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Recovering the Lost World, A Saturnian Cosmology -- Jno Cook Chapter 30: The Maya Chilam Balam.



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Introduction

The *Chilam Balam* books are a collection of post-colonial (16th century AD) native manuscripts in the Mayan languages, using the Latin script, which recorded histories and prophecies, many dating back with certainty for hundreds of years, while Books 10 and 11 plus some single pages recollect events dating back thousands of years. All of it is presented in terse and obscure language.

I am tempted to repeat the statement by Hertha von Dechend about "the annihilating recognition of our complete ignorance" for I was struck with the same feeling on first reading the *Chilam Balam* -- I could make absolutely no sense of any of it. It took me six months of daily application to digest Book 10, and much longer to unravel Book 11.

Book 11 recalls events leading to the creation in 10,900 BC of the ball plasmoids of the south. This is the "first creation." Book 11 may include events dating back to circa 30,000 or 40,000 BC. A separate single page of the *Chilam Balam* specifically recalls the "survey of the world" in the period after 10,900 BC, while yet another single page recalls the fall of the Absu in 2349 BC. These additional texts from the *Chilam Balam* will be presented in the chapter "The Olmec Record."

What follows below is an attempt to "read" Book 10 in terms of the chronology of celestial events which I had already established on the basis of information from the Eastern Mediterranean region, India, and China. Book 10 deals with the "second creation" and subsequent events, including the "third creation."

The Book Of Chilam Balam Of Chumayel was translated into English by Ralph L Roys in 1933, based on original sources, and compared to other extant documents and other copies of the *Chilam Balam*. It is not easy to read, even though the text is supplemented with extensive footnotes and added commentary. One of the stumbling blocks is the mention of many Maya Gods which are still obscure and difficult to identify today. A copy of *The Book Of Chilam Balam Of Chumayel* is on line at [www.sacred-texts.com/nam/maya/cbc].

I first looked at the *Chilam Balam* after I had written most of the text of these pages. In Book 10 of the *Chilam Balam*, in a section labeled (by Roys) "The Creation of the World," I ran into a phrase which caught my attention:

"Then there came great misery, when it came about that the sun in Katun 3-Ahau was moved from its place for three months."

If there is one thing for certain, it is that since the Sun first appeared, it has never moved, acted up, or changed its look in human memory -- except, of course, in 685 BC, as I had already established. Could this be a record of the nova event of the Sun and the blazing of Venus and Mercury of 685 BC (680 BC in Eastern Mediterranean chronology), when the polar axis relocated, the dome of the sky twisted, and the vernal equinox moved suddenly to another zodiac sign?

A calculation showed that the first 20-year Katun 3-Ahau period after 747 BC started in 687 BC (6.3.0.0.0), two years before my estimate for the nova event of 685 BC, and ended about 20 years later. A closer reading of the remaining text soon convinced me that this Book retold other events dating back to before 3100 BC. And ends, as does everyone else's record of the catastrophic past, in 685 BC.

The clearest indication of these events were descriptions of interactions between Jupiter and Saturn (and their satellites) which can be placed for certain in 3147 BC. It is described with uncanny accuracy -- if we are allowed to transfer the names of two sets of obscure Gods, "The Thirteen" and "The Nine," to Saturn and Jupiter. The remainder of the text of this chapter provides the details. This portion (called a Book) of the *Chilam Balam* recounts what is known among the people of Mesoamerica as the "second creation" and subsequent events of the "third creation" and a possible "fourth creation" through 685 BC.

The Katun Cycle

First a word should be said about the cycle of 13 Katuns in use by the Maya at the time of the Spanish invasion. After Classical times (circa AD 900), the Maya dropped their "Long Count" dating and reduced their calendar to a repeating cycle of 13 Katuns (which was in use already long before AD 900). Each Katun consists of twenty Tuns, that is, twenty 360-day years (not the 365-day Haab years) and thus 19.71 of our Gregorian years, each named after the last day of the period in the Tzolkin day nomenclature. This, as it turns out, is always one of the day-numbers 1 through 13, followed by the day-name Ahau. The Katuns are named, in order, 11-Ahau, 9-Ahau, 7-Ahau, etc., skipping a day-number for each consecutive Katun. The complete cycle of 13 Katuns is approximately 256.26 actual current years.

Because of the Maya philosophy of cyclic time, only this single cycle of 13 Katuns was recognized, and all events were placed within a listing of this cycle, although at times other Books of the *Chilam Balam* texts will list Katuns as a series extending over many cycles. But often events separated by 256, 512, or 1024 years are all listed for the same Katun. Thus when an event is said to occur in Katun 4-Ahau, it could have happened in any 256-year interval of the past, or even be a prediction for the future. It is, in fact, the predictive value of this calendar that forced the Maya to consider that all events of the past had been accomplished in a single repeating cycle, and would happen again. [note 1]

In the text below, I have added corrections to the (retrocalculated) Gregorian years to show solar years, based on the indication that the Long Count was started in 747 BC, on a day matching similar efforts at calendar reform in the Eastern Mediterranean. The Olmecs added 6 Baktuns to a count set at 0.0.0.0 on February 28, 747 BC (the completion of the disturbance). Thus to correct for our insistence in calculating backward in time under the assumption that the year was always 365.24 days (as the Classical Era Maya also did), we can place the Long Count date of 0.0.0.0 at 6 Baktuns before 747 BC, at 3147 BC.

The corrections are then made by counting forward in time with **3147 - 400 * Baktuns - 20 * Katuns** up to 747 BC (even though the year 747 BC on which this is based is actually -747).

Retrocalculation for dates from the sculptures at Palenque (circa AD 700) require a different method. This has been covered in chapter 20, and takes into account the difference between 360 and 365.24 days in the year. The recalculated dates in this chapter match the corrected Eastern Mediterranean chronology, with some exceptions, which can be attributed to the attitudes of the Maya to the very concepts about time, and which will be explained below.

Katun 11-Ahau: History Starts

Bishop Diego Landa destroyed hundreds of Maya glyphic manuscripts in the 16th century AD, but it is likely that many remained, for even 100 years later missionaries were reading prophecies from original bark books (as, for example, the Spanish missionary Avendaño, in AD 1696).

The *Chilam Balam* books had a different status than the original bark books. Written by the Maya in European notebooks, in the European script, but in the Mayan language, these formed a greatly condensed record of the histories, rituals, and prophecies from the time before the invasion of the Spanish in AD 1517. It was an efficient method of keeping in touch with the past. The books were kept from the Spanish priests, recited at village meetings, and copied and recopied for 300 years. The readers knew the context of the information of these notebooks, although likely this was slowly lost over the next few hundred years. [note 2]

The *Chilam Balam* books all insist that the cycle of history starts with Katun 11-Ahau. Although Maya history recorded on monuments does not reach back before AD 300 or 400, their calendar was in universal use throughout Mesoamerica probably since 600 BC or earlier, and the predecessors to the Maya, the Olmecs, were probably responsible for the concept that history started with Katun 11-Ahau. Roys claims that this is so because the first day of Katun 11-Ahau starts with the day 1-Imix which is the first day of the 260-day Tzolkin cycle of naming days. But in the grammatical construction of Indian languages, a date (or Katun) does not exist until it is completed, which is why Katuns are named after their last day, not the first. [note 3]

My thinking initially was that the reason for starting history with Katun 11-Ahau is that the ending of a Katun 11-Ahau might have coincided with the calendar change in 747 BC, when calendars were changed worldwide, and in many cases initiated. It turned out that this guess was correct, a Katun 11-Ahau **ended** in 747 BC, in fact, on February 28th. This is the ending date also for the Roman annual calendar. And also the day before the start of the "Era of Nabonassar" used in the Babylonian Chronicles, and presented by Ptolemy in about AD 150 for his list of Kings of Babylon and his list of eclipses. This is the date that the year changed from 360 days to 365.25 days. The Babylonian day started at nightfall, so that the era actually started on February 27th.

All of this is not just a coincidence. The odds of a single 20-year Katun, out of a cycle of 13 Katuns, ending in the year 747 BC, is small. That it should fall exactly on the date before the start of the "Era of Nabonassar" is astounding. That this date would be represented by the Long Count of 6.0.0.0.0 is beyond belief.

Considering that the nova event of Venus in 685 BC also coincides with a Katun period of the correct name, I thought that perhaps some faith could be placed in these Katun dates, although I expected much of the information to be out of place. In fact, as I read through the text, I realized that most of the very old events were arbitrarily assigned to Katun 11-Ahau. I did not initially expect any of the other celestial events to be placed in Katuns which corresponded with known dates from the Middle East. But at the conclusion of investigating this text, it looked like all except two of the events were correctly placed. One was, I suspect, a transcription error, and the second was a deliberate change made during classical times (or earlier) to make the date of an important event coincide with a certain day-name of the Tzolkin (July 25th).

Many of the events recorded in Book 10 of the *Chilam Balam*, however, seem to be in the wrong order in going from one event to the next. It is as if some canonical source was misread, perhaps reading the left page before the right page from a book meant to be read from right to left (which, in fact, was the case for the Maya codexes). It would seem that in some cases only the information of single sentences occupied a full page of the original. That suggests an illustrated codex with an appended text in glyphs.

Additionally, it looks as if the author had accessed three or four separate original sources, which do not match in format, although none of the events are repeated. I will indicate the suspected shifts from one source to another where I have become aware of them. [note 4]

As you can imagine, the *Chilam Balam* represents a giant sequencing puzzle, both because of the obscure sequencing of history and because of a few errors which were incorporated by the original copyist. It took me six months to get through the text initially, and I had to make a number of changes afterwards. Often a resolution of textual elements involved attempting to place myself in the position of a copyist who is earnestly trying to make sense of a document which related events from thousands of years ago.

But thanks to a cultural continuity, we can identify elements which were actual and which (from our point of view) had shifted to become metaphors. The greatest help in this was reading Linda Schele and David Freidel's book *Maya Cosmos* (1993) prior to tackling the *Chilam Balam*, for the authors identify many elements from the Classical Maya era, 1500 years ago, which still appear among the contemporary practices of Maya shamans. (I also was involved as equipment consultant for Peter Thompson's film *The Shaman of Oxkintok* about Don Chabo, a Maya shaman, in 1992 -- 1993, but known as *El Movimiento* when completed in 2001.)

In *Maya Cosmos* Schele and Freidel were eventually forced to consider the stars as a major element in Maya cosmology and show that this is part of religious practices of the Classical era and is still in current use. Thus when I ran into the "timbers at the crossroads" and the "precious objects," the equivalent in our terminology instantly jumped to mind, and without question. It has likewise been shown by Schele and Freidel that many concepts and ideas, it would be more proper to say "images," of the 16th century AD Guatemalan *Popol Vuh* were already being depicted in Classical times.

In the following I have kept the *Chilam Balam* text in the same order as it exists, with a few alternate readings by Bolio (see below), and some footnotes by Roys, added. That makes for a thoroughly confusing sequence, but I thought it more important to follow the original order of the text, rather than to make repairs which would only add to the confusion. As a reader you will thus be treated to constant interruptions, where events are taken up, interrupted by other unrelated events, and continued a paragraph or two later. Overall, however, the *Chilam Balam* sticks to a consecutive narrative. That will help.

The specificity of Roys's translation can be compared with a more recent translation by Suzanne D. Fisher, made from an earlier translation into Spanish made in 1930 by Antonio Mediz Bolio. Bolio has the distinction of speaking one of the Mayan languages, but this earlier Spanish translation by Bolio seems to be a composition based on the assumption that the original was written in similes and metaphors.

In a preface to a translation of Bolio's text into French, J. M. Le Clézio wrote, "*At times ... he seems to prefer the beauty of the expression to the literal meaning, which results in a profoundly emotional and poetical version.*"

At times the Fisher translation after Bolio parallels the translation by Roys and is much more readable, but often it is altogether different. Thus the sentence I quoted above, about the Sun:

"Then there came great misery, when it came about that the sun in Katun 3-Ahau was moved from its place for three months. After three years it will come back into place in Katun 3-Ahau."

This is rendered by Bolio as:

"That is what is coming, when three moons have fallen in the time of the 3-Ahau Katun, and after three portions of years, trapped within the 3-Ahau Katun; ..."

Bolio, in the text shown directly above, assumes that the original is a comment on the sense of a previous sentence, which speaks to the coming of an "unending bitterness." Roys assumes the sentence starts with the mention of the "great misery" and places the agent in this phrase. Both the sense and the punctuation have been rendered completely differently.

At cause is the original text, where there is no indication of the starting and ending of sentences or paragraphs. Both Roys and Bolio had to guess at the implied punctuation. Bolio has the advantage of speaking Mayan, and often he has polished the text, but I too feel he has frequently lost the specific details. In Roys's translation, on the other hand, the tense and number of the verbs and nouns often bounce back and forth unpredictably. I will use Roys's text and augment it with the Bolio text as needed.

A copy of Book 10 is available locally at [saturniancosmology.org/book10.htm] which collates the text by Roys with some rephrasings by Bolio, some of the material from Roys's footnotes, and a few additional insertions, but without my extensive comments. I have added the numbered Katuns. The 16th-century scribe started in Katun 11-Ahau and continued in order through Katuns 11, 9, 7, 5, [8, 2], 3, 1). After Katun 5-Ahau, two even-numbered Katuns are inserted, Katun 8-Ahau and 2-Ahau. The sequence of even-numbered Katuns is skipped, but the text ends in repeating Katuns 13-Ahau, 11-Ahau, and 9-Ahau.

The Author's Introduction

Book 10 of the *Chilam Balam* is the history of the "second creation" of the world, and the appearances of the planetary Gods. With some exceptions, the information never deviates from the purpose of this presentation. The text is introduced by the original copyist with a note of urgency. The information is presented in the context of the new Christian God:

"It is most necessary to believe this. These are the precious stones which our Lord, the Father, has abandoned. This was his first repast, this wine, with which we, the ruling men, revere him here."

"Very rightly they worshipped as true gods these precious stones, when the true God was established, our Lord God, the Lord of heaven and earth, the true God."

This section of the *Chilam Balam* is distinct from all other texts of the books in offering an introduction. The comment about the "precious stones" suggests that stones were used to represent events and represent the gods. The first Christian missionaries also told that the Maya "worshipped stones." The author here turns the "stone worship" of the Maya into a misdirected earlier effort. It might also be suggested that the Maya knew very well that the planetary Gods which were worshipped were indeed nothing more than large rocks. The close passages of Mars would have demonstrated that. In Book 11, "The Ritual of the Angels," a Maya author has the Christian "God the Father" emerge from one of the "holy stones" seen in the sky. Bolio in that case interprets "tun" as a "holy stone." It might serve the reader to think of "tun" or "stone" not as material ("made of stone") but as a shape, form, or container. [note 5]

The author continues with the introduction: (I have broken up Roys's long paragraphs throughout.)

"Nevertheless, the first gods were perishable gods. Their worship came to its inevitable end. They lost their efficacy by the benediction of the Lord of Heaven, after the redemption of the world was accomplished, after the resurrection of the true God, the true Dios, when he blessed heaven and earth. Then was your worship abolished, Maya men. Turn away your hearts from your (old) religion."

"(This is) the history of the world in those times, because it has been written down, because the time has not yet ended for making these books, these many explanations, so that Maya men may be asked if they know how they were born here in this country, when the land was founded."

NOTES:

- () insertions by Roys in the translated text,
- [] insertions are by me from footnotes or from Bolio.

The writer acknowledges that his sources are other books. He then proceeds to list events, starting, naturally, with Katun 11-Ahau, where the cycle of all history is understood to start. The first few lines relate events which happened before 4077 BC and in 3147 BC. He then progresses through additional Katuns in turn, but only up to Katun 3-Ahau, which Roys thinks is an interpolation (in this particular version of the *Chilam Balam*). He then very briefly speaks of the miseries of Katun 13-Ahau and touches again on Katun 11-Ahau and Katun 9-Ahau as a recitation of more recent history. This is followed by portraits of Saturn and Jupiter as the two ruling Gods. Here is a list of topics, in brief outline:

- Katun 11-Ahau - The Bee Gods and The Thirteen; the fire, the rope; the capture of The Thirteen by The Nine; Nine-Lives escapes; flood and fallen sky; four trees (the period of 4077 BC to 3147 BC).
- Katun 9-Ahau - Ten-Sky appears (3067 BC to circa 2700 BC);
- Katun 7-Ahau - Uuc Chek-nal comes; Earth and Heaven touch (1492 BC).
- Katun 7-Ahau - A new world created (after 1442 BC).
- The "third creation," the Moon rules all of Earth (wrong Katun?).
- Katun 2-Ahau: Jupiter seated, gravediggers, crossroads revealed (2349 BC).
- Katun 8-Ahau: fire on high (2150 BC).
- Katun 3-Ahau - The Sun leaves its path (685 BC).
- Katun 13-Ahau - Misery, foreigners.
- Katun 11-Ahau - Nine-Lives shows (776 - 747 BC).
- Katun 9-Ahau - Nine-Lives descends, flowers (747 - 727 BC).
- Fall of the Absu (placed in 2250 BC, wrong date).
- The rulership of the Thirteen.
- The rulership of the Nine.
- The return of Kukulkan.

At first I was not always certain of how some of the descriptions translated to the chronology I had set out earlier in these pages. But allowing for the author's error in reading the order of the original texts, the insistence of sorting events by Katuns, and the additional quirk of failing to note repeating events, all of it eventually fell into place. What I am certain of is that very little is metaphorical. Much of it is simply descriptive, even though the language is one of the Maya's environment of stones, trees, flowers, and plants.

The distinct advantage to us of the *Chilam Balam* as a source for a history of the "Era of the Gods" and the period following, is its insistence, based in the original Mayan language, of describing actions rather than static states. In contrast, Egyptian or Mesopotamian sources deal almost entirely with static states.

The Thirteen: Saturn

The following are the first lines. The author starts at the very beginning, the first clear sight of Saturn in 4077 BC. I am translating "Oxlahun-ti-ku" as "The Thirteen" on the basis of Roys's footnotes. From the remaining context it is obvious that "The Thirteen" is Saturn, just as "The Nine" will turn out to be Jupiter. Together with the next few lines, we have here a condensation of the 3000 years of history of the Saturnian apparition to a few lines:

"It was (Katun) 11-Ahau when the Ah-Mucenca [the bees] came forth to blindfold the faces of the Oxlahun-ti-ku [The Thirteen]; but they did not know his name, except for his older sister [Uranus?] and his sons [the other planets?]. They said his face had not yet been shown to them also."

Only after reading ahead did I realize what was happening here. First, about the bees. "Ah-Mucenca," Roys relates in a footnote, are supernatural bees or bee-Gods. In conjunction with the following lines, these are likely to be satellites of Saturn, buzzing around the hive like bees. (These bees, and the hive, occur elsewhere in the *Chilam Balam* when much earlier history is being discussed.) [note 6]

"Oxlahun-ti-ku," Roys notes, *"literally the Thirteen Gods, are probably the gods of the thirteen heavens of the Maya cosmos, but they are usually treated as a single god."*

I would suggest that "The Thirteen" is Saturn, represented by the seven most prominent satellites which could be visually distinguished because of the proximity to Earth, plus the count of Uranus, Neptune, Saturn itself, Venus, Mercury, and Mars (a count of six). All of these planets are recognized on other pages of the *Chilam Balam* as part of the stack of planets seen since long before 10,900 BC, and noted also in the *Popol Vuh*. If Uranus is his sister, then perhaps the other planets above and below Saturn would be his sons. [note 7]

"The Thirteen" may also represent (as Roys notes) the thirteen levels of heaven imagined to be located physically above the Earth in the Maya cosmology, although I think this is likely a more recent addition to the theology. That the upper reaches of the sky are assigned to Saturn would follow from the fact that Saturn had stood above the Earth for six thousand years. On the other hand, Jupiter (known as "The Nine") is assigned to the nine levels of the Underworld, for he was only seen on the ecliptic, and thus dipped below the Earth each night.

The arcane text about "not knowing his name" may relate to the fact that a theology of these Gods was never adopted by the Maya. It has been noted (Schele and Freidel) that the earliest archaeology of the Pre-Classical Maya shows no signs of the Gods of the (later) Classical era, but I am not so sure what that means. It is clear (at least to me) that by classical times the Saturnian planets were incorporated in the theology. A look at the "altars of the cross" at Palenque, erected in circa AD 690, show that the concern was entirely with the most recently active planets: Jupiter, Venus, and Mars. At this time Saturn had been reduced to an old man. [note 8]

Similarly the concern with directional trees (see the text further below) has been found as four trees set in sockets at the top platforms of the earliest temple platforms of the Maya dating back to 200 and 100 BC. The iconography of the four trees first shows at Olmec La Venta, circa 650 BC, carved as four small sprouts surrounding a central figure, although archaeologists tend to identify the four

sprouts as corn seedlings. In terms of the *Chilam Balam*, this would signify a continuation of Gods, for the directional trees are part of a mythology or history stretching back to 3100 BC -- some 1500 years before the Yucatan was first populated.

It should be recognized that the Maya, like the surrounding peoples of Mesoamerica, were "converted" at some point after 600 BC to the philosophy (and history) expounded by a set of graphical books which were obtained from centers in the Valley of Mexico, Veracruz, or Oaxaca. This was absolutely convincing, since the books so obtained matched their own recollections and records. I'll expand on this in following chapters.

Back to the bees: I assume here that "they" means the sons and sister, not the bees. This is consistent with the information of the *Popol Vuh*, except that Saturn itself is counted.

Bolio assumes that The Thirteen did not know the name of the Bee God (which he has as singular). The "older sister" is likely to be the much larger Uranus, which was involved with this configuration from the very start, and would look to have long hair because of the outpouring of plasma from its horizontally located south magnetic pole, where the other pole only showed a beak-like plasma in glow mode.

The north magnetic pole plasma outpouring was not identified as a bird beak, as in European Upper Paleolithic and early Neolithic iconography. It may have been identified as a nose of the figure. It may account for the facial disfigurement practiced by the Maya.

The "sons" would be the other planets which traveled with Saturn. If these, together with Saturn, add up to six, then Venus would be included among them. Thus we can date this description to after 4077 BC, since Venus would not show up until after 4077 BC, although the wording here seems to be speaking of an earlier time.

That the Ah-Mucenca bees blindfolded Oxlahun-ti-ku, Saturn, is not as curious as it might seem at first. The writers of the *Chilam Balam* had determined this from an inspection of a book of ancient history, composed entirely of graphical images. It suggests a coma occluding Saturn, and perhaps the other planets, which, by the way, other peoples have noted also.

The text continues with the obvious, declaring that this time is already after the creation of Earth, that is, the world. I should point out that the Olmecs were certain also of an earlier creation, a "first creation," which is detailed in Book 11. The purpose of the book considered here (Book 10), obviously is to provide the history of the Gods which were honored in Classical times, and thus will describe the "second creation" (ending in 3147 BC) and the "third creation" (ending in 2349 BC). Other pages or books of the *Chilam Balam* will also separately describe the "first creation" and again the "third creation."

"This was after the creation of the world had been completed, but they did not know it was about to occur."

Strange as the tense of this sentence is, it seems to say that something "unknown" preceded the existence of Oxlahun-ti-ku, Saturn. This is not unlike the myths of other people where we see "creation" proceeding from a misty chaos in the sky. The *Popol Vuh*, the story of the ball-playing twins, written in Guatemala at about the same time as the composition of the *Chilam Balam* books, describes the second creation as the undifferentiated mass of water or mist of the "chaos" found in other creation myths elsewhere in the world.

The blindfold stretched across the face of Oxlahun-ti-ku, Saturn, is possibly the creation of the rings in 4077 BC. At that time the satellites (the Bee Gods) would be clearly seen only if Earth were mostly below Saturn at that time. The problem with these texts is that we have no idea of what times in the past these snapshot images refer to.

However, to see the rings as a blindfold would place Earth mostly laterally with respect to Saturn. That also allows all the associated planets to be seen.

If this description were presented from sources in Mesopotamia or Egypt, I would immediately suggest that the "creation of the world" as mentioned above would be in reference to the "land" of Saturn -- Upper Earth. But I never get a sense of the stupendous object in the north skies being equated to anything other than a god-person -- with the exception of an equation of directional bees and a bee hive or pot of honey at the island of Cozumel in Book 11 of the *Chilam Balam*).

As I mentioned earlier, it is possible that the scribe here is relating the coma which was seen after the 2500 years of shadow of the Younger Dryas had lifted. This would suggest that the bees were seen at that time. The coma would have been in place since 10,900 BC and lasted to 4077 BC. The line of text about the blindfolding is, at any rate, a curious statement. But it is also not at all untypical of the *Chilam Balam* to sum up thousands of years in a single sentence.

"Then Oxlahun-ti-ku [Saturn] was seized by Bolon-ti-ku [Jupiter]."

"Then it was that fire descended, then the rope descended, then rocks and trees descended. Then came the beating of (things) with wood and stone."

Jupiter (Bolon-ti-ku, The Nine) is introduced here, but his mention seems out of place (Jupiter appears again a few lines later). It is possible that we are being notified of an agent involved in the sudden nova event of Saturn in 4077 BC. That suggests an earlier electric collision with Jupiter started the mass expulsion and explosive plasma discharge of Saturn, although I doubt it.

- *First the fire, then the rope* -- This is in the correct order. After the extinction of the plasma flow in arc mode, Saturn would have switched to continue the discharge in glow mode -- the "rope." The "rope" will continue into post-Classical times as a symbolic connection to heaven which delivers grace and other celestial dispensations to the Maya. The concept is still in use today among Maya shamans.

I have not made much, in the text of previous pages, of differentiating the extreme arc mode plasma discharge from the glow mode plasma, since there is no indication of how long the arc mode plasma lasted. Both are recorded in the petroglyphic records from remote antiquity, although apparently most, if not all, the petroglyphs are in reference to an earlier south polar column.

- *"Trees and rocks"* -- Here I am again beset by the fact that repeatedly the order of things seems reversed in lines which follow each other. The "trees" is a phenomenon associated with the plasma instabilities during the time of the "descent of fire," that is, a plasma stream in arc mode (but also associated with high-level glow mode). The "rocks" are also likely a plasma stream disturbance but could also be the descent of Mars and his followers during the lowering of "the rope." Of course I am reading these lines as sequential because they appear in the text as one following the other. But a story with an orderly sequence in time was never a strong concern of

the Mesoamerican languages. Richard Luxton, in *The Book of Chumayel* (1996), has "sticks" for "trees."

- *"The beating of things with wood and stone"* -- The "wood and stone" appear again later in the text in a description of the rulership of Saturn, and obviously refer to Uranus as the wood and Venus as the stone. Both might be seen as flailing about Saturn if the rotational axis of Earth and Saturn did not line up. Saturn would have been seen revolving (or rocking) in the sky. Vedic sources state that Saturn "rotated without cease." The *Chilam Balam* will address this perambulation later in the text, in a description of Saturn's rulership. What we have here, however, is a description of the visual effect of the rotational axes of the two planets not lining up. The "things" being beaten are the rings which would seem to wobble as seen from Earth. In the *Popol Vuh* the wood and stone are the magical gardening tools of Hunahpu and Xbalanque. [note 9]

In Classical times rulers are shown holding a "Venus scepter" -- a puppet-like head crowned with a jester headdress of three points and with the tail of a snake. The spikes of the headdress were recorded at other times, as in this example, from the Tang dynasty of China:

"On the morning of March 18, [AD] 904, Venus was observed near the Pleiades blazing like fire. The next morning, to observers, Venus appeared to have developed three horns, somewhat resembling a flower, and then began to tremble and shake."

-- Charles Raspil *Planetary observations of the T'ang* (1994)

The three spikes are a cone of plasma extending from the pole of a planet, shaped sort of like a chalice. Only the outer edges of this shape are seen, where the plasma is visually more dense in profile. The third spike is a stream of dense plasma central to this. The plasma flowers will show mainly at the north magnetic pole. The problem with this reading of the "three horns" from the T'ang is that Venus does not today have a magnetic field which would be needed to support such a display. [note 10]

The "wood," is Uranus, seen beside Saturn, and is probably represented by a jade god-face hung by a chain from the rear of the belts of the rulers in Classical times. Notice that many features of the Saturnian Polar Configuration, such as Uranus in this instance, are differently interpreted in different instances in this text, an indication that the scribe may have been looking at illustrations which were not captioned.

The Nine: Jupiter

The next line again introduces Jupiter. Saturn is attacked by Jupiter, so we are now in 3147 BC:

"Then Oxlahun-ti-ku [Saturn] was seized by Bolon-ti-ku [Jupiter]."

This line exactly repeats one of the lines above, which I noted as being out of place. If so, it is an old transcription error.

"Then Oxlahun-ti-ku [Saturn] was seized, his head was wounded, his face was buffeted, he was spit upon, and he was (thrown) on his back as well."

"After that he was despoiled of his insignia and his smut."

About the above text Roys notes:

"Bolon-ti-ku, or Nine Gods, appear to be treated as one god. We find them represented in the inscriptions, and it seems likely that they represent the nine underworlds and correspond to the Nine Lords of the Night of the Mexicans."

"The inscriptions" mentioned by Roys are probably the *Dresden Codex* and other glyphic books which had come to light before 1930. The Nine Gods is Jupiter plus its visible satellites (eight seen before the 20th century AD). [note 11]

Jupiter rises in the east from the Caribbean, sets west in the Pacific, and travels through the sky almost overhead because the Yucatan is at a latitude of 18 to 20 degrees. Jupiter thus seems to travel in a circle over the Earth and underneath. The Maya conceived of the world as floating on water, being aware that they were bordered by the Pacific and almost surrounded by the Caribbean. And they specifically noted water welling up from below in the subterranean limestone caves and surface cenotes. The region below ground became for them the Underworld, as nine levels below ground, each level controlled by one of nine Gods. See also my notes further below on the Absu, the "House of Nine Bushes."

- *"Oxlahun-ti-ku [The Thirteen] was seized"* -- Saturn came into close proximity of Jupiter, 6 to 14 million miles (10 to 23 million km). This actual close contact between Saturn and Jupiter would have lasted very little time. The shock of the electric forces was attractive because of the much greater positive charge of Saturn. This is how Saturn was "seized" by Jupiter. The attractive force would have stopped very quickly with a change in the induced voltages, followed by a charge equalization due to electric arcing, and the separation of the planets. "Seized" also likely describes an extension of plasma as lightning reaching from Jupiter to Saturn.
- *"... his head was wounded, his face was buffeted"* -- This is the initial plasma interaction, probably in large sheets of plasma impinging on Saturn in visible glow mode, or as contacts in arc mode. Jupiter at this point, moving beyond its original orbit at 0.7 AU, was in need of electrons, but Saturn still had its positive charge and needed electrons even more.
- *"... he was spit upon"* -- As Saturn distanced from Jupiter, the plasma connection initiated by Jupiter would have switched to long-distance plasmoid strikes. It might have looked like spittle, since these would take time to travel through space. Egyptian legends make this image into the sperm of Seth (Jupiter) and Horus (normally Mars, but here probably Saturn). When some of the predynastic "kings" of Egypt take on names like "Crocodile" and "Catfish-Chisel" we are seeing similar interpretations from the other side of the globe. Plasmoid bolts look like catfish or like crocodiles with open jaws.
- *"... he was (thrown) on his back as well."* -- At first the spectacle would have been viewed in the north skies, since Earth was still below Saturn by some 3 million miles (5 million km), and probably over 4 million miles (6.5 million km) below Jupiter. But as Earth was released to travel its own path around the Sun, the orbit of Earth would be lifted to have the Sun again be one focus of the orbit. At that time the perspective of the two battling planets would have changed and they would have been seen on the ecliptic with Saturn viewed edge-on -- equivalent to having been thrown on his back.

The earliest Egyptian mention of Osiris and the account of his death (Saturn here) is found among the fifth dynasty pyramid texts of Unas (2345 BC), where it is related that Osiris died by falling on his side -- at the river bank. This is not the Nile river, but the river of the ecliptic.

- *"After that he was despoiled of his insignia and his smut."* -- "Smut" is the face paint used by priests during a period of fast and consecration, Roys notes, although Bolio reads it as plumage, which is perhaps correct, as detailed below.

Roys has extensive footnotes on "the despoiling of the insignia," relating the insignia to "something held in the hand" -- a scepter carried by rulers, in the form of a dragon or manikin with a snake tail. The name of the "canhel" scepter translates as "dragon" or "serpent." "Something held in the hand" is most likely Venus connected to Saturn with a plasma trail. This is the scepter held by Maya rulers. This shows up also on the predynastic tags of grave goods of Egypt as the cudgel wielded to strike enemies. Some writers have simply equated "canhel" to Kukulcan, the plumed serpent Quetzalcoatl. Which is correct.

Bolio translates the line as:

"And their [The Thirteen's] Serpent of Life, with rattlers in its tail, was stolen and with it was taken its quetzal plumage."

The "quetzal plumage" of Bolio comes close to referencing the "insignia" to Quetzalcoatl -- the "feathered serpent" of the Mexicans, known as Kukulcan in Mayan, and identified as Venus. The "Serpent of Life" scepter is Venus, as Schele and Freidel have noted. [note 12]

The Maya purposely avoided any reference to Quetzalcoatl (or Kukulcan) in the *Chilam Balam* books, for the Spanish priests were on the lookout for references to Quetzalcoatl, whom they considered as possibly the chief object of idolatry among the Maya, based on their experience with the Aztecs. Other books of the *Chilam Balam* specifically blame idolatry on the Itza who had moved into the Yucatan 800 years earlier and at some point supposedly brought the worship of Quetzalcoatl from Tula. But Venus (Kukulcan) had already been part of the Maya sacred iconography in Classical times as the Vision Serpent and the double-headed serpent bar. [note 13]

Nine-Lives: Mars

Next, and still in Katun 11-Ahau, we are introduced to "Nine-Lives" -- actually, the first "Nine-Lives." This paragraph is clearly out of place for the text describes events before the close of the "Era of the Gods" in 3147 BC, which termination was related above.

"Then shoots of the yaxum tree were taken. Also Lima beans were taken with crumbled tubercles, hearts of small squash-seeds, large squash-seeds and beans, all crushed."

"He wrapped up the seeds (composing) this first Bolon Dzacab["Nine-Lives," Mars], and went to the thirteenth heaven."

"Then a mass of maize-dough with the tips of corn-cobs remained here on earth."

"Then its heart departed because of Oxlahun-ti-ku [The Thirteen, Saturn], but they did not know the heart of the tubercle was gone."

Roys translates "Bolon Dzacab" as "nine generations" and suggests it means "forever." Bolio translates "He who is eternal." Fisher's text has a parenthetical insertion which reads, "Yax Bolon Dzacab -- Great Nine-Fertilizer." "He," at any rate, seems to refer to "Nine-Lives," Mars, not some other undefined God. Schele and Freidel also identify Yax Bolon Dzacab as God GII of the Palenque Triad, which is Mars. In footnote 11 to Chapter 2 of *Maya Cosmos*, Freidel and Schele identify (on a somewhat different matter, and as a verb form) "Bolon Tz'acab" as possibly meaning "nine manifested" which makes a lot more sense.

- *"... this first Bolon Dzacab"* -- Without a doubt Nine Lives is Mars. Like Horus of the Egyptians, who is called "the first Horus" when he is listed among the first gods, Mars is here called "this first Bolon Dzacab." He is also called (or implicitly regarded as) "eternal" for he will reappear for ages to come. Although the Sumerians and Egyptians counted repeated visitations of Mars as repeated incarnations, the Maya neglect repeated visits in the record of the *Chilam Balam*, both for the period before and after 3100 BC and for the later 8th and 7th century BC. It is likely that the "nine" of "Bolon Dzacab" should tell us that this event happened nine times -- one more than the Sumerian "kings before the flood." For the Mesoamerican writer there was no reason to tell of repeated visits of Mars. Additionally, it is perhaps the nine risings up to Saturn which are counted here, not the eight lowerings, as in Sumer. (The *Dynastic Chronicle* from Babylonia lists 9 kings before the flood, however.) [note 14]
- *"Then shoots of the yaxum tree were taken ... etc.,"* -- and other assorted small granular matter. On the one hand, the look of a planet wrapped in squashed beans and seeds would be the look of the lower half of Mars which is pockmarked with craters. But I will suggest another understanding further below.
- *"Then a mass of maize-dough with the tips of corn-cobs remained here on earth."* -- This obviously has reference to the "creation of humans" events recorded in the *Popol Vuh* and other sources, when humans were fashioned by the Gods out of maize dough. Bolio makes it read as, *"And then his [Mars's] skin and the tips of his bones fell here on the land."*

If what is described here records the descent of Mars before 3147 BC, then the "skin and bones" would represent the massive uprising of water in the North Atlantic or the inverted dome of plasma (at the same location) which is featured as a mountain in other creation myths. The Yucatan is located ten degrees further from this site than Mesopotamia or Egypt. The clouds reaching beyond the stratosphere, would easily have looked like a mountain of corn mash. This is also the location of the "Seven Caves," which repeatedly show up in other Mesoamerican creation myths down to the time of the Aztecs (as well as the Incas), where humanity originated. [note 15]

- *"Then its heart departed because of Oxlahun-ti-ku [The Thirteen]."* -- Both translators have the heart of Mars depart for the highest heaven. Bolio has: *"... because the Thirteen gods[Saturn] did not want his heart and seed to be gone from them."* This is the departure of Mars from Earth, and seemingly composed of the image of Mars climbing up the plasma stream in the era before 3147 BC. If this is so, then the "shoots of the yaxum tree, etc.," mentioned above, might also represent nodes in the plasma stream which seem to follow Mars on the returns. This was noted by Talbott at the 2001 conference.

Note that the Mars events described here are out of place. The return of Mars to Saturn happens before 3147 BC, not afterwards. In fact, the visits of Horus which the Egyptians experienced after circa 3050 BC are missing here, although they are described further below.

The close of the drama of 3147 BC is the second battle described by Hesiod. This probably took place within 200 years. The four planets retreating from the inner reaches of the Solar System had to move through the asteroid belt, with the consequence that asteroids were "attacked" with plasma strikes -- with plasmoid bolts by Jupiter, as would be likely under the circumstances of enormous amounts of ionized material and increasing amounts of fine silicate dust in the ecliptic at the location of the asteroid belt -- formed by the plasmoid bolts of Jupiter (and the other three giant planets). Plasmoids can travel millions of miles through space.

"After that the fatherless ones, the miserable ones, and those without husbands were all pierced through; they were alive though they had no hearts. Then they were buried in the sands, in the sea."

Roys notes that two other *Chilam Balam* versions read "fell to pieces" for "pierced through," an expected breakup of asteroids, although it is difficult to imagine how this could have been seen from Earth. Perhaps comas greatly enlarged the sizes of the asteroids. I doubt if the "fatherless ones" might have been asteroids large enough to be distinguished. That too is hard to believe, except that when individually surrounded with a coma they could perhaps be seen from Earth. Alternately it might refer to Saturn, Neptune, and Uranus receding through the asteroid belt.

The "sea" is the whole of the southern sky below the equatorial, identified as the Absu by the Sumerians and the Duat by the Egyptians -- alive with glowing moving concentric wavy rings of particulate matter looking like a sea.

The "sand" (strand) is then the edge of this sea, or the glowing ecliptic, (which dips into the Absu for part of its length). The ecliptic would start to glow as the dust of plasma contacts from Jupiter (and the three other giant planets) started to accumulate. It was yellow like sand and called the "Yellow Road" in China.

"Have you no fear of me?" says the Lord; "will you not shudder before me, before me who made the shimmering sand to bind the sea, a barrier it can never pass? Its waves heave and toss but they are powerless; roar as they may, they cannot pass." -- Jeremiah 5:22

From what God has just said, it looks as if the outer ring of the Absu was yellow or buff colored and understood as a strand -- a barrier between the celestial sea and the sky above it. Both the Bible and the Quran identify the barrier as a strand -- a beach.

"There would be a sudden rush of water when the theft of the insignia of Oxlahun-ti-ku [The Thirteen] occurred."

The narrative has backed up a page. This is the massive worldwide flood which I have placed in the year 3147 BC in the narrative, the flood of Gilgamesh (as I happened to have named it). It would, in any event, happen immediately after Earth was released from the gravitational hold of Saturn. Again we have here, as above, a dislocation of the order of events, as if, as I have suggested, the folio pages of a book were read in the wrong order.

"Then the sky would fall, it would fall down upon the earth, when the four gods, the four Bacabs, were set up, who brought about the destruction of the world."

Here the "fallen sky" is related to the time directly after 3147 BC. I presume that this mention is not more of the "rush of water," but represents what the Olmecs understood as a collapse of the sky above Earth, perhaps a darkened sky as later recollected from 2193 BC when Akkad and Egypt both collapse economically. This, too, seems out of place.

The four Bacabs are the gods of the cardinal points. They will hold up the sky, and set up four trees holding up the sky. These trees now hold up the dome overhead and the northern stars -- something perhaps never seen before. The following text will also repeatedly note that the four trees are set up as "a sign of the destruction of the world."

The First Four Trees

The text here launches into a description of the four colored trees which are set up at the cardinal points, each surmounted with a bird (of the same color), and also a green central tree. We should welcome this side-trip into geography. Mapping the Earth is a very central element to the Mesoamerican (and American Indian) conception of the world, and as a result we have details not available in other parts of the world. Besides, the "trees" were absolutely huge -- the largest entities ever seen in the skies.

"Then, after the destruction of the world was completed, they placed (a tree) to set up in its order the yellow cock oriole."

"Then the white tree of abundance was set up. A pillar of the sky was set up, a sign of the destruction of the world; that was the white tree of abundance in the north."

"Then the black tree of abundance was set up (in the west) for the black-breasted piçoy to sit upon."

"Then the yellow tree of abundance was set up (in the south), as a symbol of the destruction of the world, for the yellow-breasted piçoy to sit upon, for the yellow cock oriole to sit upon, the yellow timid mut."

"Then the green tree of abundance was set up in the center (of the world) as a record of the destruction of the world."

My first inclination was to suggest that these trees were versions -- real or not -- of the tree seen in the north, connecting Earth with the Saturnian planets. Saturn at the top would look like a bird, for the equatorial outpouring of plasma (the rings) of Saturn (before 3147 BC) might have looked like the plumage of a bird. The ball-shape of Venus connected with a long thin swirl to Saturn (as in the Egyptian "Eye of Ra") could pass as the head of a bird (as could Uranus). Additionally, the plasma connection had been seen as a tree at times -- a discontinuity of the stream with toroids forming at intervals along the stream. These would flatten and the edges would turn up, making the plasma stalk look like a plant, complete with leaves and a circular form at the top like a giant flower. Images of this strange plant are still shown on Sumerian seals of 2350 BC. But these trees are not mythological

substitutes -- these trees were real.

When the tree of the north with Saturn on top disappeared after 3147 BC, another stellar bird appeared in its place, the constellation Ursa Major, with the location of the axis of the sky piercing the center of its body.

At a later date the Maya substituted the Milky Way for the "white tree" of the north. The Milky Way rotates through the night sky on a daily basis, starting off at different angles at different seasons, standing as a tree in the sky at the solstices, stretching from north to south horizon (more or less), and is described in Classical times. (See especially the book *Maya Cosmos* by Schele and Freidel.) The Milky Way does not intersect the bird form of Ursa Major, today or at any time in the past.

Others have suggested that these four directional trees are imaginary markers, implicit in the solstitial rising and setting of the Sun, some 25 degrees north and south of the east and west cardinal directions. That would be a ludicrous suggestion if it were not for the fact that creation ceremonies of Maya shamans today use these cardinal points.

However, in previous text I have already presented details of the four trees (under the subject heading of "The Return of the Axis Mundi"). The north and south trees can be described as plasma plumes. These match the descriptions of a bird at the top, as seen here in the *Chilam Balam*, and from illustrations of either a manikin or a ball at the end of the bent-over plume from Mesopotamia and Egypt. These are locations 20 degrees further north, and thus the plumes were even more bent over.

Initially, after 3147 BC, the white tree of the north was probably the most significant as well as the most prominent plasma plume. The first tree of the north is mentioned in the sculptures at Palenque, and held at equal value with the end of the previous epoch, and the appearance of the planetary Gods (their births) 700 years later.

In a footnote Schele and Freidel translate the inscriptions at Palenque for the event of 3112 BC (a year and about six months after the start of the present epoch), of "Wacah chan xaman waxac na GI," to "raised-up-sky north-eight-house GI," but also translate "Wacan chan" as "six-sky." The "raised-up-sky" is based on reading "Wacan chan" as "Wac ah chan." Schele also identifies "raised-up-sky" as the Milky Way. "GI" is Venus, but GI may be a typo for GI-prime.

If "wacan chan" is read as six-sky it would fit the practice in the *Chilam Balam* of prefixing celestial objects with the number of their appearances in 3000 years of history. "Six-sky" would have appeared six times, if the plasma column were to be generated with the six known changes in the Earth's orbit (3147 BC, 2349 BC, 2193 BC, 1492 BC, 747 BC, and 686 BC). But add the change in the electric field of the Sun of 685 BC, and there are seven. Or add the possibility of two additional, but unnoted, changes between 2349 BC and 2193 BC, and there are 8 instances again, justifying a reading of "north-eight-house." North, as opposed to south, is a clear indication that we are here dealing with one of the two polar plasma plumes. This last is also better supported by the name given to the north tree at the ballcourt markers at Copan -- "Nine Successions." [note 16]

The "raised-up-sky" "north-eight-house" (also called "edifice") of Venus (GI) was dedicated a year and a half after the start of the current era, as retrocalculated by the Maya. It is within expectations that it would take perhaps a year to develop a plasma stream in glow mode in response to a change in the electric field surrounding the Earth's plasmasphere. The event is noted here (and in other records) because the

raised-up-sky north-eight-house must have been much larger than anything else ever seen in the skies up to this point in time. It rose far above the previous polar location of Saturn. Seen from Mesoamerica, the Saturnian planets had hovered only some 20 degrees above the north horizon. "Saturn entered the sky," is noted because the planet had now moved (within a year and 9 months) across the sky and to the south. This had to be established first (in the Palenque text) because otherwise Saturn (God GI-prime of Palenque) would not have been able to construct his edifice. [note 17]

The Green Tree of the Center

About the tree which "was set up in the center," Roys writes, "This last tree was remembered by the Maya." The green celestial tree is the massive outpouring of plasma from the south pole of Jupiter, which I have noted in earlier texts. This was seen directly after 3147 BC, and again twice after Jupiter had passed through the asteroid belt, although at these later times the "mountain" had turned red. There is a fourth appearance in 685 BC. Note that "green" is not one of the directional colors of the Maya. This "tree" is not located at one of the cardinal points.

Initially the green tree of Jupiter with its lower plasma outpouring was seen between 3147 BC and 2880 BC, before Jupiter entered the asteroid belt. The mountain was topped by two owl-like eyes peering out from the top of the head of the coma, and a beak-like form below it. These were recorded in profusion at this time -- carved on the interior walls of barrows, as petroglyphs, and carved as amulets. Also notice that the green tree did not include a bird.

"Peratt ... identified the 'eye mask' as a 'low opacity torus' or thick ring, seen from a vantage point substantially off-axis, not too far from the plane of the torus."

-- Talbott and Thornhill, *Thunderbolts of the Gods* (2004)

In the first hundred years or so after 3147 BC, the planet Jupiter is here the green tree of the center, whereas in later text Jupiter and its lower plasma expulsion are specifically noted as being red. Both the green and red colors can be generated by excited hydrogen ions at diffuse densities.

In Egyptian funeral imagery Osiris is almost always shown as a mummy wrapped in green. In early Egyptian iconography, and in phrases recorded in the Egyptian *Book of the Dead*, Jupiter is identified as Osiris (since the fifth dynasty).

Jupiter's green lower plasma expulsion is designated as the "tree of the center" because it was first seen in the east, and then moved, over the course of some months (in addition to nightly), past the south to diminish again in the west. The tree was obviously "in front of" the trees of the east, south, and west -- which did not move through the night or over the seasons. It was the brightness of Jupiter's coma that convincingly made it look as if it moved "in front of" the other trees.

The image of a tree of the center will reappear in later Olmec iconography, as seen at La Venta (circa 650 BC). There Jupiter, which developed another plasma outpouring in 685 BC, will be shown with a headdress of three flower-like petals, and legs composed of the open jaws of a crocodile. The crocodile form is the much more extensive plasma at the south pole of Jupiter (which is its north magnetic pole).

In much later Classical-era Maya imagery the "tree of the center" (at that time represented by the Milky Way) is frequently transformed into an upended crocodile with its jaws at the bottom and with branches at the top sprouting from its tail.

The East and West Trees

The east and west trees are very likely the toroidal belt of trapped particles (the Van Allen Belt) above the Earth's equatorial. Viewed directly overhead this would be nearly invisible because the toroidal Van Allen belt surrounding the Earth would be viewed as larger and more diffuse -- it would disappear. Seen toward the east or west, it would be much more substantial. In the east and west the edges of the toroid would be seen to rise up from the horizon, as two parallel lines or a uniformly flat strip, with a circle shape at the top, looking not unlike the ball plasmoids at the ends of the polar plumes -- but without the three-pronged extensions. The east and west trees also did not move.

At the latitude of the Yucatan these would rise almost straight up into the sky. The repeated phrase of the text, "*set up as a record of the destruction of the world,*" suggests, however, that the trees appeared suddenly. This would certainly be true for the polar plumes, which would switch from dark mode to glow mode suddenly. This also suggests that the toroidal Van Allen belt also was in glow mode.

It is possible to take a hint that this might be so from Egyptian sources, as from an illustration of the *Book of the Dead*, where four lights or plumes with the required bent-over shape are carried by four persons. There is also a glyph, known as "Khet," depicting a bent-over plume coming out of the top of a form which is otherwise identified as a lamp or brazier. [note 18]

Implicit in the imagery of the four trees at the cardinal points is the fact that they were established to hold up the dome of the sky and the stars. They (or the four Bacab Gods responsible for the cardinal points) last without harm through various destructions of the world.

The four trees were represented in Maya temples before the start of the Classical era in AD 300 or 400 as actual tree trunks socketed into the upper platform of temples (as at Cerros before 50 BC). At the close of the Classical era, in AD 900, these had been replaced by stelae (**te-tun** -- tree stones), then associated with the commemoration of the passage of time and with the celebration of various rulers.

By the time of the Spanish invasion the trees signify the geographical division of the land into four quadrants, and define the local domain of individual rulers. The trees also came to represent the winds from the four directions. The Gods of the four trees are all named after the God of rain, Chac. These Gods held up the sky in the form of an altar. Maya shamans today still construct these altar tables in "creation ceremonies." The imagery dates from the Olmec era, where gods appeared out of a cave set below the edge of the 6-foot-high stone tables. The cave will be recognized as the dark doorway which normally appeared nightly against the equatorial rings. Although this had not happened since 2349 BC, the imagery remained to show up on altars at San Lorenzo. That the sky is intended with the table-like altars is obvious from the typical Olmec "sky monster" glyphs appearing at the top edge of some of the altars.

At Potrero Nuevo near San Lorenzo, two dwarfs hold up the altar like atlantes. The table edge is carved with cloud glyphs.

A listing of the directional trees, or the colors of the cardinal directions, occurs three times in the text. Each happens (as we shall see below) at a new creation, signifying a radical change in the skies, or a renewed sky.

Mesoamerica uniformly professed a belief in four creations, called "suns," except for the Aztecs who counted their own arrival at the Central Mexican plateau as the fifth creation. If the "creations" are equated with the appearance of the Sun, or a renewed Sun, then the "first creation" started in 10,900 BC, as the creation of the southern ball plasmoids, the "second creation" is the following period, ending in 3147 BC, and the "third creation" ends in 2349 BC, and a fourth may have been attributed to the 1492 BC. (This assumes the "creation" periods are consecutive.)

I am suggesting 1492 BC because it is the third time the trees show up. The cardinal direction trees and colors are invoked three times in the *Chilam Balam*, each time when a new sky is established, after 3147 BC, after 2349 BC, and after 1492 BC. I will return to the question of ages and eras below.

This concludes the events of Katun 11-Ahau. I don't doubt the veracity of these sources, even though presented in somewhat disorderly fashion, and describing events much older than the earliest recognized archaeology of the Maya or the Olmecs. This is not unexpected, since, as recounted (or hinted at) in the *Popol Vuh*, individual tribes acquired their own copies of the history books which had been kept at certain important sites.

In the text of the following Katuns additional details are developed, which again, with some extension of the strange names we are presented with, can be matched to worldwide catastrophic events we know from other sources. But the following events are more difficult to sort out. Whereas events before the start of the current era (3147 BC) are all listed as happening in Katun 11-Ahau, the text which follows reads as if events separated by a thousand years or more are simply listed by the Katuns during which they might have occurred -- Katun 9-Ahau, 7-Ahau, 5-Ahau, and 3-Ahau. Following these are two sections separately describing the rulership of Saturn and Jupiter.

Katun 9-Ahau: Ten-Sky

The next Katun in order, Katun 9-Ahau, is introduced. This is the next Katun in order only if we adhere to the logic that Katun 9-Ahau is the next after Katun 11-Ahau. The period before 3147 BC does not end in a Katun 11-Ahau, but in Katun 4-Ahau. Philosophically, however, the Maya could only place "prehistory" in Katun 11-Ahau (Since a Katun 11-Ahau had ended on February 28th, 747 BC.)

By coincidence, Katun 9-Ahau is actually the fourth Katun after 3114 BC (four times 20 years: Katun 2-Ahau, 13, 11, 9), thus completing the 80 years of "negotiation" which the Egyptians claim as the delay before Horus/Mars takes control of Egypt. Counting 80 solar years forward (as Katuns) from the date of 3147 BC, reaches 3067 BC as the ending date of Katun 9-Ahau. This is also the most likely date when Mars first shows up in Egypt.

"The plate of another Katun was set up and fixed in its place by the messengers of their lord."

The "plate" is often used to reference a Katun together with "cup," as in, "nine was its cup, nine was its plate," used to describe Katun 9-Ahau, and similar readings in the "Chilam Balam" for other Katuns. Tedlock reads "plate and cup" as the dedicatory vessels used at shrines.

At this point the four trees of the cardinal points are introduced again. I don't know why. We have just seen the trees that appeared right after 3147 BC. The trees are here out of order, and very likely the source pages are being read out of order. This second set of trees has to follow rather than precede the notes about Venus (Ah Uuc Chek-nal, further below, after my notes on Ten-Sky).

"The red Piltec was set at the east of the world to conduct people to his lord."

"The white Piltec was set at the north of the world to conduct people to his lord."

"Lahun Chaan was set (at the west) to bring things to his lord."

"The yellow Piltec was set (at the south) to bring things to his lord."

In the third line quoted above, "Lahun Chaan" (Ten-Sky) is not one of the colored trees of the cardinal points, but is Mars. So thinks Roys, who writes, in a footnote on this matter:

"Lahun Chaan is doubtless the same as the 'Lahunchan' described by Cogolludo as an idol with very ugly teeth. 'Lahun' means ten in both Maya and Chol, and 'chan' means sky, heaven, and serpent in Chol. The Maya word for sky is 'chaan'."

He continues at length, and adds:

"We recall that a fleshless jawbone is one of the symbols of the number ten on the monuments; but the figure appears to be the regent of the second Venus period in the Dresden Codex, and the regent of the first of these periods in the Mexican Codex Bologna also has a fleshless lower jaw. Since the above passage in the Chumayel implies that Lahun Chaan was set in the west, the translator is inclined to believe that this god was closely connected with the appearance of Venus as an evening star."

I doubt that "Ten-Sky" is a reference to Venus, for Venus is seen both in the east and in the west as well as traversing the whole of the sky during the day, as Roys's insertion suggests. Mars is seen crossing the night sky. The phrase "at the west" is, however, an insertion based on the fact that a tree of the west is not mentioned. The line actually reads, without the addition by Roys:

"Lahun Chaan was set to bring things to his lord."

I think "Ten-Sky" is Mars. We see nothing else of the repeated close calls by Mars during the period of about 3100 BC to about 2700 BC except the title "Ten-Sky." From Egyptian and Mesopotamian records it appears that Mars/Horus cruised close to Earth some ten times after 3100 BC. My estimate for the first appearance of Mars/Horus is the year 3067 BC. The Katun 9-Ahau period -- when "Ten-Sky" first appeared -- ends in the corrected date of 3067 BC.

To "bring things to his lord" is mentioned for all four (or three) trees here, but not for the other instances of these trees elsewhere in the document. The question then is, Who is the "lord"? Since we know already that during the first 150 to 300 years when Mars drew close to Earth, Jupiter stood in the sky as a globe on top of a green mountain, after which it entered the Asteroid Belt (and the mountain form disappeared), it is likely that the "lord" is Jupiter. His reign is attested to elsewhere (as the "second reign"), but here (for this Katun) there is no other mention of Jupiter.

In the *Popol Vuh* the celestial twins Hunahpu and Xbalanque defeat the mountain giant Zipacna directly after they remove the Celestial Bird of the North Pole. Mars, known as Earthquake in the *Popol Vuh*, is their third target. He will be tricked, drugged, hog tied, and buried alive.

Katun 7-Ahau: Venus

The next lines are without question about Venus. Since no notice of a change in Katuns is given, this should be a continuation of Katun 9-Ahau, which dealt with Ten-sky. But instead the record now jumps 2000 years ahead to a Katun 7-Ahau which ends in 1478 BC, and spans 1507 BC to 1487 BC in corrected notation. This thus spans 1492 BC, the electric contact by Venus (and the Exodus). This arbitrary grouping of events by Katun names, even when they are not really consecutive, is typical of the other books of the *Chilam Balam*. The *Chilam Balam* continues:

"But it was (over) the whole world that Ah Uuc Chek-nal was set up. He came from the seventh stratum of the earth, when he came to fecundate Itzam-kab-ain [the Earth], when he came with the vitality of the angle between earth (and) heaven."

Roys translates "Ah Uuc Chek-nal" as "he who fertilizes the maize seven times," which suggests that "Ah Uuc Chek-nal" appeared seven times. I suspect "Ah Uuc Chek-nal" is Venus.

"Itzam-kab-ain" is the Earth, the whole Earth, designated as a "crocodile-footed whale." The Maya conceived of the Earth as floating on water, and as supported by a giant whale-crocodile creature. Bolio translates this passage as:

"At that moment, Uuc-cheknal came from the seventh layer of the sky. When he came down, he trodded on the backs of Itzeam-cab-Aim, so-called. He came while the earth and sky were being cleaned."

The imagery is not far removed from a "close passage" of Venus, except that Venus would never have come close. The phrase "while the earth and sky were being cleaned" suggests hurricanes and tsunamis, which would certainly have been experienced on the four or more approaches by Venus between 2349 and 2193 BC and again in 1492 and 1442 BC. The first approach (2349 BC) involved the fall of the Absu -- the "flood of Noah" -- but this is handled separately and out of proper sequence further below.

If this, as I suspect, represents the contact of 1492 BC, the compressive contact would have been in the Pacific, and immense amounts of water vapor would have been carried into the atmosphere. The path of arcing would have angled up (because of the Earth's gyroscopic reaction), swung through the Indian Ocean, the Mediterranean, and angled southwest again through the Atlantic. The experience of Mesoamerica would have been two-fold, first a Pacific tsunami from the west, followed by billowing clouds from the west, the last arriving less than a day later. Attributing these to a celestial interloper is fully within the realm of what other people did. The planet was seen -- as if approaching -- and the local effects were interpreted as if Venus were close by.

Roys suggests another translation of "*when he came with the vitality of the angle between earth and heaven*," which reads, "*then he descended while the heavens rubbed against the earth*." That makes sense as the condition of a fallen sky after 1492 BC. But, in fact, it makes more sense in that the

"rubbing" would represent the huge shape seen in the night and day skies, the inner Van Allen belt toroid in glow mode, seen more or less in the center of the sky, on both sides of the equatorial, and stretching from the east horizon to the west.

Now about Katun 9-Ahau and the reason for placing this event in Katun 7-Ahau: Elsewhere I have assumed that approaches by Venus happened repeatedly between 2349 BC (the "flood of Noah") and 2193 BC (the fall of Akkad), for a total of four contacts. Earlier occurrences of Katun 9-Ahau do not match these dates. Katun 9-Ahau in Baktun 1 ends in 2523 BC (corrected to 2547 BC), too early for the "flood of Noah" by 200 years, and Katun 9-Ahau in Baktun 2 ends in 2266 BC (corrected to 2287 BC), after the "flood of Noah" by one hundred years.

I have assumed in these few paragraphs that this event might have happened in Katun 9-Ahau, it is because nothing in the text signifies that a Katun of a different name is under discussion. Katun 9-Ahau in Baktun 4 ends in 1507 BC, when corrections are applied, and thus only comes close to the time of the Exodus of 1492 BC (or other estimates from 1495 to 1491 BC). That would place the Exodus of 1492 BC 15 years after the end of the Katun.

I think, in fact (and as I have pointed out earlier), that this rubbing of Earth and heaven did not occur in Katun 9-Ahau, but happened in the next Katun, 7-Ahau, even though the text is silent about this. There is a pattern developed in the text of assigning appearances of planets to Katun 9-Ahau, at times by inference and at times by the neglect of naming the actual Katun. This becomes obvious when it is realized that the event of 2349 BC (the "third creation") is assigned to a Katun 9-Ahau in complete error, as I will describe further below.

This then is what we have: Since all of pre-history is assigned to a Katun 11-Ahau, the start of the current era (from 3147 BC) is assigned to the assumed first Katun of the era, 9-Ahau. This despite the fact that the current era started with Katun 2-Ahau. But the next event, the ten close passages of Mars (Ten-Sky) are then correctly assigned to Katun 9-Ahau, and the Katun is named. The next event, the electric contact of Venus in 1492 BC, is, however, assigned to the same Katun 9-Ahau only by the fact that no mention is made of a new Katun. The text shifts to this event as if it belonged to Katun 9-Ahau. But, in fact, the corrected ending date for Katun 9-Ahau in Baktun 4 is 1507 BC -- too early for an event in 1492 BC. The next Katun in order, Katun 7-Ahau of Baktun 4, spans the date of 1492 BC, plus any of the variations of this date as calculated in antiquity -- 1491 BC, 1495 BC.

Now it is possible that the scribe making the transcription simply neglected to mention that the event, "Ah Uuc Chek-Nal rubs the earth," occurred in Katun 7-Ahau. But it is significant that the shift of events to Katun 9-Ahau happens 4 times, one by an implication, two by neglect, and one as a purposeful falsification. This last, the Katun year for the "third creation" stands out, for it involved moving the event so that the "first day of Kan" of the Katun would fall on the Gregorian equivalent calendar date of July 26th. Only Katun 9-Ahau of Baktun 1 does this in all of the 5200 years of the 13-Baktun cycle of time. This trick will be detailed further below.

I have to make note again of the fact that, because of the Maya understanding of the cyclical nature of time, repeated appearances of visiting planets are not separately listed, except in their titles, as in "Nine-Lives," "Ten Skies," and "He Who Fertilizes the Maize Seven Times." That would seem to explain why there is no notice of Venus between 2349 and 2293 BC. The other events of this same period are listed separately further below.

To return to the seven appearances of "Ah Uuc Chek-nal," I count four appearances of Venus between 2349 BC and 2193 BC, and 700 years later one each in 1492 BC and 1442 BC. This adds up to six overflights. It is possible that the nova event of Venus in 685 BC, another 755 years later, represented the seventh. But this last event is not attributed to Venus in the *Chilam Balam*. Only mention is made of the Sun going off course in 685 BC (further below). I think, however, that all references to Venus in 685 BC, when Quetzalcoatl lived and died, were carefully avoided in the record -- for fear of revealing information to the Spanish priests.

The other likely explanation is that the "cow" form associated with Venus, the change of the Van Allen Belt to glow mode, appeared also directly after 3147 BC, since at that time the Earth would have switched to experiencing the electric field of the Sun from the prior experience of only sensing the electric field of Saturn (being within the plasmasphere of Saturn). This initial event was not associated with an actual electric contact by Venus, except by inference. Since all of pre-history was held to happen in a Katun 11-Ahau, this first cow would have been assigned to the next Katun, 9-Ahau. It is possible that Earth was jolted by Venus directly after 3147 BC. This would constitute the seventh contact with Venus, and might explain why (apparently) the year changed from 225 days to 240 days in 3147 BC.

[note 19]

The *Chilam Balam* continues with how the people walked in darkness:

"They moved among the four lights, among the four layers of the stars. The world was not lighted; there was neither day nor night nor moon. Then they perceived that the world was being created. Then creation dawned upon the world."

"They" probably refers to the people, but could also refer to the Gods. That they (the people) "moved" may suggest a migration, as is likely under the conditions of the climatic downturn of 1492 BC. The whole of the paragraph seems almost lifted from the Bible -- speaking of the wanderings of Israel in the desert after 1492 BC.

The "four lights" might be the great luminaries -- the Sun, Moon, Jupiter, and Saturn, although the same paragraph reads that there was no Moon yet. In 1492 BC there was a Moon. Roys suggests "candles" also for the "lights." That suggests stationary lights. Bolio uses "the fourth fire" for the "four lights." I think that the "four lights" are the four "trees" at the cardinal points, the two impinging plasma plumes at the poles and the edges of the equatorial toroid of the Van Allen belt. If a cloud cover obscured the Sun and the stars, as seems implied, then perhaps we are seeing the north and south plasma plumes at least in glow mode, possibly in arc mode near Earth. That might then be true for the east and west plumes also, if these are associated with the toroidal Van Allen belt. This also suggests that the plumes may have lasted for decades.

I also should not neglect that in 1492 BC the Earth went through a wild swing -- it all but tipped over, or at least was placed on its side, as I have suggested in earlier text. Midrashim commentary on Exodus suggests that in 1492 BC the sweep of the pole, "when the stars stopped moving," took a little over a year (Velikovsky). But the major effect is more likely due to a very dense cloud cover, although it is difficult to imagine that a cloud cover (unlike stratospheric dust) would extend to twenty years and obscures the stars.

The use of "the four lights," even if meant to signify the directional trees, might thus be a simile for wandering over a wide geographical area. The language in this case, especially when the following line is considered, which suggests an enormous time span of 8000 years, seems lifted from Book 11 of the *Chilam Balam* which relates the time leading up to the "first creation."

"During the creation thirteen infinite [400]series (added) to seven was the count of the creation of the world. Then a new world dawned for them."

The word translated as "series" can also mean "steps." The "seven" might be the count of the Katun (chronologically). "Infinite" is often the translation of "400," a Baktun. 13 Baktuns would be 5200 years. 13 plus seven would be 8000 year. Thus the "infinite series of steps" might represent a very long time.

On the other hand, thirteen plus seven is 20 years -- one Katun. Other Mesoamerican sources speak to "a generation" of darkness. Bolio translates as:

"Infinite rungs of the ladder of time and seven moons later were counted since Earth woke up and then the dawn came for them."

Seven moons would represent a half year. Most of this phrasing remains unclear except to suggesting the passage of a lot of time, or, as I have suggested, some twenty years. But that could have been stated in terser terms. Perhaps we are here seeing a poetic metaphor for "long time."

It might be suggested, in fact, that the "rungs of the ladder of time" is a metaphor for Uinal months, periods of 20 days. Then we have $(400*20 + 7*20)/365 = 22.3$ years roughly the duration of one Katun.

The 2349 BC Event

The following, although grouped with the start of a new creation, is, I suspect, from a different source. It details events of 2349 BC, the time of Noah, but not all of them. Some are listed further down in the text. The events are also not introduced by listing a Katun name. We would have to assume that Katun 9-Ahau continues.

I think, from the following text, that the copyist is opening a new book, perhaps one titled "the third creation." Unlike before, he copies the pages in the correct order, but leaves off the fall of the Absu, which is recounted much later.

The information is, in fact, not out of "literary" order, since the previous text ended with mention of the start of a new creation, although the reference was to 1492 BC. (We see this sort of connection used much later to describe events of the 8th century BC.) The "third creation," however, points to events in 2349 BC. All the events listed over the next few paragraphs belong to 2349 BC, not 1492 BC.

The text starts with:

"The two-day throne was declared, the three-day throne."

The phrase "two-day throne, three-day throne" is used elsewhere in the *Chilam Balam* to denote short-term leadership, especially in reference to the governing councils of the Itza. Bolio, however, has a more sensible reading:

"the reign of the second period, the reign of the third period was felt."

That makes a lot more sense. The alliteration of the text makes it look like a chapter heading. The question again is, where are we in the Katun counts? They are not mentioned in the following texts. We could assume that the text simply continues with the next Katun in order (Katun 7-Ahau or 5-Ahau), but this results in events which cannot be placed at dates known from other sources. I will therefore suggest that the listing of events continues to be assigned to a Katun 9-Ahau, as had been implied for the event of 1492 BC.

But of course this is incorrect, although it continues the obsession of placing all planetary events in Katuns named 9-Ahau. The "third reign" started at 3147 BC, and ended in 2349 BC. This is not Katun 9-Ahau (see listing at endnote 29). There is a reason for insisting that we are still in Katun 9-Ahau. As I will detail further below, the Katun name for the event was changed in antiquity to conform to the notion that the events involving the "third creation" had to have happened on a "day of Kan." This was an important aspect in later analysis of older texts. It was an important notion because it was apparently held that the Tzolkin calendar governed celestial events, rather than the other way around. The "third creation" was the most important event of the past, celebrated with ballcourts and site names, and therefore had to end on the correct day.

There are five events listed before we return to naming Katuns. These are the plasma mountain of Jupiter (which may presumably be correctly dated to an earlier Katun 9-Ahau ending in 2547 BC), the return of a coma of Jupiter (which happened in 2349 BC), the first view of the "planted timber," the appearance of the Moon (in 2349 BC or soon after), and the complete extinction of Jupiter (199 years later). I have listed some of the above in correct order, rather than as the events are listed in the *Chilam Balam*. Some of the events fall in even numbered Katuns, mention of which is avoided throughout the book of the *Chilam Balam*.

There may still be a question if this represents the "second creation" or the "third creation," because we are, in fact, first presented with what seems to be an element of the second reign. Saturn, the *Chilam Balam* reads, develops a cometary coma. I think there is an error here.

"Then began the weeping of Oxlahun-ti-ku[Saturn]. They wept in this reign. The reign became red; the mat became red; (because of them) the first tree of the world was rooted fast."

Bolio has, instead of "rooted":

"... the tree became red."

And Bolio also has:

"And then the three gods began to cry."

The "three gods" would have been Jupiter, Mars, and Venus. These are the "three gods" of the Classical era of the Maya. Roys, however, only has Saturn (not one of the "three gods" above) crying, which perhaps makes more sense. The "three" of the "three gods" could be a misreading of the "three" of "the thirteen" by Bolio. "Crying" is a plasma discharge -- a coma and tail. Saturn, however, never had a tail -- it is too positively charged.

I wonder if what we read here is a transcription error, that is, the author meant to write that "Bolon-ti-ku," that is, Jupiter, developed a coma and a sub polar tail (started weeping) rather than "Oxlahun-ti-ku," Saturn. We have no record of either Saturn or Mars ever developing a tail, even when Saturn was "attacked" by Jupiter in 3147 BC. I don't think that Saturn is meant above. Saturn by this time had receded into insignificance.

The (corrected) date of 2567 to 2547 BC for the Katun 9-Ahau (in Baktun 1), mentioned above, coincides with the time when the Egyptian pharaohs first add "Re" to their names -- after 2600 BC. "Re" is the midnight sun, Jupiter. I will suggest that this is what is being described here with the "tree turning red."

Thus in this instance, the supposition that we are in a Katun 9-Ahau is correct. This is a record of the re-appearance of the plasma discharge of Jupiter after it had cleared the asteroid belt in receding from the Sun -- about 500 years after 3147 BC. My earlier diagrammatic estimate of when Jupiter first exited from the asteroid belt (shown in a previous chapter) is the year 2527 BC, which is 20 years after the end of this Katun 9-Ahau (2567 to 2547 BC, corrected). Since the dates of the graph are estimates, it is certainly close enough.

The redness of the apparition cannot be neglected. Although Mesopotamian sources do not mention colors, the Egyptians always depicted Jupiter as a huge red ball. This huge red coma lasted for about 300 years, from about 2550 BC (Katun 9-Ahau in Baktun 1) to sometime before 2349 BC and then returned in 2349 BC. The interruptions will be noted in the text.

The "tree," which Bolio translates as a "red tree," is probably what Mesopotamian cultures had identified as a mountain. It is the plasma discharge of Jupiter from its southern polar region. Notice that the plasma expulsion has changed from green to red. This could mark a change in the ionized gases at the outer edges of the plasmasphere, but it could as likely be a change in the density of these ions. This last is more than likely with a change in the experience of a lower value of the external (solar) electric field.

What the Egyptians called a mountain, the Olmecs identified as a tree. It was earlier identified as the "green tree" of the center. This green mountain described as a "tree" first appeared directly after 3147 BC, but disappeared after 300 years as Jupiter entered the asteroid belt, to reappear 330 years later, as described above.

The Moon

At the following part of the text we still seem to be in the time after the end of the "third creation," the period after 2349 BC. But again, a Katun name is not disclosed. It suggests that we are to understand that events of some named Katun 9-Ahau continue to be listed. The following text is about the Moon, and reports that Jupiter was not weeping. The *Chilam Balam* reads:

"The entire world was proclaimed by Uuc-yol-zip; but it was not at the time of this reign that Bolon-ti-ku [Jupiter]wept."

There is no indication, from the translators, of who "Uuc-yol-zip" is. I would take a wild guess and suggest that, if we are chronologically in the period after 2349 BC, that Uuc-yol-zip is the Moon, which was an independent inner planet already orbiting the Sun at the location to which the Earth moved in 2349 BC. (Lunar calendars are established worldwide only after 2349 BC.)

Earth suddenly picked up a satellite, or, more properly, started to share an orbital location with the Moon, for the Moon travels in the ecliptic, not on the Earth's equatorial. A rapid discharge of the Earth via the Moon, could have destroyed any of the remaining Absu in record time. More on that below.

Uuc-yol-zip is never mentioned again and remains unidentified. Roys, on the basis of other informants, suggests a Deer God, which makes some sense if you have never seen the Moon before and you are suddenly confronted by its changing shape and nightly relocations. The Moon will relocate from the southeast sky to the northeast in the course of a week. But what Katun are we in?

The first appearance of the Moon (the Deer God) should be placed after 2349 BC, but this date falls in a Katun 4-Ahau, rather than the implied Katun 9-Ahau. In fact, I should point out another source, the only other Maya source of ancient history other than the *Popol Vuh*. The Temples of the Cross at Palenque (built in circa AD 690) claims that Jupiter, Mars, and Venus were all born in 2360 BC (corrected to 2336.8 BC a decade after 2349 BC). The Moon was their mother. Later, the Moon "let blood" in 2302.3 BC and "crowns herself" as ruler ("Ahau") in 2282.6 BC. These last two are corrected dates. [note 20]

We don't know exactly what these last two events were. But they can be placed, the first ("letting blood") in Katun 11-Ahau (ending in 2286 BC, corrected to 2307 BC), and the second event ("crowning herself") in Katun 9-Ahau (ending in 2266 BC, corrected to 2287 BC). Perhaps the second Palenque event records the regularization of the Moon's orbit. The wording of *"the entire world was proclaimed"* suggests the same assumption of rulership, which was as deep a concern of the Maya as it seemed to have been for most civilizations in the world. I would thus suggest that the event quoted from the *Chilam Balam* above should probably be assigned to Katun 9-Ahau, and equated to the Palenque record of the Moon "crowning herself" as ruler. This would place it in Katun 9-Ahau (a Long Count of 2.3.0.0.0), even though this is later than what I think it should be. The following will elucidate where this concern comes from.

That Jupiter did not "weep" at the time the Moon appeared (or assumed rulership) is interesting. It suggests that Jupiter had lost its coma and tail. I know that this happened some time after 2400 BC, but I have been unable to determine exactly when. I'll attempt to zero in on that first.

In my diagram of the recession of Jupiter from the Sun, the date when Jupiter encounters the last clump of asteroids at 3.9 to 4.0 AU is shown as 2438 BC to 2349 BC. This may be a high date because I have used a constant radial recession for the calculation.

In Egypt the title "Son of Re" had been in use already by the pharaohs who completed the Giza pyramids before 2500 BC, and was used by all the following pharaohs. During the following fifth dynasty, which spans 2490 BC to 2350 BC, "sun-temples" were built (or rebuilt) along with the pyramid graves of the first six pharaohs of that dynasty, in the period of 2490 BC to 2445 BC. "Sun-temples" are steep pyramids on a flat base. In Egypt these pyramids are the "symbol" of Re, Jupiter, representing the mountain form of the plasma outpouring below its south pole.

Further construction of "sun-temples" was abandoned before the end of the fifth dynasty. These dates suggest that the coma and tail of Jupiter (Re) might have disappeared by 2445 BC (the last "sun-temple"), but we do not know exactly when, or how long it took before this showed up as a change in religious monuments. On the basis of the above information the loss of a coma would be placed sometime before 2445 BC. There is thus a 20-year period where Jupiter seems to have disappeared or, more properly, diminished considerably in size.

The Chinese *Annals of Shu* speak of Yao (Jupiter) gaining the throne as "emperor" in 2357 BC, as if to say that Jupiter again developed a coma at that time. The first few dates of the *Annals of Shu* should probably be placed about a decade later, thus the above date should probably be nearer to 2349 BC.

There is also an interesting passage in the Babylonian *Enuma Elish* which recalls the disappearance of Jupiter's coma tail (as a garment) and its reappearance. Since the *Enuma Elish* clearly recounts the contact with the plasmoid from Venus in 2349 BC, it could be suggested that the disappearance of the coma and tail of Jupiter should be placed before 2349 BC. A period longer than 20 years would perhaps not allow this disappearance event to pass into a narrative. But an exact measure of time was not needed to be recalled, since the *Enuma Elish* was written 500 or 600 years after the events of 2349 BC.

The second instance of the coma of Jupiter disappearing during this time might have coincided with the first appearance of the Moon (at that time perhaps not yet in orbit around Earth). From Palenque, that would be the corrected date of 2336.8 BC (when the planets were "born") -- and thus 12 years after the spectacular blazing of 2349 BC, when Jupiter developed its large coma. But other records contradict this. The *Annals of Shu* claim that Jupiter (Yao) and the Moon (Shun) shared the throne for 30 years. The victory stele of Naram-Sin, "Beloved of the Moon" (2254 - 2218 BC), the great-grandson of Sargon, erected in 2250 or 2200 BC shows the two Gods at the top as stars. Jupiter is shown on his mountain; the Moon is without a support.

Jupiter Returns

"Then came the counting of the mat in its order."

The "counting of the mat" is the start of a new Katun. This has to be Katun 5-Ahau, if the Katuns are taken in order, that is, as if this text is a recital of prophecies associated with various named Katuns. But the naming of Katun 7-Ahau has been skipped, perhaps by accident, perhaps on purpose. The present Katun starts with the seating of Jupiter.

"Red was the mat on which Bolon-ti-ku[Jupiter] sat. His buttock is sharply rounded, as he sits on his mat."

Now we have another plasma outpouring of Jupiter, and again without a clear reference to what Katun has turned. I am tempted to believe that this is the **return** of a coma and tail in 2349 BC. That would place this event in Katun 2-Ahau, at 2.0.0.0.0 in the Long Count.

But it is more tempting to place this event (which seems to have been important for its redness) in a Katun 9-Ahau at the time when Jupiter first exited from the asteroid belt. I have already mentioned this event, above. The red mountain had not been seen for 300 years. This would be a Katun 9-Ahau in the first Baktun (1.10.0.0.0), with a corrected span of dates of 2567 to 2547 BC.

Roys suggests that "his buttock is sharply rounded" could also mean pointed or rounded like a hat. I do not know what to make of this except that it would perhaps fit the emblem -- a circle above a horizontal line -- used for Jupiter (Marduk) in Mesopotamia, and one of the magic symbols of the Egyptians, called the "shen," where the circular part is rendered in red. In Egypt Re (Jupiter) is always shown as a large solid red disk. A "sharply rounded buttock" does not readily match a giant lower plasma stream.

"Then descended greed from the heart of the sky, greed for power, greed for rule."

The phrase, *"Then descended greed from the heart of the sky, greed for power, greed for rule"* exactly expresses the earlier parallel experience after 2700 or 2600 BC in Mesopotamia (the kingship at Uruk) and Egypt (the third dynasty which starts the Old Kingdom). It was coincident (within a hundred years) in both cases with the return appearance of Jupiter on his mountain.

It is also the period after Mars had stopped making close calls to Earth. It is possible that both in the Eastern Mediterranean and in Mesoamerica a change happened -- a change from celestial rulers (and their priests) to human rulership. I would not make this suggestion if it were not for the fact that with the withdrawal of Mars and Mercury from the neighborhood of Earth, there was a worldwide change in conditions. Nothing would keep up the temple economies, when they were no longer needed to placate or plead with the destructive Gods, except the insistence of an autocratic leadership. If this can be accepted -- that at this time we see the first kingships -- then all other explanations, which place causes closer to us in time, can be dispensed with.

The period after 2300 BC saw the predecessors of the Olmecs establishing sites in the tropical region along the Pacific coast of Guatemala, some of which are today dated to about 2000 BC. In 1450 BC the first site on the Caribbean coast in Veracruz, Mexico, was established, San Lorenzo. It seems strange that complaints about leaders would be part of a history of the Gods except that this is also a history of the world. By the time of San Lorenzo, when we see what absolutely stupendous constructions the "greed for power" can accomplish, "leaders" had been well established for a thousand years.

Based on the complaints about leaders, as suggested above, I think we are in the period after about 2700 BC here (and for San Lorenzo, after 1440 BC). Here follows the third listing of trees. The remainder of this section deals with rulers, in association with the color of the trees at the cardinal points. It is a very generic presentation, unlike the exaltation of the leaders of Egypt, who built the Giza pyramids.

"Then the red foundation was established; the white foundation of the ruler was established; the black foundation was established; the yellow foundation was established."

"Then the Red Ruler was set up, he who was raised upon the mat, raised upon the throne."

"The White Ruler was set up, he who was raised upon the mat, raised upon the throne."

"The Black Ruler was set up, he who was raised upon the mat, raised upon the throne."

"The Yellow Ruler was set up, he who was raised upon the mat, raised upon the throne."

This is followed by more complaints about these rulers, and their limitations. It is interesting that the geographical concerns (the colors of the cardinal directions) seem to have shifted to actual persons or sites at this time. [note 21]

"As a god, it is said; whether or not gods, their bread is lacking, their water is lacking. There was only a portion (of what was needed) for them to eat together (...) but there was nowhere from which the quantity needed for existence could come."

"Compulsion and force were the tidings, when he[Jupiter] was seated (in authority); compulsion was the tidings, compulsion by misery; it came during his reign, when he arrived to sit upon the mat. (...)"

NOTE: "(...)" above represents lacunas in the original text.

There are similar sentiments about rulers expressed in a later section. I should point out that later text will claim the rulership of Saturn extended over the era before 3147 BC (after 6347 BC), and the rulership of Jupiter extended from after 3147 BC to the time of the arrival of the Spanish. Thus Jupiter's rulership extends over all of the "third creation."

The above text, and the ones following below, will seem confusing if the actual sequence of events in the era of 2500 BC to 2200 BC is lost sight of. To orient the reader, let me list a summary of events of the "Fall of the Absu" -- what is otherwise known as the "flood of Noah." The details of these were developed from more extensive sources from the Eastern Mediterranean region, India, and China, and presented in previous chapters.

- Near the beginning of the third dynasty in Egypt, Jupiter exits from the main portion of the Asteroid Belt, and again assumes a gigantic lower plasma outpouring -- the mountain. Pharaohs of this dynasty, which built the pyramids at Giza start to add "Re" to their names. This happened in a Katun 9-Ahau, ending about 2500 BC.
- This event of Jupiter again showing as an enormous globe on a mountain is taken in the *Chilam Balam* as the "reign of the third period." This event is taken as an anchor in this book of the *Chilam Balam* to list other events related to the later events of 2349 BC. The reason why the Olmecs or other people of antiquity selected Katun 9-Ahau will be detailed further below.
- I should note that a separate page of the *Chilam Balam* actually recounts all the events of 2349 BC in the proper order. This will be detailed in the next chapter.
- At some time before 2349 BC the coma and tail of Jupiter disappeared again. From the fact that no additional "sun-temples" were built in Egypt after 2445 BC, we can suggest that Jupiter since

that time had neither upper plumes nor a lower mountain of plasma. Jupiter was dead. My diagrammatic analysis of the travels of Jupiter away from the Sun, shown in the chapter 20, places this at 2438 BC, about 100 years before the "flood of Noah" in 2349 BC.

- In 2349 BC a transit of the Sun by Venus caused an Earth shock, tilting up the equatorial, which was hit by a plasmoid from Venus some hours later, identified in the Middle East as a gigantic dragon that waded in the blood of humans seen in the ocean of the sky for days. The initial plasmoid was followed by some nine additional, lesser plasmoid lightning bolts.
- The Absu turned red, and lightning fired across the rings. The equatorial rings disappeared soon after, and the southern stars first showed. Most prominent was the appearance of the Pleiades, high in the sky in the south at midnight.
- On the third night Jupiter had regained its coma, upper plumes, and lower mountain form. Jupiter was back from the dead.
- When the Absu collapsed, the Pleiades appeared for the first time -- an event which continued to be used in the future as a signal for celebrations of the "Day of the Dead" worldwide. At the same time the roof beams of the sky -- the intersection of the equatorial and the ecliptic -- showed up as a yellow road (the ecliptic) and a blood-red road (a remnant ring below the equatorial).
- The Moon showed up near Earth soon after. This was listed in the text above. But with the appearance of the Moon, the *Chilam Balam* notes that Jupiter was "not crying" at that time. The appearance of the Moon, or, more likely, its settling into a regular orbit, is assigned to Katun 7-Ahau, and this might in fact be so.
- One additional event, although it happened 200 years later, is noted in this collection of associated events: the giant coma of Jupiter blazed as if on fire and then disappeared to have Jupiter assume the look of a star. This is described below as "The Burning Tower," and it can (most likely) be placed in a Katun 8-Ahau.

The Burning Tower

As I warned, the events of the 24th and 22nd century BC are presented completely out of order. Thus we start with an event of the 22nd century, the burning of Jupiter. In what is assumed to be Katun 7-Ahau, although not altogether clear from the previous text, we have this strange incident described:

"Suddenly on high fire flamed up. The face of the sun was snatched away, taken from earth."

"This was his garment in his reign. This was the reason for mourning his power, at that time there was too much vigor. At that time there was the riddle for the rulers."

This duplicates the "Tower of Babel" story from the bible and supposedly other similar tales worldwide. We are between the year 2200 BC and 2000 BC. Since it follows the description of the rulership of Jupiter, it suggests the sudden demise of Jupiter, especially when we consider the phrase, *"The face of the sun was snatched away, taken from earth."* The Sun's face, after all, has not been taken away from Earth. This could only be a reference to Jupiter, who was still called "the Midnight Sun" by the Maya even in Classical times, and "Lord Sun."

In other text I have suggested that the Chinese dates for Yao's demise should probably be moved 100 years into the future, thus to 2150 BC. This would also be the death of Abraham. The year is fairly certain. Katun 8-Ahau (2.10.0.0.0), corrected to span 2167 BC to 2147 BC, would match this date. This date is also supported by other sources, as I have noted earlier.

The Planted Timbers

The following text follows on the "burning tower" without notification of a change in Katun. I think, however, considering what we know of the fall of the Absu in 2349 BC, and the events which accompanied this, that the sequence is completely incorrect. The planted timber and the crossroads mentioned below, follow directly on the removal of the Absu (the "flood of Noah") in 2349 BC, and have nothing to do with the later blazing of Jupiter. The coincident events are:

- The collapse of the "House of Nine Bushes" and the "baptism from the center of the sky" -- listed further below
- The appearance of the Pleiades -- listed directly below.
- The appearance of the ecliptic and the equatorial in the south skies (the cross roads or roof beams).
- The appearance of the Moon (but could be later) -- listed above.
- The north and south polar plumes -- the "timbers" below,
- The return of Jupiter -- already listed above.

This is Katun 2-Ahau, which ends nominally in 2325 BC (2.0.0.0.0), but the dates should be corrected to be from 2367 BC to 2347 BC. This thus includes the date from the Eastern Mediterranean of 2349 BC for the fall of the Absu and the "flood of Noah." By coincidence this Katun falls at the end of a Baktun.

"The planted timber was set up. Perishable things are assembled at that time. The timber of the grave-digger is set up at the crossroads, at the four resting places. Sad is the general havoc, at that time the butterflies swarmed."

Roys reads this paragraph as a local event, suggesting that rulers were assembled and executed at the intersection of two roads in the land of the Maya. I doubt if it has this specificity, for the few other political events which are recalled in other books of the *Chilam Balam* list the names of the actors, in one instance from 700 years earlier. If this execution of chiefs had happened within the last 1000 years, we would have been told the names of the assailants and victims. The language of the Maya (and other people of the region) demands identification of an action in terms of the agents.

The "assembly of perishable things" are the Pleiades. Even in postclassical times the Maya held that the Pleiades were a sprinkling of seed maize. Certainly "precious things" is appropriate, because maize was held the highest status in all the Classical Maya culture. Since 2349 BC the Pleiades were seen above the intersection of the ecliptic and the equatorial, that is, at the location of the equinox, at the start of the constellation Taurus, as I have pointed out in other texts. As I have also pointed out previously, both the ecliptic and the equatorial were outlined as bright bands even still 1500 years ago, with the band of the ecliptic lasting into the 19th century. [note 22]

The equatorial showed at night as a band of glowing matter because of the debris still circling the Earth far above the equator -- left over from previous ages. After the Absu collapsed and most of the material dispersed away from Earth (and continued to fall to Earth until AD 1700), a single band remained, blood-red in color. The red ring is identified as the celestial snake Apep or Apophis in the Eastern Mediterranean region.

The remnant ring would probably show as spikes rising up into the sky at the east and west cardinal points. These regions, being beyond the edges of the Earth, would be lighted by the Sun (but with the west band being in shadow). These might have been the two "trees" of the east and west cardinal points, although I am more comfortable with assigning the trees to the lower Van Allen belt.

Near the time of the equinox the shadow of Earth would fall on the equatorial band but not on the band of the ecliptic (which is much too far away). Thus it looked like the red equatorial band crossed behind the ecliptic, although in actuality it was just the reverse. These crossed bands, with one band falling behind the other (a graphical representation known as the "Saint Andrew's Cross"), were used by the Olmecs and Maya as graphical indicators of the ecliptic throughout remote antiquity and through the Classical Era.

The ecliptic showed as a band of reflecting material which did not fade away until about AD 1840. This is the "Yellow Road" of the Chinese. The two bands intersected at Taurus, below the Pleiades, or probably near the end of Aries, since the red ring was below the equatorial. Mention of the assembly of "precious things" occurs directly before the mention of the timbers at the crossroads. In Southern Mexico and the Yucatan these two bands were displaced only some 20 degrees from being directly overhead where they crossed. In the *Popol Vuh* they are the roof beams of the house of the grandmother of Hunahpu and Xbalanque. They are also the river of pus and the river of blood which have to be crossed to get to the underworld. In remote antiquity the red band appeared only after the Absu had fallen. Because the planets traveled in one of the bands, they were called the crossroads.

Two timbers are mentioned. The "planted timber" is most likely the north polar plasma plume, the other, the "beam of the gravedigger" is the south polar plume, located at the crossroads (and close to the intersection). At a much later time (AD 400 to AD 700) the Milky Way was substituted, which became a primary symbol of creation and access to the underworld for the Classical Maya (as well as archaeologists). The Milky Way had not been seen in the south skies before the fall of the Absu.

The word "gravedigger," Roys notes, can also be translated as "hidiers" -- "anyone who buries or hides things." I have no idea what the Maya had in mind in attributing the new view of the bands of the sky (or the south polar beam) to the action of "hidiers," but, typical of Mesoamerican grammatical constructions, anything that appears has to be attributed, via an action-oriented verb, to some being. Perhaps the complete Absu and the moving waves of the rings were meant as the "hidiers."

From the *Popol Vuh* we have the interesting tale of the Giant called "Mountain" who digs a hole for the Four Hundred Boys and is nearly impaled by the timber which was to be the center post of the house. This timber was set up at the crossroads, under the crossbeams of the sky but also under the crossbeams of the house of the Four Hundred Boys.

The swarming butterflies probably visually represent the dispersal of the Absu or the lightning between the atmosphere and the rings of the Absu. A little later the "flood" will be mentioned.

Despite his demise, Jupiter certainly remained as the chief celestial deity. Of course his status as the ruler of creation would be reinforced by the returning plasma, called a "flower" later in the text, and the plasma bolt delivered in 685 BC. He will appear in Classical times as "God GIII" of the Palenque triad, and be called "Lord Sun."

Katun 3-Ahau: the Sun

The following describes the eruption of Venus in 685 BC. It is also listed out of place, because the event of 685 BC follows the repeated close calls by Mars and Mercury in the 8th and 7th century BC, which are described (out of place) further below. The Katuns are here named, but the individual pages are again being read in the wrong order.

"Then there came great misery, when it came about that the sun in Katun 3-Ahau was moved from its place for three months."

First, as I have noted earlier, the period of three 20-day months (60 days) exceeds the best estimate (from Zoroastrian sources) of the duration of the eruption of Venus by a month. Since the movement of the Sun was most likely charted to sunset locations along the horizon, I think the "sixty days" deal with the horizon setting location of the Sun.

The time interval here is one of three instances in this Book of the *Chilam Balam* where the period is given as an inclusive count. I first realized this for another instance, which caused me to look again at the other two. The three months are thus an interval of two "Uinal" months of 20 days, a total of 40 days. Having independently determined the ending date of the blazing of Venus and Mercury as July 25th, and a starting date as a new Moon before that, it was satisfying to realize that the "three 20-day months" mentioned here represent the 40-day interval between two new moons at June 15 and July 25 (Gregorian calendar dates).

I think we can suggest the veracity of these data from the fact that in all three instances, by allowing for inclusive counting, the intervals can be matched against other known dates and made sense of. This also again verifies the fact that the Long Count existed only since 747 BC, for no such accurate dates or intervals exist before 747 BC. (The inscriptions at Palenque were retrocalculated.)

"After three years [three heaps of years] it will come back into place in Katun 3-Ahau. Then another Katun will be set (in its place)."

Roys notes that "three years" literally reads "three heaps of years" which could be a longer period than three "Tun years" (of 360 days), or it could mean a shorter period, but apparently not longer than the 17 or 18 years it would take to reach the end of Katun 3-Ahau. I think a "heap" is likely to be a group of five, but of the 260-day Tzolkin calendar years. (As explained by other contemporary commentators on the mathematics of the Maya, this would be a "bundle" -- a line representing a count of five dots in the numeric notation. Of course a group of 20 is also called a bundle, as is, in later Central Mexico, a group of 52 years.)

The 15 "years" (three heaps of five) is probably a measure on the Tzolkin calendar which rotated the same day-name and day-number combination into place at the same horizon sunset location for a zenithal passage of the Sun. I am assuming a zenithal passage because these were deemed to be very important to each ceremonial site.

In actuality the location along the horizon of the zenithal sunset remained the same after 685 BC as it had been before 685 BC, to within a fraction of a degree, but the calendar day (our calendar) would move back by 10 to 17 days, as follows, depending on the latitude.

location	latitude	zenithal passage of the Sun before 685 BC, after 685 BC		difference in days
Izapa	14.960	August 21	August 11	10
Monte Alban	17.033	August 16	August 4	12
La Venta	18.125	August 14	July 31	14
Teotihuacan	19.638	August 10	July 25	16

The Tzolkin calendar, not being an annual calendar, would rotate a different day-name into place each following year. Normally, after 20 rotations of the Tzolkin, the same day-name would appear again on the same day of the Gregorian calendar (without accounting for the slippage due to leap days).

As so tersely expressed by the *Chilam Balam*, it would take three times five rotations of the Tzolkin ("bundles of years"), not the normal twenty, for the Sun to again return to the same day-name and day-number combination. We can find this easily, for we do not need to access the Long Count calendar, and we do not need to know the starting date or ending date. But we will have to "discount" the author's quirky inclusive accounting. "Fifteen years until" will mean a difference of "fourteen years." This is the second instance of an interval expressed as an inclusive count. It is then a simple matter to subtract 14 multiples of the 260-day Tzolkin from multiples of the 365.25-day year, until a difference is found which matches the differences in calendar days in the chart above.

In fact, 14 Tzolkin rounds are 12.5 days short of ten 365.25-day years. $14 * 260 - 10 * 365.24 = -12.40$ days. This is the change in days experienced at Monte Alban. Monte Alban may thus be the source of the lowland Yucatan Maya author's original books. Already 600 years old (since the collapse of the Maya kingdoms) at the time they were read in the 16th century AD, the original source dates back well over 2000 years to 685 BC.

The first date of a zenithal passage of the Sun at Monte Alban, before 685 BC, would have been August 16, 686 BC, 6.3.3.6.11 7-Chuen. Fourteen times 260 days is 0.0.10.2.0 Long Count days. Adding, this gives 6.3.13.8.11 7-Chuen. This falls on August 3rd, 676 BC. One more day needs to be advanced to complete the count, thus August 4. Either way, the difference is 12 or 13 days. (This calculation is unaffected by the change in the calendar instituted at a later date by Monte Alban, in 607 BC. See the chapter "The Day of Kan.")

The same addition of 14 Tzolkin periods to the pre-685 BC dates results in (subtracting 12.5 days as 13 days):

- Izapa: August 9, not 11;
- La Venta: August 1, not July 31;
- Teotihuacan: July 22, not 25.

La Venta is close, however, and might stand as an alternate source for the original glyphic books from which Book 10 of the *Chilam Balam* was eventually composed. La Venta is somewhat north in latitude from Monte Alban.

I should also follow up on my earlier note on the *Chilam Balam* that the return of the Sun was accomplished before the end of the Katun, "it will come back into place in Katun 3-Ahau." As outlined above, the displacement on the Tzolkin calendar would have amounted to less than ten (current) years. The year 685 BC less ten years is 675 BC. This Katun 3-Ahau starts in 689 BC and ends in 669 BC, bracketing both the nova event of Venus in 685 BC and the date of the return of the Sun.

Only a short paragraph is recorded for all of Katun 3-Ahau, although the writer will repeatedly return to the event of Katun 3-Ahau. This was one of the most monumental events in prehistory. It changed the religions and probably the enterprises of Mesoamerica and started people on a path of independent thinking, as elsewhere in the world.

The writer continues with laments, presumably related to Katun 3-Ahau:

"The 'ramon' fruit is their bread, the 'ramon' fruit is their drink; the 'jicama cimarrona' is their bread, the 'jicama cimarrona' is their drink; what they eat and what they drink."

"The 'ix-batun,' the 'chimchim-chay,' are what they eat."

The foods listed are those eaten at a time of famine. Roys notes, however, "Most of the preceding paragraph concerning Katun 3-Ahau appears to be an interpolation. It is not found in the Tizimin and Mani versions," and notes that two other versions of the *Chilam Balam* list the misfortunes ("for each of the twenty years") of Katun 5-Ahau instead.

This is followed by a most curious sentence:

"These things were present here when misery settled, father, in Tun 9."

The Katun 3-Ahau text missing from other copies of the *Chilam Balam* may reflect the care the Maya took in hiding all notice of Kukulcan (Quetzalcoatl) from the Spanish priests. Is the meaning of "father" from a statement about of the exact genesis of Kukulcan, addressed to a Spanish priest?

It might very well be that this interpolation is a confession to a Spanish priest. But it is couched in talk of miseries, rather than the significance of Kukulcan's death and resurrection. Which may be why "the miseries" as well as the reference to "Tun 9" and to "father" is missing in other *Chilam* texts.

If correct as posed by me, then we have here the most valuable aspect of this document, a clear statement about the year of the Kukulcan event -- the earthly appearance of Quetzalcoatl and his death.

"Tun 9" is the ninth year of Katun 3-Ahau. Then "these things" would have happened in 680 BC. My first reaction was that the scribe had the Tun date wrong. If the event happened in 685 BC, then it should have been Tun-4 of Katun-3 (6.3.4.5.15). If the event happened in 680 BC, however, then it would have been Tun-9 (6.3.9.5.15) instead.

Then I remembered that my selection of 685 BC was based on correcting the established error in Eastern Mediterranean chronology. It actually was the year 680 BC on the Julian calendar, the very calendar that the Spanish priests had introduced into the Yucatan. The scribe thus did not make a mistake, but properly identified the year. At least, that is what it looks like to me: he identified the

year in the calendar of the invaders when the Sun "did not follow its course for three months." In fact, he managed to retrocalculate the Julian calendar into an era before the Julian calendar was established.

The importance of this short paragraph about the Sun can be gauged from the inclusion of three specific date values: it lasted "three months," the Sun "returned" in 14 Tzolkin periods, and it happened -- ended -- in year (Tun) nine of Katun 3-Ahau -- 680 BC on the actual retrocalculated Julian calendar of the invaders.

Two more data points will be added further below: the date of the release of the plasmoid by Jupiter will be identified and the interval between the last close sighting of Mars and the day the plasmoid arrived will be given.

At this point the list of Katuns is interrupted. To this point the phantom Katuns have progressed in the correct order, that is, Katun 11-Ahau, Katun 9-Ahau, Katun 7-Ahau, Katun 5-Ahau (though I have some problems locating Katun 5-Ahau), and Katun 3-Ahau. Katun 11-Ahau was used at the beginning simply from the notion that all history starts in Katun 11-Ahau. But Katun 3-Ahau can certainly be assigned to a definite time in the past which matches what we know from other sources.

The next Katun should have been Katun 1-Ahau, but now the writer introduces Katun 13-Ahau, with a single line about foreigners.

After introducing Katun 13-Ahau, the *Chilam Balam* then continues with a radically different listing of events. Events are now listed by Katuns in order, in the manner of the "prophecies" of the other Books of the *Chilam Balam*. This has all the look of an additional record from another original source. Near the end, when the writer restarts in Katun 11-Ahau, yet another primary source seems to have been accessed.

"At that time there were the foreigners. The charge (of misery) was sought for all the years of (Katun) 13-Ahau."

It is possible that the mention of Katun 13-Ahau is a very early transcription error (reading 13 for 3), or this may be a reflection of the expected content similar to other Books of the *Chilam Balam*, where Katun 13-Ahau is indeed associated with prophecies of foreigners, the Spanish. In another Book the foreigners arrive in Katun 5-Ahau and are Caribs. Other copies of the *Chilam Balam* have nothing on Katun 3-Ahau, and list "miseries," year by year for Katun 5-Ahau, which is missing from this copy of the *Chilam Balam* -- which is the version from Chumayel.

The 8th Century BC

The approaches by Mars in the 8th century BC (and the 7th century), which devastated Persia, Anatolia, Greece, and Italy, at 35 to 40 degrees latitude, did the same damage in Central America, as indicated by the fact that the number of villages in Mesoamerica decreased markedly in the 8th century BC.

But the *Chilam Balam* at this point is given over to descriptions of flowers, colors, and fragrances -- arcane celestial details never noticed (or mentioned) in the Middle East. Perhaps we are now seeing the transcription from another source, "The Book of Flowers." Mars is only mentioned twice.

From dates extracted from the records of the Middle East the destructive events of the 8th and 7th century should be spread over four Katuns, from 747 BC to about 687 BC -- if we start in 747 BC. This would be the time span of Katun 11-Ahau (767 BC to February of 747 BC), Katun 9-Ahau, Katun 7-Ahau, and Katun 5-Ahau (ending in 687 BC). There is no reference to the last two, but the first two are listed and the events are described.

If, on the other hand, we start with what seems to be the full record, based on archaeological data of destructions in the Mediterranean, then we need to start in 806 BC. The record would have to include the additional Katun 4-Ahau (ending in 806 BC) through Katun 13-Ahau (ending in 768 BC). (Katun 4-Ahau, Katun 2-Ahau, and Katun 13-Ahau.) But there is no reference to these Katuns. Most likely this is because there were no Long Count records compiled before 747 BC. Checking back at later times, nothing was seen of the first four close passes of Mars, except as implicit in the name "Bolon Dzacab," "Nine Lives" -- for Mars did show up a total of nine times.

It is interesting that Mars is known as "Nine Lives" during the 8th and 7th century BC -- when he had also appeared close to Earth nine times before 3147 BC (as I surmised from Eastern Mediterranean sources). At first I thought that it was the nine appearances in the 8th and 7th century BC that became the basis for his name. But it seems to be a coincidence. His name was selected in remote antiquity, before 3147 BC, later known as "this first Bolon Dzacab." The giant greenstone mask-shaped floors at Olmec La Venta, apparently buried as a means of warding off or appeasing Mars, represent the face of a Jaguar in the form of the glyph for "nine." This name might thus have existed before it could have been determined how many times Mars would show up during these two centuries.

It is strange that the first four close passes of Mars between 806 BC and 747 BC were not recorded and, in fact, there were apparently no preventative ceremonial sculptures dedicated to Mars in the Olmec Veracruz region of Mexico during this period. Tres Zapotes, which had taken over primacy from San Lorenzo in about 850 BC, continued to carve "Venus heads" during the 100-year period before 747 BC, and thus only paid attention to the simultaneous appearance of Venus and Mars in 776 BC.

But the close pass of Mars in 747 BC seems to have destroyed Tres Zapotes, and La Venta was established to celebrate (or ward off) the comings and goings of Mars. La Venta was aligned to a sunset over the mountain Popocatepetl for the day of the Earth shock of 747 BC, when the length of the year changed (but not the axial inclination) and the Olmec Long Count was instituted. The close pass of 747 BC, plus the next four (a total of five), were all remembered at La Venta.

The actual date for the alignment at La Venta is February 28th, but for an angle representing a sunset under the condition of an axial inclination of 30 degrees for the Earth. There are two additional alignments, representing a sunset on April 19th, to the mountains Citlaltepétl and Volcan La Malinche, also selected for an axial inclination of 30 degrees. After 685 BC, when the axis of the Earth changed to an inclination of 23.5 degrees to the normal of the orbit, La Venta was reconstructed to have its long axis at right angles to a sunset on February 28 for the current axial inclination of 23.5 degrees. (Details in a later chapter.)

Thus the close pass of Mars in 747 BC was noted in the reconstruction of the ceremonial center at La Venta, and the visit is recorded in the *Chilam Balam*, appropriately in a Katun 11-Ahau -- the Katun which actually ended the previous era on February 28, 747 BC. A little later in the text the nine concurrent visits by Mercury are recorded as the descent -- with Bolon Dzacab -- of Bolon Mayel, Nine Fragrances. I'll detail Bolon Mayel further below.

"Then it was that the lord of (Katun) 11-Ahau spread his feet apart."

"Then it was that the word of Bolon Dzacab [Mars]descended to the tip of his tongue."

Bolon Dzacab ("Nine Lives") is Mars, to be distinguished from the Mars seen before 3147 BC, who is called "this first Bolon Dzacab," and also differing from Lahun Chaan ("Ten Sky") who appears to be Mars for 300 years after 3067 BC. The "tip of the tongue" is the bottom of the electric arc from Mars (or an extended cone of plasma perhaps in the form of dust). Mars, as God K or God G-II, is often depicted in Maya iconography with a single leg, acknowledged as representing lightning. (On the much later Aztec "Calendar Stone" he is presented in the center with his tongue hanging down.) "Spread his feet" refers to how a growing child is carried on the hip (after Luxton). It is thus a simile for "establish."

The text here is perhaps with reference to all of the period of 806 BC to 747 BC. But notice that, as elsewhere, nothing is said of the change in calendars which happened after 747 BC. (There is, however, a note about the introduction of a calendar at the time of the "third creation," listed on a separate page of the *Chilam Balam*.) Except for the complaints about the rulers who imposed themselves on the Olmecs or Maya, no civil events are ever touched upon in Book 10.

With respect to the phrase "tip of his tongue," there are some Olmec rock carvings from this era of an iguana (or what looks like an iguana) with his tongue reaching up and touching the bottom of cloud glyphs. Cloud glyphs look like pancakes with down-curved edges. It would be appropriate of Mars appearing in the skies, reaching down to Earth with a sustained lightning bolt. Although the tongue here goes in the wrong direction.

But the following Katun 9-Ahau, from 747 BC to 727 BC (further below) includes a surplus of observations, mostly in terms of flowers. Fragrances are also mentioned, which we recognize from Velikovsky's collected anecdotes, although Velikovsky places these in 1492 BC during the interaction with Venus. [note 23]

The Day of Kan

Another event is inserted here, related, as the text states, to Katun 9-Ahau, but we are no longer in the 8th century BC. It is, in fact, in error. The event listed below, the fall of the Absu -- the flood of Noah -- happened in Katun 2-Ahau (2.0.0.0.0), corrected to end in 2347 BC. There is, of course, a Katun 9-Ahau before the "flood of Noah," 148 years too early, just as there is a Katun 9-Ahau after the "flood of Noah," 40 years too late.

I am inclined at this point to suggest an alteration of the original text which was made on purpose in antiquity. More on this below.

"Then the charge of the Katun was sought; nine was its charge when it descended from heaven. Kan was the day when its burden was bound to it."

"Then the water descended, it came from the heart of the sky for the baptism of the House of Nine Bushes."

Except for the fact that we are presented with a deluge, the rest does not make much sense at first.

Bolio translates these two lines as:

"Nine were their cargoes when he came from the sky. The day of Kan was the day when his cargo was tied up. It was when the water came from the sky for the second birth, from the house of the one of the 'innumerable years.'"

This relates the fact that we are in a Katun named 9-Ahau, as well as the fact that the event, the baptism, happened on the day of Kan. The author of the *Chilam Balam*, on the basis of his sources, has full confidence that the "day of Kan" should be associated with the "second baptism." I will address this first.

The "second birth" is a second flood. The flood is suggested by Bolio. The history we are dealing with ignores hurricanes and tsunamis, and has so far only listed one other flood, the event of 3147 BC. The flood mentioned here is the only other mention of a flood. Notice that it "came from the center of the sky" and that it baptized (wet) the "House of Nine Bushes."

I think we are looking at the event which in other parts of the world is recognized as the "flood of Noah." The "House of Nine Bushes" is the Absu or Duat, the last described in Egypt (at 30 degrees latitude) as consisting of seven rings. In the Yucatan (at 20 degrees latitude) it was seen as consisting of nine rings -- or rows of bushes. The Maya or their predecessors saw an additional two rings closer to the Earth's equator.

In Egypt and Mesopotamia the seven rings of the Duat or Absu were understood to be an ocean in the south, but also as access to the "Underworld." In the Yucatan the 9 layers were also the underworld, the domain of "The Nine." But the Olmecs or Maya did not equate the rings to a sea, as far as I know. This may be because of the steep angle at which the rings stood in the sky, and the intimate contact of the land with real oceans.

This passage, like so many others, is not only displaced from its proper sequence, but also seems referenced to the wrong double-decade (Katun). The question thus remains, if most of the other events are properly slotted in Katuns of the correct names, why is this "flood" event -- plus the appearance of the Moon, the first showing of the Pleiades, the appearance of the rafters of the sky, and the polar plasma plumes -- all of which deal with the flood of Noah, late by 40 years? The "flood of Noah" can be placed with good certainty in 2349 BC from the efforts of many chronographers of the Mediterranean region (and matches good guesswork from China in 200 BC).



[Image: 4-Ahau and 9-Ahau.]

First, it could be suggested that the assignment of the "second baptism" to Katun 9-Ahau is a transcription error and that Katun 9-Ahau was misread from Katun 4-Ahau.

Errors in transcription, both at the time the *Chilam Balam* was written and at earlier times, are certain. Roys notes a number of them for the *Chilam Balam* text. J.E. Thompson has noted some dozen errors in the *Dresden Codex*, dating from about AD 1200. Vincent H. Malmstrom, in *Cycles of the Sun, Mysteries of the Moon* (1997), has noted a transcription error in Stele C from Tres Zapotes. The task of transcribing the codexes to new plaster-coated bark books by painting the glyphs, illustrations, and diagrams, must have represented a mind-numbing task which could easily result in subtle errors, like the addition of a bar to the glyph for 4-Ahau.

But there is a more elegant solution which comes forward to resolve the "Katun 9-Ahau" issue. The details, which I have promised a number of times in this text already, are as follows:

The day-name "Kan" is the fourth day of any Katun. The first day of Kan in the Katun 9-Ahau after the "flood of Noah" is July 26, 2286 BC -- 2.2.0.0.4 2-Kan, on the "August 11" correlation (this will suggest that it was a very old alteration of the text). If the year is wrong, it is the only one in all of the *Chilam Balam* (making allowances for the scribe's insistence of placing all planetary events in Katun 9-Ahau). With both the Katun and the day listed, it would seem to pinpoint a very certain date. It could signify the completion of the fall of the Absu, but this would have been accomplished in a few days, not 40 years later.

However, July 26th was the celebration of New Year (as "the day of Kan") among the Maya when the Spanish invaded in the 16th century. Bishop Landa (in circa AD 1590) mentions that the new-year day of the Maya was on July 26 and always fell on the Tzolkin days Kan, Muluc, Ix, and Cauac -- in rotation. July 26 was celebrated as the new-year day, not only by the Yucatan Maya and regulated by the priests of the ceremonial center of Edzna, but also at Teotihuacan in Mexico, a thousand miles west from Edzna. Teotihuacan was established in circa 200 BC as an Olmec outpost. Of course it should be understood that this was not our calendar date of July 26th, but is the day when the Sun rose and set at a certain location along the horizon, which today equates to July 26th. For both Edzna and Teotihuacan this included the passage of the Sun directly overhead.

The resolution of why Katun 9-Ahau was understood to be the year of the end of the "third creation," rather than the correct year of Katun 4-Ahau, is buttressed by four concepts.

First, it was known that a calendar had been instituted at the time of the "second baptism" (as was true worldwide). Actually, I suspect that this was the addition of 13 numbered days to the established 20 day-names of the Tzolkin calendar.

Secondly, the start of the year was celebrated among the Maya, as at Teotihuacan in the Valley of Mexico, on July 26th. July 26th actually celebrated the day after the delivery at the Sun of the plasmoid from Jupiter in 685 BC. If this last was a "fourth creation" of the world, it might seem reasonable to the Maya that the previous creation of the world would also start on the same Tzolkin day-name.

Third, the Maya and the Olmecs seemed to have been convinced that the Tzolkin calendar determined celestial events. I'll explore this more in a following chapter. It was this thinking which led to an active search by the Maya (or more likely, the Olmecs) for the "day of Kan" among the records of the past -- a day of Kan which fell on the equivalent calendar date (sunset location) of July 26.

We must allow that the Maya were perfectly capable of calculating backwards to discover on what day in prehistory the setting Sun on July 26th coincided with the fourth day, named Kan, of a newly started Katun.

Of course, a day named Kan falls on July 26th every few years (at about 20-year intervals). However, the Long Count date of 2.2.0.0.4 2-Kan is **the only instance** in the whole Long Count calendar -- 5200 years -- that the **first day** of Kan falls on July 26.

"The day of Kan," July 26th, marked the end of the nova event of the Sun in 685 BC (the termination by the plasmoid of Jupiter) as it was celebrated a few hundred years later. Even though July 26 did not fall on a day of Kan in 685 BC, it became celebrated as the "new year day" among the Maya, having inherited this significant date from the teachings of Olmec Teotihuacan. Much later, before perhaps 300 BC, scribes assigned this "important date" to the event of the "second baptism." The Katun during which July 26 fell on the first day of Kan, was researched and found to have occurred only once in five thousand years since the start of the current era -- in the second Katun of the second Baktun (2.2.0.0.4). [note 24]

Last, as was known among the Maya, all important celestial events happened in Katun-9 periods. The first day of Kan, July 26th, also occurred in a Katun-9.

This has to be the solution to this apparent error in chronology. We are looking at a correction to the historical records, made in antiquity, which seemed eminently reasonable at the time. There is no way that we can manipulate Katuns and Baktuns to account for the difference of 40 years and find the "day of Kan" elsewhere in the past. We could attempt to add together surplus days to the solar year for the periods between 747 BC, 1492 BC, 2193 BC, and 2349 BC, but these will not add up to 40 years. [note 25]

If the Olmecs in antiquity investigated the "day of Kan" for the end of the "third creation," they must have had something to go on besides the notion that the recreation of the world would (or should) have happened when the first day of Kan of a Katun fell on July 26th. I would suggest that, because Jupiter had shown up in a full display three days after September 8th, 2349 BC, this would be "day three" of a Tzolkin calendar round which started with the plasmoid from Venus. The next day is the "day of Kan" -- always the fourth day of a new Katun, and New Year's day for the "third creation."

The error in assignment in the *Chilam Balam* stems from the fact that the day of the "third creation" simply could not be retrocalculated 1600 years later when the Long Count was adopted, and certainly not another 800 years later, when the Maya attempted it (using a 365.24-day year), for the length of the year had changed three times since 2349 BC.

The Maya knew the Tzolkin calendar governed the Gods responsible for creation, and so the new Katun would be a Katun 9-Ahau. This was logical since it was well known from 747 BC that all of pre-history could be assigned to the previous Katun 11-Ahau. Katun 9-Ahau follows directly on Katun 11-Ahau.

It is also possible that a Katun 9-Ahau had actually started at the time of the "third creation" in 2349 BC. In which case the fourth day would be a day of Kan. This is the day after Jupiter returned from the dead. What a separate page of the *Chilam Balam* says, as part of a list of events associated with the fall of the Absu (the flood of Noah), is:

"And then days of the year were introduced."

Let's assume from this that the 260-day Tzolkin was introduced on September 6, 2349 BC, using a rotation of 13 days to follow the waxing and waning of the Moon (even though the Moon may not have shown up exactly that soon). It is difficult to imagine how soon this calendar was devised. But once established, it would have been obvious that the fourth day of the new calendar, which would have been a New Year's Day, was a day of Kan. This would celebrate the end of the "third creation."

Since Baktuns and Katuns had certainly been tallied since 3147 BC, it is very possible that this day of Kan -- September 9, 2349 BC -- was indeed the fourth day of a Katun named 9-Ahau. That also means that, as had happened in 3147 BC, the previous Katun would have been named 11-Ahau -- the Katun which always represents all of prehistory. This coincidence of ending an era with a Katun 11-Ahau would happen again in 747 BC. And a day of Kan shows up on a retrocalculation for April 19, 1493 BC (Exodus, my date of 1492 BC).

Thus if a "day of Kan," which coincided with an equivalent calendar date of July 26th, was found as the fourth day of a Katun 9-Ahau, then the Olmecs would have been justified in suggesting that during this particular double decade the world had been recreated. Even though 40 years late, only Katun 9-Ahau of the second Baktun (2.2.0.0.4) qualified in the complete record of the 5200 years of the cycle of 13 Baktuns.

Now to a previous sentence, which seems out of place. This is a sentence which may need to be separated from the line about "the baptism of the House of Nine Bushes":

"Kan was the day when its burden was bound to it."

The day of Kan here is most likely 6.3.4.5.4 17-Chen 2-Kan which is July 14, Gregorian, 685 BC (July 21, Julian). It is the day, I suspect, that the plasma bolt left Jupiter in 685 BC. The "burden" which "was bound to it" is the plasmoid from Jupiter. The day of binding was the start of the travel from Jupiter. "It" is the day named Kan, not any other entity.

The "day of Kan" had been known to be the day that creation ended in remote times, both in 2349 BC (although assigned to the wrong Katun) and in 1492 BC (of which the time-keepers were more certain). A change to the August 13 Tzolkin calendar had found that the equivalent calendar date of the latest change, July 14, 685 BC, also happened on "the day of Kan."

This note about the "day of Kan" when "the burden was bound to it" -- bound like a pack carried by a trader -- is the fourth chronological reference to the events of the year 685 BC. This date only becomes important later, when we learn that it signifies the decision of Jupiter not to have Mars destroy creation.

The calendar dates mentioned above become clear on an inspection of alignments with horizon location for Olmec coastal and Valley of Mexico ceremonial sites (for which see a following chapter). Alignments were made, at different sites, for April 19th (representing the Earth shock of 1492 BC), February 28th (the shock of 747 BC), and July 9th, 21st, and 25th (all dealing with Jupiter in 685 BC). The start of the blazing of Venus and Mercury in 685 BC, 40 days before July 25th, was not celebrated. The Maya, and, in fact, all of Mesoamerica, only celebrated completions, not the start of events.

The Flowers

The next few lines first attribute the deluge (of 2349 BC) to Mars. The reading seems to present a simultaneous close passage of Mars, as Bolio's translation, above, suggests. (This may reflect the events after 1936 BC, the destruction of Sodom and Gomorrah, which followed on 2349 BC.) Any passage of Mars would have brought torrential rain storms and hurricanes to the region, in addition to destruction. The lines following this do not return to the topic of Mars, but introduce a new player, Mercury.

"With it descended Bolon Mayel [Nine Fragrances]; sweet was his mouth and the tip of his tongue. Sweet were his brains."

I suspect that the insertion further above is meant to relate the "water from the sky" (at the time of "Noah's flood") to Mars in the 8th century BC (or Mercury, as here), even though no mention is made of rains or hurricanes associated with Mars. I have a note further below on the sudden topical grouping of events by the author.

"Sweet was his mouth, etc.," -- Meaning either that this celestial agent was not a threat to humans, or the sweet mouth is associated with the "fragrances."

"Bolon" -- nine -- suggests nine appearances of Mercury. Mercury might have been seen close to Earth nine times. But I think that this started in 806 BC. As I have suggested earlier, the orbit of Mercury was elongated since 3147 BC, extending past the orbit of Earth, -- equivalent to what Mars was doing. It was likely in sync with Mars, possibly showing up near Earth when Mars did so. The two planets were known throughout the world as "the twins." The Earth shock by Mercury in 686 BC follows directly on an appearance of Mars, as substantiated by a note on the timing of this further below in the *Chilam Balam*. "With it descended.." affirms that Mars also showed up 9 times.

More on Mercury after another interruption. At this point the text returns to Mars, or the satellites of Mars, rather than Mercury, except that the "honey of the flowers" would have to refer to Mercury.

"Then descended the four mighty supernatural jars[or, two mighty demon bats], this was the honey of the flowers."

Roys's footnote reads:

"For this sentence the following is substituted in the Mani and Tizimin versions of this narrative: 'Then descended two mighty demon bats who sucked the honey of the flowers.'"

That might make sense in representing the two satellites of Mars, which are elsewhere in the world described (during this period) as raging spirits, scorpions, snakes, and chariot wheels. Mars, lacking a magnetic field, would have had a closely held plasmasphere (coma), which might very well have consisted entirely of ionized dust (as is seen today). Once Mars entered Earth's plasmasphere the coma of Mars would have expanded to meet the Earth's electric field, rather than being subjected only to the Sun's much lower electric field outside of Earth's plasmasphere. The two satellites of Mars would have continuously distorted the coma of Mars. Seen on the day side of Earth, this might have presented itself as a flapping dark shape. (The satellites of Mars would be seen east and west of the globe of Mars because Mars passed Earth laterally.)

As I have noted before, according to the modeling by Patten and Windsor, Mars would alternately appear near Earth in going toward the day side of Earth and going toward the night side of Earth. That might account for the appearance of "two" mighty demon bats, rather than 4 or 5 (between 747 BC and 687 BC). Thus two times out of the five recorded appearances of Mars.

This would have happened in the fall of the year, and likely represented a passage of Mars on the day side. The spectacle in the skies, back-lighted by the Sun, would have been astoundingly different from the view of a passage of Mars at night. We may have to assume that the Mani and Tizimin versions of the *Chilam Balam* corrected the information presented in the books of Chumayel.

The "four mighty supernatural jars," on the other hand, might also describe Mercury. After four appearances with Mars (and likely close by), the fifth appearance of Mercury was distinctly different, for it was jolted by Earth (686 BC), and disappeared to a new orbit close to the Sun. Nothing is made of the "burning tower" apparition, however, the sight of which might have only been experienced much further north.

Thus, after having mentioned the appearance of Bolon Dzacab, Mars, in 747 BC, the *Chilam Balam* now has reference to the four additional appearances of Mars -- as "mighty demon bats" or "supernatural jars" rather than as Bolon Dzacab. This coincides with the four giant heads found at La Venta, which were buried in a line north of the pyramid.

Since the "mighty demon bats" suck the honey of the flowers (mentioned above), it suggests the near simultaneous appearance of Mars and Mercury in the skies. The Olmec Jaguar sculptures at La Venta, and later, add the snout and fangs of a snub-nosed bat to the jaguar face. [note 26]

Of course I have here selectively taken the number of appearances from one source (four jars) and the description from another (two bats). But I think the number "four" is completely justified from the number of heads found at La Venta, and the "bat" description is justified from the sculptures of bat-faced jaguars at La Venta.

In the next few lines of the text, all about flowers, clearly refers to Mercury, which has a minor magnetic field, and would thus support tri-lobed plasma forms at its poles -- looking like flowers. Mars, without a magnetic field, would not.

"Then there grew up for it the red unfolded calyx, the white unfolded calyx, the black unfolded calyx and the yellow unfolded calyx, those which were half a palm (broad) and those which were a whole palm (in breadth)."

The four colored "calyxes" again look like a distribution to the four compass directions. The half palm and full palm widths describe the lower and upper tri-lobed plasma cones above and below the magnetic poles of Mercury. I should point out that Mercury and Mars were seen in a side view from Earth, since the rotational axis of both planets would nearly parallel that of the Earth. Thus the flowers of Mercury would have extended in a north and south direction.

The flower forms, by the way, are understood in Egypt and the eastern Mediterranean region as wings. From this we have the "winged disk" iconography, which is clearly associated with Mercury.

The north magnetic pole would have a much larger size ("a whole palm") flower form. If these represented the polar plasma forms of a planet, the planet need not have come that close to Earth, since Mercury's coma might easily have been twenty times the diameter of the planet itself, with the polar plumes much larger. Yet, what a threatening image this would have presented! It is a palm held at arm's length. The "whole palm" representing the size of the flower shape at the top, and the "half palm" representing the width of the flower shape at the bottom. A "palm" in width is about 5 degrees of the sky -- ten times the diameter of the Moon.

"Then there sprang up the [1] five-leafed flower, [2] the five drooping (petals), [3] the cacao (with grains like) a row of teeth, [4] the 'ix-chabil-tok,' [5] the little flower, [6] 'Ix Macuil Xuchit,' [7] the flower with the brightly colored tip, [8] the 'laurel' flower, and [9] the limping flower."

On a whim I decided to count the specific flower species, as listed above, to see if this would account for the name Bolon Mayel, "Nine Fragrances."

Bolio has:

And at the same time blossomed [1] the flower that is watered and [2] the one that has holes; and [3] the wavy flower of cocoa and [4] the one never sucked on [this is Ix Macuil Xuchit, "Five Flower," the Mexican god of music and dance], and [5] the flower of the spirit of color, and [6] the one that always is a flower, and [7] one with a crooked stem."

With Bolio's rendition we are two flower species short of a count of nine, and obviously there is a pun inserted in the middle of the list. It is interesting that these flower forms could be counted over a period of 120 years from 806 BC, if, as I have assumed, Mercury accompanied Mars in these instances, even though the record of Mars is only shown for the instances after 747 BC. The last appearance of Mercury, in 686 BC, was aborted, of course.

"After these flowers sprang up, there were the vendors of fragrant odors, there was the mother of the flowers."

Fisher adds the following to Bolio's translation,

"These flowers that came out were the 'Comayeles' [Ah Con Mayeles, "the offerers of perfume"], the mother of flowers."

Roys notes,

"In the Tizimin and Mani versions we find: 'there was the house of the flowers.'"

... meaning that it (or something) was seen as a celestial apparition.

This is followed by yet additional complaints about rulers. But first let me point out again that both the "flowers" and the "fragrances" could only refer to a planet with a magnetic field and with an atmosphere. This could not be Mars. In fact, I will also suggest that the "house of flowers," mentioned above, is Jupiter, to which the text will get to soon. On about June 9th Jupiter developed a coma and became a "house of flowers." "House of flowers" is the Mesoamerican name for a pyramid, actually, "flower mountain." The lightning bolt to the Sun did not leave Jupiter until July 14th.

"Then there sprang up the bouquet of the priest, the bouquet of the ruler, the bouquet of the captain;"

"... this was what the flower-king bore when he descended and nothing else, so they say. It was not bread that he bore."

"So they say," is a reflection on earthly rulers. Bolio has:

"When the latter [the flower God, Mercury] came down he had no equal. 'Look at him,' they said, 'he does not spill his cargo.'"

... which has a somewhat different sense. It suggests that the flower shapes were not dropped to Earth, or (more likely) that no electric contact was made with Earth. How Bolio arrived at this reading, which seems correct, is inexplicable. It would seem to suggest that the close overhead passages of Mercury were harmless to Central America -- in clear distinction to the destructiveness of Mars. Mercury may not have come very close, like Mars, but remained at a considerable distance. The last contact with Mercury, at any rate, was felt in North America in Alabama. (As developed in an earlier chapter.) From this, too, we would get the sense that the text has shifted entirely to a description of Mercury, and perhaps the reference to the satellites of Mars, above, is in error.

The sense to me is that the lines about the rulers are an editorial comment on the crop surpluses required by the ruling elite and the luxury goods being extracted from the citizens by the Maya ceremonial centers and through the long-distance trade which flourished since about 1500 BC. Unlike Egypt, and especially Mesopotamia, where feathers, metals, and precious stones were collected for the benefit of the gods of the temples, these goods (plus the food staples required to sustain both the trade functions and the leadership) were for the personal consumption and adornment of the rulers. This is similar to the situation in China. The rulers, in their shamanistic functions, were more important than the Gods. [note 27]

A few more lines on flowers, but now we turn to Jupiter:

"Then it was that the flower sprang up, wide open, to introduce the sin of Bolon-ti-ku [Jupiter]."

"(After) three years was the time when he said he did not come to create Bolon Dzacab [Mars] as the god in hell."

The "sin of Bolon-ti-ku" is a plasma display, but initiated by Jupiter, not Mars. This text seems out of place and recalls the final event of the Venus nova, except that mention is made here of Mars, not of Venus (as in the Mediterranean). In other chapters I have spelled out the details of how this event was differently seen and understood in Mexico from how it was seen and understood in Europe and Asia.

The sentence makes it clear that Jupiter, who was still considered the reigning God, has decided that Mars would not be the agent of death for the current creation, "the God of hell." As the Sun's electric field expanded outward into the region of the planets, it not only caused Venus and Mercury to blaze like suns, but Jupiter suddenly needed to adjust to a completely different electric potential. The flower which "sprang up" to initiate ("introduce") the plasmoid is the coma and funnel-like plasma extensions above and below the poles of Jupiter. This is clearly shown in the earliest iconography of the Olmecs, after 650 BC.

The eruption of Jupiter was followed by a plasmoid bolt ("the sin") directed toward the Sun, and although it was understood to be directed at Venus by the people of the Mediterranean region, it was understood to be directed at Mars by the people of Mesoamerica -- a difference of a half day in seeing the plasmoid land (or not seeing but guessing).

The timing of the plasmoid event was carefully preserved in the original documents and is here quoted by the *Chilam Balam*, probably as a matter of pride in how the cycles of the Tzolkin constituted high science. But the numbers initially do not add up.

"(After) three years.."

Mars was in inferior conjunction with Earth on February 22, 687 BC (-686 Julian). If we add three solar years (of 365.24 days), or Tun years (of 360 days), or even three Tzolkin cycles (of 260 days) to the last date that Mars was seen, we will pass beyond the year of the Venus and Mercury nova event in 685 BC. The word "after," however, was added by the translator, Roys. The sentence should have the meaning of "in the third year," in effect another inclusive span of time.

I certainly don't think we are dealing in solar years here, but in Tzolkin cycles instead. If we add just two Tzolkin cycles of 260 days, we reach July 25, 685 BC on the Gregorian calendar -- the traditional day before New Year's day of the Maya and Olmecs, and the day when the lightning bolt of Jupiter landed at the Sun. This is no mere coincidence. The records of the past as maintained by the Olmecs and subsequent Maya have proven to be dead accurate.

This is also the third instance of inclusive counting in reporting an interval. Since we are dealing with Mesoamerican concepts and language, we have to recognize that the first Tzolkin cycle is completed on the day after Mars was last seen on February 22, which is 6.3.2.15.16 14-Uo 1-Cib on the Long Count (August 13 correlation). The day of 1-Cib has to be counted, for it completes the previous Tzolkin cycle. This is how "three years" is arrived at. The "three years" represent an interval of 520 days, two Tzolkin cycles.

This reference to the 520-day interval is the fifth instance of chronological details of the events of the year 685 BC.

The text about Nine Fragrances starts with a shift to Katun 9-Ahau, the next in order after Katun 11-Ahau, when the first recorded approach by Mars was made (in 747 BC). This would propose that the nine descendings of Mercury are a count of both planets, extending only from 747 BC (the close of the previous Katun 11-Ahau) to 687 BC (the end of Katun 5-Ahau), where for the first and the last visit he is properly identified as Bolon Dzacab, Mars. That would extend the visitations to a total period of 60 years, ending with the last visit in 687 BC. The date of 687 BC (actually -686) is the year which Velikovsky had identified as the year of the second Earth shock received from Mars, although actually this last contact was by Mercury.

Reconsidering now the comment about Mars, it might be suggested that it was the sacrifice of Venus (Quetzalcoatl) which appeased (or controlled) Jupiter. This could certainly have set the tone for human sacrifices for the next 2000 years. Quetzalcoatl, Venus, not only died, but was fully expected to return from the dead, as Jupiter had done a number of times. The reappearance of the coma of Jupiter, which had not been seen since circa 2150 BC, had demonstrated that. Jupiter, too, had died by fire.

Was the decision by Jupiter "not to end the world," or, as the "Chilam Balam" reads, "not to create Bolon Dzacab [Mars] as the god in hell," the promise of a new religion, a new religious practice, or a new contract between God and man? This certainly was the reaction in the Eastern Mediterranean region, as it was in China and India. Perhaps it was also understood this way by the later Maya who listened to the recital of this text that Kukulcan had been the savior of the world. This suggestion would be fully in line with the other couched references to Kukulcan -- Quetzalcoatl -- found in the remainder of the *Chilam Balam* text.

Saturn

The next section, which continues with descriptions of flowers, is, I feel, completely misplaced, perhaps placed here at an early time when the actual sequence of events was already no longer understood. I suspect that the following sections are from a source completely different from the text above.

What here follows is a portrait of Saturn from the earliest time in remotest antiquity. This is followed by a portrait of Jupiter. The portraits of the first two stationary Gods on their mats is deserved. The visitations made by Venus and Mars are ephemeral in comparison. It was Saturn and Jupiter who were the two supreme Gods who sat in rulership in the sky, a thousand years for Saturn, 4500 years for Jupiter, although during Jupiter's reign there were, as elsewhere in the world, numerous other Gods who acted as his agents or provide the role of intermediary. This is followed by a section which turns "rulership" over to the God of the Christians.

The portrait presented of Saturn is more than descriptive, for it records a sequence of events which is missing from the first description of Saturn at the start of this document: the changes from the time the bees blinded his face and the descent of fire and the rope, to the point of his demise at the hands of Jupiter in 3147 BC.

"Then descended Pizlimtec to take the flower[the root of the flower]; he took the figure of a hummingbird with green plumage on its breast, when he descended."

As will have been noticed, over the last few paragraphs the collection of events has been sorted topically into like images -- Mars followed water from heaven, and here the flower of Saturn in 4077 BC follows the flowers of Mercury in the 7th century BC.

Pizlimtec is the God of music and song, or a human revered as a musician. So says Roys. This might also represent one of Peratt's plasma instabilities represented by the Kokopelli petroglyphs, the flute player, which have been carved as petroglyphs and painted on cliffs worldwide. Except, of course, that here he is transformed into a quetzal bird.

The hummingbird with green plumage can be equated with Venus, although as an overall description of the bird on top of the central tree of heaven, and thus the whole Saturnian Polar Configuration. But in the limited context of this description, the "descent" is more likely the visual lowering of Uranus as the Earth started to take up an orbit more directly below Saturn. That started to happen perhaps as early as 5800 BC. Because of the smaller size of Uranus compared to Saturn (even with the considerable offset from the north pole of Neptune), by 4077 BC Uranus had probably disappeared visually behind Saturn.

"Then he sucked the honey from the flower with nine petals."

"Then the five-petaled flower took him for her husband, Thereupon the heart of the flower came forth to set itself in motion."

Uranus (if he is Pizlimtec) is male here. In the previous text he was identified as Saturn's sister. This suggests, of course, diverse sources for the *Chilam Balam* texts, or differing "readings" of the illustrations. The "heart of the flower" is Mars, which as we know from Mesopotamian and Egyptian texts, will start to lower toward Earth and wander away from the axis of Saturn.

The observation of a flower of nine or five petals, with Uranus lowering into the flower, taken together with the bees which initially wrapped the face of Oxlahun-ti-ku, Saturn, is a reminder of one of the oldest insignias of the pharaohs of Egypt, the bee and the sedge, neither of which has ever been explained as a symbolic source of power or majesty, and has only with difficulty been related by archaeologists to bees of Lower Egypt and the sedge of Upper Egypt (when it should be the other way around).

But a flower of nine and five petals can only be the much later plasma streams from Saturn to Mercury and thence to Mars, both located below Saturn, after Saturn went nova.

Or, following the next entry (see below), this might place the event (allowing Uranus to be seen as a distinct entity) much earlier than my estimate, well before the Earth had taken up a station below Saturn, for there is no other way to record the visual effect of seeing Uranus being lowered into Saturn. But it depends on how "and" and "then" are translated from the Mayan. We should also realize that the author was reading old books which conveyed little sense of the scope of time, so that 1000-year and 2000-year intervals passed unnoticed.

"Four-fold [four branched] was the plate of the flower, and Ah Kin Xocbiltun was set in the center."

Ah Kin Xocbiltun is Pizlimtec, claims Roys. But Bolio translates the last line as, *"When the chalice of this flower was opened, the Sun[Ah Kin Xocbiltun] was within and in its middle his name could be read."* The glyph for Sun, "Kin," looks like a flower with four petals and a small central circular area, like a four-petaled daisy. The dot in the center is Mercury. The sign or hieroglyphic for "Sun" used elsewhere in the world (Egypt, Mesopotamia, China) is a circle with a central dot, but here we have the addition of four streams of plasma in arc mode impinging on Mercury and seen from below. It is amazing that the illustration from thousands of years ago was misread in this manner, but not totally unexpected.

"At this time Oxlahun-ti-ku [Saturn] came forth, but he did not know of the descent of the sin of the mat, when he came into his power."

"The flower was his mat, the flower was his chair."

The sin of the mat, again, is a plasma discharge to Earth. The flower mat resounds throughout other people's mythology too. The Gods of the Canopic jars of the dead pharaoh sit on a lotus flower, as do the creation Gods of the Hindus. The flower mat might be the rings of Saturn, or more likely is Mercury. I suspect that the previous line and most of what follows is placed here in the text to give

reasons for why Saturn has to give up rulership at some point. The Maya of the *Chilam Balam* are notorious complainers.

"He sat in envy, he walked in envy. Envy was his plate, envy was his cup. There was envy in his heart, in his understanding, in his thought and in his speech."

"Ribald and insolent was his speech during his reign. At that time his food cries out, his drink cries out, from the corner of his mouth when he eats, from the back of his claw [hand] when he bites his food."

"He holds in his hand a piece of wood, he holds in his hand a stone."

The stone is Venus, the piece of wood is Uranus.

"Mighty are his teeth; his face is that of Lahun Chan, as he sits."

Lahun Chan is Mars as Ten Sky. The implied look is that of a red planet.

"Sin is (in) his face, in his speech, in his talk, in his understanding (and in) his walk."

"His eyes are blindfolded. He seizes, he demands as his right, the mat on which he sits during his reign."

"Forgotten is his father, forgotten is his mother, nor does his mother know her offspring."

As almost everywhere else in the world, there is no history before Saturn shows up. Thus he has no parents or has forgotten them. This more or less contradicts what is found on another page of the *Chilam Balam*, where, if not parents, at least there is a long lineage of sacred stones leading up to Oxlahun-ti-ku (Saturn), as the Christian God the Father. This is detailed in Book 11 of the *Chilam Balam*.

"The heart is on fire alone in the fatherless one who despises his father, in the motherless one."

His "heart is on fire" is an exact expression of the change to arc mode of Saturn, or descriptive of surface flames like are seen on the Sun.

"He shall walk abroad giving the appearance of one drunk, without understanding, in company with his father, in company with his mother."

The drunken walk is also recalled from Vedic sources which claim that Saturn traveled in a circle in the north sky. I cannot explain the sudden addition of the mother and father, unless this is another reference to Venus and Uranus.

"There is no virtue in him, there is no goodness in his heart, only a little on the tip of his tongue."

"He does not know in what manner his end is to come; nor does he know what will be the end of his reign, when the period of his power shall terminate."

Bolio translates the last few lines as:

"His heart burning only among the orphans, insulting his father, he must walk in the midst of the homeless, his countenance drunk, his understanding lost, to the place of his father and his mother. He has no kindness; there is no good in his heart; only a little bit on the tip of his tongue. He does not know how he must end up; he does not know what there will be at the end of his reign, or what is going to end in time with his power."

The drunken walk among the "orphans" and "homeless" catches the circular movement of Saturn ablaze in the middle of its satellites.

Before leaving this section, I should point out my suspicion that this extensive description of the faults of Saturn is starting to sound like a prophetic analog of a hoped-for fate for the Spanish invaders.

Jupiter

The following portrait is of Jupiter, but almost at once changes to a couched prediction of the return of Kukulcan.

"This is Bolon-ti-ku [Jupiter]."

This line reads as if it is a caption to an image in a codex.

"(Like that of) Bolon Chan [Lahun Chan is meant here] is the face of the ruler of men, the two day [or, second]occupant of the mat and throne."

"The two day occupant" is, as before, probably a misreading of "second occupant" or "second reign," which would place the description as starting in 3147 BC.

Roys thinks that "Bolon Chan" ("Nine Sky") is a transcription error, since this name occurs nowhere else in any Maya documents or inscriptions, and that "Lahun Chan" ("Ten-Sky") was meant. "Ten-Sky," as I suggested above, is Mars after 3147 BC. "The face of" presumably just means "looks like," it does not mean "is." The concept, in fact, is that the face of Jupiter looks red, like Mars. This was probably not true initially, since at first, from 3147 BC to circa 2900 BC, Jupiter was green (or, at least so was the lower plasma expulsion). But on its return as a giant entity in the sky in about 2550 BC, it certainly was red. Bolio accepts Nine Sky as meaning "nine faces" and ends up with a reading of:

"These Nine gods ['Bolon-ti-ku,' Jupiter]will be manifested in nine faces ['Bolon Chan'] of Men-Kings, of the mat of the Second time, of the throne of the Second Time, came inside the 'beast Ahau Katun.'"

The *Chilam Balam* continues with the following, where Roys reads "beast" as "three":

"He came in Katun 3 Ahau."

I initially did not think that Jupiter was meant by "he" here. I thought the author was talking about Kukulcan and referring to the nova event of Venus in 685 BC, which falls in Katun 3-Ahau. But Bolio's "mat of the second time" or Roys's use of "two day throne" is probably meant as the second reign (not to be confused with creations), and thus the reign of Jupiter. What we are then being told here is that Jupiter reappeared in 685 BC in Katun 3-Ahau. That's true.

"After that there will be another lord of the land who will establish the law of another Katun, after the law of the lord of Katun 3-Ahau shall have run its course."

"At that time there shall be few children; then there shall be mourning among the Itza who speak our language brokenly."

"Industry (and) vigor finally take the place, in the first Tun (of the new Katun), of the sin of the Itza who speak our language brokenly."

The first Tun is the first 360-day period of the next Katun. It could be the next Katun after 685 BC, or it could be any Katun in the future. "Industry" had traditionally been attributed to the enterprising Itza.

"It is Bolon-ti-ku [Jupiter] who shall come to his end (with) the law of the lord of Katun 3-Ahau."

Take note of the three references to Katun 3-Ahau (and more below), and especially the line, *"After that there will be another lord of the land who will establish the law of another Katun, after the law of the lord of Katun 3-Ahau shall have run its course."* This is a veiled reference to the return of Quetzalcoatl, Kukulcan of the Maya, who disappeared in Katun 3-Ahau, but over the next few paragraphs this is turned into the God of the Christians. The "lord of Katun 3-Ahau" is Venus -- Kukulcan -- who shall, in time, that is, at some time in the future, end the reign of Jupiter, substituting another -- but not himself. This will fit history as it was played out with the arrival of the Spanish.

The End of History

A few lines of prediction, in effect incorporating the 16th-century condition of the conversion of the Maya to Christianity, complete the section. The prediction of another flood and the descent of Jesus on a cloud are perfectly in line with the history of the elder Gods.

"Then those of the lineage of the noble chiefs shall come into their own, with the other men of discretion and with those of the lineage of the chiefs."

"Their faces had been trampled on the ground, and they had been overthrown by the unrestrained upstarts of the day of the Katun, the son of evil and the offspring of the harlot, who were born when their day dawned in Katun 3-Ahau."

This is the fourth reference to Katun 3-Ahau. Some of these lines repeat text from the section "Interrogation of the Chiefs" elsewhere in the "Chilam Balam."

Bolio renders this a little more cohesively, although no clearer, as:

"When the Katun has ended, one will see the lineage of the noble Princes appear, and new wise men, and the descendants of the Princes whose faces were crumbled against the ground, who were insulted by the rage of the time by the crazy ones of their Katun, by the son of evil who called them "children of indolence"; those who were born when the Earth awoke, inside the Three Ahau Katun."

"When the Earth awoke in Katun 3-Ahau" is an interesting concept, and stands as the only reference to a change in the religious philosophy of Mesoamerica in the 7th century BC, although it is clearly demonstrated in the alignments of the ceremonial centers after 600 BC. No new alignments were ever added (except for additional alignments for 2349 BC).

Clearly also, in the above quoted paragraph, "those" refers to the Princes. In Roys's rendition it is not clear who "who were born" refers to -- it could be read as the "son of evil" and the "offspring of the harlot." Interestingly, this sort of language is to be found in the condemnations of Biblical prophets. The scribe thus betrays his Christian upbringing. From the very start of the Spanish overlordship the children of chiefs and officials were separated from their parents and educated separately.

"When their day dawned" becomes, with Bolio, "when the Earth awoke." That in effect suggests a "fourth creation" as yet to come. [note 28]

Roys's text continues with an "end of creation" scenario:

"Thus shall end the power of those who are two-faced toward our Lord God."

"But when the law of the Katun shall have run its course, then God will bring about a great deluge again which will be the end of the world."

"When this is over, then our Lord Jesus Christ shall descend over the Valley of Jehoshaphat beside the town of Jerusalem where he redeemed us with his holy blood."

"He shall descend on a great cloud to bear true testimony that he was once obliged to suffer, stretched out on a cross of wood."

"Then shall descend in his great power and glory the true God who created heaven and earth and everything on earth. He shall descend to level off the world for the good and the bad, the conquerors (and) the captives."

Typically, once again there will be a new creation, for God will level off the world. The promised deluge, however, never came.

Recap of Book 10

It should be clear to the reader that this Book of the *Chilam Balam* is only tendentiously in chronological order, and, from our perspective, the mark is missed. The copyist did not have counts of Baktuns (periods of 20 Katuns) available or neglected them. This seems odd, for the texts of the Temple of the Cross at Palenque correctly place past events in the proper Baktun. Otherwise we

would have to assume that, for example, the reason the events of 1492 BC and the events after 2349 BC (the "third creation") were listed in reverse order was simply to adhere to the late Maya historical format of lumping all events of the same-named Katun together.

Some chronological order exists, as in how the prehistory (the "second creation") is grouped at the beginning and in correct order (and expanded on near the end), and the events of the 8th and 7th century BC are placed near the end (with the fall of the Absu in 2349 BC inexplicably added). And another form is used also. Events are sorted into activities and like imagery. Thus, near the end, all the flower episodes are grouped together.

The conclusion is reached compositionally, calling up the imagery of Kukulcan, starting with the event of the Sun going off its course in 685 BC. The ending reads as a subtle attempt to simultaneously satisfy the politics of the new Christian overlords and not counter the traditions of the Maya citizens.

I have appended lists of Katuns for the time period of 3147 BC through 668 BC, with the events inserted. [note 29]

Special thanks to M Harris for corrections.

Endnotes

Note 1 --

The Maya, as well as other Mesoamerican people, certainly recognized the continuous progress of time along a single axis, as we do. So perhaps it would be more accurate to say that time was conceived of as the delivery of the separate Katuns, which carried with them certain qualities which predetermined the conditions of the world when a Katun arrived. This would be similar to recognizing the seasons of the year as a repeating cycle, where each month brings with it certain weather conditions. The "weather" of the Maya Katun cycle extended over twenty-year periods. [return to text]

Note 2 --

Munro S. Edmonson, in "Some Postclassic Questions About The Classic Maya" (*Fifth Palenque Round Table*, 1978), writes about this:

"The Colonial texts produce the impression that their obscurity may have been partially designed to keep Maya traditions from the Spanish. They were not at all intended to be secret from the Maya peasantry, who are frequently apostrophized directly. And there are even now in Quintana Roo Mayas who can read and understand them."

But he immediately qualifies his opinion by pointing to an earlier tradition:

"It seems to me quite possible therefore that the glyphic texts of the Classic period could have contained a substantial esoteric and metaphoric element without necessarily impeding their intelligibility for the commoners and laymen to whom they must have been in part addressed. A

certain deviousness and indirection may well be part of Mayan tradition. Flies are ancestors; the moon is the end; the sun is the beginning; stalks are lineages; monkeys are peasants."

My feeling is that Book 10 includes very little metaphorical material, although Book 11 and two other short pages of the *Chilam Balam* (dealing with earlier history) do, at a severe cost in understanding.

Amazingly, Richard Luxton in translation and commentary in *The Book of Chumayel* (1996), interprets all of Book 10 as a highly metaphorical poetical discourse on the political and social changes in the Yucatan in the late 16th century AD, based on a conflict and resolution between two calendars -- personified by Luxton as "The Thirteen" and "The Nine."

Book 11 does not escape this treatment either. I think this is nonsense created from the inability to make any sense of the texts. Luxton also frequently points up puns which make no sense. However, he also has the ability to clear up many strange words, like "opilla" and "expleo." More on these in the following chapter.

[return to text]

Note 3 --

More recent archaeological finds have placed the first Maya monumental construction at 150 to 50 BC, and in some isolated cases as early as 800 BC (Takalik Abaj, in clay) and 600 BC (El Mirador, in stone).

Monuments raised in Palenque (in circa AD 700) present dates before 3114 BC, note celestial events in 2360 and 2305 BC, and record the birth of a "prehistoric king" of Palenque in 993 BC.

The first Tzolkin date inscriptions were in use at the Zapotec site of San José Mogote in the Oaxaca region by about 600 BC. By 400 BC the Tzolkin and Haab calendars were in use at Monte Alban (Oaxaca). The earliest Olmec long-count is depicted on Stele C from Tres Zapotes as 32 BC.

[return to text]

Note 4 --

The *Popol Vuh* clearly notes that the authors had used four source books, and, in fact, the *Popol Vuh* spends more than half of the text with descriptions of events from the first two books, called "The Dawn of Life" and "Our Place in the Shadows." This is not the case here for the *Chilam Balam*, although Book 11, and an additional page do specifically source these two.

Most of the information for Book 10 of the *Chilam Balam* seems to rely on abstracts from the last two books mentioned by the *Popol Vuh*, the book called "The Light that Came from Beside the Sea" and the book called "The Council Book." It would be expected that the Maya had already consolidated events by same-named Katuns, for this represents the layout of Book 10. It would also be expected that the significant event of 2349 BC, the fall of the Absu, would be sourced from a separate book. But this event is inexplicably split up to different sections of the text. Book 11 of the *Chilam Balam* treats the event of 2349 BC separately.

[return to text]

Note 5 --

In the *Popol Vuh* the tribal gods of the Quiche turn to stone when the Sun first shines. The Quiche continue to feed these stones with blood.

[return to text]

Note 6 --

Considering the bees as satellites holds if Saturn (and later Jupiter) were close enough to Earth to be seen clearly. There are enough references to the satellites of both of these planets among "mythological" sources from other parts of the world to confirm that this would have been the case.

I have only seen limited "bee iconography" among Olmec carvings or stelae, but there are some Maya murals depicting bees. Bees recur, however, in other pages of the *Chilam Balam* dealing with the history of much more remote times. There is an instance of wasps being used as weapons in the *Popol Vuh*, but this is likely a recollection of a particularly busy meteor shower.

[return to text]

Note 7 --

The prominent satellites of Saturn (those discovered before the 20th century AD) number 7. Adding Uranus, Neptune, Mercury, Mars, and Venus, and Saturn itself, the number adds up to 13. I originally (before 2010) excluded Neptune (as not visible) and Mercury (not discovered by me until 2009), and added Iapetus (at an orbital radius of 3,561,300 km) and Phoebe (orbiting at 12,952,000 km) to make up the count of 13. But I have removed these two distant satellites from consideration. Venus, although strictly a satellite, is not listed below, although included in the count. This is the count after 4077 BC when Venus was expelled from Saturn.

Moon	Radius (km)	Mass (kg)	Distance (km)	Discoverer	Date
(7 satellites known before the 19th century, in order...)					
Mimas	196	.380e+20	185,520	W. Herschel	1789
Enceladus	250	.840e+20	238,020	W. Herschel	1789
Tethys	530	7.55e+20	294,660	G. Cassini	1684
Dione	560	10.5e+20	377,400	G. Cassini	1684
Rhea	765	24.9e+20	527,040	G. Cassini	1672
Titan	2,575	1350.e+20	1,221,850	C. Huygens	1655
Hyperion	205x130x110	.177e+20	1,481,000	W. Bond	1848

Seven is the traditional number recognized in antiquity, as, for example, the "seven helpers of the king (Osiris)" in Egyptian mythology.

It was known in more remote antiquity among the Olmecs that Neptune was one of the stack of planets as related in Book 11 of the *Chilam Balam* -- See the chapter "The Earlier Olmec Record." Then the planets (Uranus, Neptune, Saturn, Venus, Mars) plus the "seven helpers of the king" add up to 12. It has long been my suspicion that Mercury should probably be added to the "Saturnian

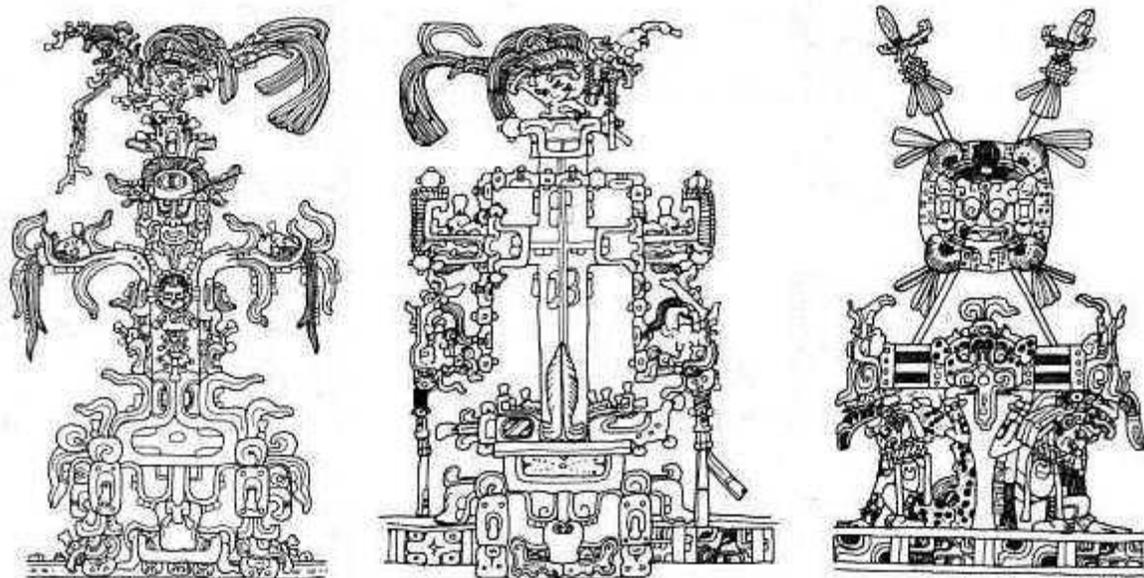
planets" to substitute for the globe identified as Venus and called "Sovereign Plumed Serpent" in the *Popol Vuh*.

The *Popol Vuh* identifies the northern planets as five in number during the time of the negotiations between the southern ball plasmoids and the northern planets (all within the period ending in 8347 BC, 2500 years after 10,900 BC), but the *Popol Vuh* seems to misidentify Mercury as Venus -- both were white spheres -- calling Mercury "Sovereign Plumed Serpent." This suggests that Venus only came into existence much later -- in 4077 BC.

[return to text]

Note 8 --

See Linda Schele and David Freidel, *A Forest of Kings* (1990). The temple images at Palenque are named as the "Tablet of the Foliated Cross," the "Tablet of the Cross (the World Tree)," and the "Tablet of the Sun (the War Stack)" -- in three separate temples of the same names, of which the "Temple of the Cross" is the central structure.



[Images: Palenque, circa AD 700. "Tablets of the Temple of the Foliated Cross," the "Temple of the Cross," and the "Temple of the Sun." After Linda Schele and David Freidel "A Forest of Kings" (1990).]

The tablets above are flanked with figures of the ruler Chan-Bahlum and his (dead) father. Both the accompanying texts and the iconography make it clear that the three panels are dedicated, in order (left to right), to Mars, Venus, and Jupiter. These are the "Palenque Triad" of gods, named GII, GI, and GIII.

The aged God L (GIII) on the left of the third panel above is Jupiter. God GI-prime, who is seen on the right of the panel, is Saturn, the father of GI (Venus). This last panel would seem to represent the lines of electrons connected to the far south as spears, not unlike the North African depiction of Neith of the Arrows. The two older Gods assigned to this would be appropriate, since this predated

everything else, 5000 years ago.
[return to text]

Note 9 --

I have assumed a synchronous rotation Earth and Saturn, which means that in effect Saturn's period was 24 hours, not 10.6 hours which is the period of rotation today. The speeding up of the rotation of Saturn can probably be justified from the loss in orbital rotational momentum due to its later relocation to 9.5 AU.

What would certainly account for the "beating of things with wood and stone" would be a misalignment of the axis of Earth and Saturn, which I have estimated at about 15 degrees. Saturn would be seen as revolving in a circle of about 30 degrees diameter around the center of the Earth's polar axis on a daily basis.
[return to text]

Note 10 --

Wal Thornhill has suggested that the weak magnetic field of Mercury is probably due to its wildly eccentric orbit. This would also apply to Venus before it circularized.
[return to text]

Note 11 --

The easily seen satellites of Jupiter number 4. These are in excess of 3000 km in diameter and were noted by Galileo. The next four in size and prominence, ranging from 50 to 200 km in diameter were discovered by the beginning of the 20th century AD. The satellites are listed below in order of distance from Jupiter. There are many more small and odd satellites.

It should be suggested that the satellites of Jupiter seen in antiquity consisted only of those relatively close to the planet, large enough to be seen, and not at extreme distances. That suggests the numbered satellites listed above. Since Thebe was not discovered until 1979, it might be left off the list. Then "the nine" would consist of 8 numbered satellites plus Jupiter. This follows the same reasoning as for Saturn.

A number of mythological sources (Asia and Africa) claim nine satellites or Gods who accompany Jupiter. Maybe Thebe was included. The last four are all at 10,000,000 km or more, and are unlikely to be part of the set.

Satellite	Distance (km)	Radius (km)	Mass (kg)	Discoverer	Date	comment
Metis	128,000	20	9.56e16	Synnott	1979	close in, small
Adrastea	129,000	10	1.91e16	Jewitt	1979	close in, small
Amalthea	181,000	98	7.17e18	Barnard	1892	1
Thebe	222,000	50	7.77e17	Synnott	1979	too late
Io	422,000	1815	8.94e22	Galileo	1610	2
Europa	671,000	1569	4.80e22	Galileo	1610	3
Ganymede	1,070,000	2631	1.48e23	Galileo	1610	4
Callisto	1,883,000	2400	1.08e23	Galileo	1610	5
Himalia	11,480,000	93	9.56e18	Perrine	1904	6
Elara	11,737,000	38	7.77e17	Perrine	1905	7
Lysithea	11,720,000	18	7.77e16	Nicholson	1938	8
Leda	11,094,000	8	5.68e15	Kowal	1974	smallest
Pasiphae	23,500,000	25	1.91e17	Melotte	1908	too far
Sinope	23,700,000	18	7.77e16	Nicholson	1914	too far
Carme	22,600,000	20	9.56e16	Nicholson	1938	too far
Ananke	21,200,000	15	3.82e16	Nicholson	1951	too far

[return to text]

Note 12 --

See Linda Schele and David Freidel, *A Forest of Kings* (1990), and *Maya Cosmos* (1993).

The quetzal plumage is a plasma connection between Venus and Saturn. If the connection were in arc mode it would be a display in green or violet, or at any rate brilliantly colored -- like the feathers of the quetzal bird (*Pharomachrus mocinno*). At a later time it would be the green plasma tail of Venus.

[return to text]

Note 13 --

The two-headed serpent uses Venus as one head and the Sun as the other. This is an image of the plasmoid bolt of Jupiter as seen in July of 685 BC. The vision serpent is distinct from this and might be a representation of the last red ring in the sky, the snake Apep of the Egyptians. Alternately it might represent a polar plasma plume which showed periodically, and ended in a ball form with a feather headdress.

[return to text]

Note 14 --

Although it is possible that the "nine" of "Bolon Dzacab" refers to the rising of Mars to Saturn, which is specifically noted by the *Chilam Balam*, it is more likely that the "nine" refers to the nine close approaches of Mars in the era of 806 BC to 687 BC.

[return to text]

Note 15 --

It is just as possible that the contact was much closer to Mesoamerica, for it could be suggested that the north magnetic pole was located at or near Hudson Bay at this time. That would still have the location of the plasma contact be viewed in the northwest direction from England, in the northeast from Mongolia, but seen in the wrong direction from China (although Chinese myth is fuzzy on this). But the plasma connection to Saturn would present itself as directly over the North Pole as seen from Northern Pakistan and India -- and thus without the curvature as seen from other locations.

This view from India might be justified from the extensive use of really giant swings as religious monuments at a number of locations. Any plasma connection in glow mode would look to have well-defined left and right edges. As I have mentioned earlier, the plasma stream may have looked as if there was very little change in the width from its lowest to its highest location.

See, in this regard, Willard Van De Bogart's essay presented at [The Giant Swing]. He writes:

"In India the swing has been used for thousands of years with its early beginnings going back to the aboriginal cultures which populated the Indian sub-continent long before the Hindu culture began. The swing has been used in fertility rites, religious rituals and as a symbol for the cosmological understanding of the universe and developed as a way to celebrate the beginnings of the New Year by cultures worldwide."

[return to text]

Note 16 --

Schele and Freidel, *A Forest of Kings* (1990), endnote 33 to page 246. To repeat a previous endnote: Ballcourt A-IIb at Copan in Honduras was built during the sixth or seventh century AD, and soon remodeled. The remodeling preserved three central alley markers.

A tree is shown on the outside area of the north and south markers. Suspended from each tree is a large playing ball. The tree of the north is labeled "Nine Successions"; the tree of the south is labeled "Seven Successions." If, as I suspect, the trees represent the plasma plumes of the north and south, then we have here an inventory of how many times the *axis mundi* reappeared. It would be appropriate to reappear more frequently in the north, since the north magnetic pole would facilitate a larger movement of electrons.

The dates for the return of the directional trees are as follows:

- (1) after 3147 BC (trees mentioned)
- (2) after 2349 BC (trees mentioned)
- (3) after 2193 BC
- (4) after 1492 BC (trees mentioned)
- (5) after 1442 BC
- (6) after 747 BC
- (7) after 686 BC
- (8) after 685 BC

The date of 686 BC is not at all certain. I added the date of 685 BC to the list. There was no change in the Earth's orbit in 686 or 685 BC, but the electric field of the Sun changed significantly in 685 BC. I also have the suspicion that there might have been two additional changes in the orbit of Earth between 2349 BC and 2193 BC, which have remained unrecorded. The name "Nine Successions" is one more "succession" than noted in the records at Palenque, where the first northern plasma plume is called "north-eight-house."
 [return to text]

Note 17 --

The choppy transliterations of the dedicatory texts of monuments of the Maya seldom are very clear on purposes, except to prove the exceptional nature of the Long Count calendar. In this case, too, it is unknown why the "raised-up-sky north-eight-house GI" had to be invoked.

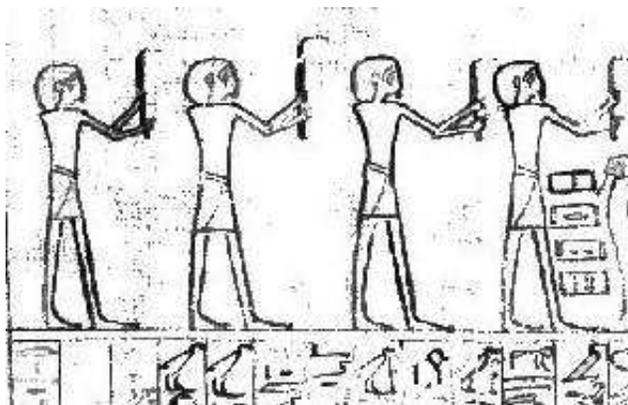
In the quoted text, the glyph "GI" is used with other modifiers, and it is uncertain what it would mean. It could be a possessive, "the eight-house of Venus." This would match the first recognition by the Egyptians of Venus flying around the tree of Biblos in the north. It could also read as "raised-up-sky north-house eight-GI," but GI (Venus) only shows up seven times near Earth, as I will detail in this text, not eight.

Maya representations of Gods as face-glyphs are called God GI, GII, GIII, and God A, B, C, etc., by archaeologists because it has not been easy to identify the faces with well-known and named Gods. But based solely on iconography I can readily associate some of these numbered and alphabetically identified face-glyphs with the planets as follows:

named God	planet
B, GI	Venus
D, GI-prime	Saturn
K, GII	Mars
L, GIII	Jupiter

[return to text]

Note 18 --



[Image: The four flames which surround the cosmos, an illustration from the Egyptian Book of the Dead.]

[return to text]

Note 19 --

If Hathor in Egyptian iconography and literature can be identified with electric contacts by Venus, then the occurrence of the "Seven Hathors" (as sculpted, for example, at the Roman Period temple of Denderah in Egypt) might signify a similar recognition of the repeating nature of interferences by Venus.

In Copic "Hathor" is the name for the seven stars of the Pleiades.

[return to text]

Note 20 --

In the texts at the Maya Temples of the Cross in Palenque (AD 690), the Moon, although born before creation according to the texts (in 3121 BC) and bearing planetary children in 2360 BC, becomes "ruler" ("crowns herself") in 2305 BC. After correction (see below), this date would fall in a Katun 9-Ahau. Saturn is her husband; he is also born before the retrocalculated nominal date of the second creation of 3114 BC. The birth of the Moon can be attributed to seeing Jupiter on a nearby outer orbit before it clashed with the Saturnian system.

The specific seasonal dates used at Palenque are likely selected for their numerological value (so think some archaeologists), although I would think that probably the correct era was used -- that is, the correct Baktun and the correct Katun. The inscriptions were meant to be seen by local Ahobs and visiting dignitaries from other Maya ceremonial centers -- all of whom were literate and acquainted with the written history of the world.

That the three planets were "born" in 2360 BC would suggest that they became visible at this time, that is, as star-like objects, but more importantly it would mean that they were freed from the obscuring Absu into which the ecliptic dipped for half of each year before 2349 BC. This could also suggest that the Absu had clearly disappeared at this time. As I have pointed out in another chapter, the date of 2360 BC is incorrect by 22 years. It should be 2337 BC, which places it after the "flood of Noah" of 2349 BC by 12 years. The "flood of Noah" is the start of the removal of the Absu from the skies.

The "corrections" noted in the text are based on the assumption that the Palenque dates were retrocalculated on the basis of a 365.24-day solar year, whereas the Olmec who instituted the Long Count originally used a 360-day solar year. Thus the retrocalculations place all the calculated Baktuns and Katuns too far into the past by 5.24 days per year since 747 BC.

The crowning of the Moon as Ahau in 2305 BC should be corrected by 22 years to 2283 BC, which, by the way, is close to the date that the Moon "Shun" joins the Chinese emperor (God) Yao (Jupiter) on the throne (2287 BC traditionally, corrected to 2277 BC).

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Note 21 --

But note that in the chapter, "The Day of Kan," I identify Monte Alto in Guatemala, dating to about 2000 BC, as an earlier important ceremonial center. Monte Alto was destroyed or left behind after (what looks like) 520 years of use, to be replaced by San Lorenzo in about 1440 BC.

[return to text]

Note 22 --

An ephemeris program needs to be set at 2000 BC to show the Pleiades aligned with the intersection of the equatorial and the ecliptic. Except for the horizon and zero degrees longitude lines, this is the condition of the sky in June of 685 BC and anytime earlier. This would not be true after July of 685 BC, when the intersection had moved 15 degrees west along the horizon.

[return to text]

Note 23 --

The sweet smells are quoted by Velikovsky from the *Papyrus Anastasi*, Ginsberg's *Legends*, and the *Vedas*. It is reminiscent of the smell of the exhaust of diesel engines, thus the burning of hydrocarbons.

[return to text]

Note 24 --

July 26 is the day after July 25, and therefore is New Year's Day. July 25 represents the overhead passage of the Sun at Edzna in the Eastern Yucatan, as also at Teotihuacan in the Central Valley of Mexico. Both are located at a latitude of 19 degrees and 41 minutes north.

At the time of the Spanish invasion, after AD 1556, July 26th was rotating through the days Kan, Muluc, Ix, and Cauac (using the August 13 correlation), reaching the day of Kan on July 26, 1557 (Gregorian), as Landa reported. But it would not have mattered what Tzolkin day-name fell on July 26th. It was known as "the day of Kan" -- as the day the world was destroyed and recreated.

[return to text]

Note 25 --

I attempted to apply any number of corrective measures to the calendar calculations, but only the substitution of 365.24 days for the 360 days, as assumed both by us and by the Classical Era Maya for the period prior to 747 BC, yielded results. Thus the scribal "error correction" for the day of Kan was accomplished well after 685 BC.

In researching the "day of Kan" over a span of 5000 years I became aware of how relatively easy it was to access the Long Count for particular combinations of the Tzolkin and Haab.

[return to text]

Note 26 --

We should be able to check locations of Mars and Mercury with an ephemeris program; however, fully accurate results cannot be expected, for even though the Earth's orbit was determined by 747 BC, the orbit of Mercury changed in 686 BC. The location of the planet Mercury for the date of March 23, -686, the second Earth shock, is "off" by some days, as I show in Appendix B, "The Celestial Mechanics." Since this is likely to have been the last alteration of the orbit of Mercury, it can be expected to be close to today's values in that instance only -- which represents the starting position (in fact, the aphelion) of the current orbit.

Earlier positions cannot be found for the simultaneous appearance of Mars and Mercury. This is to be expected for an ephemeris based on the current tight orbit of Mercury. It is amazing, yet expected, that a point of coincidence was found with the orbit of Earth in 686 BC. If the earlier orbit of Mercury was simply an elongated version of today's orbit, that is, the same orbit with extreme eccentricity, then the orbital period would be the same, although the location of the planet at any point in time along its orbit would vary considerably.

Certainly both Mars and Mercury would appear together in the skies on occasion, since Mercury (today) has a fairly short orbital period, and even Mars would pass Earth approximately every two years. An inspection of the series of the Julian (ephemeris) years 748, 733, 718, 703, and 688 BC, shows Mercury near the sky location of Mars in four out of five years in March or February. It does not happen in 688 BC but happens two years later. (The series was developed by repeatedly subtracting 15 years from astronomical year -747.)

I am adding this note only to demonstrate that the condition of the simultaneous appearance of Mars and Mercury is very possible. In all these cases an ephemeris program will show Mars outside the orbit of Earth and both Mars and Earth in line with the Sun.

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Note 27 --

Schele and Freidel (in *A Forest of Kings*) are of the opinion that the accumulation of wealth, resulting from harvest surpluses and wider trading, which had come into effect after 300 BC (although earlier dates could very well be suggested), constituted an unprecedented crisis among the Maya, whose social interactions were based on egalitarianism. They write of "a culture which regarded the accumulation of wealth as an aberration," and note:

"We know that the problem the Maya were trying to resolve was one of social inequality because that is precisely the state of affairs that the institution of ahau defines as legitimate, necessary, and intrinsic to the order of the cosmos."

Acceptance of this social sinkhole for wealth did not keep Maya scribes from complaining incessantly, as we see in the *Chilam Balam* texts, both in this Book and elsewhere.

The surpluses of maize, by the way, are astounding. Typically, in well-watered territory, only one-third of the corn crop was needed to feed the family of the farmer year round -- a family which could easily consist of 10 people. That means 20 people could be fed for a year from the remaining crop.

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Note 28 --

If we assume that the "lineage of the noble chiefs" and those whose "faces had been trampled on the ground" represent the orthodox upholders of the relationship between the Maya and the cosmos, then the "unrestrained upstarts of the day and of the Katun," who had inflicted the overthrow of the orthodox nobility, most likely represent a second wave of religious philosophy entering the Yucatan from the west.

The archaeological record of the Classical Era shows the arrival of emissaries from Teotihuacan (in Mexico) some time before AD 700. They bring the flayed human face shield and the dart thrower, which were in general use in the Valley of Mexico at that time. The Maya adopted these to some degree, but it is more likely that they adopted aspects of the religious philosophy and practices of the westerners.

Of course the Maya had already adopted both the temple mound and the script and time keeping of the Olmecs by circa 100 BC (and possibly much earlier). And the later invasion by the Itza, after AD 900, certainly brought with them a religion of hope for the return of Quetzalcoatl which differed from the concept about Venus which the Classical Maya had already established.

In the main text I have postulated the changes in attitudes toward the older Gods in China, India, and the Middle East after 600 BC, which spread in waves of new religions. I have suggested that the same would have happened in Mesoamerica, and would propose that the first and primary epicenter was Olmec Veracruz.

It could therefore be suggested that, as elsewhere in the world, a number of different solutions came forward. We certainly see this in Central Mexico in the period after 600 BC, with new interpretations of the control of the Gods established at intervals through to the time of the Aztecs.

We have no clear idea from the text of the *Chilam Balam* of when new philosophies were introduced which would have caused the overthrow of the older nobility, although the Itza are repeatedly blamed for "introducing idolatry" to the Yucatan, possibly to cast blame away from the indigenous Maya. But what is interesting is that this is referenced to the events Katun 3-Ahau -- in 685 BC. Since Katun 3-Ahau would repeat, any number of other incidents could be tied to this. This history certainly holds Katun 3-Ahau as significant.

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Note 29 --

The following lists every one of the ending years of Katun 9-Ahau, 7-Ahau, 5-Ahau, and 3-Ahau. I have listed the years as "BC" rather than in their astronomical nomenclature. The Katuns all start 20 years earlier. Where I skip a range of Katuns, I have placed a series of dots.

The corrections listed on the right of some lines are based on the assumption that the Olmecs had listings of Baktuns and Katuns available which reflected solar years, so that a Baktun would be 400 solar years, and a Katun would be 20 solar years, without regard to the actual length of the year. Thus the corrections below are based on subtracting 6 Baktuns (2400 years) from 747 BC to arrive at 3147 as the year of the end of the "Era of the Gods." The correction is thus **3147 - 400 * Baktuns - 20 * Katuns**. The corrected years are shown as "sb" -- "should be."

- Before 3114 BC (0.0.0.0.0) sb: 3147 BC
 - Oxlahun-ti-ku (Saturn) is blindfolded.
 - Bolon-ti-ku (Jupiter) attacks Saturn.
 - Nine-Lives (Mars) rises 9 times.
- Katun 11-Ahau ends in 3055 BC (0.3.0.0.0)
- Katun 9-Ahau ends in 3033 BC (0.4.0.0.0) sb: 3087-3067
 - Ten-Sky (Mars) arrives.
- Katun 7-Ahau ends in 3015 BC (0.5.0.0.0)
- Katun 5-Ahau ends in 2996 BC (0.6.0.0.0)
- Katun 3-Ahau ends in 2975 BC (0.7.0.0.0)
-
- Katun 9-Ahau ends in 2779 BC (0.17.0.0.0)
- Katun 7-Ahau ends in 2759 BC (0.18.0.0.0)
- Katun 5-Ahau ends in 2739 BC (0.19.0.0.0)
- Katun 3-Ahau ends in 2720 BC (1.0.0.0.0)
-
- Katun 9-Ahau ends in 2523 BC (1.10.0.0.0) sb: 2567-2547
 - The Third Creation
 - Jupiter clears the asteroid belt and develops a coma
- Katun 7-Ahau ends in 2503 BC (1.11.0.0.0)
- Katun 5-Ahau ends in 2483 BC (1.12.0.0.0)
- Katun 3-Ahau ends in 2463 BC (1.13.0.0.0) sb: 2507-2487
 - Jupiter loses its tail for 20 years.
-
- Katun 4-Ahau ends in 2345 BC (1.19.0.0.0) sb: 2387-2367
- Katun 2-Ahau ends in 2325 BC (2.0.0.0.0) sb: 2367-2347
 - Fall of the Absu (misplaced below).
 - (no Katun listed:) Jupiter develops a coma again.
- Katun 13-Ahau ends in 2305 BC (2.1.0.0.0) sb: 2347-2327
 - (no exact Katun:) Moon appears.
 - (Palenque) Moon first appears, 2336.8 BC
- Katun 11-Ahau ends in 2286 BC (2.2.0.0.0) sb: 2327-2307
- Katun 9-Ahau ends in 2266 BC (2.3.0.0.0) sb: 2307-2287
 - (Palenque:) Moon "lets blood," 2302.3 BC
 - (Annals of Shu) Moon birth 2301 BC
 - Fall of the Absu (misplaced event).
- Katun 7-Ahau ends in 2246 BC (2.4.0.0.0) sb: 2287-2267
 - (Palenque:) Moon "crowns herself," 2282.6 BC
 - (Annals of Shu) Moon employed 2288 BC
- Katun 5-Ahau ends in 2226 BC (2.5.0.0.0) sb: 2267-2247
- Katun 3-Ahau ends in 2206 BC (2.6.0.0.0)
-
- Katun 8-Ahau ends in 2128 BC (2.10.0.0.0) sb: 2167-2147
 - Yao dies 2150 BC
 - Gudea, brightness of Ningursu, ca 2150 BC

-- Shu, celestial event" of 2155 BC

-- Death of Abraham at 199, 2150 BC

-- Jupiter in flames -- "fire on high"

- Katun 6-Ahau ends in 2108 BC (2.11.0.0.0) sb: 2147-2127
- Katun 4-Ahau ends in 2089 BC (2.12.0.0.0) sb: 2127-2107
- Katun 2-Ahau ends in 2069 BC (2.13.0.0.0) sb: 2107-2087
- Katun 13-Ahau ends in 2050 BC (2.14.0.0.0) sb: 2087-2067
- Katun 11-Ahau ends in 2030 BC (2.15.0.0.0) sb: 2067-2047
- Rockenbach, Tower of Babel, 2060 BC
- Katun 9-Ahau ends in 2010 BC (2.16.0.0.0) sb: 2047-2027
- Katun 7-Ahau ends in 1990 BC (2.17.0.0.0) sb: 2027-2007
- Katun 5-Ahau ends in 1971 BC (2.18.0.0.0)
- Katun 3-Ahau ends in 1951 BC (2.19.0.0.0)

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- Katun 9-Ahau ends in 1754 BC (3.9.0.0.0)
- Katun 7-Ahau ends in 1734 BC (3.10.0.0.0)
- Katun 5-Ahau ends in 1714 BC (3.11.0.0.0)
- Katun 3-Ahau ends in 1695 BC (3.12.0.0.0)

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- Katun 9-Ahau ends in 1497 BC (4.2.0.0.0) sb: 1527-1507
- Katun 7-Ahau ends in 1478 BC (4.3.0.0.0) sb: 1507-1487
- Ah Uuc Chek-Nal (Venus) rubs the Earth.
- Katun 5-Ahau ends in 1458 BC (4.4.0.0.0)
- Katun 3-Ahau ends in 1438 BC (4.5.0.0.0)

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- Katun 9-Ahau ends in 1241 BC (4.15.0.0.0)
- Katun 7-Ahau ends in 1221 BC (4.16.0.0.0)
- Katun 5-Ahau ends in 1202 BC (4.17.0.0.0)
- Katun 3-Ahau ends in 1182 BC (4.18.0.0.0)

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- Katun 9-Ahau ends in 985 BC (5.8.0.0.0)
- Katun 7-Ahau ends in 965 BC (5.9.0.0.0)
- Katun 5-Ahau ends in 945 BC (5.10.0.0.0)
- Katun 3-Ahau ends in 926 BC (5.11.0.0.0)

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- Katun 11-Ahau ends in 747 BC (6.0.0.0.0) actual
- Mars contacts Earth; (start of Long Count)
- Katun 9-Ahau ends in 729 BC (6.1.0.0.0) actual
- Further sightings of Mars.
- Katun 7-Ahau ends in 708 BC (6.2.0.0.0)
- Katun 5-Ahau ends in 688 BC (6.3.0.0.0)
- Katun 3-Ahau ends in 668 BC (6.4.0.0.0) actual
- Venus nova, Kukulcan disappears.

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*Calculations are in Unix bc notation, where ^ denotes exponentiation; the functions a(rctangent), s(ine), and c(osine) use radians; angle conversions to radians or degrees by the divisors rad=.0174 and deg=57.2958; other functions are shown as f(); tan()=s()/c()
units: million == 1,000,000; billion == 1,000,000,000;
AU == 93,000,000 miles.*



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