may know that there is none like Me in all the earth.'""(Exod.9:13-14).

INTRODUCTION

The above Hebrew scriptures found in the books of Genesis and Exodus introduce us to two tremendous catastrophes that came upon the earth around the years 2348 B.C. and 1447 B.C. respectively according to the Biblical record.

The first, a worldwide flood that covered all the mountains of the earth wiping out all land-based life except for Noah, his family and an ark full of land animals which repopulated the earth after this traumatic event. This tradition pervades mythology all around the world in a major and very persistent way.

The second is the account of the plagues of Egypt that occurred in the middle of the second millennium according to the Bible. The Bible makes no comment about the plagues reaching beyond Egypt but Immanuel Velikovsky in his ground-breaking and controversial work "Worlds in Collision", first published in 1950, attempted to prove with an immense wealth of ancient historical records and mythological sources behind him that the plagues described in the book of Exodus shook the **WHOLE WORLD!**

He not only tried to show that these plagues were felt around the whole world but went one step further by identifying the agent of destruction used by the "Great Architect of Nature". He attempted to show all of the plagues were consistent with the effects of a near passing of a cometary body of massive proportions. It was so massive, as was the destruction around the world, that he made the extraordinary conclusion with the backing of many ancient records around the world that one of our planets was born shortly before these catastrophic events and had a series of passings and near collisions with the earth as a massive fiery comet. It wasn't the fact that the plagues were felt around the whole world that shook up the scientific establishment so much, but the fact that some of the planets moved in a completely different way in our heavens in man's short history that shook and offended so many.

Velikovsky, after reviewing some of the great number of ancient historical and mythological records that showed that the ancients revered the planet Saturn and consistently spoke of it formerly as rivalling the Sun in brightness, also theorized that Saturn was once another sun in our solar system which went nova. The effects of Saturn going nova according to various sources he used were what triggered off the collapse of the water canopy which formerly existed in the earth's atmosphere

described as the “waters which were above the firmament” in Genesis 1:7. This collapse of the water canopy caused the great Flood of Noah’s time.

In the ensuing years following Velikovsky’s theory about the planet Saturn those in the field pursuing this line of research regarding the Saturn Theory, most prominent among them being David Talbott, have taken the Saturn Theory in quite a different direction to that originally proposed by Velikovsky. The most prominent theory involving Saturn today is the polar configuration theory, which I don’t personally subscribe to, which states that orbiting with the earth was Saturn, Jupiter, Mars and Venus in a co-linear orbit. In order, the line of planets was the Earth, Mars, Venus, Saturn and behind Saturn from the earth’s view was Jupiter. This line of planets rotated around its centre of gravity as it revolved around the Sun before catastrophic events led to the disassembling of the configuration.

Those who have thrown their weight behind the polar configuration theory give the impression that Velikovsky’s Exodus scenario is incompatible with the polar configuration theory which they believe to be correct. Velikovsky placed the catastrophic effects described all around the world at least a millennium too late is the sentiment. Velikovsky described Venus as only appearing in our heavens from around the time of the Exodus while the Sumerian and early Egyptian texts tell us that they saw Venus in the heavens before 2000 B.C. This is seen as a fatal flaw in *Worlds in Collision* and Velikovsky’s Exodus scenario. In this article I want to explore this question of whether the Saturn Theory is incompatible with Velikovsky’s Exodus scenario.

One of the best ways to prove a position is to compare and contrast it with the opposing point of view. This is the approach that I want to use in showing the strength of the position I believe regarding the events surrounding the Flood and the Exodus. The astronomical scenario I will attempt to show evidence for at the time of the Flood remains in the speculative but after I complete this section I hope that you agree with me that it is at least a strong hypothesis connecting many of the facts together regarding this time. Accompanying it will be much geological evidence also proving the Flood was a historical reality.

There has been much astronomical, geological and archaeological evidence that has come forth in the past decade or two that throws much weight behind Velikovsky’s Exodus scenario described in “*Worlds in Collision*” and its geological companion “*Earth in Upheaval*” that one could be almost tempted to affirm it as fact and not just speculation. Author Charles Ginenthal recently published a 400 page book entitled “*Carl Sagan and Immanuel Velikovsky*” which completely destroyed the famous scientist’s critique of “*Worlds in Collision*” and provided an immense wealth of new scientific, astronomical and geological evidence supporting Velikovsky. I will summarize this new evidence later on in this book.

What I plan to do in this article is to, first of all, give an overview of the evidence of what the ancients believed the heavens looked like. From there I want to explore the polar configuration theory and look at the strengths and weaknesses of the theory. Then I want to look at the strengths and weaknesses of an alternative Saturn Theory and then I want to go through the strengths and weaknesses of Velikovsky’s Exodus scenario. To conclude with I will develop a kind of a grand unified theory built on the historical background we will cover that shows how I believe the plagues of the Day of the Lord will occur and that the plagues are not separate, independent events but consequences of a singular method by which God will punish mankind.

THE EVIDENCE FOR THE SATURN THEORY (The Flood)

Saturn

The best place to start with the Saturn Theory is to show some of the evidence that Saturn once rivalled the Sun in brightness. Dwardu Cardona's excellent paper "Intimations of an Alien Sky" covers this topic and much more. It is available from Ted Holden's catastrophism site on the internet (<http://www.access.digex.net/~medved/Catastrophism.html>). That internet site has many articles to download on subjects related to what I will be covering in this article. Here are a few quotes from Dwardu Cardona's "Alien Sky" paper which show how the ancients viewed Saturn.

"Diodorus Siculus, who lived in the first century B.C., had reason to report that the Chaldeans regarded Saturn as the most prominent of the planets:

"But above all in importance, they [the Chaldeans] say, is the study of the influence of the five stars known as planets [the one named Cronus by the Greeks (i.e., Saturn)] is the most conspicuous.'

"As viewed from Earth, this is simply not so. Venus is much more prominent. It is easily the brightest of the planets...In contradistinction, Saturn is a very difficult object to observe. Even Bob Forrest, one of the strongest opponents of cosmic catastrophism, was moved to display his bewilderment when he stated:

"The only puzzling thing about this passage [of Diodorus] is the way Saturn is said to be the most conspicuous of the planets. All else is fairly routine.'...

"To give but one other example, and later we shall give others, we note here one of the Sanskrit names of the planet Saturn, that is Grahanayakah. This name is composed of the words "graha(h)", "planet", and "nayakah", "chief or leader." Thus, according to this name, Saturn is, or at least was, considered the leader of the planets, in fact, the chief planet...

"What was it, however, that made the Babylonians allude to Saturn as the most prominent of the planets, prominent enough for them to refer to it, inter alia, as En-Me Sarra, that is "Lord of the law of the Universe"? One must admit, that is quite a lofty title to bestow on what appears to be a mere pin-point of light in the present night sky.

"The clue to Saturn's prominence, even loftiness, was supplied by Diodorus in the very same passage we have already partly quoted. There this writer continues to report that "the [planet] named Cronus [i.e. Saturn] by the Greeks they [the Chaldeans] call the star of Helios"

"It is somewhat odd that Forrest did not find this statement as "puzzling" as the one which proclaims Saturn to be the most prominent of the planets. Odder still is that he relegated it to the unimportance of "fairly routine" reporting because, to the Greeks of Diodorus' time, Helios was the sun. From it are derived such sun-oriented English words as "heliacal," "heliocentric," and "heliograph." Why would the Babylonians have referred to the planet Saturn as the star of the Sun?

"R.C. Thompson might have been the first to discover, even if not entirely understand, this Babylonian verity. Thus, another Babylonian name for the planet Saturn was (Mul) Lu-Bat Sag-Uu and we find it stated in an astrological report from that nation that "(Mul) Lu-Bat Sag-Uu (il) Samas Su-u," which Thompson translated as "[the planet] Saturn is the star of the sun."

"Actually, Diodorus should have known that this belief was already common among the scholars of his own nation. Eratosthenes of Alexandria, who thrived somewhere between 276 and 194 B.C., and whose astronomical, mathematical, and geographical knowledge enabled him to measure the circumference of the Earth, identified the planet Saturn as the star of the Sun, as so did several other Greek writers. Among the Greeks, this belief continued down to

the 6th century A.D. as is known through the neo-platonic philosopher Simplicus who also called Saturn the star of the Sun.

"Meanwhile shemesh, and therefore Shamash, means "to be brilliant," and while this may be an apt name for the Sun, one would hardly think of alluding to the pin-point of light that is Saturn by the same appellation. And yet this is precisely what the Babylonians did. Thus while we understand that Shamash was the name of the planet Saturn as well as the Sun, is it also to be understood that Saturn was once believed to have been as brilliant as the Sun?

"There is, again, no point in claiming that these were metaphorical epithets meant to be applied to the god and not the planet he represented because, to the ancients who venerated him, the god and the planet was one and the same. And this, incidentally, is not merely my contention, or that of those colleagues who have recently become involved in studying the Saturnian phenomenon. Conventional mythologists had recognized this fact for themselves even though they found it very difficult to accept....Rawlinson himself found these epithets "very difficult to reconcile with the notion that, as a celestial luminary, [Ninip] was Saturn." Somewhat like Jensen, he, also, sought to explain the situation by appealing to astral bodies other than the one indicated by the texts themselves. As he wrote:

"These phrases appear to point to the Moon, or to some very brilliant star, and are scarcely reconcilable with the notion that [Ninip] was the dark and distant Saturn.

"Elsewhere, and earlier, Rawlinson had indicated the same bewilderment when he asked: "How is it possible that the dark and distant planet Saturn can answer to the luminary who [or which] 'irradiates the nations like the sun, the light of the gods'?"...."

"In fact, ask any mythologist to name the solar god par excellence and the name of Ra (or Re) is bound to come up. Not only was Ra the Egyptian Sun god, he was the Sun itself. As James Frazer echoed this Egyptological dictum: **"That Ra was both the physical sun and the sun-god is of course undisputed". And yet, an Egyptian Ostrakon from Ptolemaic times identifies Ra as the Greek Kronos, which is the planet Saturn."**

Dwardu Cardona in a post called "Ra as Saturn" on the kronia internet forum which I am subscribed to informs us that:

"The Egyptian Ra was, by the Egyptians themselves, assimilated to the god Atum, and, in fact, this deity is often referred to in Egyptian documents as Atum-Ra. **This god bore a specific and strange characteristic. Atum was honored as a sun of night. Now, I ask you, does the Sun shine at night?...**

"This sun of night was also anthropomorphosed by the Egyptians as the god Osiris. Mariette-Bey long ago had it stated that '**originally, Osiris is the nocturnal sun.**' This contention was also shared by Budge who informed his readers that 'the Egyptian texts suggest that in late times the Sun-god of night may have been regarded as a form of Osiris.'

"A sun of night was also believed in by the Assyro-Babylonians. But there, this sun of night was identified as the planet Saturn. **As Morris Jastrow Jr. had it stated: 'Strange as it may seem to us, the planet Saturn appears to have been regarded as 'the sun of night'...'** In view of the fact that Atum-Ra, as well as Osiris, was likewise lauded as a sun of night, should we not then give credence to the identification of Ra as the same Saturn?"

That Saturn was identified as a sun or star in most ancient cultures and seen in such a completely different way than the faint, slow-moving pin-prick of light it is today, is at the heart and core of the Saturn theory.

Velikovsky suggested that the intense light of seven days mentioned in Isaiah 30:26 is the same as the seven days mentioned in the Flood account and that this intense

light, remembered in the ancient seven-day light festival of the Saturnalia, commemorates the time of the flood when there was intense light for seven days. This, he speculated, was a nova or something similar to it in our solar system. But what went nova if this happened? The name Saturnalia implies Saturn.

In a Kronos article entitled "On Saturn and the Flood" Velikovsky wrote:

"I have already discussed the statement, contained in the Tractate Brakhot of the Babylonian Talmud, which points to the celestial body Khima as the source of the Deluge: and I have shown why Khima is to be identified with Saturn.

"Hindu sources also provide information which links the planet Saturn with the Deluge. This Catastrophe is said to have taken place during the Satya yuga, in the reign of Satyavrata, who is usually identified as Saturn. Actually, it becomes apparent that the whole epoch named Satya yuga was the Age of Saturn as well as of the Deluge. Sir William Jones, who occupied himself mainly with comparative linguistics and with Hindu lore, expressed this very thought. He wrote that the Satya yuga meant the Saturnian Age, and that this was the Age of the Flood."

Now let's have a look at some of the evidence of where in the sky it was positioned and the relationship between Saturn and the other planets at this time.

In an internet post entitled "Polar Sun" Dave Talbott writes:

"When you look at the northern sky at night, the stars you see are actually cutting a circle around a motionless point. This wheeling of circumpolar stars around the visual center is, of course, due to the rotation of the Earth. You can see this motion through a time lapse photograph of the circumpolar region....That stationary point, in the ancient religious and astronomical systems, is the sacred center and summit.

"The French scholar Jacques Enel, in his study of Egyptian imagery, for example, assures us that the Egyptians remembered Atum's station as 'the single, immovable point around which the movement of the stars occurred.' To the Egyptians, states Enel, 'Atum was the chief or center of the movement of the universe at the pole'....**The texts say of Atum - 'The Great God lives fixed in the middle of the sky.'**

"Much the same language is used by the eminent Egyptologist, T. Rundle Clark, who tells us the pole was the place par excellence. Atum, according to Clark, is 'the arbiter of destiny perched on the top of the world pole.' So when the text declare that 'the great god lives, fixed in the middle of the sky,' the reference is to the polar station, according to Clark....

"Remember that the sun god Atum and the sun god Ra were one and the same, though the Egyptians insisted that the god himself evolved with the unfolding events. The god who was Atum became Ra[Ra was the oldest of the Egyptian gods and the god Atum in time was merged with Ra] in the course of his own unfolding, as the originally formless god began to acquire certain distinct attributes.

"Thus Atum's counterpart Ra, according to the sources themselves, 'rests on his high place.' He does not roam about the sky. **Like Atum, Ra is the pivot, with the lesser lights revolving around him. These are, as the texts say, the 'stars who surround Ra.'** 'These gods shall revolve round about him.' 'The satellites of Ra make their round.' **Again, the picture is of a stationary god serving as the pivot of celestial motions.**

"As I have already noted the ancient Sumerian counterpart of Atum was the creator-king An, the Akkadian Anu, whose 'terrifying glory' was a repeated subject of the hymns and rites.

This was 'the terror of the splendour of Anu in the midst of heaven,' and the starworshippers did not mean by the 'midst' of heaven some vague and unfamiliar metaphor. The 'midst' (kirib sami, Kabal sami, meant, very concretely, the cosmic center), making the polar god, according to Robert Brown, Jr., a nocturnal sun. The words translated as the 'midst' mean, according to Brown, 'that central point where Polaris sat enthroned.'

"Both Sumerian and Akkadian texts are replete with references to the 'firm' and 'steadfast' or 'motionless' character of the dominant gods. The great god Enki of Eridu is 'the motionless lord,' and god of 'stability.' A broken Sumerian hymn, in reference to Ninurash, a form of Ninurta, reads:

"Whom the 'god of the steady star' upon a foundation.
To...cause to repose in years of plenty.'

"What, then, of the famous Assyrian and Babylonian god Shamash, the sun god whom we now recognize as Saturn? A remarkable fact is that Shamash 'comes forth' (shines) and 'goes in' (declines, diminishes) at one spot, the 'firm,' 'stable' or motionless station of 'supreme 'rest'.

"This place par excellence was symbolized by the top of the ziggurats the famous Babylonian axis-towers constructed as symbolic models of the Cosmos. Hence, the uppermost level was deemed the 'light of Shamash,' and the 'heart of Shamash,' denoting (in the words of E.G. King) the pivot 'around which the highest heaven or sphere of the fixed stars revolved'....

"The recurring concepts are these: a stationary location, the celestial place of rest, the place round which the heavens turn, and the cosmic center, the place where the myths begin. Firmness, stability, pivot, axis, center, and summit or zenith. The imagery is both archetypal and universal.

"To the Hindus the sacred celestial spot, the province of the creator-king, was the place of 'supreme rest,' called also 'the motionless site.' **The Hindu Dhruva, whose name means 'firm,' stands on this very spot--'a Spot blazing with splendor...and which subsists motionless.'** In the Sanskrit texts, Dhruva means the celestial pole.

"What remains to be explained by mythologists is that the sun god Surya 'stands firmly on this safe resting place.' Surya, states the Sanskrit authority V.S. Agrawala, 'is himself at rest, being the immovable center of his system.' Just as the Egyptian and Mesopotamian sun gods 'rise and set' in one place, Surya occupies samanam dhama--'the same place of rising and setting.' The words translated as 'rising' and 'setting' can only mean the phase of brightness followed by the phase of receding light.

"Another name for the stationary sun, according to Agrawala, is Prajapati. 'The sun in the center is Prajapati: he is the horse that imparts movement to everything.' The motionless Dhruva, Surya, and Prajapati compare with the light of Brahma, called the 'true sun.' This is the ancient sun, the texts say, which 'after having risen thence upwards ... rises and sets no more. It remains alone in the center.' Here, too, center and summit are synonymous. Brahma, observes Rene Guenon, is 'the pivot around which the world accomplishes its revolution, the immutable center which directs and regulates cosmic movement.'

"Moreover, this stationary and axial character of the greatest gods seems to be common to all of the primary celestial figures in Hindu myth, with its diverse pantheon gathered from so many cultural traditions. The god Varuna, 'seated in the midst of heaven,' is the 'Recumbent,' and called the 'axis of the universe.' 'Firm is the seat of Varuna,' declares one of the Vedic hymns. In him 'all wisdom centres, as the nave is set within the wheel.' One of Varuna's forms is Savitar, the 'impeller.' While the rest of the universe revolves, the impeller stands firm. 'Firm shalt thou stand, like Savitar desirable.'

“According to ancient Chinese astronomy the revered Emperor on High, prototype of kings, stood at the celestial pole. **Chinese astrologers, according to Gustav Schlegel, regarded the polar god as ‘the Arch-Premier ... the most venerated of all the celestial divinities. In fact the Pole star, around which the entire firmament appears to turn, should be considered as the Sovereign of the Sky.’** It was thus proclaimed that the celestial pole was the seat of the supreme ruler Shang-ti, mythically, the first king of a great dynasty in the remote past. His seat was ‘the Pivot,’ and all the heavens turned upon his exclusive power.

“Raised to a first principle, the polar power became the mystic Tao, the motor of the Cosmos. The essential idea is contained in the Chinese word for Tao, which combines the sign for ‘to stand still’ with the sign for ‘to go’ and ‘head’ The Tao is the Unmoved Mover, the supreme ruler, who ‘goes,’ or ‘moves’ while yet remaining in one place--revealing a striking correspondence with the images of the polar power in other lands....

“A stunning example of the polar Saturn is provided in Chinese astronomy, where the distant planet was called ‘the genie of the pivot.’ **Saturn was believed to have his seat at the pole, according to the eminent authority on Chinese astronomy, Gustav Schlegel. In the words of de Saussure, Saturn was ‘the planet of the center, corresponding to the emperor on earth, thus to the polar star of heaven.’....**

“Significantly, these same overlapping images of a polar sun or sovereign luminary at the pole occur in the Americas. **In southern Peru the Inca Yupanqui raised a temple at Cuzco to the creator god who was superior to the sun we know. Unlike the solar orb, he was able to ‘rest’ and ‘to light the world from one spot.’** As the pioneering Mesoamerican scholar, Zelia Nuttall, noted many years ago, the only reasonable position in the sky for fulfilling this requirement is the celestial Pole. ‘It is an extremely important and significant fact,’ writes Nuttall, ‘that the principal doorway of this temple opened to the north.’ (Since the north celestial pole is not visible from Cuzco, 14° below the equator, Nuttall assumed that this tradition of a polar sun was carried southward.)

“It seems that the memory of the central sun established itself around the world. Other reflections of the polar power in the Americas are noteworthy.

“Cottie Burland tells us that, among the Mexicans, ‘the nearest approach to the idea of a true universal god was Xiuhtecuhtli, recalled as the Old, Old One who enabled the first ancestors to rise from barbarism. Xiuhtecuhtli appears as the Central Fire and ‘the heart of the Universe.’ **‘Xiuhtecuhtli was a very special deity. He was not only the Lord of Fire which burnt in front of every temple and in the middle of every hut in Mexico, but also Lord of the Pole Star. He was the pivot of the universe and one of the forms of the Supreme Deity.’** An apparent counterpart of this central fire is the Maya creator god Huracan, the ‘Heart of Heaven’ at the celestial pole.

“The Pawnee locate the ‘star chief of the skies’ at the pole. He is the ‘star that stands still.’ Of this supreme power they say, ‘Its light is the radiance of the Sun god shining through.’

“To the traditions of a polar power cited above should be added the following:

“In the Persian Zend Avesta the creator-king Ahura Mazda rules from atop the world axis, the fixed station ‘around which the many stars revolve.’ Iranian cosmology, as reported by Leopold de Saussure, esteemed the celestial pole as the center and summit of heaven, where resided Kevan, the sovereign power of heaven, called ‘the Great One in the middle of the sky.’ Throughout the ancient Near East, according to the comprehensive research of H. P. L’Orange, the ‘King of the Universe’ appears as a central sun, ‘the Axis and the Pole of the World.’

“These archaic traditions can help us re-interpret the images of the sun god kept alive by Greek and Roman symbolists. In astrological representations, the primeval ‘sun’ occupies the central, axial position while the other planets or stars revolve around him. The definitive

celestial profile of Helios is as Basileus Helios, the Royal Sun, recognized by Franz Cumont as the prototype of terrestrial kings or princes surrounded by their guards. In the time of the Roman emperor Nero, the sun-god was still remembered as the axis, the genius loci, the center of the cosmos, and presented as such in astrological depictions, with the emperor himself serving as the terrestrial image of the original sun god.

"It is significant too that, as noted by John Perry (Lord of the Four Quarters), the Etruscans--predecessors of the Romans--claimed there was one supreme deity, held to be the axial 'Pole' Star.

"According to Jewish and Muslim Cosmology,' wrote the eminent authority on Semitic religions, A.J. Wensinck, 'the divine throne is exactly above the seventh heaven, consequently it is the pole of the Universe.' (An echo of the ancient tradition will be found in the words of the prophet Isaiah, who locates the throne of El in the farthest reaches of the north.)

"Amongst Finno Ugric peoples, the supreme ruler of the sky is Ukko. As stated in the Finnish Kalevala the seat of Ukko was at the Pole. And this assertion, according to the prominent chronicler Uno Holmberrg, was part of a pervasive tradition of the creator-king seated atop the world pole.

"A remarkable counterpart is provided by the Ashanti of Ghana, who remembered the old sun god as 'the dynamic center of the Universe, from which lines of force radiate to all quarters of the heaven.' Thus, according to the Ashanti, this former sun god is "the center around which everything revolves."

'This idea of an ancient sun god ruling from the axial center stands in dramatic contrast to the common suppositions of mythologists and historians. To the modern mind nothing could be more absurd than a polar sun. Yet the unmoving sun is the ancient tradition, as noted by **E.A.S. Butterworth in his insightful work, The Tree at the Navel of the Earth. Upon evaluating the archaic images of Helios and other ancient sun gods, Butterworth concluded that this luminary 'is not the natural sun of heaven, for it neither rises nor sets, but is, as it seems, ever at the zenith...There are signs of an ambiguity between the pole star and the sun.'**

"How could such an improbable 'ambiguity' have dominated the cosmological thought of ancient starworshippers--in every corner of the world? Butterworth's insights have a considerable history behind them. The precedence of the cosmic center among the great ancient cultures has been noted and documented by others. Almost a hundred years ago, **William F. Warren, in his groundbreaking work, Paradise Found, identified the celestial pole as the home of the supreme god of ancient races. 'The religions of all ancient nations...associate the abode of the supreme God with the North Pole, the centre of heaven; or with the celestial space immediately surrounding it.** [Yet] no writer on comparative theology has ever brought out the facts which establish this assertion.'

"In the following years a number of scholars, each focusing on different bodies of evidence, reached the same conclusion. The controversial and erratic Gerald Massey, in two large works (The Natural Genesis and Ancient Egypt), claimed that the religion and mythology of a polar god was first formulated by the priest-astronomers of ancient Egypt and spread from Egypt to the rest of the world. **In a general survey of ancient language, symbolism, and mythology, John O'Neill (Night of the Gods, two volumes) insisted that mankind's oldest religions centered on a god of the celestial pole....**

"In preceding segments we have reviewed these unexplained associations--

- Helios as Saturn; Helios as central sun, and Helios as axis of the celestial revolutions.
- Akkadian Shamash as Saturn, Shamash as central sun, Shamash at the polar 'midst' and 'zenith.'

- Egyptian Atum-Ra as central sun, Atum-Ra as Saturn, Atum-Ra atop the world pole.

“According to Jastrow, Babylonian astrological texts could not have presented the equation of Saturn and the sun more boldly: ‘THE PLANET SATURN IS SHAMASH’....

“Who, then, is the great god--the god of terrifying radiance--whose coming out or coming forth inaugurates the day?

“This god of the archaic day, beginning at sunset, is in fact called Shamash, Ra, Helios, and Sol--the very god explicitly identified with the planet Saturn.”

Dwardu Cardona writes in the abovementioned internet post entitled “Imitations of An Alien Sky”:

“In the Persian BUNDAHISH, the planet Saturn was assigned as the guardian of Gah - "the great one of the middle of the sky" - who was the Pole Star.

“In China, the planet Saturn is called Tchou-niou-tchi-chin, a name that translates as ‘Genie [or spirit] of the Pivot.’ This Pivot, however, which in Chinese is rendered as T’ien-Tchou, that is ‘pivot of the sky,’ was their name for the Pole Star. Thus, when the Chinese refer to Saturn as the ‘Genie of the Pivot,’ they are claiming that Saturn was the ‘Soul of the Pole Star’....

“The polar positioning of Saturn, as it is found described in myth, has not gone unnoticed by mythologists. But, again, because this makes for an impossible situation in today's sky, it was not accepted as a factual statement by the ancients. **Thus, for instance, de Santillana and von Dechend were forced to state that ‘the reader is not the first to be perplexed by an imagery which allows for the presence of planets at the pole.’ As they themselves asked: ‘What has Saturn, the far-out planet, to do with the pole?’ And they answered with these words: ‘It is not in the line of modern astronomy to establish any link connecting the planets with Polaris ... Yet such figures of speech were an essential part of the technical idiom of archaic astrology ...’** But here one is bound to ask: Is it probable that all ancient cultures would have used the same analogy, that is of a Saturn situated at the pole, as a ‘technical idiom’ of their ‘archaic astrology’?

“Like most other nations, the Babylonians had more than one name by which they alluded to the planet Saturn. One of these was Ninip (or Ninib and even Nirig). Under this name, the planet was deified as ‘the ghost of the elder god’ and ‘the black Saturn, the ghost of the dead sun.’ Is our present Sun dead?

“Saturn, on the other hand, does not shine with its own light. It does, of course, reflect the light it receives from the Sun but, as seen at its present distance from the Earth, this is hardly enough to proclaim it a sun. But if it DID once shine as a sun of night, as the ancients assert, and if it later dimmed to become the unobtrusive pin-point of light we now see in the night sky, we can understand why the planet was alluded to as ‘the ghost of the elder god’ and ‘the ghost of the dead sun.’”

The references that speak of Saturn as the sun-star at the celestial pole are found all around the world. These references hardly fit the Saturn of today or any other heavenly body we know of.

If we are to believe the ancients we must recognize that Saturn once was situated directly over the Earth’s north pole and was seen very brightly where the star Polaris is situated today at the north celestial pole.

= sun god's "body"
= the Great Mother....

"Consider the mysterious Eye of heaven. T. Rundle Clark has observed that this baffling yet pervasive symbol is the key to an understanding of ancient Egyptian religion, especially the religion of the Great Mother....

"What was the Eye? Why were all the major Egyptian goddesses Isis, Hathor, Nut, Sekhmet, Bast, and others - called "the Eye of Ra"?

"Recognition of the mother goddess(Venus comet encircling the sun-god) as the Aten-band disposes of the mystery. The Eye is simply the band. The sun god is the "pupil" of the Eye. When the texts say that the great god "dwells in the Eye", they simply confirm the identity. The sun god is "encircled with the protection of his Eye". "I am in the Eye", he says. "I am he who dwelleth in the Eye." Ra, whose hieroglyph is the enclosed sun, is thus "the aged one of the pupil of the Eye". Since the band of the Aten is also the "mistress" of the sun god; since the goddess is explicitly termed "the Eye"; and, since the sun god shines as the "pupil of the Eye" - can there be any doubt as to the capability of this elementary sign to resolve the "mystery"? Is not the expert's failure to recognize the band in concrete terms the cause of the question in the first place?"

It should be noted that Dave and Ev have since moved from their previous position stated in the above quotes from believing that Venus was outside of the disk of Saturn to currently believing that Venus was inside the orb of Saturn as seen from the earth. This question of whether Venus was seen inside or outside of Saturn as seen from the earth is at the heart of the matter of a correct understanding of what the ancients saw in the heavens.

At this stage I am not entirely sure of what caused this paradigm shift in Dave's understanding of Venus's role in the Saturn Theory but I have a fair idea. I believe it has more to do with the consistent symbolism of the goddess Venus as the feminine heart of the sun-god. A heart is something that is within someone's body not something outside of it. Added to that there are ancient references of the planets standing in line, what we would today term as a conjunction of planets and Dave believes that Venus formed part of a great constant conjunction.

Following are some of Dave Talbott's recent comments regarding the celestial role of the ancient mother-goddess Venus from a post on the kronia forum.

"The pictograph of Ra is a circle with a much smaller circle in the center. The rationale for the investigation of this symbol was an overarching question in my mind concerning the relationship of the Egyptian mother goddess and warrior hero to that Ra-sign, a symbol which is, of course, repeated around the world.

"I resolved to go to the most fundamental and well-documented facts. So I looked meticulously at the image of the Uraeus serpent, a common hieroglyph for "goddess" in Egypt. What is the relationship of the Uraeus to the Ra-sign? And what is the relationship of the Uraeus to the hero? It soon became clear that in reference to the "original condition" of Ra, the Uraeus, also called the "Eye" of Ra, refers to the circle inside the Ra-sign.

"And not just a circle, but a sphere. The name of Sekhmet, the Eye-goddess par excellence, comes from a word meaning "little orb." "Little" is a relative term, suggesting a relationship to something else. And in the most explicit sense, the hieroglyphic Eye of Ra means both a little orb, and "the center." Hence, by the Eye of Ra, the Egyptians symbolists meant a small orb in the center of the much larger orb of Ra (whom the texts describe as possessing the "Sole Eye")--exactly as implied by the Ra-sign. Another Egyptian word for the smaller sphere was

the feminine hati-heart of Ra, often symbolized by a stone (meaning an orb, not a circle) inseparably tied to the goddess. From other symbols of the Eye-goddess (equation of the Eye and the primeval "egg", depiction of the heart as a spherical "vase", and numerous cross-cultural images) no conclusion was possible other than that, in the remembered "original condition" of Ra, the god's single eye meant an orb....

"But this elementary reasoning led to a further issue bearing directly on the relationship of goddess and warrior-hero. In Egyptian art the Uraeus-Eye is commonly presented in a unique relationship to a red stone or sphere, signifying the sun god's innermost, masculine "heart of carnelian." In this relationship the Uraeus does not look like a sphere but a narrow band. The same form appears in familiar representations of the Aten and of the Shen-bond. But in all three instances the common form is a white, gold or turquoise band around a red disk, stone or orb. This orb never means "goddess." It is always masculine.

"Hieroglyphically the red disk, the "heart of carnelian," means the warrior hero, the masculine ab-heart of Ra. So the hero was called "the heart of the heart" (ab en hati). Two different words are used in the Egyptian expression: The ab-heart means the unborn hero (who is called the ab-heart of Ra). The second means the goddess, who is called the (feminine) eye, heart and soul of Ra.

"Different line of reasoning lead to the same elementary relationship of goddess and hero to the sun god. If the goddess is the Eye of Ra, and the unborn hero is an even smaller sphere within the Eye, no one should be surprised to find that the unborn hero was called the "pupil" (arit) of the sun god's Eye. Hence, taking only the acknowledged meanings of words, one can deduce that the inner circle in the hieroglyph of Ra denotes two orbs in juxtaposition, the larger appearing as a narrow band around the second."

There was a period of time when the planet Venus acted and looked like a comet. The Mexican Indians relate that Venus smoked. "The star that smoked...was Sitlax choloha, which the Spaniards call Venus." The Chaldeans said that the planet Venus "was said to have a beard". These parallel with similar observations made in India and Egypt. The Chinese wrote, "Venus was visible in full daylight and while moving across the sky, rivalled the Sun in brightness." Dozens of references could be cited that emphasize this idea over and over again that Venus was once a comet.

Dave Talbott and Ev Cochrane write the following about the Venus-comet in ancient Egyptian writings:

"The Egyptian word for "comet" is seshet, while the root sesh means "hair". **Literally, seshet is "the encircling hair-star" or "the revolving lock of hair". Though the notion of cometary "hair" is easy to understand, and agrees with the universal ancient language of the comet, the idea of encirclement (present also in the terminology of other lands) is consistently overlooked.** In the Egyptian language, this idea is expressed very concretely. Thus, the root meaning of seshet carries the sense "to revolve around", "to tie round", "to gird on", as well as "band", "belt", "crown", etc. In fact a straightforward interpretation of the related words suggests that the Egyptian "comet" reflects a unique prototype - a comet unlike anything seen in modern times. **The prototypal "hair-star" stretched itself around the central sun.** Seshet the "comet" is virtually indistinguishable from the Aten-band, a fact overlooked by Egyptologists as a whole, even though seshet—as frequently used by the Egyptians (and conventionally translated)—means nothing else than "the circle of the Aten".

"That this cometary apparition was the famous sun-encircling serpent-dragon is strongly supported by a further consideration: the Egyptians also invoked a serpent goddess Seshet, identified with both of the Venus goddesses Isis and Hathor"(The Origin of Velikovsky's Comet).

Mars

Now we've given quite a fair overview of the role of Venus. Amongst the many quotes given above there were snippets of the role of Mars in all of this. Mars is consistently represented as the hero-warrior with various different titles around the world. In the quick summary of world mythology below, pay note of the role of the warrior-hero Mars for that planet's role in the Saturn Theory.

Much of our understanding of what the ancients saw and had passed onto them as what the heavens looked like was passed down in the vast realm of world mythology. There are consistent themes that run through the world's mythology that give us clues and enlighten us further on the more direct ancient references we have quoted above.

The consistent themes that run through mythology that tell of this original story and the battle of the heavenly gods goes like this:

- The age of the gods began with the Golden Age(the world before the great Deluge). This Golden Age was a time looked back very longingly by the ancients.
- This age was ruled by the universal monarch, the good king, the founding king known as Kronos and Saturn and many other different titles.
- The great God ruled from the stationary spot in the middle of the heavens.
- The creator king had a consort who was the universal goddess noted for her staggering beauty and long flowing hair - Venus, Ishtar, Diana, Isis and many other titles.
- The goddess was also mother of the reborn-king, the son of the universal monarch.
- The universal monarch possessed a single, central, luminous eye.
- Once a great mountain or pillar rose from the earth and provided a support to the dwelling of the gods.
- The hero/warrior was called at this perfect time the pupil of the eye.
- The great king died or was displaced. His displacement leads to the collapse of the golden age.
- The collapse of the golden age leads to the feared dragon and the clash of the titans. The feared dragon is identified as the same planet as the beautiful goddess - Venus. This feared dragon as it reaches for the earth is also pictured as a witch or old hag with wiry hair or a witch's broom. All the various images of a comet - beautiful hair of the goddess when she is glorious and doesn't threaten the earth, the red dragon, the witch with her wiry hair as the former goddess now threatens the earth and the witch's broom - are all attributed to Venus.
- The world enters a great catastrophe of unprecedented scale.
- The warrior with his sword(excalibur, etc.) slays the dragon at this time of world catastrophe.

- Comets are constantly viewed with overwhelming fear and signify the death of kings.
- The universal monarch is displaced by his son(Jupiter) who now reigns.

Across the page are a number of the many, many pictographs that show many of these themes and give a graphical representation of what the ancients saw in the heavens from the Eye of Ra, stars inside crescents, the enclosed sun, wheel of Shamash (Saturn), the encircling dragon, etc representing Venus encircling Saturn.

Physical evidence for the Flood

By far the best sources for geological evidence for the Flood are Velikovsky's "Earth in Upheaval" and Charles Ginenthal's article entitled "The Flood" available from the earlier quoted internet website. Here are just a few pages sampling the physical evidence for the Flood.

"In 1984, William R. Corliss stated that a bone bed had been discovered south of Tampa, Florida, with paleontologists declaring it one of the United States' richest fossil deposits. This bone bed yielded bones of more than 70 species of animals, birds and aquatic creatures. About 80% of the bones belong to plains animals, such as camels, horses, mammoths, etc. Bears, wolves, large cats and a bird with an estimated 30-foot wingspan [were] also represented. Mixed in with all the land animals are sharks' teeth, turtle shells, and the bones of [freshwater] and salt water fish. The bones are all smashed and jumbled together, as if by some catastrophe. **The big question is how bones from such different ecological niches--plains, forests, oceans--came together.**

"The fact that marine and terrestrial animals were buried in the same soils and sediment level where human bones or artifacts have been found suggests that an immense, recent flood occurred.

"Velikovsky described the Cromer forest beds in Norfolk, England: In Cromer, Norfolk, close to the North Sea coast, and in other places on the British Isles, "forest beds" have been found. The name derives from the presence of a great number of stumps of trees, once supposed to have rooted and grown where they are not found. Many of the stumps are in upright positions and their roots are often interlocked. Today, these forests are recognized as having drifted: The roots do not end in small fibers, but are broken off, in most cases one to three feet from the trunk.

"Bones of [60] species of mammals, besides birds, frogs and snakes, were found in the forest-bed of Norfolk. Among the mammals were the saber-toothed tiger, huge bear, mammoth, straight-tusked elephant, hippopotamus, rhinoceros, bison and modern horse....Two exclusively northern species--glutton and musk-ox--were found among animals from temperate and tropical latitudes.

"Immediately above the forest-bed, there is a freshwater deposit with arctic plants--arctic willow and dwarf birch--and land shells. *Astarte borealis* and other mollusk shells are found 'in the position of life with both valves united.' These species 'are arctic, but, as the bed seems in other places to contain *Ostrea edulis*, [a mollusk] which requires a temperate sea, the evidence is conflicting as to the climate.'

"What could have brought together, or in quick succession, all these animals and plants from the tundra of the Arctic Circle and from jungles of the tropics, from lush oak forest and from desert, from lands of many latitudes and altitudes, from freshwater lakes and rivers, and from salt seas of the north and south?"(The Flood, Charles Ginenthal)

"Velikovsky describes muck deposits filled with millions upon millions of broken bones of extinct mammoth, mastodon, super bison and horse found throughout the lower reaches of the Yukon and according to F. Rainey in *American Antiquity*, 1940, Volume 5, 'may be considered to extend in greater or lesser thickness over all unglaciated areas of the northern peninsula' [of Alaska and into northern Canada. The] "millions upon millions of animals torn limb from limb [are]...mingled with uprooted trees."

"Throughout these masses of shattered bones and trees is volcanic ash. And the depth of these masses of bones, trees and ash is great, "as much as 140 feet." F.C. Hibben of the University of New Mexico ["Evidence of Early Man in Alaska", *American Antiquity*, VIII (1943), p. 256] states that, 'Although the formation of deposits of muck is not clear, there is ample evidence that at least portions of this material were deposited under catastrophic conditions. Mammal remains are for the most part, dismembered and disarticulated, even though some fragments yet retain, in their frozen state, portions of ligaments, skin, hair and flesh. Twisted and torn trees are piled in splintered masses... At least four considerable layers of volcanic ash may be traced in these deposits, although they are extremely warped and distorted."

"Velikovsky then informs us that, 'In various levels of the muck, stone artifacts were found, 'frozen in situ' at great depths and in apparent association, with the Ice Age fauna, which implies that 'men were contemporary with extinct animals in Alaska.' [See Rainey, *American Antiquity*, V, p. 307] Worked flints, characteristically shaped, called Yuma points, were repeatedly found in the Alaskan muck, one hundred and more feet below the surface. One such spear point [according to Hibben, *American Antiquity*, VIII, p. 257] was found there between a lion's jaw and a mammoth's tusk. Similar weapons were used only a few generations ago by the Indians of the Athapascan tribe, who camped in the upper Tanana Valley. [See Rainey, *American Antiquity*, VI, p. 301] [And Hibben in *American Antiquity*, VIII, p. 256 writes] 'It has also been suggested that even modern Eskimo points are remarkably Yuma like,' all of which indicates that the multitudes of torn animals and splintered forests date from a time not many thousands of years ago.'

"William N. Irving and C.R. Harington in *Science*, report having found the jaw bone of a child perhaps eleven or twelve years old in the graveyard of the permafrost of the Yukon. In Siberia on the other side of the Arctic Ocean are found mass graveyards of mammoth bones by the millions upon millions as well as on the New Siberian Islands.

"In the stomachs and between the teeth of the mammoths were found plants and grasses that do not grow now in northern Siberia. 'The contents of the stomachs have been carefully examined,' [according to Whitney in the *Journal of the Philosophical Society of Great Britain*, XII (1910), p. 56] they showed the undigested food, leaves of trees now found in Southern Siberia, but a long way from the existing deposits of ivory. Microscopic examination of the skin showed red blood corpuscles, which was a proof not only of a sudden death, but that death was due to suffocation either by gases or water, evidently the latter in this case. But the puzzle remained to account for the sudden freezing up of this large mass of flesh so as to preserve it for future ages.

"What could have caused a sudden change in the temperature of the region? Today the country does not provide food for large quadrupeds, the soil is barren and produces only moss and fungi a few months in the year; at that time the animals fed on plants. And not only mammoths pastured in northern Siberia and on the islands of the Arctic Ocean. On Kotelnoi [according to Whitney above, p. 50] 'neither trees, nor shrubs, nor bushes exist...and yet the bones of elephants, rhinoceroses, buffaloes, and horses are found in the icy wilderness in numbers which defy all calculation.'"(Carl Sagan and Immanuel Velikovsky,p.198-199).

"According to James Trifil, some 243 fossilized whale skeletons and loose bones were discovered in a large valley 150 miles southwest of Cairo (100 miles inland from the Mediterranean Sea and more than 200 miles from the Red Sea). These skeletons are of Zeuglodon whales, like those found all over the southeastern United States. The Egyptian whale bones were scattered among the sand dunes; when the wind exposed them, the

paleontologists rapidly dug out as much of the fossilized whale as possible because windborne sand erodes exposed bones.”(The Flood, Charles Ginenthal)

“The Sahara Desert, which stretches from the Nile to the Atlantic Ocean across the continent of Africa and covers 3,500,000 square miles, about the area of all of Europe, is the greatest desert on earth. What is now the desert of Sahara was an open grassland or steppe in earlier days. Drawings on rock of herds of cattle, made by early dwellers in this region, were discovered by Barth in 1850. Since then many more drawings have been found. The animals depicted no longer inhabit these regions, and many are generally extinct. It is asserted that the Sahara once had a large human population that lived in vast green forests and on fat pasture lands. Neolithic implements, vessels and weapons made of polished stone, were found close to the drawings. Such drawings and implements were discovered in the eastern as well as the western Sahara. Men lived in these 'densely populated' (Flint) regions and cattle pastured where today enormous expanses of sand stretch for thousands of miles.

“Several theories have been offered to explain the prodigious quantity of sand in the Sahara. 'The theory of marine origin is now longer tenable.' The sand, it was found, is of recent origin. It is assumed that when a large part of Europe was under ice the Sahara was in a warm and moist temperate zone; later the soil lost its moisture and the rock crumbled to sand when left to the mercy of the sun and the wind.

“How long ago was it that conditions in the Sahara were suitable for human occupation? Movers, the noted Orientalist of the last century, author of a large work on the Phoenicians, decided that the drawings in the Sahara were the work of the Phoenicians. It was likewise observed that on the drawings discovered by Barth the cattle wore discs between their horns, just as Egyptian drawings. Also, the Egyptian god Set was found pictured on the rocks. And there are rock paintings of war chariots drawn by horses in an area where these animals could not survive two days without extraordinary precautions.'

“The extinct animals in the drawings suggest that these pictures were made sometime during the Ice Age; but the Egyptian motifs in the very same drawings suggest that they were made in historical times.

“The conflict between the historical and the paleontological evidence, and of both of them with the geological evidence, is resolved if one or more catastrophes intervened. **It appears that a large part of the region was occupied by an inland lake, or vast marsh, known to the ancients as Lake Triton. In a stupendous catastrophe the lake emptied itself into the Atlantic, and the sand on its bottom and shores was left behind, forming a desert when tectonic movements sealed off the springs that fed the lake.** The 'land of pastures and forests' became a desert of sand; hippopotami that live in water and elephants disappeared and with them also the hunter and the farmer.

“The French savant A. Berthelot says: **'It is possible that Stone Age man witnessed in Africa three notable events: the sinking of the Spanish-Atlas chain that opened the Strait of Gibraltar and created a junction between the Mediterranean Sea and the Ocean; the collapse that cut off the Canary Islands from the African continent; the opening of the Strait of Babel-Mandeb, separating Arabia from Ethiopia.'** Berthelot, however, ascribed these great tectonic changes to the time of prehistoric man and Abbe Breuil actually showed that prehistoric man already occupied these regions as the neolithic or very crudely chipped stone artifacts indicate. But at a later date people of advanced culture, contemporary with pharaonic Egypt, lived in communities, pastured their cattle, and left their tools and drawings there. Then in an upheaval, of which many traditions persist in classical literature, the Atlas Mountains were torn apart, the great lake was emptied, and the watery region became the great and awesome desert - the Sahara.

“**There is a 'certainty beyond challenge that when the icecap of the last Glacial period covered a large part of the northern hemisphere, at least three great rivers flowed from west to east across the whole width of the [Arabian] Peninsula.'** So wrote Philby in his

book 'Arabia'. There was also a large lake in Arabia that disappeared in some geological or climatical change.”(Earth in Upheaval, p.88-89)

“The most renowned naturalist to come from the generation of the French Revolution and the Napoleonic Wars was George Cuvier. He was the founder of vertebrate paleontology, or the science of fossil bones, and thus of the science of extinct animals. Studying the finds made in the gypsum formation, of Montmartre in Paris and those elsewhere in France and the European continent in general, he came to the conclusion that in the midst of even the oldest strata of marine formations there are other strata replete with animal or plant remains of terrestrial or fresh-water forms; and that among the more recent strata, or those that are nearer the surface, there are also land animals buried under heaps of marine sediment. 'It has frequently happened that lands which have been laid dry, have been again covered by the waters, in consequence either of their being engulfed in the abyss, or of the sea having merely risen over them . . . These repeated irruptions and retreats of the sea have neither all been slow nor gradual; on the contrary, most of the catastrophes which have occasioned them have been sudden, and this is especially easy to be proven, with regard to the last of these catastrophes, that which, by a twofold motion, has inundated, and afterwards laid dry, our present continents, or at least a part of the land which forms them at the present days

“ 'The breaking to pieces, the raising up and overturning of the older strata [of the earth], leave no doubt upon the mind that they have been reduced to the state in which we now see them, by the action of sudden and violent causes; and even the force of the motions excited in the mass of waters, is still attested by the heaps of debris and rounded pebbles which are in many places interposed between the solid strata. Life, therefore, has often been disturbed on this earth by terrific events. Numberless living beings have been the victims of these catastrophes; some, which inhabited the dry land, have been swallowed up by inundations; others, which peopled the waters, have been laid dry, the bottom of the sea having been suddenly raised; their very races have been extinguished for ever, and have left no other memorial of their existence than some fragments which the naturalist can scarcely recognize.”

“In 1823, William Buckland, professor of geology at the University of Oxford, published his *Reliquiae diluvianae* (Relics of the Flood), with the subtitle, 'Observations on the organic remains contained in caves, fissures, and diluvial gravel, and on other geological phenomena', attesting the action of a universal deluge. Buckland was one of the great authorities on geology of the first half of the nineteenth century. In a cave in Kirkdale in Yorkshire, eighty feet above the valley, under a floor covering of stalagmites, he found teeth and bones of elephants, rhinoceroses, hippopotami, horses, deer, tigers (the teeth of which were 'larger than those of the largest lion or Bengal tiger'), bears, wolves, hyenas, foxes, hares, rabbits, as well as bones of ravens, pigeons, larks, snipe, and ducks. Many of the animals had died 'before the first set, or milk teeth, had been shed.'

“Certain scholars prior to Buckland had their own explanation for the provenience of elephant bones in the soil of England, and to them Buckland referred - '[The idea] which long prevailed, and was considered satisfactory by the antiquaries [archaeologists] of the last century, was, that they were the remains of elephants imported by the Roman armies. This idea is also refuted: First, by the anatomical fact of their belonging to an extinct species of this genus; second, by their being usually accompanied by the bones of rhinoceros and hippopotamus, animals which could never have been attached to Roman armies; thirdly, by their being found dispersed over Siberia and North America, in equal or even greater abundance than in those parts of Europe which were subjected to the Roman power.”

“It appeared that hippopotamus and reindeer and bison lived side by side at Kirkdale; hippopotamus, reindeer, and mammoth pastured together at Brentford near London.' Reindeer and grizzly bear lived with the hippopotamus at Cefn in Wales. Lemming and reindeer bones were found together with bone of the cave lion and hyena at Bleadon in Somerset.' Hippopotamus, bison, and musk sheep were found together with worked flint in the gravels of the Thames Valley. The remains of reindeer lay with the bones of mammoth and rhinoceros in the cave of Breugue in France, in the same red clay, encased by the same stalagmites. At Arcy, France, also in a cave, bones of the hippopotamus were found with bones of the reindeer, and with them a worked flint.'

“According to the prophecy of Isaiah (11:6), in messianic times to come, the lion and the calf would pasture together. But even prophetic vision has not conceived of a reindeer from snow-covered Lapland and a hippopotamus from the tropical Congo River living together on the British Isles or in France. Yet they did leave their bones in the same mud of the same caves, together with bones of other animals, in the strangest assortments.

“These animal bones were found in gravel and clay to which Buckland gave the name of diluvium. Buckland was concerned 'to establish two important facts; first, that there has been a recent and general inundation of the globe; and, second, that the animals whose remains are found interred in the wreck of that inundation were natives of high north latitudes.' The presence of tropical animals in northern Europe 'cannot be solved by supposing them to migrate periodically . . . for in the case of crocodiles and tortoises extensive emigration is almost impossible, and not less so to such an unwieldy animal as the hippopotamus when out of the water.' But how could they live in the cold of northern Europe? Buckland says: 'It is equally difficult to imagine that they could have passed their winters in lakes or rivers frozen up with ice.' If cold-blooded land animals are unable to hide themselves in the ground over the winter, in icy climates their blood would freeze solid: they lack the ability to regulate the temperature of their bodies. Like Cuvier, Buckland was 'nearly certain that if any change of climate has taken place, it took place suddenly.'

“Of the time the catastrophe occurred, which covered with mud and pebbles the bones in the Kirkdale cave, Buckland wrote: 'From the limited quantity of postdiluvian stalactite, as well as from the undecayed condition of the bones, 'one must deduce that time elapsed since the introduction of the diluvial mud has not been of excessive length.' The bones were not yet fossilized; their organic matter was not yet replaced by minerals. Buckland thought that the time elapsed since a diluvian catastrophe could not have exceeded five or six thousand years, the figure adopted also by De Luc, Dolomieu, and Cuvier, each of whom presented his own reasons.

“Then the illustrious geologist added these words: What [the] cause was, whether a change in the inclination in the earth's axis, or the near approach of a comet, or any other cause or combination of causes purely astronomical, is a question the discussion of which is foreign to the object of the present memoir.”

“The Old Red Sandstone is regarded as one of the oldest strata with signs of extinct life in it. No animal life higher than fish is found there. Whatever the age of this formation, it carries the testimony and 'a wonderful record of violent death falling at once, not on a few individuals, but on whole tribes.'

“In the late thirties of the last century Hugh Miller made the Old Red Sandstone in Scotland the special subject of his investigations. He observed: 'The earth had already become a vast sepulchre, to a depth beneath the bed of the sea equal to at least twice the height of Ben Nevis over its surface.' Ben Nevis in the Grampian Mountains is the highest peak in Great Britain, 4406 feet high. The stratum of the Old Red Sandstone is twice as thick.

“This formation presents the spectacle of an upheaval immobilised at a particular moment and petrified forever. Hugh Miller wrote:

“The first scene in Shakespeare's *The Tempest* opens amid the confusion and turmoil of the hurricane - amid thunders and lightnings, the roar of the wind, the shouts of the seamen, the rattling of cordage, and the wild dash of the billows. The history of the period represented by the Old Red Sandstone seems, in what now forms the northern half of Scotland, to have opened in a similar manner . . . The vast space which now includes Orkney and Loch Ness, Dingwall and Gamrie, and many a thousand square miles besides, was the scene of a shallow ocean, perplexed by powerful currents, and agitated by waves. A vast stratum of water-rolled pebbles, varying in depth from a hundred feet to a hundred yards, remain in a thousand different localities, to testify of the disturbing agencies of this time of commotion. 'Miller found that the hardest masses in the stratum - 'porphyries of vitreous fracture that cut glass as readily as flint, and masses of quartz that strike fire quite as profusely from steel, - are yet polished and ground down into bullet-like forms . . . And yet it is surely difficult to conceive how

the bottom of any sea should have been so violently and so equally agitated for so greatly extended a space . . . and for a period so prolonged, that the entire area should have come to be covered with a stratum of rolled pebbles of almost every variety of ancient rock, fifteen stories' height in thickness.'

"In the red sandstone an abundant aquatic fauna is embedded. The animals are in disturbed positions. At the period of the past when these formations were composed, 'some terrible catastrophe involved in sudden destruction the fish of an area at least a hundred miles from boundary to boundary, perhaps much more. The same platform in Orkney as at Cromarty is strewn thick with remains, which exhibit unequivocally the marks of violent death. The figures are contorted, contracted, curved; the tail in many instances is bent around to the head; the spines stick out; the fins are spread to the full, as in fish that die in convulsions. The Pterichthy shows its arms extended at their stiffest angle, as if prepared for an enemy. The attitudes of all the ichthyolites [any fossil fish] on this platform are attitudes of fear, anger and pain. The remains, too, appear to have suffered nothing from the after-attacks of predaceous fishes; none such seem to have survived. The record is one of destruction at once widely spread and total.

"What agency of destruction could have accounted for 'innumerable existences of an area perhaps ten thousand square miles in extent [being] annihilated at once'? 'Conjecture lacks footing in grappling with the enigma, and expatiates in uncertainty over all the known phenomena of death,' wrote Miller".

"The ravages of no disease, however virulent, could explain some of the phenomena of this arena of death. Rarely does disease fall equally on many different genera at once, and never does it strike with instantaneous suddenness; yet in the ruins of this platform from ten to twelve distinct genera and many species were involved; and so suddenly did the agency perform its work that its victims were fixed in their first attitude of surprise and terror.

"The area of the Old Red Sandstone investigated by Miller comprises one half of Scotland, from Loch Ness to the land's northern extremity and beyond to the Orkney Islands in the north. 'A thousand different localities' disclose the same scene of destruction.

"An identical picture can be found in many other places all around the world, in similar and dissimilar formations. Of Monte Bolca, near Verona in northern Italy, Buckland wrote: 'The circumstances under which the fossil fishes are found at Monte Bolca seem to indicate that they perished suddenly . . . The skeletons of these fish lie parallel to the laminae of the strata of the calcareous slate; they are always entire, and closely packed on one another . . . All these fishes must have died suddenly . . . and have been speedily buried in the calcareous sediment then in the course of deposition. From the fact that certain individuals have even preserved traces of colour upon their skin, we are certain that they were entombed before decomposition of their soft parts had taken place.'

"The same author wrote about the fish deposits in the area of the Harz Mountains in Germany: 'Another celebrated deposit of fossil fishes is that of the cupriferous slate surrounding the Harz. Many of the fishes of this slate at Mansfield, Eisleben, etc., have a distorted attitude, which has often been assigned to writhing in the agonies of death . . . As these fossil fishes maintain the attitude of the rigid stage immediately succeeding death, it follows that they were buried before putrefaction had commenced, and apparently in the same bituminous mud, the influx of which had caused their destruction.'

"The story of agony and sudden death and immediate encasing is told by the red sandstone of Scotland; the limestone of Monte Bolca in Lombardy; the bituminous slate of Mansfield in Thuringia; and also by the coal formation of Saarbrücken on the Saar, 'the most celebrated deposits of fossil fishes in Europe'; the calcareous slate of Solenhofen; the blue slate of Glaris; the marlstone of Oensingen in Switzerland and of Aix in Provence, to mention only a few of the better-known sites in Europe (Earth in Upheaval, p.23, 25-29).

That is certainly more than enough proof to show that the Flood of Noah's time was truly a worldwide one and one that wrought tremendous destruction to the earth.

THE POLAR CONFIGURATION THEORY

Now that we've covered the evidence let's look at the polar configuration theory as currently promoted by David Talbott in his new documentary "Remembering the End of the World".

The polar configuration theory states that in man's early history Saturn, Jupiter, Mars and Venus orbited with the earth in a co-linear orbit. In order, the line of planets was the Earth, Mars, Venus, Saturn and behind Saturn from the Earth's view was Jupiter. This line of planets rotated around its centre of gravity as it revolved around the Sun. Mars, between Venus and Earth became unstable oscillating between Earth and Venus and near-collided with the Earth and this caused the disassembling of the configuration leading to Saturn and Jupiter being flung out to their current orbits.

Dave believes that as Mars had close contact with Venus there was an exchange of atmospheric gases and this material emanating from Mars created what appeared as a pillar or column between the earth and Saturn as it moved back from the earth towards Venus and Saturn. This column was known as the mountain of Shu who was identified as Mars. The atmospheric gases between Venus and Mars gave the appearance of a dragon or comet in the sky. These gases radiated outwards from Venus in all directions to form the spokes of the great world wheel of Saturn with Mars in the very centre. As the configuration disassembled Jupiter, hidden from view previously, became visible to the ancients.

The polar configuration theory does fit many of the ancient motifs outlined in the world's mythological record and the many pictographs of the heavens. It is currently the most dominant version of the Saturn Theory. Let's now look at its strengths and weaknesses.

Strengths

- It does have Saturn dominating the heavens as demanded by the ancient references.
- It accounts for Venus's appearance as the heart of the sun-god (Saturn).
- The emanating gases radiating outwards from Venus can account for the spokes of the great world wheel and the appearance of the dragon/comet-like appearance of Venus.
- It accounts for how the pillar could be formed - by emanating gases from the planet Mars.
- It certainly accounts for the appearance of a single eye and Mars as the pupil of the eye and heart of the heart.
- It explains the sudden appearance of the son of the king out of nowhere.
- It explains how the earth could have experienced a world catastrophe.

Weaknesses

It does have a number of pluses but let's now look at some of the weaknesses. Dave Talbott made the following statement in a recent post on the kronia forum:

“Logic and common sense, if they are permitted to operate here, will tell you that we are either misrepresenting fundamental principles, or the benefit of the doubt MUST go to the Saturn theory. The role of our erudite skeptics in this regard could be highly constructive. But the task should be obvious. Unless a skeptic can bring forward evidence to illustrate the misrepresentation, any suggestion that we have been selective in our use of evidence is baseless. Nor will there be a ground logically for singling out one motif only and suggesting ‘possible’ alternative explanations for the motif.”

Dave here has requested any evidence that illustrates any misrepresentation of the ancient evidence by the polar configuration theory in a way that is not selective. This I intend to do here. Where does the polar configuration theory contradict the mythological and historical evidence quoted earlier?

- Firstly, in Dave's theory that has Mars oscillating between the Earth and Venus, it is Mars which threatens the Earth and NOT Venus as the historical and mythological record demands. With Mars being the threat to the Earth in Dave's theory, IT is the danger - you could say even the real dragon - and this contradicts the persistent reference of Mars as the hero/warrior and Venus as the threatening dragon.

- The movement along the line between the centres of the Earth and Venus we are led to believe will give the appearance of Mars moving up and down in the heavens and as a result the pillar or world mountain. If Mars moves back and forth along the line that joins the centres of the five planets in a co-linear orbit any astronomer worth his salt will tell you from the position of an observer on the earth that Mars will STAY IN THE SAME POSITION and get larger and smaller and larger and smaller again. It really would be stretching the imagination to believe that Mars would have moved away from the central line joining the centres and then coming back and then doing it again.

- Now we come to the most telling flaw in the polar configuration - what I believe to be its FATAL flaw. As represented on the documentary “Remembering the End of the World” the line of five planets rotates around its centre of gravity (either at the same time as the rotation of the earth or its revolution around the sun) as it revolves around the sun. The line of planets it is seen is on the ecliptic plane. The line is not rotating perpendicular to the ecliptic plane.

Any astronomer worth his salt will tell you if these planets were moving in a co-linear orbit in such a way to an observer on the earth they would observe the other planets one behind the other moving along the ecliptic plane and would not be stationary at the north celestial pole as demanded by the ancient references!!!

Even if the line of planets were rotating perpendicular to the ecliptic they would not be seen stationary at the north celestial pole - the planets would move back and forth between the north and south celestial poles and I don't think any astronomer would put any credence to even the possibility of the planets being above the earth, moving

together around the sun but not rotating at all around their combined centre of gravity.

- It may account for the references that talk about Venus being the heart of the sun-god but it does not account for all the other references that speak of the sun-god dwelling inside his Aten which is identified as the planet Venus or which speak of Venus as being the circle of fire or the encircling dragon or the crown or halo of the sun-god.

- In Dave's theory Venus is a spherical planet. It only gives the impression of a comet because of the gases emanating from it as pulled away from it by Mars. This contradicts the ancient references. It is the star that smokes. It is the fiery band. It is a true fiery comet, not a pseudo-comet because of the emanating gases.

- The theory does not explain at all the birth of Venus which Dwardu Cardona suggests may have come from Saturn in his six-part article on the subject called "Child of Saturn" that appeared in the Kronos magazine several years ago.

- The theory has Saturn as a planet close to the earth. It is not a star as told by the ancients that rivalled the sun in brightness. It also doesn't account for the references to an intense period of light remembered in the Saturnalia festival.

- It doesn't account for how Saturn and Jupiter were flung so far out past the asteroid belt. They are 9.5 and 5 times further out from the Sun as the earth is and we are led to believe Saturn and Jupiter were once also. How does a disruption of the gravitational alignment of such a co-linear orbit thrust out the two most massive planets 9.5 and 5 times further out from the Sun than they supposedly were previously? We are led to believe these two massive planets were thrust out so far when the other three much smaller planets were moved so little in comparison.

- The theory of such a co-linear orbit sounds straightforward but what about the moons of each of the planets? How could they move around in such an arrangement? Jupiter has 16 and Saturn around 20, not to mention our moon and Phobos and Diemos which revolve around Mars.

Those are some of the almost insurmountable problems which have to be resolved to make the polar configuration theory a workable one, even despite the nice coincidence that Jupiter would have to be behind Saturn to make a co-linear orbit stable. Such a co-linear orbit may be stable but as pointed out it does not have the most fundamental requirement of the Saturn Theory to place Saturn at the north celestial pole.

AN ALTERNATIVE SATURN THEORY

At this stage in my research I am not totally familiar with exactly how Immanuel Velikovsky thought the planets looked at this time as I have only read his "Saturn and the Flood" article which appeared in Kronos and not had the opportunity to know what is in his unpublished manuscript "In the Beginning" in which he proposes his own theory for how the planets looked at this time and the events that led up to the Flood. What I propose here retains two of the most fundamental points of Velikovsky's belief on the subject, and that is, that Saturn was a true star that went nova or something like it and that Venus was a true fiery comet.

Essentially what I propose happened at this time was that in the pre-Flood world Saturn was a true star, possibly between 5 and 10 astronomical units(distance between the sun and the earth) directly above our planet and the sun at the north celestial pole. The Sun was the greater light and Saturn was the lesser light which ruled the night and together they formed a binary star system. They represented God and His Son. Several planets, including Mars, maybe Jupiter and probably Pluto, orbited Saturn perpendicular to the ecliptic of the sun and its planets which included the earth.

Venus was originally born in a fissionary way as proposed by Velikovsky from either Saturn or, less likely, from Jupiter before being captured by Saturn. **Venus orbited Saturn as a beautiful fiery comet encircling Saturn. The orbit of Venus represented the Aten in which the sun-god Ra or Saturn dwelt. The orbit of Venus with the Saturn star inside formed the Eye of Ra. It represented God's all-seeing eye, pictured on the American dollar bill today, a reminder the all-loving Creator watched over them.** When Mars passed in front of Saturn as it orbited it, it gave the appearance of being the pupil of the eye. Alternatively Venus with its cometary tail was the eyebrow, Saturn the eye and Mars the pupil of the eye which fits the Eye of Ra symbol seen in the excellent movie "Stargate".

Why would such a physical representation of God's all-seeing eye be situated at the north celestial pole? The obvious answer is that is the position that the Bible appears to indicate where God's throne in heaven is located - in the uttermost parts of the north(Isa.14:13).

Another dim reminder of Saturn being at the celestial north pole is found in the tradition of Santa Claus, a generous old man to children, who lives at the north pole. Christmas is simply a carry-on of the pagan Roman festival, the Saturnalia, with a Christian dressing wrapped over it that the Catholic Church created, merging the Roman festival with christian ideas, in order to attract pagans into the church. **As the Saturnalia was a festival for the old sun-god Saturn it is not surprising that Santa Claus was deemed to live at the north pole.**

Dave Talbott in an internet post entitled "Polar Sun" says the following,

"Santa Claus, descending yearly from his polar home to distribute gifts around the world, is a muffled echo of the Universal Monarch spreading miraculous good fortune. But while the earlier traditions place his prototype, the Universal Monarch, at the celestial pole, popular tradition now locates Santa Claus at the geographical pole--a telling example of originally celestial gods being brought down to earth."

Saturn went nova or something like it in the middle of the third millennium B.C. An intense period of light filled the sky for seven days until the impact of the nova blast reached the earth and triggered a collapse of the water canopy that covered the earth and possibly softened the impact of the nova blast. The great Deluge covered the earth with water and it rained intensely for 40 days and 40 nights.

In the seven days before the nova blast reached the earth what appeared to be a battle in the skies occurred. The comet Venus which previously was a beautiful crown orbiting Saturn was thrust directly towards the earth. It was remembered as the Sumerian Innana, "the bright torch of heaven", the "conflagration shown forth in the heavens when the earth shook". As it streaked towards the earth, the

warrior/hero, the planet Mars, saved the day, so to speak, when its gravitational pull moved it off its direct path towards the earth. The comet Venus as a result of the power of the nova blast was thrust towards the outer parts of the solar system to return again and threaten the earth at a later juncture in man's history.

After shedding most of its mass Saturn and the planets which orbited it were gravitationally attracted by the sun and moved into their current orbits.

Let's now look at the strengths and weaknesses of what I have proposed.

Strengths

- Saturn, most definitely, is a true star situated at the north celestial pole.
- Saturn going nova does account for the references of seven days of intensive light such as the festival of the Saturnalia.
- It explains all the symbols that show a star and a half or quarter crescent at various angles with a circle inside. Venus's cometary tail and path would light up about that much of its circular orbit at a time. The circle inside is the sun-god inside his Aten-band.
- **Because this crescent that was Venus's fiery tail moved in a circular orbit, it appeared as if Saturn was turning with it and hence why Saturn was symbolized with the world wheel symbol. Saturn at its distance would have had more of a disk-like appearance like the sun during the day and a star-like appearance at night with radiating streams coming from it like nearby stars appear to emanate. The Hindu Agni, identified as Saturn, was said to have "seven rays or beams of light." These rays of light would have given the appearance of spokes of a wheel.**
- Venus's circular, spectacular, fiery, cometary orbit around Saturn fits perfectly so many of the ancient references to it. The Aten in which the sun-god Ra dwelt, the encircling hair-star, the enclosure of the sun-god, the fiery band, the encircling dragon seen curled in a circle biting its tail, the dwelling of the sun-god, the womb of the goddess with Mars inside as the seed in the womb, the halo and crown of the sun-god.
- What about our question of whether Venus is inside of Saturn or orbiting it on its outside? How do we account for the references that talk about Venus being the heart and the soul of the sun-god? Let's let Dave Talbott answer the question in his excellent article "The Great Comet Venus". I quote:

"Removal of the heart was, in fact, the most common form of human sacrifice throughout Mesoamerica, a recurring pattern recalling a celestial power's own sacrifice in the age of the gods. Interestingly, the officiating priests at the Temple Mayor bore the name quequetzalcoa, after Quetzalcoatl himself suggesting that priest and sacrificial victim were, in their respective capacities, representing one and the same cosmic power.

"In the common pattern of the sacrifice, when the priest tore the heart from the victim, he raised it, still steaming, before the sun the sacred steam of the removed heart offering a poignant reminder of the smoking heart of the great god himself. The high priest then opened the chest and with amazing swiftness tore out the heart, ripping it

out with his own hands. Thus steaming, the heart was lifted toward the sun, and the fumes were offered up to the sun.

“Or again, they opened his chest and took out the heart, and holding it up, they presented it to the Sun until its steam had cooled. Then, as if to re-play the mythic flight of the heart-soul, the priest turned and flung the heart toward the image of the god.

“The steam of the removed heart thus stood in symbolic correspondence with the plumes of the transformed heart-soul as plumed star, and with the smoke of the heart-soul as smoking star.... In a widespread ritual counterpart to human sacrifice, the celebrants formed a model of the heart from copal or pom, a resin derived from the copal tree, and set it burning as incense. The dark smoke rising from the ritual heart thus provided a vivid reminder of Quetzalcoatl's burning heart-soul, the smoking star Venus. A conjunction of three symbols steaming heart, plumed heart and smoking heart, meaningless in themselves, derives a self-evident and spectacular significance when referred to the celestial prototype, the ascending, comet-like heart-soul of Quetzalcoatl.”

Venus, as it was close to the earth, had a red-spherical appearance like a heart with smoke pouring from it. It was the most visible remnant of the sun-god's former brilliance and power, its heart and soul thrust from it towards the earth as it exploded in a terrifying nova. The symbol does not require Venus to be situated inside the orb of Saturn.

- It explains all of Venus's other cometary symbols - the hair of the beautiful princess-goddess, the witch threatening the earth, the witch's broom, the star that smoked, the bright torch of heaven, the bearded comet and so on.

- The birth of Venus by Saturn fits the references and is the logical heavenly body nearby that could expel such a massive body.

- It could provide a partial explanation as to how the rings of Saturn may have been formed with the debris trail left by Venus as it orbited Saturn. This is unlikely though as all the other gas giant planets have rings, though much less spectacular than Saturn's rings.

- The planet Mars really is the hero deflecting the Venus comet off its collision course with the earth.

- You don't have the complication of dealing with satellites anywhere near you do with the polar configuration theory.

- You have a possible explanation for the orbit of Pluto crossing the orbit of Neptune. Pluto, with its moon Charon could have been a distant planet orbiting Saturn and when Saturn went nova it got pulled into the gravitational pull of the sun at an unusual angle which crossed Neptune's path. The presence of Charon orbiting Pluto makes it less than likely that Pluto is an escaped satellite of Neptune.

- You also have a possible explanation for Uranus being flipped at 98 degrees as it orbits the sun.

- You have a possible explanation for why the mysterious Planet X believed to be far out beyond the orbit of Pluto because of the gravitational effects on Neptune and Pluto came to be thrust so far out in the solar system.

- The blast from the nova thrust Venus to the outer depths of the solar system and satisfies the references that Velikovsky quoted in "Worlds in Collision" that state that there were only four visible planets and not five for a time. Venus may have made just a small handful of orbits in the millennium preceding the cosmic dramas described in "Worlds in Collision". So, as you can see, the references to Venus's cometary nature by the Sumerians around 2000 B.C. are not incompatible with Velikovsky's Exodus scenario at all.

Weaknesses

- I have no explanation as to how Mars came to be emanating gaseous material if that is what caused the world mountain described in celestial mythology. Having said that though, Mars, with this theory, is at least in the right position to move up and down visually to an observer on the earth with its perpendicular orbit to the earth.

- I don't have an adequate explanation as to how Saturn came to have around 20 satellites. With an explosion of so much material, it could be quite likely that some of the material would have been captured by Saturn after the nova.

- There is a question mark of how much damage to the earth a nova in our solar system would do. Would the earth survive a nova 5-10 A.U.'s away?

- I don't have a celestial idea of where to fit Jupiter into the theory. Having said that though, I am not fully convinced that there is a need to. Not every mythological theme we read has to have a celestial reference. Those parallels can often be traced back to a historical event, which became legendary and travelled as a story with the peoples of the earth as they migrated from a common location when they repopulated the earth after the Flood.

Quite a number of parallels can be explained this way, while others have a celestial meaning and others still are dual containing elements of both. As well as the celestial references to Saturn we looked at earlier there are several historical Saturns, meaning "hiding one", such as Nimrod who was hunted down by Seth and killed with parts of his body chopped up and sent all over the world as a witness to warn them of following his ways.

Let's look at the beautiful Venus/Ishtar/Easter of history, who was Semiramis, wife of Nimrod, founder of the Babylonian Mystery Religion. It was from her and her son (the supposedly reborn Nimrod) that the mother and child worship so prevalent in ancient paganism all over the world began.

The world had been taught of the coming Deliverer whose death would reclaim them from eternal death. They were waiting for this event. This Deliverer, they were told, would do good deeds before His death. Had not Nimrod, her husband, been looked up to as a benefactor of mankind before his death, being the most powerful man on earth?

Ronald Wlodyga in his book "The Ultimate Source of All Supernatural Phenomena" writes the following about Semiramis,

"(Semiramis thought) Why not incorporate the Sun-Serpent worship which her dead husband had promoted with the teachings of the Eternal regarding the coming Savior of mankind! Semiramis plotted to make her dead husband this Savior, and thereby acquired for herself the

power over her subjects by being the mother of this 'deliverer.' She would deceive her subjects to believe that her dead husband, Nimrod, had been supernaturally conceived and reborn as Nimrod (recall Christ's supernatural conception). Nimrod was very popular among the people, so it was not difficult for Semiramis to carry this through, because the people did not want to erase Nimrod's memory from their minds.

"As the shocking news of Nimrod's violent death was spread across the then populated earth, there were great cries and wails. This mighty man was very favorably known across the land. Despite the language differences between these different groups of people (since the confounding of the languages at the Tower of Babel), Nimrod was still popular. These little groups of peoples later became the large nations of the earth by gradually migrating outward after Semiramis' death. For hundreds of years these nations lamented the violent death of their mighty man—Nimrod or Tammuz.

"What became the central theme of the idolatry in Egypt was the death of Nimrod or Osiris, which was the Egyptian god that represented Nimrod. The women of Egypt bemoaned Osiris and the Phoenician and Assyrian women wept for Tammuz, which was their name for Nimrod. In Greece and Rome they wept for Bacchus, which meant 'The Bewailed' or 'Lamented One.' Other areas such as Japan, Scandinavia, Ireland, China, and India bewailed each year for their 'Lamented One.' (Hislop, pp. 55-57)....

"Semiramis was a very beautiful woman. Once her beauty was said to have ended a rising rebellion among her subjects by her sudden appearance among them. She fully intended to use her beauty to aid her scheme. (Valerius Maximum, lib. ix, chap. 3, p.2). 'The scheme, thus skillfully formed, took effect. Semiramis gained glory from her dead and deified husband; and in the course of time, both of them under the names of Rhea and Nin, or 'Goddess-mother and Son', were worshipped with an enthusiasm that was incredible and their images were everywhere set and adored. Whenever the negro aspect was...an obstacle(Nimrod was black, Semiramis a white woman)...all that was needful was to teach that Ninus (Nimrod) had reappeared in the person of a posthumous son, of a fair complexion, supernaturally born by a widowed wife'—herself (Hislop, p. 69).

"Alexander Hislop writes in "The Two Babylons" on page 20, "The Babylonians, in their popular religion, supremely worshipped a Goddess Mother and a Son, who was represented in pictures and in images as an infant or child in his mother's arms. From Babylon, this worship of the Mother and the Child spread to the ends of the earth. In Egypt, the Mother and the Child were worshipped under the names of Isis and Osiris. In India, even to this day, as Isi and Iswara, in Asia, as Cybele and Deoius; in Pagan Rome, as Fortuna **AND JUPITER-PUER, OR JUPITER, THE BOY**; in Greece, as Ceres, the Great Mother, with the babe at her breast, or as Irene, the goddess of Peace, with the boy Plutus in her arms."

Tammuz, known as Jupiter, the son of Nimrod, was the reborn king Nimrod who was known as Saturn. It would have been perfectly natural for Nimrod, to appropriate the title of Saturn, the ancient sun-god, to himself to bolster his power just as it would have been natural to connect Tammuz with the planet Jupiter even if the planet had not participated in the celestial drama we have been discussing.

So far in all the material that I have read or on the abovementioned documentary amongst the 20 plus pictographs shown in it, I have not seen any pictographs that show Jupiter interacting with the other planets in the previous configuration of planets that once existed in the sky. There may be, but as far as I'm aware the only pictographs that I have seen of Jupiter show it as a sphere with different bands, an accurate observation that could well have been known to the ancients if they had telescopic technology which was lost later on in history after that time.

WORLDS IN COLLISION (The Exodus)

Trying to summarize the plethora of evidence contained in Immanuel Velikovsky's "Worlds in Collision" into a short few pages is a tough job but here we go.

In "Worlds In Collision" Velikovsky postulated that Venus was a comet in the middle of the second millennium B.C. and was used and directed by God to cause the plagues of Egypt by which the Israelites were delivered out of slavery.

The plagues of Egypt and many other related events at the time of the Exodus were not just localized to the land of Egypt. They occurred all over the Earth as a large number of oral and written traditions and histories of many different civilizations testify. The plagues Velikovsky attempted to prove are consistent with the effects of a near pass of a large comet and the Earth passing through its tail.

The Plagues of Egypt - Venus Passing No. 1

There were 7 types of plagues that struck Egypt (and the rest of the world) at the time of the Exodus.

- 1) The waters became blood.
- 2) Plagues of pests (frogs, lice, flies and locusts).
- 3) Livestock hit by pestilence.
- 4) Fine dust causes boils and sores on man and beast.
- 5) Hail mingled with fire falls on all the land accompanied by mighty thunder. The hail destroys all the crops and trees.
- 6) A pitch black darkness covers the land for 3 days.
- 7) All the first-born of the land die.

When Venus first touched the Earth with its gaseous tail, it covered the earth's surface with a fine dust of rusty red pigment. In sea, lake and river this pigment gave a bloody colouring to the water. The red dust, soluble in water, falling from the sky in water drops, does not originate in clouds, but must come from volcanic eruptions or from cosmic space. The fall of red meteorite dust is a phenomenon generally known to take place after the passage of meteorites; this dust is found on the snow of mountains and in polar regions.

The Mayas tell of a time of a great cataclysm when the earth quaked and the sun's motion was interrupted, the waters turned to blood. The Finns tell in the days of a cosmic upheaval the world was sprinkled with red milk. The Babylonians and Tartars of Russia also tell of a blood reddening of the earth's surface and waters.

Velikovsky believes that the pestilence of the livestock was caused by the red dust. It seems likely this was the fine dust that caused the boils on man and beast. Cosmic substances from the tail other than the red dust may also be what caused the pestilence. The plagues of the frogs and the various insects would have been triggered off by some of the other events causing destruction to their usual food sources and leading to mass movements of these creatures. Their mass movements may have brought with them the pestilences described in the book of Exodus.

Following the red dust a shower of meteorites flew toward the earth. Hailstones mingled with fire is the way Moses described this phenomena which he would

never have seen before. Egyptian sources state that these hailstones were hot. This fits only meteorites, not hail of ice. Thunder in Exodus 9 is translated from a different Hebrew word than it's usually translated from. The Hebrew literally means mighty explosion-like noises. The fall of meteorites is accompanied by crashes or explosion-like noises.

The Mexican annals describe how a cosmic catastrophe was accompanied by a hail of stones. The sky "rained not water but fire and red-hot stones." The Voguls of Siberia tell of a time "God sent a sea of fire upon the water". The cause of the fire they call "the fire-water".

The last plague before the firstborn were struck was that of thick darkness. As the Earth entered deeper into the tail of the onrushing comet and its body terrific hurricanes swept the earth because of disturbances of the Earth's movement and the sweeping gases, dust and cinders of the comet.

The Finns tell of a time when hailstones of iron fell from the sky of an extended period of darkness lasting days occurred. According to the Indians of the New World the sun didn't appear for about 5 days following a cosmic collision of stars. Records of ancient Babylon and Iran talk of days of darkness accompanying a giant cataclysm.

At the climax of the comet's near pass the gravitational pull of it would have raised the oceans' waters sky high. This may have been something which the Great Architect of Nature used and directed to part the Red Sea. The phenomenon of the oceans being parted and piled up sky high is recorded by many peoples around the world - the Red Indians, Chinese, Peruvians and the Finns.

These events occurred when according to Lapland tradition "the wickedness increased among the human beings...The angry god spoke: I shall reverse the world. I shall bid the rivers flow upward. I shall cause the sea to gather together itself up into a towering wall which I shall hurl upon your wicked earth-children, and thus destroy them."

The Comet Venus

In Ancient Mexican records we read "the sun refused to show itself and during the four days the world was deprived of light. Then a great star...appeared, it was given the name Quetzal-cohuatl...the sky to show its anger...caused to perish a great number of people who died of famine and pestilence." Quetzal-cohuatl is the well-known name for the planet Venus.

By asserting that the planet Venus was born, or reappeared as Velikovsky later came to believe(see "On Saturn and the Flood"), in the middle of the second millennium B.C. it's assumed that prior to that only four planets could be seen with the naked eye.

In an ancient Hindu table of planets Venus alone among the visible planets is missing. Babylonian astronomy, too, had a four planet system. On a later date "the planet Venus receives the appellation: The great star that joins the great stars. The great stars are, of course, the 4 planets Mercury, Mars, Jupiter and Saturn...and Venus joins them as the fifth planet." Apollonius Rhodius refers to a time "when not all the orbs were yet in the heavens."

There was a period of time when the planet Venus acted and looked like a comet. The Mexican Indians relate that Venus smoked. "The star that smoked...was Sitlæ choloha, which the Spaniards call Venus." The Chaldeans said that the planet Venus "was said to have a beard".

These parallel with similar observations made in India and Egypt. Before certain events occurred to finally bring it into a circular orbit between Mercury and the Earth, Venus at times glowed very brightly. **The Chinese wrote, "Venus was visible in full daylight and while moving across the sky, rivalled the Sun in brightness.**

Venus had phases and often had 2 long appendages due to the Earth's shadow and looked like a bull's head when the tail appeared at the top of Venus. Religions where the cow is sacred sprang up in many places, especially India. It appears the Hebrews perceived the bull image of the comet when they made the golden calf as a representation of the celestial power that was shaking the world at that time.

The Hindus write of the "celestial cow" saying "Honey she gave, and roasted grain...and curled milk, and soup in lakes with sugared milk" which is the Hindu version of "rivers of milk and honey". The roasted grain is just what the manna was - toasted carbohydrates from the passing of the comet. Very detailed astronomical records of ancient Babylon centuries before Nebuchadnezzar show Venus moving very erratically and not moving as it does today.

The Flight of the Israelites and the Manna

Venus as it passed close to the earth exchanged electrical discharges, caused earthquake and volcanic activity, retreated and approached again. The Israelites over a period of about seven weeks made their way to Mt Sinai where they received the law. "There were thunders and lightnings, and a thick cloud upon the mount, and the voice of a trumpet exceedingly loud so that all the people in the camp trembled...And Mount Sinai was altogether on smoke...and the whole mount quaked greatly"(Exod.19:16-19).

Quoting from a Jewish source: "The mountain(Sinai) burned with fire and the earth shook and the hills were removed and the mountains overthrown; the depths boiled, and all the inhabitable places were shaken." **It was a perfect setting for hearing God's words - a world flowing with lava, shattered by meteorites, with yawning chasms, shaking ground and thunders and lightnings.**

According to Hebrew tradition all nations heard the roaring of the lawgiving. At Mount Sinai the sound that "sounded long" rose 10 times; in this roaring the Israelites heard the Ten Commandments.

According to the Babylonian Talmud, "These words(of the Decalogue)...were not heard by Israel alone, but by the inhabitants of all the earth.. The Divine voice divided itself into the 70 tongues of men, so that all might understand it...The souls of the heathen almost fled from them when they heard it." The same groaning sounds of the trumpet-like sound were heard and recorded about in Egypt, China and by the Red Indians.

To feed the Israelites a honey/nectar-like tasting bread fell from heaven. "When the dew fell upon the camp in the night, the manna fell upon it." Numerous sources from

peoples around the world tell of a honey-food which dropped from heaven after a cosmic catastrophe. The honey-frost fell in enormous quantities.

Icelandic tradition says, "the terrible Fimbul-winter at the end of the world(age); meanwhile they feed on the morning dew, and from them come the folk who people the renewed earth." The Greeks called the heavenly bread ambrosia which in its fluid state is nectar. The Maoris, Hindus, Buddhists and Finns all describe a honey-food which dropped from the clouds.

Under the heat of the day the manna or ambrosia melted. Much of it fell also on the waters and the rivers became milky in appearance and so when the scouts returned to the people they described a land that "flowed with milk and honey"(Num.13:27). "The heavens rain oil, the wadis(waters) run with honey" says a Syrian text. A memory of a time when there were "streams of milk and streams of sweet nectar" is also preserved by Ovid. Finnish tradition narrates that the land and water were covered with red milk(Exod.7) then white milk.

The plagues weren't local but were global because the wickedness of man was great as the Finnish legend states. God was correcting mankind in general as well as Egypt. With the remnant of mankind He gave them all His law - the Ten Commandments. As well as providing food for all mankind with the manna that fell worldwide He also, not only to Israel, but to all nations showed them which day was His Sabbath.

Atlantis

The story of the civilization of Atlantis being a true story has long been debated over the centuries. Plato wrote that in the Atlantic Ocean "beyond the Pillar of Hercules(the strait of Gibraltar) there lay an island which was larger than Libya and Asia(Turkey) together...Now in this island of Atlantis there existed a confederation of kings, a great and marvellous power that held sway over all the island, and over many other islands also and parts of the continent and moreover, of the lands here within the straits they ruled over Libya as far as Egypt and over Europe as far as Tuscany."

Atlantis, according to Velikovsky who felt Solon had added an extra zero to his account, sank into the ocean in the middle of the 2nd millennium - the same time as the Exodus and as Plato calls it, the time of "the shifting of the heavenly bodies" and when there were "earthquakes and floods...the island of Atlantis...was swallowed up by the sea and vanished."

Plato also says Greece was destroyed at the same time, showing the catastrophe was global. As if recalling what happened the Psalmist King David wrote wrote: "Thou hast destroyed their cities, their memorial is perished with them"(Ps.9:6). He prayed, "God is our refuge and strength...though the earth be removed and though the mountains be carried into the midst of the sea, though the waters thereof roar and be troubled"(Ps.46:1-3).

Author William Dankenbring has suggested that Atlantis was populated to a fair degree by the descendants of Jacob(Prophecy Flash, Nov.1996). Exodus 1:19-20 states that there was a mighty population explosion in the 215 years between the migration of Jacob's sons to Egypt and the Exodus. Some of the tribes had a seafaring and colonizing nature and so it may be possible that the original Atlanteans were of the Israelite tribes of this time. Plato describes Atlantis'

history as not unlike that of America which was founded by just and virtuous men but as it became rich and powerful it became morally decadent leading to divine punishment.

Reversal of the Poles

Our planet rotates from west to east. The sun is seen to rise in the east and set in the west. Has it always done so? Herodotus states that the Egyptian priests believed the sun rose where it now sets and sets where it now rises. Ptolemy wrote about the Egyptians. "In their authentic annals...one may read that since they have been in existence, the course of the stars has changed direction four times and that the sun has set twice in that part of the sky where it rises today." The Papyrus Harris speaks of a cosmic upheaval of fire and water when "the south becomes north, and the Earth turns over". Plato wrote of a "change in the rising and setting of the sun and the other heavenly bodies, how in those times they used to set in the quarter where they now rise and used to rise where they now set...There is at that time great destruction of animals in general, and only a small part of the human race survives." The Chinese, Syrians, Eskimos and Indians also speak of a time when north was south and east was west.

All Souls Day which is in early November is a feature in many religions of the world which according to traditions is an anniversary of when the Flood came and destroyed all flesh. The Bible tells us that the Flood came in the second month which is not around November but six months earlier. Jewish tradition also tells us that the beginning of the sacred calendar used to be the Day of Trumpets when the Jewish civil year begins. If so, what brought about this important change?

A thunderbolt on striking a magnet reverses the poles of a magnet. The earth is a huge magnet. A short circuit between it and another celestial body would result in the north and south magnetic poles exchanging places. To the amazement of a geologist Velikovsky quoted he wrote, "Examination of magnetization of some igneous rocks reveal that they are polarized oppositely from the prevailing present direction...this would indicate that the polarity of the Earth has been completely reversed within geological times."

Venus Passing No.2

In the book of Joshua we read, "And it happened, as they fled before Israel and were on the descent of Beth Horon, that the Lord cast down **LARGE HAILSTONES** from heaven on them as far as Azekah, and they died. There were more who died from the hailstones than the children of Israel killed with the sword. Then Joshua spoke to the Lord in the day when the Lord delivered up the Amorites before the children of Israel, and he said in the sight of Israel: 'Sun, stand still over Gibeon and moon, in the Valley of Aijalon.' So the sun stood still, And the moon stopped, Till the people had revenge upon their enemies. Is this not written in the Book of Jasher? So the sun stood still in the midst of heaven, and did not hasten to go down for about a whole day(Josh.10:11-13).

Velikovsky writes the following about what he believes was Venus's second passing:

"The works of Fernando de Alva Ixtlilxochitl, the early Mexican scholar (circa 1568-1648) who was able to read old Mexican texts, preserve the ancient tradition according to which the multiple

of fifty-two-year periods played an important role in the recurrence of world catastrophes. He asserts also that only fifty-two years elapsed between two great catastrophes, each of which terminated a world age.

"As I have already pointed out, the Israelite tradition counts forty years of wandering in the desert; between the time when the Israelites left the desert and started the difficult task of the conquest, and at the time of the battle at Beth-horon twelve years may well have passed....

"Now there exists a remarkable fact: the natives of pre-Columbian Mexico expected a new catastrophe at the end of every period of fifty-two years and congregated to await the event. 'When the night of this ceremony arrived, all the people were seized with fear and waited in anxiety for what might take place.' They were afraid that 'it will be the end of the human race and that the darkness of the night may become permanent: the sun may not rise anymore.'

"They watched for the appearance of the planet Venus, and when, on the feared day, no catastrophe occurred, the people of Maya rejoiced. They brought human sacrifices and offered the hearts of prisoners whose chests they opened with knives of flint. On that night, when the fifty-two-year period ended, a great bonfire announced to the fearful crowds that a new period of grace had been granted and a new Venus cycle started.

"The period of fifty-two years, regarded by the ancient Mexicans as the interval between two world catastrophes, was definitely related by them to the planet Venus; and this period of Venus was observed by both the Mayas and the Aztecs. The old Mexican custom of sacrificing to the Morning Star survived in human sacrifices by the Skidi Pawnee of Nebraska in years when the Morning Star 'appeared especially bright, or in years when there was a comet in the sky.' What had Venus to do with the catastrophes that brought the world to the brink of destruction?(p.155)"

One important point in the battle of the Israelites when the sun stood still that Velikovsky focused on was that of the great hailstones falling from heaven. If these hailstones were, in fact, meteorites it certainly points towards a celestial catastrophe. The accounts from Mexico certainly show a connection of this event with the planet Venus.

The Passings of Mars No.1 and No. 2

According to Velikovsky, Mars before the 8th century B.C. was actually the second planet from the Sun, closer in than the Earth. The near collision of Venus with the Earth changed the orbit of Venus from one crossing the orbits of Jupiter, Earth and Mars to one just crossing Earth's and Mars' orbits. Just prior to 747 B.C. Venus and Mars exchanged orbits through a near collision and Venus sent Mars on a path that endangered the Earth. A near collision of Earth and Mars occurred in 747 B.C. which probably caused the great earthquake of Uzziah's time(Amos 1:1, Zech.14:4-5). Much smaller than Venus, it couldn't match Venus' destructive power but it did manage to pull the moon on an orbit further from the Earth. Cosmic calamities were associated with the founding of Rome(747 B.C.) and with the death of its founder Romulus(c.687 B.C.). "Both the poles shook", Ovid relates, "and Atlas shifted the burden of the sky...The Sun vanished and rising clouds obscured the heaven". Mars, the lord of war, became the national hero of Rome.

One more cosmic upheaval occurred to throw Mars out of Earth's path and out as the fourth planet from the Sun. The last near collision occurred in 687 B.C. between Earth and Mars. This occurred during the well-known defeat of Sennacherib, the Assyrian king. The Talmud says a blast fell from the sky on the camp of Sennacherib. It was not a flame, but a consuming blast. "Their souls were burnt, though their garments remained intact." The phenomenon was accompanied by a terrific noise. The

encounter turned the sun dial of Ahaz 10 degrees backwards and the sun went back east.

Prior to the time when Herodotus said the sun changed its direction twice, it was inserted directly following the story of Sennacherib's defeat. According to Velikovsky's calculations this happened on March 23, 687 B.C. of which the Chinese wrote "the five planets went out of their courses. In the night, stars fell like rain. The Earth shook." They also note the sun going back 10 degrees too. This second near collision of the Earth and Mars again changed the Earth's and moon's orbits. The Earth's year became longer and the moon got pulled in toward the Earth. Psalm 82:5 describes how "all the foundations of the earth are out of course" - Biblical terminology for the Earth being pulled off its regular orbit into a new one.

The Tilting of the Axis

Prior to this event Egyptian and Hindu sources say that the Great Bear constellation played the part of the pole star which remained fixed. Since 687 B.C. the Pole Star has always been in the Little Bear. Using the water clock of Amenhotep III of Egypt ancient astronomers calculated the length of the day of the winter solstice and recorded it as 11 hours 18 minutes while the summer solstice was calculated as 12 hours and 42 minutes and the equinoxes were 11 hours and 56 minutes each. The equinoxes match with present values while both the summer and winter solstices differ 52 minutes from today's values. If they were both calculated at the same place this means the earth's axis has been tilted differently since then.

Changes in the Length of the Month and the Year

Prior to the last cataclysmic event of Hezekiah's days the length of the year was only 360 days long, not 365 1/4 days. Notice now many ancient sources speak of a year of 360 days.

Velikovsky in chapter 8 of *Worlds in Collision* describes some of the ancient calendars that were 360 days in length. He writes:

"The texts of the Veda period know a year of only 360 days. 'All Veda texts speak uniformly and exclusively of a year of 360 days. Passages in which this length of the year is directly stated are found in all the Brahmanas.' 'It is striking that the Vedas nowhere mention an intercalary period, and while repeatedly stating that the year consists of 360 days, nowhere refer to the five or six days that actually are a part of the solar year.'....

"Here is a passage from the Aryabhatiya, an old Indian work on mathematics and astronomy: 'A year consists of twelve months. A month consists of 30 days. A day consists of 60 nadis. A nadi consists of 60 vinadikas.'....

"The ancient Persian year was composed of 360 days or twelve months of thirty days each. In the seventh century five Gatha days were added to the calendar.....

"The astronomical tablets from the period antedating the NeoBabylonian Empire compute the year at so many days, without mention of additional days. **That the ancient Babylonian year had only 360 days was known before the cuneiform script was deciphered:** Ctesias wrote that the walls of Babylon were 360 furlongs in compass, 'as many as there had been days in the year.'....

“The Egyptian year was composed of 360 days before it became 365 by the addition of five days. The calendar of the Ebers Papyrus, a document of the New Kingdom, has a year of twelve months of thirty days each.

“In the ninth year of King Ptolemy Euergetes, or -238, a reform party among the Egyptian priests met at Canopus and drew up a decree; in 1866 it was discovered at Tanis in the Delta, inscribed on a tablet. The purpose of the decree was to harmonize the calendar with the seasons ‘according to the present arrangement of the world,’ as the text states. **One day was ordered to be added every four years to the ‘three hundred and sixty days, and to the five days which were afterwards ordered to be added.’”**

A relic of the old 360 day year is still the persistent division of the Earth and circles into 360 degrees; each degree represented the advance of the Earth on its orbit or that position on the zodiac which passed over from one night to the next. After 360 changes the stellar sky returned to the same position from an observer on the earth. The Mayan year also had 360 days with 5 days later added. After the earlier quote about Quetzal-cohuatl(Venus) coming on the scene in the days of the Exodus it also states "it was then...that the people regulated anew the reckoning of days, nights and hours according to the difference in time."

The present Israelite calendar, because the synodical month(the time from one new moon to the next) is 29 1/2 days long, has alternating months of 30 and 29 days. 7 years out of every 19 years(a time cycle) an extra month is added called Adar II. From the 15th to the 8th centuries all the months in the Israelite calendar were 30 days and years were of 12 months. **The story of the Flood written after the Exodus reckons in months of 30 days. It says that from the 17th of the 2nd month to the 17th of the 7th was 150 days(Gen.7,8).**

Other internal Biblical evidence that supports the fact that the length of the Earth's months and year has changed, is the fact that the Bible always uses 360 days as the length of the prophetic year.

After the upheaval in Uzziah's days the orbit of the moon was shifted so that the month became 36 days long and stayed that way for a century until in Hezekiah's day it was shifted again so that the month changed to its present length of 29 1/2 days. It was during that century that Rome was founded.

The calendar Romulus computed was 10 months long. Two months were later added. This difference survives in the names September, October, November and December which really mean the 7th, 8th, 9th and 10th months. We have actual dates like "the 33rd of the month" cited in Babylonian tablets of the period. Many other calendars of the time also show only 10 months.

After the final passing of Mars it found its way into its current fairly eccentric orbit while Venus after had its final close pass of Mars quickly because of certain favourable factors worked its way into its almost circular orbit.

Strengths

We are indebted to Charles Ginenthal for his tremendous book “Carl Sagan and Immanuel Velikovsky”(CS & IV) which has so much excellent in-depth research into the catastrophes described by Velikovsky in “Worlds in Collision” and the scientific,

geological, historical and astronomical evidence which backs it up. Much of the evidence on the strengths of Worlds in Collision I've quoted below comes from it.

- First of all, each of the effects of the seven types of plagues mentioned in the book of Exodus and repeated all over the world are consistent with the near passing of a massive comet. As Venus began its way back from its perihelion and headed away from the Sun the Earth entered the outer reaches of its massive cometary tail. A rusty, ferrous dust filtered down all over the world, imparting a reddish hue to the land and sea and turning the sea into blood. As the Earth's path carried it more deeper into the comet's tail, the rain of particles grew steadily more coarse and perilous. Soon a great hail of meteorites pelted the Earth. "There was hail, and fire mingled with the hail." Fleeing from the torrent of meteorites, men abandoned their livestock as both livestock and the fields of grain perished from the cometary material. As the Earth moved deepest into the tail a prolonged darkness for days occurred due to global windstorms swept up by the comet's tail. The gravitational pull between the two bodies shot waters up in the air, an event recorded in many places around the world. This stupendous cometary pattern certainly matches the plagues of Egypt.

- It matches all the many references that say that Venus was a comet and was the cause of tremendous earth-shaking catastrophes.

- There is a ring of dust particles around the orbit of Venus as well as Venus having a magnetic tail that shows Venus truly was a comet in geologically recent times.

"Comets, published in 1980 [not Sagan's book] states that, 'While Venus itself is in many respects most unlike a comet, it is very comet-like in its interaction with the solar wind... Both comets and Venus have magnetic tails which are not intrinsic... The Venus tail appears to be either striated or very dynamic and thus quite similar to a cometary tail. Plasma clouds are seen above the Venus ionosphere which may be the Venus analog of cometary tail rays.

"Apparently Venus' interaction with the solar magnetosphere is quite like a comet. Also, **Velikovsky points out that, 'The zodiacal light, or the glow seen in the evening sky after sunset, streaking in the path of the sun and other planets (ecliptic), the mysterious origin of which has for a long time occupied the minds of astronomers, has been explained in recent years as the reflection of the solar light from two rings of dust particles, one following the orbit of Venus.'** As is well-known comets also have a dust tail as well as a magneto tail."(CS & IV,p.125)

- The composition of Venus' atmosphere attests to a young age for Venus as demanded by Velikovsky's theory.

U. von Zahn et. al., in a paper titled 'The Composition of Venus' Atmosphere' in the book Venus, published by the University of Arizona tells us **that there is far too little carbon monoxide and oxygen and far too much carbon dioxide for Venus to be very old. Because of the rapid breakdown naturally of carbon dioxide into carbon monoxide and oxygen he was led to conclude:**

"CO2 would disappear from the upper atmosphere within a few weeks, and from the entire middle atmosphere in a few thousand years." The prevalence of CO2 indicates Venus is only a few thousand years old.

Peter R. Ballinger, a researcher in organic chemistry, also had this to say about sulfuric acid in Venus' clouds:

"It is likely that sulfuric acid would be gradually decomposed by solar radiation of ultraviolet and shorter wavelength particularly in the presence of iron compounds...to give hydrogen and oxygen. This process would also be expected to result in the preferential retention of deuterium, as discussed in another context...' [Ballinger, who wrote this in Transactions of the Faraday Society, Vol. 61, (1965) page 1681, went on to say], **'Because of this and other chemical reactions sulfuric acid might well have a relatively short lifetime, consistent with a recent installation of the planet in its present orbit.'**"

- Venus has a lack of craters as one would expect if it was only a few thousand years old.

"According to a report in Science, (1/18/80, p. 292), Gordon Pettengill of MIT and team leader of the Pioneer orbiter's radar mapper experiment feels that 'There are few, very few features that Pioneer Venus has seen that I would call impact craters for sure.'"

"Lawrence Colin, in The Planets, (NY 1985), p. 280, informs us that, "On Earth, rain wind and waves erode continents. On Venus, 'viscous creep' may be the great leveling agent. 'As rocks heat,' MIT's Sean Solomon explains, 'they soften and can flow. Mountains may actually creep away, like Silly Putty spreading out. Viscous creep on Venus could, at least be as effective as water erosion on Earth in reducing mountainous relief. If so, that further implies that all the high features we see on Venus are young.'"(CS & IV,p.329-330)

- Venus shows little erosion despite having a very corrosive atmosphere which indicates it has a very young age.

"Venera pictures of the surface show mostly sharp edged rocks which indicate they are extremely young. C.J. Ransom remarks that, 'Russian probes recently soft-landed on Venus and took photographs. These photographs reveal sharp-edged rocks which were classified as young-looking. The Venera 9 and 10 photos show a young-looking surface that inspired [this] speculation, [in] (Aviation Week and Space Technology, Nov. 3, 1975) that Venus is in an, **'early cool down phase of evolution rather than in final stages of suffocation in a thickening atmospheric greenhouse.'**..."

"Rivers of lava, some of them, thousands of miles long, have been observed on Venus' surface. The enormity of Venus being literally volcanic from pole to pole and on every region of the planet has led one Magellan investigator to say, **"Everyone says Olympus Mons on Mars is the biggest volcano in the solar system... It isn't. Venus is. The entire planet is one big volcano."** [Henry S.F. Cooper Jr., The Evening Star Venus Observed, (NY 1993), p. 180] A completely volcanic crust is precisely what a new-born planet that was completely molten a few thousand years ago would exhibit as Velikovsky's theory demands. The actual picture of Venus is diametrically opposed to what the astronomers had anticipated. Yet its volcanic nature is in complete harmony with Velikovsky's concept."(CS & IV, p.338,341)

- The momentum of Venus's super-fast moving atmosphere is what one would expect after being a new-born planet after acting initially like a comet.

"One of the enigmas of Venus is the rapid flow pattern of its upper atmosphere. On Earth, the atmosphere flows in the same direction as the Earth rotates taking weeks to circle our planet at the equator. Venus' rotation period is 243 days; it possesses an atmosphere with clouds 39 miles above the surface which flows at 100 m/sec circling that planet in only about 4 days. Other measurements indicate the circulation takes about six Earth days in the direction Venus sums....Theoretical attempts to explain the generation of the winds have produced several possible mechanisms, such as convection caused by the uneven heating of the day and night

sides of the planet. None of them, however, has been shown to be capable of explaining velocities greater than a few meters per second.

“Velikovsky's hypothesis fits the bizarre atmospheric behaviour quite well. Since Venus was a comet-like body, its tail gases, that is its atmosphere, would still have great momentum after Venus entered its present orbit. This momentum still exists in the Venusian atmosphere and causes it to move with great velocity around the planet in the upper regions where the density of the gases are thin and turbulence of these gases do not act to halt this motion.”(CS & IV,p.341-342)

- Gravitational theory holds that when celestial bodies come close and interact, as Velikovsky states about the Earth and Venus, then there should remain some lingering remnant in some part of the orbital pattern of both bodies. This is indeed so.

“Velikovsky reports that, ‘...a discovery was announced by P. Goldreich and S.J. Peale of the University of California, Los Angeles, and reported at the annual meeting of the American Geophysical Union on April 23, 1966. The surprising discovery dealt with the axial rotation of Venus, already known to be slow and retrograde. Every time Venus passes between the sun and the Earth, it turns the same face to the earth. Gravitationally, this phenomenon cannot be explained even if Venus were lopsided, as some science writers have offered as the explanation, it would have been locked with the very same face toward the sun, whose gravitational pull on Venus is so much stronger than that of the earth; this 'resonance' as the discoverers of the phenomenon termed it, if confirmed, is a sure piece of evidence of close contact in the past between Earth and Venus, evidence not erased by the passage of time, in this case time measured in a mere few thousand years.’

- There is far too much Argon 36 on Venus indicating a very young age for Venus.

“Argon-36 or 'primordial argon' as it has been termed has been found to be either 100 or 500 times as abundant on Venus as on the Earth”(CS & IV,p.124).

- There is evidence of massive catastrophic destruction all over the Middle East which knows absolutely no parallel today. Claude Schaeffer clearly shows that there were all-encompassing catastrophes over the entire Middle East at the end of the Old Kingdom and the Middle Kingdom of Egypt which occurred at the time of the Exodus!

Egyptologists have placed the fall of the Old Kingdom close to the time of the Flood at 2150 BC and the fall of the Middle Kingdom around 1620 BC. Velikovsky proves quite conclusively in his work “Ages in Chaos” that the Middle Kingdom fell due to natural catastrophes consistent with the plagues that befell Egypt and that the Exodus and the fall of the Middle Kingdom occurred around 1447 BC. The conventional chronology of Egypt recognizes almost no parallel dynasties and co-rulerships of pharaohs. As a result the length of Egypt’s history is greatly inflated by many centuries.

Donovan Courville in his work “The Exodus Problem and its Ramifications” presents a very solid case for the fall of the Old Kingdom and the Early Bronze era occurring at the same time as the fall of the Middle Kingdom and that the Middle Kingdom was contemporary with the latter half of the Old Kingdom which he believes began around 2150 BC or 200 years after the Flood. He clearly shows in great detail that destruction of Jericho and Ai, which all archaeologists recognize as happening in the Early Bronze age, is totally consistent with the conquest of them by the Israelites.

Numerous inconsistencies are solved by recognizing the times of foreign occupation by a people known as the Hyksos at the end of the Old Kingdom and the Middle Kingdoms are one and the same period. The periods of foreign occupation known as the First and Second Intermediate Periods in Egyptian history were overthrown by native Egyptians originating from Thebes and are one and the same period.

The Early or Old Bronze era is that of Egypt's Old Kingdom. Since all Middle East chronologies are based on the flawed Egyptian chronology which is hundreds of years out they, too, are also hundreds of years out in most cases. Therefore, where you see the end of the Old Kingdom and the end of the Early Bronze era, you are looking at destruction wrought upon the world, not at or near the time of the Flood but at the time of the Exodus around 1447 BC. What appears as two separate global catastrophes (that closed the Early Bronze and Middle Bronze eras) in the quotes below really is one great catastrophe that shook the world at the time of the Exodus.

Charles Ginenthal tells us the following about Schaeffer's work:

"Claude F.A. Schaeffer, the greatest archaeologist of the twentieth century carried out an archaeological survey across a vast area of the Middle East. Velikovsky, in *Earth in Upheaval*, in a chapter titled "The Ruins of the East" summarizes Professor Schaeffer's work.

"In the ruins of excavated sites throughout all lands of the ancient East, signs are seen of great destruction that only nature could have inflicted. Claude Schaeffer, in his great recent work, [*Stratigraphie comparee et chronology de l'Asie occidentale*, Oxford Univ. Press, (1948)] discerned six separate upheavals. **All of these catastrophes of earthquake and fire were of such encompassing extent that Asia Minor, Mesopotamia, the Caucasus, the Iranian plateau, Syria, Palestine, Cyprus and Egypt were simultaneously overwhelmed.** And some of these catastrophes were in addition, of such violence, that they closed great ages in the history of ancient civilizations.'

"Velikovsky continues, 'The enumerated countries were the subject of Schaeffer's detailed inquiry; and recognising the magnitude of the catastrophes that have no parallels in modern annals or in the concepts of seismology, he became convinced that these countries, the ancient sites of which he studied, represented only a fraction of the area that was gripped by the shocks.

"The most ancient catastrophe of which Schaeffer discerned vestiges took place between 2,400 and 2,300 before the present era. It spread ruin from Troy to the valley of the Nile. In it, the Old Bronze Age found its end. Laid waste were cities of Anatolia...Tarsus, Aligar and those of Syria, like Ugarit, Byblos, Chagar, Bazar, Tell Brak, Tepe Gawra, and of Palestine, like Beth Shan and Ai; and of Persia, and of the Caucasus. Destroyed were the civilizations of Mesopotamia and Cyprus, and the Old Kingdom in Egypt came to an end, a great and splendid age. In all cities, walls were thrown from their foundations, and the population markedly decreased. [Schaeffer states], **"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. It was sudden and simultaneous in all places investigated."** [The above and the following quotations are from Schaeffer, *Stratigraphie Comparee*, pp. 534-567]

"In a few centuries, migrating and multiplying themselves the descendants of the survivors of the ruined world built new civilizations: the Middle Bronze Age. In Egypt it was the time of the Middle Kingdom, a short, but glorious resurrection of Egyptian civilization and might. Literature reached its perfection, political might its apogee. Then came shock that in a single day made of the empire a ruin, of its art debris, of its population corpses. Again it was the entire ancient Near East, to its uttermost frontiers; that fell prostrate; nature which knows no boundaries, threw all countries into a tremor and covered the land with ashes.

““The great activity of international trade which, during the Middle Bronze Age, had been characteristic of the eastern Mediterranean and most of the lands of the Fertile Crescent, suddenly stopped in all this vast area... In all the sites in Western Asia examined up to now a hiatus or a period of extreme poverty broke the stratigraphic and chronological sequence of the strata... In most countries the population suffered great reduction in numbers; in others settled living was replaced by a nomadic existence.” [Thus writes Schaeffer.]....

“A sea tide broke onto the land on the coast of Ras Shamra bringing further destruction in its wake. “It appears also that the end of the Middle Kingdom was marked by volcanic eruptions and lava flows. On the Sinai Peninsula, at an early and undisclosed date, a flow of basaltic lava from the fissured group—the Sinai massif is not a volcano—burned down forests, leaving a desert behind.” [This according to Flinders Petrie, *Ancient Egypt*, 1915] In Palestine, lava erupted, filling the Jezreel Valley. Early in this century a Phoenician vase was found embedded in lava. Geologists have asserted that volcanic activity in Palestine ceased in prehistoric times. [H. Gressman, in *Palastinas Erdgeruch In der Israelitischen Religion*, (1909), pp. 74-75 states], “The assertion of the geologists thus becomes very questionable”... The vase found in lava proves volcanic activity there [according to Gressman, p. 75] “in historical times.” The verdict of the archaeologists is that [according to A. Lods, *Israel*, (1932), p. 31, That] the vase “dates from the fifteenth century before the present era.””(CS & IV,p.219-221)

The following quotes are from an article that appeared in London’s Sunday Times(Dec.14,1997) entitled “Meteor Showers Blotted Out Man’s First Civilizations” by Rajeev Syal that covers the recent discovery that at a time of worldwide destruction there were great meteor showers which is in harmony with Velikovsky’s theory that these catastrophes had a cosmic origin. Rajeev Syal writes:

“A CATAclysmic shower of giant meteors destroyed the great Bronze Age civilisations in Egypt, Mesopotamia and Greece by provoking a series of natural disasters. New archaeological and astronomical evidence indicates that a huge number of extraterrestrial bodies caused famine, flooding and bushfires **THOUSANDS OF MILES WIDE** that led to the collapse of the world's first sophisticated civilisations.

“The findings could solve the puzzle of why successful empires from across the globe all apparently collapsed at roughly the same time in about 2350 BC[**remember this date should be around 1450 BC at the time of the Exodus**], despite the fact that they were independent of each other and all flourishing until their sudden demise.

“Dr Benny Peiser, an anthropologist from Liverpool John Moores University, has analysed 500 excavation reports and climatological studies from the sites of ancient civilisations and found they all suffered huge changes in climate at exactly the same time.

“Previous explanations for the collapse of the ancient civilisations have pointed to warfare, volcanoes and earthquakes. **But Peiser's findings show that the worldwide devastation could only have been provoked by an external cosmic event. ‘There is very strong evidence to suggest that massive meteor storms are the real scientific reason why these ancient societies collapsed,’ he said last week.**

“Archaeological reports from ancient Egypt's First Kingdom show that a bustling and luxuriant farming region was suddenly reduced to a desert following floods and intense heat in about 2350BC[read 1450BC]. **A few artifacts were spared the devastation, including the Sphinx, which give a tantalising clue to the great sophistication of the civilisation before its annihilation.**

“The abrupt climate change could not be explained by seismic activity and no evidence of volcanoes has been identified, Peiser said.

"The civilisation of Mesopotamia, which produced the Hanging Gardens of Babylon, was destroyed by what seems to have been a massive earthquake. There is no evidence from geological studies, however, of any relevant seismic or volcanic activity. Peizer has also discovered from a study of ancient river beds that their levels fell dramatically and then rose again during the middle of the third millennium BC. **British scientists have also identified at least seven impact craters which were formed within a century of 2350BC[read 1450BC], which they believe may have been part of a meteor storm....**

"Meteor showers have immense power and destructive capability. One that exploded in 1908 over Siberia was 60 metres in diameter and yielded the energy of 2,000 Hiroshima nuclear bombs....

"Professor Barry Cordon from the University of Ohio, a world authority on the collapse of ancient civilisations, said: "The research is fascinating. It shows there is still much to understand about how our world is so vulnerable to changes in our solar system."

- There is evidence that supports a double reversal of the magnetic poles 50 years apart in the middle of the second millennium BC and reversals in the eighth and seventh centuries BC as demanded by Velikovsky's theory.

"In 1896, Giuseppe Folgheraiter began his careful studies of Attic (Greek) and Etruscan vases of various centuries, starting with the eighth century before the present era. **His conclusion was that in the eighth century the earth's magnetic field was inverted in Italy and Greece. Italy and Greece were closer to the south than the north magnetic pole. Furthermore, there is evidence of a magnetic reversal for 3,500 years ago.** Thomas McCreedy reported that in Turner and Thompson's *Earth and Planetary Science Letters*, for 1979, (number 42, pp. 412-426), that,

"Other recent papers support the viewpoint. Turner and Thompson (1978), examining sediments from Loch Lomond, Scotland, reported a large magnetic declination swing in the middle of the first half of the first millennium B.C. This is in very good agreement with similar findings at Lake Windermere, England (1971).'....'In *New Scientist*, for July 7, 1977, p. 17, we learn that these scientists point out that the difficulty 'stems from disparities in the dating of the devastation on Santorini which undisputedly followed Thera's eruption, and that of the Cretan ruins (60 miles to the south). The latter appear to have occurred some 50 years after the former...

" 'The two German researchers claim that no modification of the ceramic chronology, on which the dating is based, is possible and that the calamity which struck Crete...cannot, therefore, have been connected with the Thera explosion. 'The direction of the magnetic signals indicates different alignments of the magnetic field and the period between the two alignments is in complete agreement with Velikovsky's 50 year period that separates the two catastrophes.'"(CS & IV,p.160-161)

- Raised beaches in the Andes also testify to massive worldwide catastrophes in the age of historical man.

"Charles Darwin, on his travels in South America in 1834-35 was impressed by the raised beaches at Valparaiso, Chile at the foot of the Andes. He found that the former surf line was at an altitude of 1,300 feet. He was impressed even more by the fact that sea shells found at this altitude were still undecayed, to him a clear indication that the land had risen 1,300 feet from the Pacific Ocean in a very recent period. In his *Geological Observations on the Volcanic Islands and Parts of South America*. Pt. II, Chap. 15, Darwin states, 'within the period during which upraised shells remained undecayed on the surface.' And since only a few intermediary surf lines can be detected, the elevation could not have proceeded little by little.

"The foothills of the Andes hide numerous deserted towns and abandoned terraces, monuments...that go up the slope of the Andes and reach the eternal snow line and continue under the snow to some unidentified altitude prove that it was not a conqueror nor a plague that put the seal of death on gardens and towns. In Peru [E. Huntington in Hyluings-Skriff, (1935), p. 578 states], 'aerial surveys in the dry belt west of the Andes have shown an unexpected number of old ruins and an almost incredible number of terraces of cultivation.' When Darwin mounted the Uspallata Range, 7,000 feet high in the Andes, and looked down on the plain of Argentina from a little forest of petrified trees broken off a few feet above the ground, he wrote in his Journal [Of Researches...During the Voyage of H.M.S. Beagle entry of March 30, 1835], **'It required little geological practice to interpret the marvellous story which this scene at once unfolded; though I confess I was at first so much astonished that I could scarcely believe the plainest evidence. I saw the spot where a cluster of fine trees once waved their branches on the shores of the Atlantic, when the ocean—now driven back 700 miles—came to the foot of the Andes....'**

"When did the Andes mountains rise? According to the New York Times, (Oct. 3, 1989), pp. C1 and C14, 'Archaeologists working in Peru have unearthed stunning evidence that monumental architecture, complex societies and planned developments first appeared and flowered in the New World between 5,000 and 3,500 years ago.' The author of the article, William K. Stevens goes on to say, 'Around 4,000 to 3,700 years ago, activity abruptly shifted and irrigated agriculture replaced fishing as the main economic resource.' Why would a civilized people leave a thriving, hospitable environment to go live inland in an inhospitable region?"(CS & IV, p.170-171)

"In the Hawaiian Islands there is a 1,200 foot raised beach. On Espintu Santo Island in the New Hebrides in the southern Pacific, corals are found 1,200 feet above sea level."(CS & IV,p.189)

The catastrophic events that Velikovsky described that occurred 3500 years ago certainly accounts for these incredible events of the 1000 foot plus raised shorelines in South America.

- There are ancient maps of Greenland which show Greenland as three islands, a fact that wasn't discovered until 1953.(CS & IV,p.153-154) The same story is true for Antarctica. Not only do we have maps showing Antarctica, which modern man didn't rediscover until the 19th century, but they show Antarctica as two islands. Modern mapping techniques of Antarctica have indeed confirmed that Antarctica really is two islands and its coastline under the ice caps is quite similar to those of ancient maps.

These ancient maps confirm that ancient man lived in a world in which the climate was different, and that several thousand years ago was a period of warm climate that allowed man to visit and map Antarctica and Greenland. A shifting of the axis and poles could have brought about the change in climate that froze the poles from what geology confirms its climate was like previously.

- "Velikovsky suggests the dust in the ice caps of Greenland and Antarctica was produced by immense volcanism on Earth and dust left from the raging proto-planet Venus. Therefore, we would expect the ice caps to reflect this by having an inordinate amount of dust below a certain level. **According to Hammer, Clausen, Dansgaard, Neftel, Kristimlotter and Reeh in the American Geophysical Union Monograph, Vol. 33 (1985), p. 90 the dust particles in the Greenland glacier 'was up to 100 times as great in the last ice age as at present.' With respect to Antarctica they say the dust compared to Greenland is 'an order of magnitude higher' or 1000 times as great as at present.**"(CS & IV,p.155). This fits Velikovsky's Venus cometary passing perfectly.

- A consistent drop of the sea level of around 18 to 20 feet indicates a global change in climate. This fits Velikovsky's belief that the sea level dropped as a result of the polar ice caps forming.

"R.A. Daly observed that in a great many places all around the world there is a uniform emergence of the shore line of eighteen to twenty feet. [That is, the sea level dropped 18 to 20 feet] In the southwest Pacific, on the islands of Tutuila, Tau and Ofu and on Rose atoll, all belonging to the Samoan group but spread over two hundred miles, the same emergence is evident. In Daly's opinion, this uniformity indicates that the rise was due to 'something else than crustal warping.' A force pushing from inside would not be 'so uniform throughout a stretch 200 miles long.' [See R.A. Daly, *Our Mobile Earth*, p. 177] Nearly halfway around the world, at St. Helena in the South Atlantic, the lava is punctuated by dry sea caves, the floors of which are covered with waterworn pebbles, 'now dusty because untouched by the surf.' The emergence here is also twenty feet. At the Cape of Good Hope caves and beaches 'also prove recent and sensibly uniform emergence to the extent of about 20 feet.'

"Daly proceeds: 'Manne terraces, indicating similar emergence, are found along the Atlantic coast from New York to the Gulf of Mexico; for at least 1,000 miles along the coast of eastern Australia; along the coasts of Brazil, southwest Africa, and many islands of the Pacific, Atlantic and Indian Oceans; and in all these and other published cases, the emergence is recent as well as the order of magnitude. Judging from the condition of the beaches, terraces and caves, the emergence seems to have been simultaneous on every shore.'....

"In his opinion, the cause of the world-wide emergence of the shore lies in the sinking of the level of all seas of the globe, 'a recent world-wide sinking of ocean level' which could have been caused by water being drawn from the oceans to build the ice caps of Antarctica and Greenland. 'Whatever was the cause of the phenomenon observed, it was not the result of a slow change; in such a case we would have intermediate shore lines between the present surf line and the twenty-foot line on the same beaches, but there were none'.

"Of special interest is the time of change. According to Daly [in *Our Mobile Earth*, p. 179], 'This increase of the ice cap or caps has been tentatively referred to late Neolithic time, about 3,500 years ago. At that approximate date, there was some chilling of the northern hemisphere at least, following a prolonged period when the world climate was distinctly warmer than now. Late-Neolithic man lived in Europe 3,500 years back.'

"As to the date of the sudden drop of oceanic level, Kuenen writes [in *Marine Geology*, p. 538], 'The time of the movement was estimated by Daly to be probably some 3,000 to 4,000 years ago. Detailed field work in the Netherlands and in eastern England has shown a recent eustatic depression of the same order of magnitude as deduced by Daly. Here the time can be fixed as roughly 3,000 to 3,500 years ago.' Thus, the work in the Netherlands and in England confirmed not only Daly's finding, but also his dating. The ocean level dropped, of course, all over the world. It was not a slow subsidence of the bottom, or a slow spread of the ocean over land, or a slow evaporation of oceanic water: whatever it was, it was sudden and therefore, catastrophic."(CS & IV,p.189-190)

Again we see the reoccurrence of the dating of 3500 years ago for many of these catastrophic events just as Velikovsky's Exodus scenario in "Worlds in Collision" demands. Again and again we see evidence for a massive catastrophe around 1450 BC as well as smaller catastrophes another 700 years later. There is ample evidence for worldwide catastrophism a millennium after the polar configuration disassembled if that were true.

- There are examples in history of manna falling after the passing of comets as well as scientific evidence proving that carbohydrates can be formed from the hydrocarbons that have been proven to be found in comets.

"Are there conversion processes by which hydrocarbon gases can be converted into carbohydrates in the atmosphere of the Earth? Yes, indeed there are. In fact, there are six such natural occurring processes by which the conversion can be accomplished. W.K. Kuong informs us that if:

"...hydrocarbons shrouded the Earth, part of it would mix with hydrogen of the hydrogen layer and another would be oxidized by the oxygen of the oxygen layer. The main products of combustion are carbon dioxide, carbon monoxide and water vapor through cosmic irradiation, as laboratory experiments suggest. The action of cosmic radiation on the carbon dioxide/hydrogen/carbon monoxide/water vapour mixture would generate formaldehyde. Once formaldehyde is formed, various types of sugars and starches would be generated by the process of polymerisation and aldol condensation. The general formula for the process is, $n\text{CH}_2\text{O} = (\text{CH}_2\text{O})_n$. In the above equation n is any integer. In $n=5$, the product is pentose; if $n=6$, the product (isomers also exist) is a hexose, etc.

"Formaldehyde should be formed during the day when the gaseous mixture is bombarded by particles from the solar furnace. The product would polymerize in the cool of the night, particularly on dust particles, and rain down in the early morning. If one refers to Exodus and Numbers, one finds that manna was deposited early in the morning with the dew.

"Dr. A.J. Swallow, in his text Radiation Chemistry of Organic Compounds writes, 'The synthesis of organic compounds through the agency of high energy radiation had been amply demonstrated in the laboratory, an elementary example being the alpha-induced reaction between carbon dioxide and hydrogen to give formaldehyde, which then reacts further. Carbon monoxide can be reduced similarly. **The main final product of irradiation in both cases appears to lie a white solid composition $(\text{CH}_2\text{O})_n$, which is presumably produced by polymerization of formaldehyde.**'"

"In fact, it was pointed out in the Biblical Archaeology Review for May/June 1988 by C.L. Ellenberger, L.M. Greenberg, and Dr. Shane Mage, the process described in the article cited above produces 'edible carbohydrate or protein-like substances. The product of a similar, if not identical, process of conversion of petroleum into concentrated nutrition [which] is today sold in food stores everywhere as 'primary growth torula yeast.'"

"It is quite interesting to note that the description of manna from around the world describes it as milky or honey like just as the experiment by Dr. Swallow produced.

"If this analysis is correct, every once in a great while a very tiny comet, laden with hydrocarbons should enter the Earth's atmosphere and if it does not completely burn up, should leave a small cloud of such material. Therefore, if the hydrocarbons were indeed converted to carbohydrates, they would fall as rain, sleet, hail, snow, or possibly other forms. Charles Fort who reported on materials that fell from the sky, and presented several examples of falls of manna, writes,

"The subject of reported falls from the sky of an edible substance, in Asia Minor is confused, because reports have been upon two kinds of substances... In July 1927, the Hebrew University of Jerusalem sent an expedition to the Sinai Peninsula to investigate showers of 'manna.' See The New York Times, Dec. 4, 1927. Members of the expedition found what they called 'manna' upon leaves of tamarisk trees and on the ground underneath, and explained that it was secreted by insects. But the observations of this expedition have nothing to do with data, or stories of falls from the sky of fibrous convoluted lumps of a substance that can be ground into edible flour. A dozen times since early in the 19th century— and I have no definitely dated data upon still earlier occurrences—have been reported showers of 'manna' in Asia Minor... The substance that occasionally falls from the sky in Asia Minor, comes from far away. The occurrences are far apart, in time, and always the substance is unknown where it falls, and its edibility is sometimes found out by the sight of sheep eating it. Then it is gathered and sold in the markets.

"Out of a dozen records, I mention that in Nature, Vol. 43, page 225, and in La Nature, Vol. 36, page 82, are accounts of one of the showers, in Asia Minor. The Director of the Central Dispensary of Baghdad had sent to France specimens of an edible substance that had fallen from the sky, at Meriden and at Diarbekis (Turkey in Asia) in a heavy rain, the last of May 1890. **They were convoluted lumps, yellow outside and white inside. They were ground into flour from which excellent bread was made.**"(CS & IV p.243-245)

- The distribution of the richest deposits of oil on the earth form one interconnected region between Saudi Arabia and Siberia indicating something other than biological origin was responsible for them. Velikovsky's comet Venus passing south-west to north-east across this section like a pillar of cloud and fire and depositing hydrocarbons on an enormous scale fits this curious distribution of the richest deposits of oil on earth as Charles Ginenthal describes on page 248 of "Carl Sagan and Immanuel Velikovsky".

- The record of the 52 year period between the Exodus and another catastrophic near passing of Venus fits the Central and South American references of a very lengthy period when the Sun didn't rise at the very same time the Bible tells us the Sun stood still in the days of Joshua.

"According to Zecharia Sitchin's The Lost Realms, (NY 1990) pp. 151-154, discussing "The Day the Sun Stood Still" from Inca legends:

"Completely ignored by scholars...has been the repeated statements in the Andean legends that there occurred a frightening darkness in the long-ago times. No one has wondered whether this was the same darkness—the non-appearance of the sun when it was due—of which the Mexican legends speak in the tale of Teotihuacan and its pyramids. For if there had indeed been such a phenomenon that the sun failed to rise and the night was endless, then it would have been observed throughout the Americas.

"The Mexican collective recollections and the Andean ones seem to corroborate each other on this point, and thus uphold the veracity of each other, as two witnesses to the same event...According to Montesinos and other chroniclers, the most unusual event took place in the reign of Titu Yupanqui Pachacuti II, the fifteenth monarch in Ancient Empire times. **It was the third year of his reign when 'good customs were forgotten and people were given to all manner of vice,' that 'there was no dawn for twenty hours.'** [emphasis added]. In other words, the night did not end when it usually does and sunrise was delayed for twenty hours. After a great outcry, confessions of sins, sacrifices, and prayers the sun finally rose.

"This could not have been an eclipse: it was not that the shining of the sun was obscured by a shadow. Besides, no eclipse lasts so long, and the Peruvians were cognizant of such periodic events. The tale does not say that the sun disappeared'; it says that it did not rise—'there was no dawn'—for twenty hours....The incident, whose uniqueness is recognized in the Bible ('There was no day like it before or after') taking place on the opposite side of the Earth relative to the Andes [and Mexico], thus describes a phenomenon that was the opposite of what happened in the Andes. In Canaan the sun did not set for some twenty hours; in the Andes the sun did not rise for the same length of time.

"Do not the two tales, then, describe the same event, and by coming from different sides of the Earth attest to its factuality"... "Since the Israelites wandered in the deserts of Sinai for forty years, the entry into Canaan took place in 1393 B.C.; the occurrence observed by Joshua happened soon thereafter.

"The question now is: did the opposite phenomenon, the prolonged night, occur in the Andes at the same time? Unfortunately, the shape in which the writings of Montesinos have reached modern scholars leaves some gaps in the data concerning lengths of reign of each monarch, and we will have to obtain the answer in a roundabout way. The event, Montesinos advises,

occurred in the third year of the reign of Titu Yupanqui Pachacuti II. To pinpoint his time we will have to calculate from both ends. We are told that the first 1,000 years from Point Zero [of the Andean calendar] were completed in the reign of the fourth monarch, i.e., in 1900 B.C.; and that the thirty second king reigned 2,070 years from point zero, i.e., in 830 B.C.

"When did the fifteenth monarch reign? The available data suggests that the nine kings that separated the fourth and fifteenth monarch reigned a total of about 500 years, placing Titu Yupanqui Pachacuti II at about 1400 B.C.. Calculating backwards from the thirty-second monarch (830 B.C.), we arrive at 564 as the number of intervening years, giving us a date of 1394 B.C. for Titu Yupanqui Pachacuti II. [The Israelites enter Canaan in 1393 B.C.; the monarch Titu Yupanqui Pachacuti II begins his reign in 1394 B.C.; and soon there after the Israelites experience a long day and the Andeans a long night.] "Either way, we arrive at a date for a Andean event that coincides with the Biblical date and the events date at Teotihuacan.

"The hard hitting conclusion is clear:

"THE DAY THE SUN STOOD STILL IN CANAAN WAS THE NIGHT WITHOUT SUNRISE IN THE AMERICAS. [Sitchen's capitals.](CS & IV,p.57-59)

- Velikovsky showed in Earth in Upheaval that the Earth does bare recent scarring from meteorite showers on a massive scale which there would have to be evidence of if Velikovsky was correct.

"Velikovsky devotes a chapter to this topic titled 'The Carolina Bays' in which we find, 'Peculiar elliptical depressions or 'oval craters' locally called 'bays', are thickly scattered over the Carolina coast of the United States and more sparsely over the entire Atlantic coastal plain from southern New Jersey to northeastern Florida. The marshy depressions are numbered in the tens of thousands and according to the latest estimate, their number may reach half a million [See Douglas Johnson, The Origin of the Carolina Bays, (1942) W.F. Prouty "Carolina Bays and Their Origin", Bulletin of the Geological Society of America, LX111, (1952) pages 167-224].

"Measurements made on more prominent ones seaward from Darlington, show that the larger bays average 2,200 feet [2/3 of a kilometer] in length and in single cases exceed 8,000 feet. [Over 2 1/2 kilometers or more than a mile and a half.] A remarkable feature of these depressions is their parallelism: the long axis of each of them extends from northwest to southeast, and the precision of the parallelism is 'striking.' Around the bays are rims of earth, invariably elevated at the southeastern end. These oval depressions may be seen especially well in arial photographs. Any theory of their origin must explain their form the ellipticity of which increases with the size of the bays; their parallel alignment; and the elevated rims at their southeastern ends.

"In 1933 a theory was presented by Melton and Schriever of the University of Oklahoma, [See F.A. Melton and A.W. Schnever, 'The Carolina Bays—Are They Meteorite Scars?', Journal of Geology XLI 1933], according to which the bays are scars left by a 'meteoric shower or colliding comet.' Since then the majority of authors who have dealt with the problem have accepted this view, and it has found its way into textbooks as the usual interpretation[See D. Johnson above, The Origin of the Carolina Bays, p. 4.]. The authors of the theory stress the fact that 'Since the origin of the bays apparently cannot be explained by the wellknown types of geological activity, an extraordinary process must be found. Such a process is suggested by the elliptical shape, the parallel alignment, and the systematic arrangement of elevated rims.'

"[According to Melton and Schriever above, Journal of Geology, XLI p. 56], The comet must have struck the northwest, 'If the cosmic masses approached this region from the northwest, the major axes would have the desired alignment.' The time when the catastrophe took place was estimated at sometime during the Ice Age....The deposition of sand and silt, a process which doubtlessly occurred while the region was covered by the sea during the terrace-forming marine invasion of the Pleistocene [glacial] period. But the possibility was also

envisaged that 'the collision took place' through 'the shallow ocean water during the marine invasion' [after the end of the Ice Age]. The swarm of meteorites must have been large enough to hit an area from Florida to New Jersey....'a very large number of meteorites have been discovered in the southern Appalachian region, in Virginia, North and South Carolina, Georgia, Alabama, Kentucky, and Tennessee.'

"It should also be noted that this coastal region is subjected repeatedly by seasonal hurricanes, to weathering and erosion. But these storms of wind and rain have not erased these craters; hence their fresh circular rims indicate that they are only a few thousand years old...."

"In this regard, an article in the Journal of Geology, Vol. 57 (1949), titled "Oriented Lakes of Northern Alaska" described lakes quite similar in structure to the Carolina Bays. The distribution of the Alaskan lakes is spread out over an area of 25,000 square miles of the Arctic coastal plane which is equivalent in the area to the Carolina Bays. There are, according to the authors, tens of thousands of lakes or lake basins. The sizes of the lakes are from a few tens of feet; the largest lakes are 9 miles long and 3 miles wide, many with averages between 1 and 3 miles long and 1/2 mile wide. Their shapes are generally elliptical, cigar shaped, rectangular, ovoid or egg shaped, while others are deformed by ice action. The lakes are parallel to each other, intersect or overlap one another just as the Carolina Bays. Often the lakes are arranged in rows also just as the Carolina Bays.

"In New Scientist, evidence of cratering on the ocean bottom is reported. We are informed that, "The topography of the sea floor around Britain, like that of its land area, has formed over many thousands of years and results from many well understood processes. So it is surprising that recent studies have discovered a wide expanse of a sea bed in the middle of the North Sea-15,000 and 20,000 square kilometers in area -which appears on the sonar pictures to have a topography much like a miniature lunar landscape..."

"The craters are between 33 and 330 feet in diameter. The authors of the article go on to say that the craters are generally elliptical and tend to have a common direction of elongation. This is like the Carolina Bays and Alaskan lakes and, like those craters, the North Sea craters tend to form lines in the same direction. Small meteorites falling into the sea would lose much of their force and thus, produce shallower and smaller craters in general. This is what is observed in the North Sea.

"However, a swarm of larger meteors falling at a higher angle to the surface of the Earth would create more highly circular craters. In this respect, it is interesting that Commander Jacques-Yves Cousteau, the famous French sea explorer, discovered such circular craters in the Caribbean Sea. His discovery is reported by Janet Gregory in FSR. She relates that Cousteau, after resuming home to his base in Monaco in the south of France, told of strings of circular blue holes that he and scientists aboard the Calypso observed on the floor of the Caribbean. These circular blue holes, when they were explored, were discovered to be highly circular depressions, each about 300 yards (900 feet) in diameter, but only a few feet deep. Apparently, some formed lines about 25 miles long. This would extrapolate to between 300 to 400 shallow craters for each linear arrangement. Thus, there would be thousands or tens of thousands and possibly a few hundred thousand of these craters in the sea bed of the Caribbean. What Cousteau claimed was that these craters were scooped out of rocks in the sea bed. This implies explosive force.

"I.N. Lancaster, in the Geographical Journal, Vol. 144, (1978), p. 81, states of oriented lakes in the Kalahari Desert that, 'The pans or small dry or ephemeral lakes, of the southern Kalahari in Botswana, are contained in shallow, sub-circular to sub-elliptical enclosed depressions in the surface sandwich mantle of the region.'

"No one knows the precise cause of these oriented lakes, but S.J. Shand in the Scientific Monthly, Vol. 62, (1946), p. 95 describes one of these lakes which is 1,500 yards long and 1,000 yards wide and is surrounded by a sandy rampart 30 to 50 feet high. He claims that there are thousands of similar such lakes on the coastal plain of South Africa, with many more in the dry interior. The closeness in similarity to the Carolina Bays is found to be quite strong, implying a similar origin. No such lakes are being formed anywhere on the Earth at present.

"L.P. Killigrew and R.J. Gilkes in *Nature*, Vol. 247, (1974), p. 454, describes playa lakes of southwestern Australia. These lakes number in the thousands and range in size from 4 thousandths to over 100 square kilometers. Large numbers are elliptical and exhibit a slightly west to north orientation. From aerial photographs in the article, these lakes also show many features similar to the Carolina Bays. In "Oriented Lakes and Lineaments of Northeastern Bolivia", George Plafker writes in the *Geological Society of American Bulletin*, Vol. 75, (1964), p. 503, stating that these,

"Oriented lakes occur over an area of roughly 45,000 square miles in the Beni basin where the water table is at or near the surface. They extend from the margin of the Brazilian shield outcrop, westward to within 20 miles of the sub-Andean zone. In the area of detailed study there were 104 oriented and dry lakes more than 1 km in length, and almost an equal number of lakes less than 1 km in maximum dimension. Lakes constitute 3 percent of the total area with roughly one lake more than 1 km long per 40 square miles... Most of the lakes in the Beni basin have axes or long straight segments of shoreline that tend within 10 degrees of N. 45 degrees E. or 45 degrees W. Lake shorelines in the mapped area either oriented in one or both of these two directions or are completely unoriented. The lakes range from about 1,000 feet square to 12.4 miles long by 5.4 miles wide."

"Plafker also tells us about lakes he observed on the Old Crow Plain of Canada in the Yukon Territory which are also oriented and appear to be similar to those he described in Bolivia. It is quite probable that all these oriented lakes were formed around the same time by meteoric explosions and then affected by the wind, water and ice if they are located in areas with cold climates. But it should be remembered that lakes have lifetimes of only a few thousand years and thus, these lakes are quite young. Sagan claimed that there was not a single recent crater over a kilometer in diameter to be found on the surface of the Earth. In a sense he is correct because there is not one, but several thousand such recent craters. In this sense he is also quite wrong. Thus, when discussing the question of recent craters, he writes, "On these questions [of terrestrial cratering] Velikovsky seems to have ignored critical evidence." When the evidence is examined, it strongly contraindicates Sagan's assertion." (CS & IV, p.182-185)

- We have documented evidence that indicates that most of the major mountain systems in the world from the Andes to the Himalayas were thrust up in the age of historical man. The geological stress needed to produce such mountain upthrusts so late geologically and at the same time could have been created by the gravitational field of a body of massive proportions passing the earth. Notice just a portion of this evidence.

" [According to R.F. Flint, *Glacial Geology and the Pleistocene Epoch* pp. 9-10], 'Mountain uplifts amounting to many thousands of feet have occurred within the Pleistocene epoch [Ice Age] itself.' This occurred [according to Flint] with 'the Cordilleran mountain system in both North and South America, the Alps-Caucasus-Central Asian system, and many others...'

" 'The fact of the late upthrust of the major edges of the world created when recognized, great perplexity among geologists who, under the weight of much evidence, were forced to this view. **The revision of the concepts is not always radical enough. Not only in the age of man, but in the age of historical man, mountains were thrust up, valleys were torn out, lakes were dragged uphill and emptied...**

" '[According to B. Willis, *Research in Asia*, II, p. 24], **'The great mountain chains challenge credulity by their extreme youth,'** . . . [discussing the] Asian mountains.

" 'The Himalayas, highest mountains in the world, rise like a thousand mile-long wall north of India. This mountain wall stretches from Kashmir in the west to and beyond Bhutan in the east, with many of its peaks towering over 20,000 feet, and Mount Everest reaching 29,000 feet, or over five miles. The summits of the lofty massifs are capped by eternal snow in those regions of the heavens where eagles do not fly nor any bird of the sky.

" **'Scientists of the nineteenth century were dismayed to find that, as high as they climbed, the rocks of the massifs yielded skeletons of marine animals, fish that swim in the ocean, and shells of molluscs. This was evidence that the Himalayas had risen from beneath the sea.** At some time in the past, azure waters of the ocean streamed over Mount Everest, carrying fish, crabs and molluscs, and marine animals looked down to where now we look up and where man, after many unsuccessful efforts, has until now succeeded only once in putting his feet. Until recently it was assumed that the Himalayas rose from the bottom of the sea to their present height tens or perhaps hundreds of millions of years ago. Such a long period of time, so long ago, was enough even for the Himalayas to have risen to their present height. Do we not, when we tell young listeners a story about giants and monsters, begin with: 'Once upon a time, long ago...?' And the giants are no longer threatening and the monsters are no longer real....

" 'R. Finsterwalder, exploring the Nanga Parbat massif in the western Himalayas (26,600 feet high), dated the Himalayan glaciation as postglacial; in other words, the expansion of the glaciers in the Himalayas took place much closer to our time than had previously assumed. **Great uplifts of the Himalayas took place in part after the time designated as the Ice Age, or only a few thousand years ago.** [See R. Finsterwalder, "Zatschrff Der Cesellschaft Fur Erdinude Zu Berlin" (1936) p. 32ff.]....

" **'The great massif of the Himalayas rose to its present height in the age of modern, actually historical man** [Helm and Gausser, Throne of the Gods, p. 220 state], 'The highest mountains in the world are also the youngest with their topmost peaks the mountains have shattered the entire scheme of the geology of the 'long, long ago.' "

- Velikovsky believes that the length of the year and month was different in ancient times and were changed as the Earth and moon were gravitationally affected by Mars' two close passings in the eighth and seventh centuries B.C. This certainly fits the facts which tell us of such a change in ancient calendars all around the world at this time.

Charles Ginenthal tells us that "we are told specifically by M.P. Nilsson in Primitive Time Reckoning, (Lund/London 1920), p. 367, that, '...we are met with the difficulty that an intercalary cycle [adding days or months to the calendar] was not introduced into Babylonia before the sixth century [B.C.]' A.E. Samuel, Greek and Roman Chronology, (Munich 1972) p. 21, says '...We have long lived with the cliche that the Greeks learned their astronomy from the Babylonians, but modern investigation has demonstrated that the sophisticated Babylonian systems were later than had hitherto been believed. The irregular intercalculations [of adding days or months to the calendar] exist down into the fifth century, showing that as late as 480 B.C. no intercalary cycle existed to control that calendar.' [emphasis added]

"Benny Peiser's Greek History Begins in the 6th Century, (1989) privately published, makes the point emphatic stating, 'it has become a communis opinio that the intercalary cycle [of adding days or months to the calendar] cannot be detected anywhere in the ancient world before the 6th century.' Thus, ancient civilizations changed their calendars only after the last catastrophe that Velikovsky describes."(CS & IV,p.53-54)

- Accurate records on different continents show not only cycle times for Venus's appearance in the sky which are different from those of the present, but the SAME different times, from a date at which no known contact between the peoples involved existed.

"In The Frame of the Universe by F. Durham and R.D. Purrington, (NY 1983) p. 41 we learn that instead its present two periods of disappearance of eight and fifty days, according to the Dresden Codex of the Maya, Venus had disappearances of eight and ninety days.

“That is, Venus had a ninety day disappearance as described in the Babylonian Venus tablets of Ammizaduga. Instead of having about two equal appearances of 260 days, as at present, the Maya had two unequal appearances of 236 and 250 days. This flies in the face of Venus' present orbit. Modern astronomers, it seems, cannot tolerate such data. Anthony Aveni in the Empires of Time, (NY 1989), p. 229 states, ‘paradoxically, while Maya time keepers were concerned about accurate prediction, they seemed to be getting away with grossly distorting the Venus dates for religious purposes... This is but one of a host of Maya Venus mysteries that have yet to be solved.’

“According to Diego de Landa's Yucatan, Before and After the Conquest, ‘The astronomical observations of the Mayas were so precise that in computing the solar year, they arrived at figures not only more accurate than the Julian year, but also more accurate than the Gregorian year, introduced in Europe in 1582, ninety years after the discovery of America, which is our calendar year today.’ And again, all the Mayan records that conform with the present astronomical system are proof of its validity, but the Venus records are merely an attempt to reconcile two separate calendars—one religious with one astronomical.

But what if three cultures have observations of Venus' appearances and disappearances that contradict the present system? John S. Major's Heaven and Earth in Early Man Thought, (NY), p. 76 has a section on "The Motions of Venus" which shows that instead of having two 263-day appearances, it had two 240-day appearances. Instead of 8 and 50-day disappearances, it had 35 and 120 day disappearances.(CS & IV,p.345-346)

- There are far too many short-period comets (orbiting Jupiter and Saturn) compared to long-period comets that cannot be explain by the capture theory. This points to the only logical conclusion that most were expelled in a fissionary way by the giant planets. Also there are far too many comets with near-circular orbits compared to those with eccentric ones according to the various scientific theories going around that point to the fact that the orbits of comets can become circular very quickly by tidal friction and/or other processes.

“Dr Vsessviatsky points out that....there are about sixteen of these short-period comets to a hundred parabolic ones....In an article (S.K.) Vsekhsviatsky published in the Astronomical Society of the Pacific Publications, Vol. 74 (1962) p. 106 he states specifically that, ‘The absence of retrograde motions in the Jupiter family [of comets] can also not be understood from the point of view of the capture theory. It was H. Newton [in 1893] who found that 30% of all short-period comets (that is, in our case about 20 comets) should, on the capture theory, have inclinations greater than 90%. According to Scigolev, half of all short-period comets should have retrograde motion. Lately we have made a new calculation of the approaches of comets to Jupiter and have found that no less than 10 to 15 comets should be retrograde.” [emphasis added](CS & IV,p110-111)

“Vsekhsviatsky informs us that "The observed eccentricities of the short-period comets are often smaller than the minimum values predicted by the capture theory. The past few decades have seen the discovery of comets with almost circular orbits, which cannot be explained by capture."(CS & IV,p.112)

- Thermoluminescence tests indicate that the moon was molten less than 10000 years ago which fits Velikovsky view that Venus had a near passing of the moon as it approached the earth (CS & IV,p.178). There is evidence of a steep thermal gradient which also fits the belief that the moon was molten several thousand years ago. “If indeed the Moon was heated by tidal effects 3,500 to 2,700 years ago, it should still retain some of this residual heat. Velikovsky claimed in the New York Times, for July 21, 1969, a few feet under the lunar surface a steep thermal gradient would be discovered. The space scientists held that the Moon was a cold body and that there would be hardly any heat in the gradient. Time

magazine, p. 67, reported that the lunar heat gradient was "surprisingly high."(CS & IV,p.179)

- The moon's and the Earth's wobble are probably the result of being shaken off their orbit by a massive heavenly body as Velikovsky believed.

"If the Moon suffered great catastrophes 3,500 and 2,700 years ago, and was shaken by large meteorite impacts and powerful perturbations, it would still be vibrating from these events. This, indeed, is now known to be the case. Sagan, in his book *Cosmos*, pp. 85-86 discusses this lunar wobbling or libration stating,

"When an object impacts the Moon at high speeds, it sets the Moon slightly wobbling. Eventually the vibrations die down, but not in...[a] short period... Such a quivering can be studied by laser techniques... Such measurements performed over a period of years reveal the Moon to be librating or quivering with a period (about three years) and amplitude (about three meters)...Now, if the Moon suffered during these catastrophes, wouldn't the Earth also have undergone violent perturbations; and shouldn't it also be librating or wobbling as the Moon does? This also is indeed the case. The discoverer in the last century of this strange wobble, Seth Carlo Chandler, has had this phenomenon named after him—it is called the Chandler Wobble. The Earth's poles wobble back and forth in a period of about 14 months over a distance of a few meters.

"G.V. Schiaparelli, the Italian astronomer, in his research, *De la rotation de la terre sous l'influence des actions géologiques* (1889), pointed out that in the case of displacement the pole of inertia (or of figure) and the new pole of rotation would describe circles around each other, and the earth would be in a state of strain. 'The earth is at present in this [wobbling] condition and as a result the pole of rotation described a small circle in 304 days, known as the Eulerian circle.' This phenomenon of wobbling points to a displacement of the terrestrial poles sometime in the past."(CS & IV,p.224-225)

- The moon has a lunar bulge and moonquakes that are localized to the same area that clearly indicate the passing of a massive heavenly body.

"R.J.Malcuit in an article entitled 'The Great Circle Pattern of Large Circular Maria' in 'The Moon',(1975)Vol.12,p.55 states, **'The circular maria - Orientale, Imbrium, Serenitatis, Cnsium, Smythii, and Tsiolkovsky—lie nearly on a lunar great circle. This pattern can be considered the result of a very close, non-capture encounter between the Moon and the Earth early in solar system history.'**

"However, earlier we showed that dust on the Moon indicates its craters are extremely young; therefore, the accurate pattern of large maria must be of recent tidal melting. What is also significant is the interpretation that these large lunar basins were produced by tidal melting and not by impact.

"If a planetary sized body approached the Moon, it would have distorted the shape of the Moon on one side, pulled the dense material of the lunar core toward the surface and where this hot material of the core came to the surface together with tidal forces of the passing body would have created huge seas of melted material. Thus, the side of the Moon with these maria which faces the Earth should show all these phenomena and more.

"If the catastrophes described by Velikovsky occurred, the last event should cause the Moon to reverberate, that is, to experience earthquakes. There are two types of moonquakes, one type that recurs every 28 days or about once every lunar month. However, the location of this type of quake is not random; according to Bevan M. French in *The Moon Book*, (Westford, MA 1978), p. 228. In addition to being deep, (about 600 to 800 kilometers below the surface) most moonquakes are also localized; that is, they occur again and again at specific places on the moon. At present, 40 such 'centers' of moonquake activity have been identified, all but one on

the near side of the moon. The centers are not distributed at random. With only a few exceptions, they lie along two great belts that are 100 to 300 kilometers wide and run for about 2,000 kilometers across the moon."

"These belts of weakness are precisely what one would expect if the Moon had recently undergone enormous catastrophic stresses. If a large body crashed into the Moon when it first formed, it would find the Moon melted from radioactive elements and thus, it too would melt. If, on the other hand, it crashed into the Moon after the Moon had cooled and solidified it, would on impact, have been so hot that it would have vaporized. However, what makes these deep seated moonquakes so difficult for the geophysicists to explain is that they should not exist. Moonquakes located 600 to 800 kilometers below the lunar surface cannot occur at that depth because of the high pressure and high lunar temperature gradient."(CS & IV,p.226)

- Remnant magnetism on a massive scale on the moon also indicates a massive heavenly body immersed the moon in a strong magnetic field.

"According to Cadogan in *The Moon - Our Sister Planet*, (Cambridge, England 1981), p. 314, 'the rocks of the lunar crust have been magnetized externally rather than internally.' For this to occur, a body had to come close enough to the Moon to melt its rocks and at the same time immerse the Moon's surface in a strong magnetic field. Venus is described as expelling planetary thunderbolts. Hence, it was at that time, a highly electric and magnetic body which could melt and magnetize the Moon's rocks."(CS & IV,p230-231)

- Mars has much geological evidence to prove that it was devastated only a few thousand years ago by a massive global catastrophe as one would expect if Velikovsky was correct.

"It is very easy to demonstrate that Mars has recently been devastated by a planet wide catastrophe. Let us once again assume that the scars and markings on Mars are ancient as Sagan has informed us. According to the scientific estimates, the craters in the southerly hemisphere of Mars are at least 3 billion years old and perhaps older. However, Mars has a small atmosphere which during its northern hemispheric winter season of 6 months often produces dust storms for 3 to 6 of those months over the entire planet. In fact, during one of those planet wide dust storms, Mariner was unable to photograph the surface of Mars because the dust obscured it. Dust storms weather (break down) rock and wind erodes (carries small debris) away from where it was weathered. Thus, one would wish to know what the erosion rates are on Mars. In *Aviation Week and Space Technology*, is an article titled 'Mariner 9 Data Stir New Questions'. We are told that, using Mariner 9 wind data, Dr. Carl Sagan of Cornell University calculated erosion rates, assuming a dust storm peak wind of 100 mph blowing 10 percent of the time. This would mean erosion of 10 km (6.2 miles) of surface in 100 million years.'

"Therefore, on the basis of Sagan's own figures, Mars currently should not have a single small surface feature surviving and few large ones and the entire planet should be a flat, sandy desert. The author adds, 'there is no way to reconcile this picture with a view of a planet' having been eroded by dust storms with its present appearance. Many of the craters supposedly in the southerly hemisphere of Mars show sharp, crisp edges. This completely contradicts Sagan's erosional view of Mars. Using Sagan's erosion rate, in 300,000 years, some 100 feet of material would be eroded. This corresponds to the height of a 10 story building removed from the entire Martian surface.

"Furthermore, Mars possesses what appears to be river beds. These are not eroded away even though they are often not very deep.

"The problem for uniformitarian scientists is how to explain the fact that Mars is asymmetrically cratered. According to Michael Zeilik's *Astronomy: The Evolving Universe*, (4th ea.) (NY 1985), p. 169 'extensive photographic survey [of Mars] showed that the two Martian hemispheres have different topographic characteristics: the southern hemisphere is relatively

flat, older and heavily cratered: the northern hemisphere is younger, with extensive lava flows, collapsed depressions and huge volcanoes.' The boundary between these two hemispheres, however, does not run parallel to the equator, but is inclined to it roughly by about 50 degrees....

"This unique planetary asymmetry, which is in some respects quite like the bulge on the Moon, is precisely what one would expect to find according to Velikovsky's thesis. One side of the Moon exhibits several geological formations rarely seen on the other. So too on Mars this dichotomy is evident....

"Michael H. Carr's article titled 'The Red Planet' in the book 'The Planets', discusses river channels that extend northward (in the southern hemisphere) for over 1,000 kilometers...'In places the channels are 150 kilometers across and contain numerous teardrop-shaped islands. Geologists have puzzled over the origin of these channels since they were discovered in 1972. Originally there was considerable resistance to accepting the idea that they were formed by water erosion because the Martian surface is so dry; but now most geologists believe that the valleys were formed by floods of water...

"In fact, the channels most closely resemble large terrestrial flood features than typical river valleys. One of the largest floods known on Earth is one crossing the eastern half of the state of Washington [believed to have been produced] 10,000 or 20,000 years ago. The flood is thought to have resulted from rapid emptying of a lake that covered much of western Montana. The lake was dammed by ice, and the flood followed when the ice collapsed. The released water swept over eastern Washington, eroding deep channels, scouring wide swaths of ground, and carving teardrop-shaped islands like those on Mars. Discharge of about one hundred times that of the Amazon River persisted for several days. The resemblance between the large Martian channels and the eastern Washington flood is so close that few geologists doubt that both were formed in a similar manner. One difference is that the Martian floods were larger."

"The scablands of Washington and the Martian flood features resemble each other very closely. But why do both, given the differing erosion rates on the Earth and Mars, still look so very much alike? The teardrop shaped islands on Mars are islands surrounded by sand and soil; these materials are very easily eroded compared to rock. Because it seems quite apparent that the erosion rate on Mars is greater than that of the Earth, all these features would have been completely decayed or removed by wind erosion before the crisp edges of the Martian craters, but they are not (all) highly decayed or removed. Two such similar sets of geological features can only resemble each other in areas where erosion rates differ so markedly only if the one area (Mars) where erosion is greater, is younger than the other area (Washington) where erosion is smaller. It is almost certain that for the Martian flood regions and Washington scabland features to resemble each other so closely, based on the geological evidence, the Martian features must be somewhat younger than those of Washington. Since the flooding event that produced the Washington scablands may have happened about 10,000 years ago (or even earlier), it is evident that the Martian event occurred less than 10,000 years ago or even earlier.

"However, for water to flow on the Martian surface, an atmosphere heavy enough to hold the water at the surface must exist. Michael Zeilik tells us 'Since Mars does not have liquid surface water now, conditions for it must have occurred in the past and would have required a warmer climate and a denser atmosphere.' G. O. Abell informs us that 'Geophysicists have pointed out that liquid water can simply not survive in the low pressure atmosphere Mars has today. Various experts estimate that the atmospheric pressure would have to be from 5 to 50 times as great as at present to allow liquid water to flow over the surface of the planet and not immediately evaporate.'

"Thus, it follows from all the evidence that less than 10,000 years ago Mars had a much denser atmosphere. This brings us then to the question, how can an atmosphere and all the water disappear in less than 10,000 years? The answer suggested itself is that Mars had a very near collision with a large celestial body recently and that it flooded and burned away most of the atmosphere and water. Thus, the lunarlike cratered surface in the southern hemisphere of Mars was produced by tidal action and impact. The great lava planes over the

rest of the planet were produced by cracks in the crust that poured out copious layers of lava.”(CS & IV,p.261,265,270-271)

Can you imagine what Mars looked like prior to this great catastrophe? A surface flowing with water! And if so much water, what else? To prevent water erosion you need plants to hold the soil together. Was there plant life on Mars prior to this great catastrophe? If ancient man had telescopic technology which was lost what would they have seen when they gazed on Mars? Was it red or was it the colours of life?

Weaknesses

- We have provided numerous examples showing that there were 360 days in the year prior to the 7th century BC. Throwing a spanner in the works is data recorded from the Great Pyramid, built around 2600-2400 BC, indicating the builders recorded the length of the year as 365.24 days as it currently is in 5 different ways in the measurements of the pyramid.(The Secret Forces of the Pyramids, W.Smith, p60-61) Why is this so if everything we've shown here tells us differently?

I don't believe the pre-Flood world knew a year of 365 and 1/4 days myself. The claims of a recently published book “The Bible Code” has been easily proved to be invalid because you can find almost any name you're looking for in it if the source you're looking at is big enough. The same, I think, holds true for the Great Pyramid, though I believe there are a number of genuinely significant numbers encoded in it. The problem is where do you draw the line? How do you test it to know what was deliberately designed into it?

- Why is the planet Mars still so saturated with the red dust and why is there no physical evidence for the red dust left on both the Earth and the moon? Water erosion can explain it for the Earth but why no red dust on the moon? My best guess is the melting of the moons surface at this time absorbed it.

- Venus is a much greater object than Mars, yet the latter caused a lot more change in the orbits of the Earth and the moon's orbits than did Venus. Why is this the case? My best guess is that Mars was a lot closer to the Earth compared to Venus when it approached. Venus was a lot further away than Mars but did much more catastrophic damage because of the immense size of its cometary tail.

- I still have questions about how exactly did Venus go from being on a very eccentric orbit to a planet with a nearly circular orbit, much more circular than any other planet? What brought about its almost zero eccentricity? What processes bring this about?

- You have to wonder just how on earth mankind survived such overwhelming forces and destruction on the planet.

- There is certainly some confusion about the timing of the climactic changes and tilting of the axis which would have been primarily responsible for the changes.

Noah's Flood saw the destruction of the water canopy described in Genesis 1. This obviously had to affect the climate of the earth taking away some of the sulibrial greenhouse effect that existed in the Golden Age. The submergence of the sea level is dated to around 1500 BC. This obviously was the result of the polar ice caps forming rapidly and the poles changing from a more temperate climate to a freezing one. Was

there just enough of a remnant of the water canopy to keep the climate temperate at the poles between the Flood and the Exodus?

When did the tilting of the earth's axis occur? The water clock of Amenhotep III evidence mentioned earlier definitely indicates a tilting occurred in the 8th and/or 7th centuries BC but was there tilting prior to that to account for the freezing of the polar caps? How much was the Earth's axis tilted in each of these stages?

As you can see Velikovsky's Exodus scenario and Mars scenarios after that do hold up well with the evidence, in particular, with regard to the timing of the catastrophes. There are certainly severe problems to deal with to rescue the polar configuration theory in the way it is shown on the documentary "Remembering the End of the World". I have put forth an alternative Saturn Theory for which I have shown ample evidence for that it does fit most, if not all the ancient records, mythology and pictographs.

The Saturn Theory I have proposed dovetails perfectly with Velikovsky's "Worlds in Collision" theory and the evidence to support it, unlike the polar configuration theory which does not because it has Venus as a spherical planet with gases emanating from it a millennium prior to the Exodus and not as a true fiery comet as the astronomical evidence quoted earlier clearly supports.

A FUTURE VELIKOVSKIAN CATASTROPHE? (The Day of the Lord)

This planet has experienced several earth-shaking catastrophes in the past. The question can be asked, "Could the earth experience yet another Velikovskian catastrophe in man's near future?" This is a question that has been asked by many in the field of catastrophism like Victor Clube and others. Could it happen again?

All around the world there have been prophecies from ancient times to now that deal with the subject of the end of the world. A striking number of those involve celestial disasters like those we have described occurred in times past.

The prophet Nostrodamus, for example, predicted a massive comet at a time of World War III. Armageddon is a theme that runs through so many of these prophecies - a great world war accompanied by great signs and wonders in the heavens.

Recently there have been two blockbuster movies that focus on this very theme - "Deep Impact" and "Armageddon". Could the earth be devastated by a cosmic catastrophe of a "Deep Impact" nature?

If the earth went through the catastrophes we have described in this book where a planet-sized comet shook this world to its very foundations and caused worldwide devastation then the answer MUST BE YES! Why?

Jesus told us plainly that the great tribulation would be THE greatest time of trouble EVER in man's history(Matt. 24:21). For it to be the greatest time of trouble then it has to be even more devastating than what occurred at the time of the Exodus with the plagues. Not only will there be a world war, the like of which has never occurred before, there will be a cosmic catastrophe as great as what shook the earth at the time of the Exodus.

I would like to now show that there is a certain key which can broaden and deepen our understanding of many of the prophecies in the books of the Old Testament and the book of Revelation pertaining to the Great Tribulation, especially the punishments that will be meted out in the Day of the Lord. I would like to draw on ancient parallels when similar punishments were brought upon mankind and I hope to show that there is a duality in God using this particular method to punish mankind - both in ancient times and in our near future.

The church has generally taken a conservative approach in describing the punishments of the Day of the Lord by directly quoting or paraphrasing the verses in Revelation offering little or no explanation as to how these events may be brought on mankind. As a result, the church has viewed the punishments as separate, independent events with little relation to each other except to punish mankind. I believe that most of these events are related to each other as consequences of a singular method by which God will punish mankind. God often uses natural phenomena to punish mankind and I believe that this singular method that God will use to punish mankind will be the passing and/or near collision of a large heavenly body.

The church has long taught the principle of duality when it comes to prophecy. In recent times, this time of the end when knowledge shall increase (Dan.12:4), the Russian-born Jewish author, Immanuel Velikovsky, as we have seen, asserted that such a series of events resulting from the passings of a massive heavenly body had occurred in the past. Whatever you think of his Exodus scenario, there can be little doubt that his research can provide us with a window of understanding into the very similar plagues of Revelation.

Please note now some of the close parallels between what the book of Exodus and Velikovsky describe and the punishments described in the Book of Revelation.

THE EXODUS

THE FIRST PLAGUE. The waters turn to blood. When the comet, Velikovsky believes was used to cause the Exodus, first touched the earth with its gaseous tail it covered the earth's surface with a fine dust of rusty red pigment. In sea, lakes and rivers this pigment gave a bloody red colouring to the water. The fall of red meteorite dust is a phenomenon known to take place after the passage of meteorites and is found on the snow of mountains and in polar regions.

DAY OF THE LORD

WATERS TURN TO BLOOD. Rev 6:12 - The 6th seal. The moon becomes like blood. Tonnes of meteorite dust falling from the sky would give the moon a bloody red appearance. Rev.8:7 - The 1st trumpet. This reddy pigment is mingled with a fiery meteorite shower. Rev.8:8 - The 2nd trumpet. Whatever this fiery mountain is, it must be of reddy colour and have a bloody red pigment for this object turns the waters to a bloody red appearance. Rev.8:10. The rivers also turn to a bloody red appearance from this red pigment. Rev.16:3-7. The 2nd and 3rd of the last plagues also turn the seas and rivers into a bloody red pigment. **If the blood colouring is not from God using a singular, unifying method to cause the plagues then why repeat this type of plague 5 or 6 times?**

THE EXODUS

THE 6TH PLAGUE. Fine dust causes boils on man and beast(Exod.9:8-12). This fine dust is one and the same as the red meteorite dust as the earth enters deeper into the comet's tail.

DAY OF THE LORD

BOILS ON MAN AND BEAST. Rev.16:2 The 1st of the last plagues. The loathsome sores that come on mankind are similar to the boils caused by the red dust in Exodus.

EXODUS

THE 7TH PLAGUE. Hail mingled with fire falls to the earth(Exod.9:13-35). Following the red dust a shower of meteorites fall to the earth. Egyptian sources say the stones were hot. This only fits meteorites, not hail of ice.

DAY OF THE LORD

FIERY HAIL. Rev.6:13 - The 6th seal. The stars of heaven fall to the earth as a fig tree drops its figs when shaken by a mighty wind. This is probably the apostle John's first century language for a great meteor shower. Rev. 8:7 - The 1st trumpet. Hail and fire mingled with blood fall to the earth. A great meteor shower mixed with the red pigment falls to the earth triggering off massive fires which destroy a third of the earth's vegetation. Rev.16:21 - The last of the 7 plagues.

Just as the great earthquake of the 6th seal was accompanied by a great meteorite shower the even greater earthquake of the last plague is accompanied by a great hail with some as much as a hundred pounds in weight. If this hail is fiery as it was previously would be great meteorites.

EXODUS

THE 8TH PLAGUE. A massive plague of locusts hits the land. Mass movements of insects occur as supplies of vegetation are in short supply following the destruction of the vegetation by the meteorites.

DAY OF THE LORD

LOCUST PLAGUES. Joel 1 and 2. The great locust plague will probably occur in much the same way after so much of the vegetation is destroyed from the 1st trumpet plague.

EXODUS

THE 9TH PLAGUE. Three days of complete darkness. As the Earth entered deeper into the tail of the oncoming comet terrific hurricanes swept the earth because of the sweeping gases, dust and cinders of the comet.

DAY OF THE LORD

DARKNESS. The 6th seal - Rev. 6:12. The sun became as black as a sackcloth of hair as the sweeping dust and cinders of the comet block out the sun. The 4th trumpet - Rev. 8:12. A third of the sun, moon and star's light does not shine and are darkened. The 5th of the last plagues - Rev.16:10. Europe becomes full of darkness as the debris, dust and cinders of the comet fill the air. **You will notice again we see both the plagues of the fiery hail and darkness are repeated 2 or 3 times. This very strongly suggests that they are not arbitrary punishments but consequences of a singular method of punishing mankind.**

EXODUS

THE PARTING OF THE RED SEA was a specific miracle set up, probably at the climax of the comet's passing when tremendous gravitational forces raised the ocean's waters, a phenomenon recorded by many peoples around the world from the Red Indians, Peruvians to the Chinese.

DAY OF THE LORD

WATER ARE DRIED UP. The 6th of the last plagues - Rev. 16:12. The River Euphrates is dried up/parted, possibly at the climax of the comet's passing when the gravitational forces will be at their maximum.

Now that we've shown the ancient parallels let's put the prophecies together in a chronological framework.

We first encounter this great heavenly body in Revelation 6 when the 6th seal is opened. As it approaches it blackens the appearance of the sun with its tail and then bloodens the appearance of the moon with its red tail and body. Meteorites or the stars of heaven fall to the earth covering the earth with a great meteorite shower. The gravitational forces between the two bodies trigger off tremendous seismic and earthquake activity. Mountains and islands are raised and lowered(Rev.6:14).

As the people of the earth see this massive comet on a near collision course with the earth sheer terror fills people as they try to hide in caves and in other shelter. "And there will be signs in the sun, in the moon and in the stars, and on the earth distress of nations, with perplexity, the sea and the waves roaring; men's hearts failing them from fear and the expectation of those things **WHICH ARE COMING ON THE EARTH**, for the powers of the heavens will be shaken"(Luke 21:25-26).

Another meteorite shower, mingled with the bloody red pigment of the comet, falls to the earth as the 1st trumpet plague is unleashed. Massive fires spread all over the earth destroying a third of the earth's vegetation. With so much of the earth's oxygen-producing vegetation being destroyed it's no surprise that the leaders of the beast power tell their armies not to destroy vegetation as it launches its 5th trumpet attack later on.

As the comet's passing reaches its climax two fragments split off and hurtle toward the earth. The fact that there are not one, but two massive objects that hit the earth suggests a common origin. The first fragment is described as a great mountain burning with fire - a luminous object probably with a great fiery tail - which strikes a major ocean. This object obviously is of a reddish colour as it reddens or bloodies a third of the

seas' water after it hits the water. This meteorite dust coupled with tremendous tidal waves destroy a third of the sea creatures and ships in the ocean(Rev.8:7).

This strike to the seas may, because of its great heat, have something to do with the drying up of a small portion of one of our oceans as described in a few Old Testament verses describing this time(Isa.44:27, Jer.51:36, Nah.1:4, Hab.3:2-19). In Isaiah 44:27 we read that God "says to the deep, Be dry! And I will dry up your rivers." The two fragments hit an ocean and the rivers on one of the continents which God here says He will dry up, more than likely, according to this verse, by the great heat of these two fiery fragments. A similar verse to these that is interesting is Zechariah 10:10-11 in which God says, "I will bring them back from the land of Egypt and gather them from Assyria...And the depths of the River(margin:the Nile) shall dry up." When God brings Israel back from captivity at Christ's return we see here that God will part the waters of the Nile for those who will come back from Egypt.

The second fragment is described as a great star burning like a torch(Rev.8:10-11) and it hits one of the continents, this time causing the 3rd trumpet plague. Its reddish pigment falls on a third of the rivers and pollutes them, giving them a bitter taste and many people die as a result of drinking the polluted water.

As the earth enters deeper into the comet's tail thick swirling gases and smoke fill the atmosphere and block out a third of the sun, moon and stars' light as the earth is hit by the 4th trumpet plague.

An additional or alternate explanation of this plague could be offered by the language of the last half of the description of the 4th trumpet and also an enigmatic verse in Amos 8:9. In Revelation 8:12 it says "a third of the day did not shine and likewise the night." Darkness of its own doesn't appear to adequately explain this verse. Possibly as a sign for the two witnesses, the rotation of the earth for a day might be sped up resulting in a 16 hour day with a third of the day and a third of the night not shining. Amos 8:9 says that God will make the sun go down on a clear day, possibly referring to the same event. The language of this verse plus the use of the singular in Revelation lean toward this being a one-off occasion if this does occur. I can't imagine God would curse mankind with a permanently reduced day of this nature. There are not enough hours in a day now, let alone a third less.

After a third of the sun, moon and stars' light are darkened causing the 4th trumpet plague we get down to the three woes.

The 6th seal and the first 4 trumpet plagues mark the first passing and near collision of the Earth with this absolutely massive comet. In the lull before its next return two massive war attacks are unleashed - the first one, a bio-chemical assault on Russia and Asia by the Beast power - the 5th trumpet plague - which lasts for 5 months. If the two cometary fragments hit the largest ocean and the largest continent on the Earth, the Pacific and Asia, this may be an additional or alternate explanation of the news out of the north and the east that troubles the beast power(Dan.11:44) along with a possible Asiatic military alliance. If they are weakened by the destruction of the cometary hits the beast power might take advantage of the timing and set out in great fury to conquer them.

The second woe is the massive counterattack by the Asiatics that sweeps across and destroys most of Europe with an army of 200 million. As the Day of the Lord lasts for one year(see Isa.34:8) using the day for a year principle in prophecy this attack lasts about as long as the first woe - 5 or 6 months.

The blowing of the 7th trumpet releases the seven last plagues which I believe to be associated with the second climactic passing and near collision of a comet of massive proportions.

The first plague sees loathsome sores come upon man and beast as a result of the cosmic meteorite dust. The second and third plagues see yet another massive reddening of all the seas and rivers and the land from the comet's red meteorite dust. The Bible says several times that they did not repent after these plagues. If God uses a massive comet to do His bidding then this sort of reaction will be quite understandable as they would attribute these things to natural causes and not to the hand of God.

The combined effect of nuclear war and these cosmic disturbances will probably see a fair bit of destruction to the planet's fragile ozone layer and probably be the reason for the fourth plague which sees men being scorched by intense heat from the sun.

Again, as the Earth enters deeper into the tail, darkness covers much of the Earth as the comet's passing nears its ultimate climax. The River Euphrates is dried up to prepare the way of the kings of the East and their Asiatic hordes. This may be due to the gravitational forces exerted by this massive celestial body or due to an upthrust of land that could cut the lower part of the river off from its water supply. After moving across and destroying much of Europe and Rome with their 200 million man army during the 6th trumpet plague they now gather together to fight the rest of the tremendous European army that is heavily deployed in the Middle East. The forces of the two massive armies gather together to fight each other at Meggido or Armageddon before they turn on Jesus Christ at that critical juncture for the control of the world.

I've heard it said that the seven last plagues all occur in one day using Revelation 18:8 as a proof text. The internal evidence of the 6th last plague conflicts with that point of view. It would take more than a day to mobilize a massive army from the Euphrates to the Valley of Meggido and finally Jerusalem. I suggest the use of one day in this verse is referring to the Day of the Lord using the day for a year principle in prophecy. We know that the time between the 6th seal and when Christ returns will be about one year as we read in Isaiah 34:8, "For it is the day of the Lord's vengeance, **the year of recompense** for the cause of Zion." Unless the time between the two passes is greater than about 14 months or less than 10, then to pass the Earth again at approximately the same position on its orbit this massive comet will have to have its orbit altered by slingshotting around another planet like Mars or Venus through a near collision.

The very last plague is poured with the voice of the seventh angel crying out "It is done!" The greatest earthquake of all time rocks the whole earth! "Then every island fled away and the mountains were not found." "The earth is shaken exceedingly. The earth shall reel to and fro like a drunkard." Combined with this will be an incredible meteorite shower with some meteorites weighing as much as a talent or 100 pounds. I submit that it is more than just coincidence that both the great earthquakes of the 6th seal and last plague are accompanied by massive meteorite showers - that they are consequences of the same agent of destruction.

This earthquake will cause the Mount of Olives to split in two and shake Jerusalem like the mighty earthquake of Uzziah's time(Zech.14). At this moment Jesus Christ returns to the earth with the sound of a mighty trumpet(maybe the dramatic trumpet theme from "2001 A Space Odyssey" - 1 Thess.4:16) in power and glory as the hills and mountains melt and wax at His return(Ps.97:5) due to the phenomenal volcanic activity

shaking the earth at this time. "**The day of the Lord** will come as a thief in the night, in which the heavens will pass away with a great noise, and the elements will melt with fervent heat, both the earth and the works that are in it will be burned up"(2 Pet.3:10).

Those armies which proceed to fight Christ will melt and rot on their feet at the hands of the living Christ(Zech.14). At even time it shall be light. This may be due to Christ's brightness filling the sky, making it like day or we may see a repeat of Joshua's long day. In such a dramatic awesome spectacle God intervenes in human affairs and ushers in the Wonderful World Tomorrow.

From an astronomical point of view what is the pattern of events that would happen if a massive fiery red comet were to make a near pass of the Earth heading towards the Sun and then make another return pass as it heads away from the Sun?

As the tail of a comet always travels away from the Sun, the body of the comet would be the first part of it that passes by the Earth on its way coming in to the sun. This climax would be when the gravitational forces of the two bodies would be at their peak triggering off incredible seismic and volcanic activity - great earthquakes. Matter ejecting off the body would be the greatest in size near the body's passing resulting in great meteorite showers. The further it would pass the finer the matter ejecting from it would be in the form of the fine red dust causing the earth to be covered in a bloody pigment. The more of its tail the Earth would be covered with, the thicker the dust and cinders would be, causing darkness.

On its return, because the tail rushes away from the Sun, we would first encounter the red dust which would pick up in density as the body of the comet gets closer, resulting in darkness as it covers the Earth's atmosphere more. The gravitational forces as it gets closer would peak, possibly raising up some of the Earth's waters. Then we would have the grand climax when there would be incredible seismic activity leading to tremendous earthquakes accompanied by meteorites.

This is exactly the pattern we see in the book of Revelation. In Revelation 6, 8 and 9 on the first pass we see the great earthquake accompanied by meteorites at the climax as the body passes us first, then meteorites again, the red dust(waters to blood) and then the darkness.

In Revelation 16 we see exactly the same pattern you would expect if it was coming from the other way. The red dust first, then the darkness, the Euphrates drying up as the gravitational forces peak and then the grand climax with the awesome earthquake accompanied by great meteorites. I suggest this is much more than coincidence. How do you see it?

A cometary pass is not the only type of cosmic catastrophic encounter. There are asteroids and there are also meteor showers. I believe that the cosmic catastrophe will be from the passing of a massive comet, not the passing of an asteroid or the earth just being hit with a meteor shower on its own.

An asteroid ejects very little matter such as red dust from comets nor does hail mingled with fire(meteors) occur as the result of an asteroid pass. It has to be much more than a meteor shower because of the incredible seismic activity that occurs at the beginning and the end of the Day of the Lord which requires a massive gravitational body to trigger off such awesome earthquakes all around the world! Plus we saw how the pattern of two passes of a massive comet fits precisely the pattern of the plagues recorded in the Book of Revelation.

Relating to this time God says in Isaiah 24:1 and verses 19-20, "Behold the Lord makes the earth empty and makes it waste and turns it upside down...The earth is violently broken, the earth is split open, the earth is shaken exceedingly. The earth shall reel to and fro like a drunkard and shall totter like a hut(or hammock according to the Hebrew). Its transgression shall be heavy upon it and it will fall and not rise again." The Hebrew words for upside down are "pane shapel" and are also translated this way in Ps.146:9 and Isa.29:16 despite the alternate rendering in the New King James for Isaiah 24:1.

There are three possibilities for the earth turning upside down - an inversion of the Earth's strata through earthquake activity, the Earth's magnetic poles reversing so that east becomes west and vice versa or the Earth literally turning upside down relative to the stars. A friend of mine who believes in the latter believes this may be the explanation for the enigmatic phrase in Revelation 6:14 which says that the sky receded like a scroll. The sky would appear to roll if the Earth flipped on its axis.

If a planetary body passed above the earth's north pole and then by means of an electrical discharge reversed the magnetic poles so that the north magnetic pole suddenly became the south magnetic pole it would set the former north pole spinning towards the south pole. The reason for this would be, because the passing body's south pole would, instead of being over the north magnetic pole, suddenly be over the south magnetic pole and we know that like poles repel each other. I'm not saying it's going to happen but it is a curious thing to think about in relation to this scripture.

If a change to the moon and earth's orbit has occurred in the past as Velikovsky asserts, it would take an extremely large body with tremendous gravitational force to move the Earth and the moon off their orbits. Also to cause a third of the sea creatures and ships to be destroyed and set off fires which destroy a third of the world's vegetation the two objects of Revelation 8 would have to be much, much bigger than the comet which caused the famous Tunguska blast of 1908. If the two objects have a common origin from a large heavenly body how much larger must that great comet be? Not only that, how big must it be to cause the tremendous seismic activity that causes the massive earthquakes of the 6th seal and the last of the seven last plagues? It certainly bears thinking about. **It would be an absolutely frightening spectacle to behold seeing something like that on a near collision course with the Earth!**

In Psalm 102:25-26 and Hebrews 1:10-12 we read, "Of old you laid the foundation of the earth and the heavens are the work of your hands...like a cloak you will change them and they will be changed." In Isaiah 24:20 God says, "The earth shall reel to and fro like a drunkard...**it will fall and not rise again.**" Could this falling be referring to the Earth being brought closer to the Sun in its orbit?

God also promises new heavens and a new earth when He restores all things. I can't help but think that one of the things He will restore will be the much simpler year/month arrangement of 12 months of 30 days. If God does do so will He use a physical agent to do His bidding? Again, it's not critical to my main argument but it's worthwhile speculation.

If the solar system was a binary solar system with two stars - the Sun and Saturn before the Flood one can't help but wonder could there be a restoration of this pattern and a new polar sun be created when God restores all things. Who knows? - maybe something like what happened in the movie 2010 might happen when Jupiter became another sun in our solar system.

Velikovsky gives a most startling identification of the comet he asserts God used at the time of the Exodus which is now a blessing to man in our night skies. What would happen to such a heavenly object if God used another such object to cause the plagues of the Day of the Lord? Would it then be turned by God into a blessing for mankind?

We read in Isaiah 4:4-5, "When the Lord has washed away the filth of the daughters of Zion...the Lord will create above every dwelling place of Mount Zion, and above her assemblies, a cloud and smoke by day and the shining of a flaming fire by night. For over all the glory there will be a covering."

A massive comet would be visible in broad daylight with the appearance of a pillar of cloud and smoke and by night it would be like a flaming pillar of fire. As it would not be a very dense object to start off with and therefore elastic, over several centuries it would, by gravitational and inertial friction, be brought into a fairly circular orbit over time giving us possibly a new planet - maybe between the Earth and Venus.

The doctrine of a 7000 year plan of God with 6000 years allotted to man to go his own way followed by a 1000 years of God's peaceful rule pictured by the Sabbath was a fundamental doctrine of the first century apostolic church. We near the end of 6000 years of man's recorded history.

Due to several variables, the creation of Adam, according to the chronologies in the Book of Genesis, falls somewhere in a range of dates ranging from around 4004 BC to about 3982 BC. That would put the end of the 6000 years in our very near future. My purpose in highlighting this is not to encourage the time honoured practice of date-setting for the return of Christ. In fact I wholeheartedly discourage that as we are told that no man knows the hour or day and that it is only the Father who knows the time, not even Christ Himself(Acts 1:7). This is because of several variables in the equation of when the 6000 years began which God has allowed for this purpose, as well as the point that God says He will cut the time short(Matt.24:21-22). I have merely highlighted these points to verify that the prophecies of the book of Revelation will probably happen within the lifetimes of you and me.

Though no prophetic interpretation is certain unless it directly says so in the Bible I hope I have shown with the historical parallels that it is highly probable that God will use a singular method to cause most of the trumpet and seven last plagues of the Day of the Lord and that being the passing of a large heavenly body.

With this understanding and the historical and geological record of what this world has gone through as documented in "Worlds in Collision" and "Earth in Upheaval", I find that the prophecies become so much more **alive** and **vivid**. In such a dramatic earth-shaking way, I believe God will intervene in this worlds' affairs and finally bring true peace, happiness and prosperity to this world which it so desperately needs! Could the earth go through these sort of terrible and incredible cosmic events in our very near future? Time will tell!