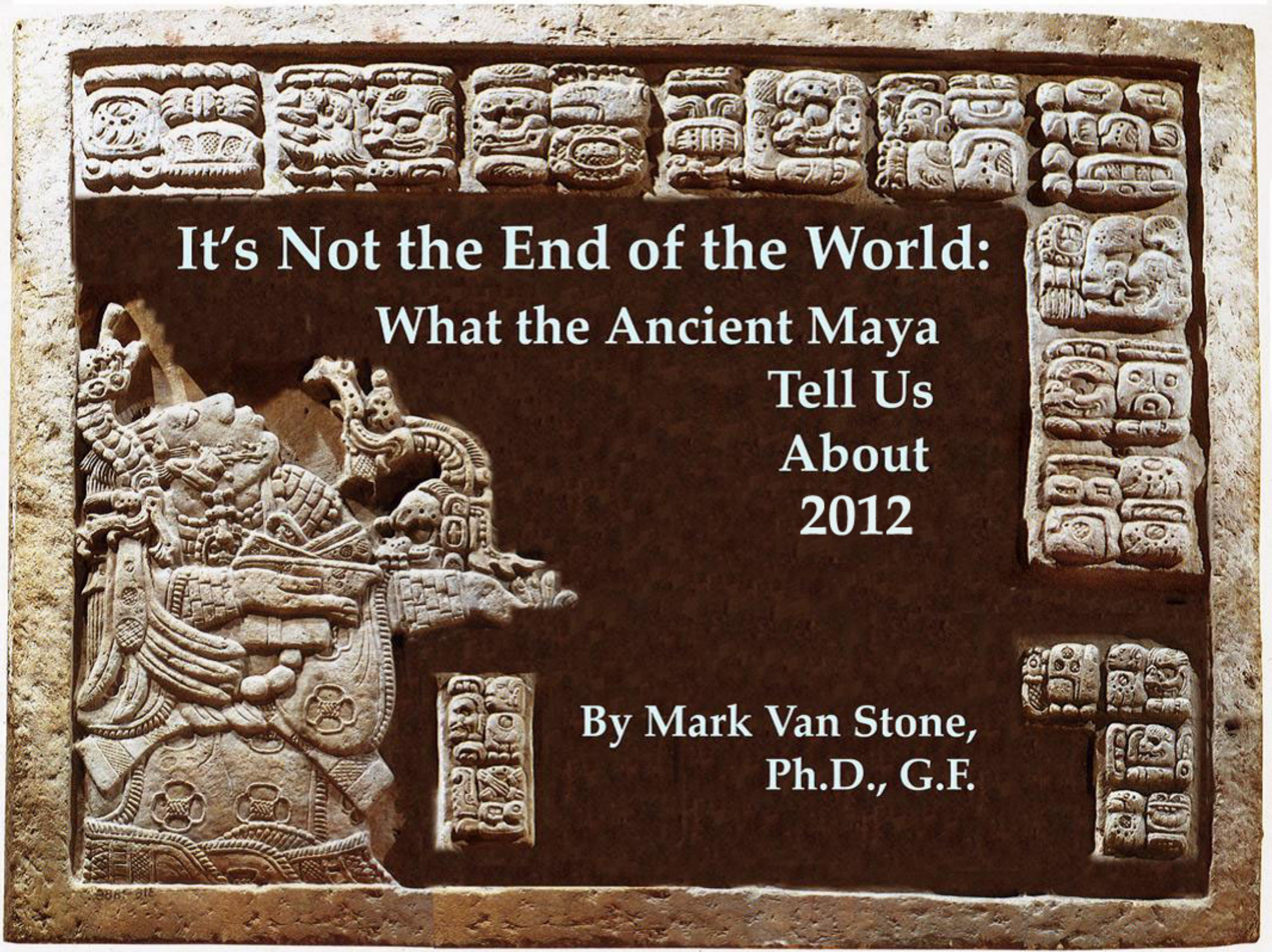

It's Not the End of the World:
What the Ancient Maya
Tell Us
About
2012
By Mark Van Stone,
Ph.D., G.F.

The Year 2012.

Maya Prophecy?
The End of an Ancient Calendar?
The End of the World as We Know It?
Global Cataclysm?
A Cosmic Change of Consciousness?
The return of Quetzalcoatl?

What *is* this all about?

So, we're hearing a lot about what the ancient Maya prophesied for us, far in their future…our year 2012.

The din is rising.
What did they actually tell us?

The short answer from the Maya is,
It's *not* the end of the world!

Photo by Guillermo Aldana, Arqueología Mexicana VIII:45

Indeed, current debate about 21 December 2012 results from contemporary confusion from projections, assumptions, and misunderstanding about the science and beliefs of several ancient cultures of the Americas.

The Maya were one of many cultures of the Americas who employed a solar calendar of 365 days. However, while the Maya calculated and utilized cycles of ~5125 years, other cultures, including the Aztecs, focused on shorter cycles of only 52 years.

Although the Aztec adopted many aspects of the Maya calendar, the milestone of 21 December 2012 is significant only in terms of the long cycles of Maya time.

The Maya Long Count notation for 21 December 2012 is 13.0.0.0.0 which completes a cycle of **5125.366** years (3114 BC – 2012 CE).

More later about the Maya. Let's look now at current prophecies for 21 December 2012.

Some of the events proposed to come together on the winter solstice, 21 December 2012:

- On that morning, the **Earth and Sun will align with the "Dark Rift" near the Galactic Center**. This event last happened about 25,800 years ago.

- **The magnetic poles of the Earth may reverse**, leaving us unprotected from cosmic radiation for a time. The effect of magnetic fields on human creativity, initiative, mood, etc., is still unknown.

- There will be a **Venus Transit**, an eclipse-type alignment when Venus crosses between Earth and the Sun. We witness a pair of these about once a century: the last few were 1518 & 1526; 1631 & 1639; 1761 & 1769; 1874 & 1882; 2004 & then on **6 June 2012**.

- NASA predicts an **unusually powerful "Solar Maximum"** (sunspot season) for 2012 (though it may peak as early as late 2011). This happens every 11 years, and disrupts satellite and other electromagnetic communications.

- The usual disasters loom: food shortages, cataclysmic storms due to global warming, gasoline prices going through the roof, looming chaos in the Middle East – site of Biblical Armageddon and Eden – which will disrupt oil production and bring civilization to a grinding halt (some like to call it Mess-o'-potamia).

Maya Prophecies for 21 December 2012

- According to ancient records, the **Maya Long Count Calendar will reach 13.0.0.0.0**. Due to the cyclic nature of Maya calendars, this date appears to replicate the same number as at the beginning of this Creation in August 3114 BC/BCE (which the Maya also wrote as 13.0.0.0.0). The interval is 5125 years & 133 days, or **5125.366 years**.

- The **return of Quetzalcoatl** (one of the great gods of ancient Mesoamerica), according to Aztec and Maya prophecies.

- The "13" in the Maya date 13.0.0.0.0 indicates "13 *Bak'tuns*." **A Maya *Bak'tun* or *Pik* is 144,000 days**, the same number as the number of devotees taken up in the Rapture, according to the *Book of Revelation*. Coincidence?

- **There have been five Creations according to the Aztec records**. Five times 5125.366 years is 25,626.8 years. Coincidence?

Reasons why the "Maya Prophecies" should be read *very* critically:

1. **Very fragmentary**. What we have is only a handful of passages from a lost, and much longer, story.
2. **Contradictory**. Though Aztec, Mixtec, and Maya sources provide us a number of narratives, different versions disagree. The calendar dates associated with Maya "end date," Aztec "end date," and "return of Quetzalcoatl" *all* vary.

   For example: the Aztec predict that this Creation will end on a 4-Movement day in a 2-Reed year, if it ends at all. The next possible Aztec end-date will be in 2027. Maya literature does not explicitly predict any end at all, and their so-called "end date" in 2012 is a 4-Ajaw [4-Flower in Aztec cycle], not 4-Movement. Mixtec Creation stories mention 2-Deer in year 13-Rabbit, and other dates.
3. **Manipulated**. Tlacaélel, Machiavellian minister to three Aztec emperors, had no illusions about the propaganda power of history, and saw to it that history was rewritten *completely* to exalt the Mexica and denigrate rivals. He was neither the first or the last to do this. At his behest, the Aztecs burned their *own* libraries as well as their enemies', in order to start with a clean slate. They even ***changed Quetzalcoatl's birthday***. Likewise, Maya dates and intervals of time were manipulated for their numerological and augural significance.
4. **Misunderstood**. 21st-century Western world-view is *very* different from that of ancient Mesoamericans. We tend to project our own ideas and beliefs on others.

   For example: their distinction between truth and myth, and between various individual gods, were nowhere near our categorical boundaries. Gods did not have distinct personalities, they blended into each other, they split into gangs of 4 or 5. The days, and even the numerals in their calendars were living, powerful entities. Some Maya texts (below) appear to have indicated "myth time" with "unworkable" calendar days.

More reasons why the "Maya Prophecies" should be read *very* critically:

5. **Errors**. Maya monuments, particularly dates and distance numbers contain errors, both of transcription and of calculation. I count something over 50 numerical mistakes *carved in stone*. Apparently the Maya, believed that "a card laid is a card played" and **never, ever, erased and fixed a mistake.**
6. **No mention of destruction** nor of renewal, nor improvement, connected to the coming 13.0.0.0.0 Maya "end date".
7. Implication that **Life and the calendar will continue without interruption** beyond 2012.
8. The Mesoamerican concept of "**cyclic time" is not that cyclic**. To both the Maya and the Aztec each Creation was an improvement on the previous era.
9. **Solstices** were of *very minor* importance. Though they record hundreds of ceremonies, anniversaries, jubilees, dedications, offerings, astronomical events, etc., inscriptions almost never mention events on solstices or equinoxes. However, especially very early, during the Middle Formative, the Maya built "E-Groups," architectural alignments to the Solstices and Equinoxes. (Archaeoastonomers have long been puzzled by the fact that *most* E-Groups *do not* align to these risings. Recent investigation suggests that E-Groups may have been aligned to the solar Zenith Passages and Nadirs, events more highly esteemed than Solstices. The First Zenith Passage coincides with the onset of the rainy season in much of Mesoamerica.)

What is supposed to happen in 2012?

Four predictions

"An imminent polar reversal that will wipe our hard drives clean."

Daniel Pinchbeck

"The rare celestial alignment of our solar system, our sun, and our planet with the center of our galaxy—an event that will not happen again for another 26,000 years."

Gregg Braden

The "dawning of a Wisdom Age … standing on the shoulders of the Information Age."

Peter Russell

"The December 21, 2012, date will likely be a "nonevent" similar to … the widely anticipated Y2K phenomenon."

Robert K. Sitler

Cultural Diversity

The next 2 maps will show how diverse Mesoamerica is - both culturally and linguistically.

The Maya, and the later Mixtec and Aztec cultures, are only a few of many.

Mesoamerica has greater linguistic diversity than Europe.

3.20 THE MESOAMERICAN CULTURE AREA, *showing approximate tribal locations (with modern boundaries)*

Map by Phil Konstantin

Just the Mayan area (light blue), for example, comprises **22 living languages** even today.

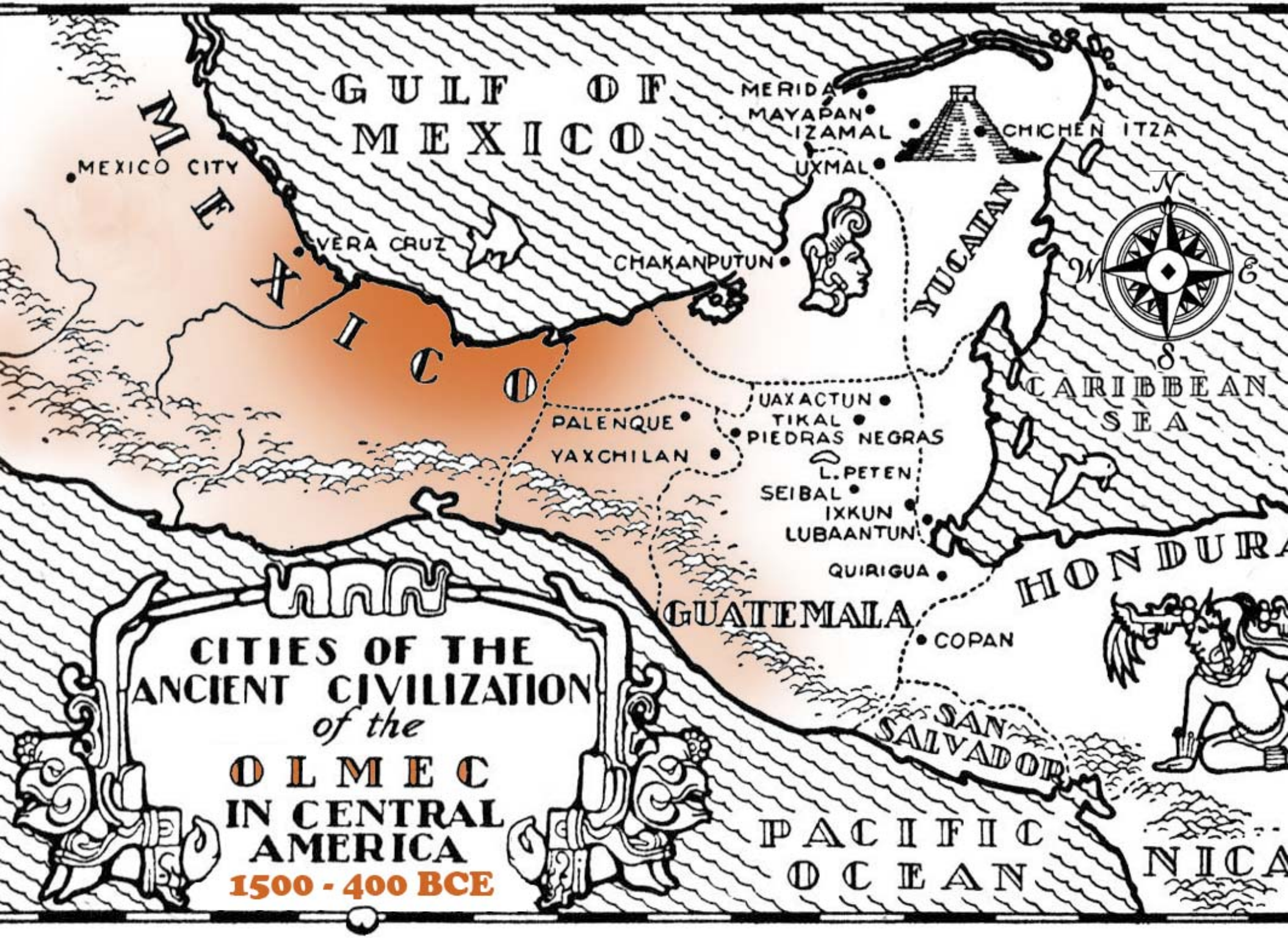
Map courtesy **FAMSI.org** — modified from *The Handbook of Middle American Indians*.

Culture Areas and Dates

The next 4 maps display the dates and areas of the **Olmec**, Early and Late Classic **Maya**, and the **Aztec** cultures.

These groups were as different from each other as Egypt, Greece, and Medieval Spain. Nevertheless, like Greece and Spain, the later cultures respected, and built on their forebears.

They also felt free to *adapt* as well as *adopt*. Ancient Mesoamericans had no compunctions about changing or even inverting stories, just as Christmas traditions vary around the world.


GULF OF MEXICO
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CHICHEN ITZA
UXMAL
CHAKANPUTUN
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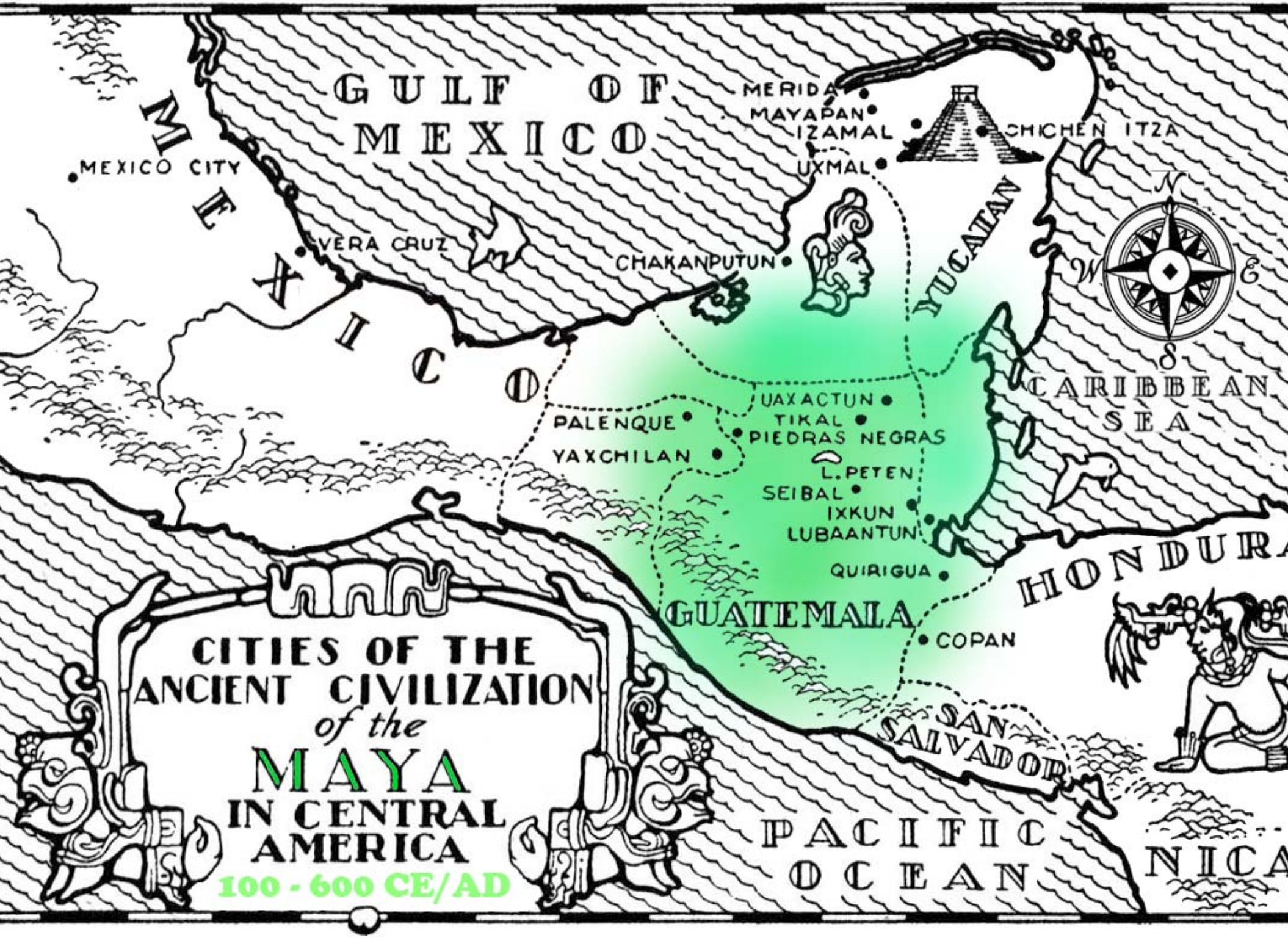
PIEDRAS NEGRAS
PALENQUE
YAXCHILAN
L. PETEN
SEIBAL
IXKUN
LUBAANTUN
QUIRIGUA
GUATEMALA
HONDURA
COPAN
SAN SALVADOR
PACIFIC OCEAN
NICA
CITIES OF THE ANCIENT CIVILIZATION of the OLMEC IN CENTRAL AMERICA
1500 - 400 BCE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GUATEMALA
COPAN
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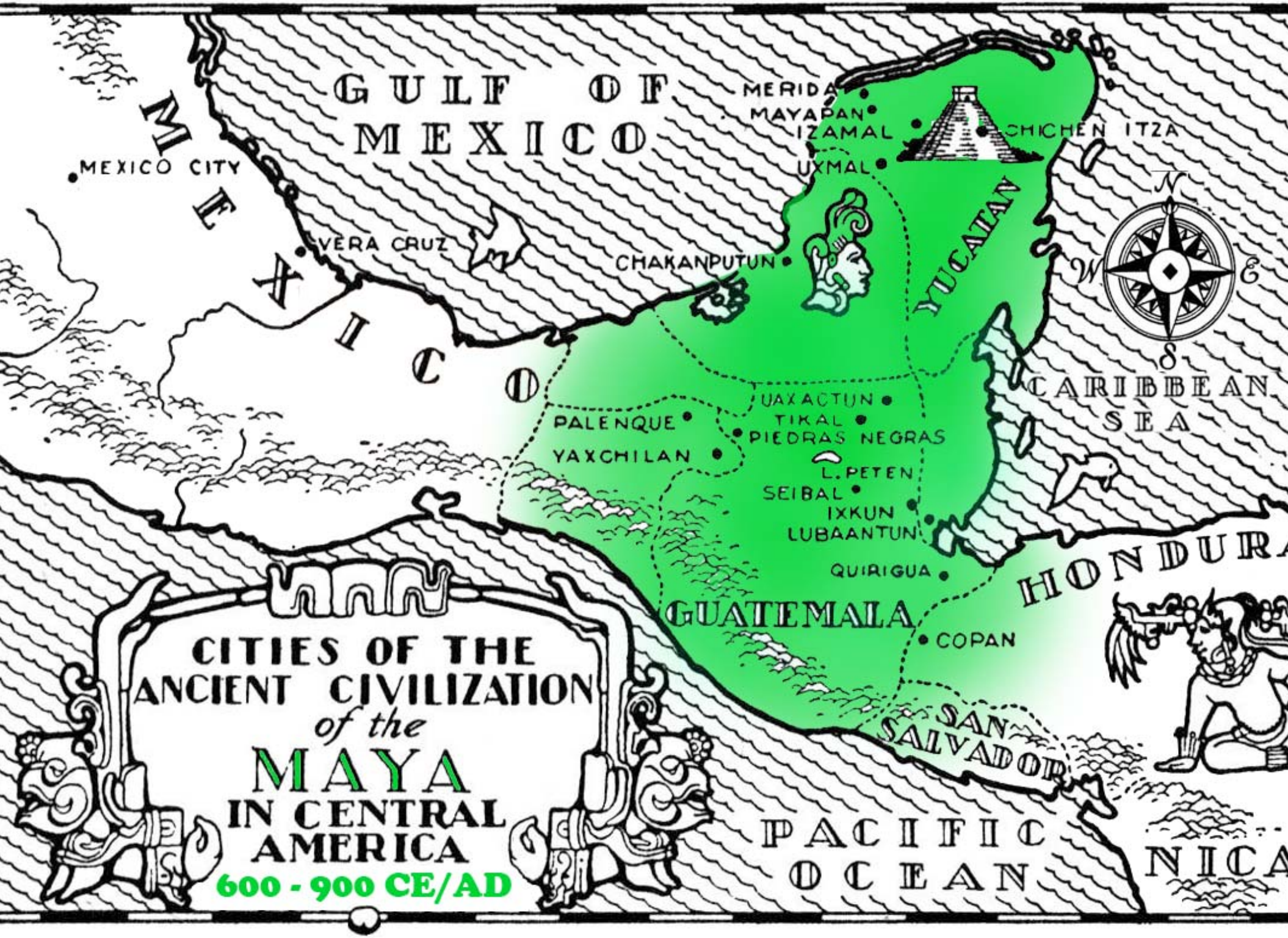
CITIES OF THE ANCIENT CIVILIZATION of the MAYA IN CENTRAL AMERICA
100 - 600 CE/AD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GUATEMALA
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SAN SALVADOR
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NICA
CITIES OF THE ANCIENT CIVILIZATION of the MAYA IN CENTRAL AMERICA
600 - 900 CE/AD


GULF OF MEXICO
MEXICO
MEXICO CITY
VERA CRUZ
MERIDA
MAYAPAN
IZAMAL
CHICHEN ITZA
UXMAL
CHAKANPUTUN
YUCATAN
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SEIBAL
IXKUN
LUBAANTUN
QUIRIGUA
HONDURAS
GUATEMALA
COPAN
SAN SALVADOR
PACIFIC OCEAN
NICA
CITIES OF THE ANCIENT CIVILIZATION of the AZTEC IN CENTRAL AMERICA
1340 - 1521 CE/AD

Cultures worldwide suffer cycles of Rise and Fall. But those in Mesoamerica apparently lived in a more fragile environment; when they fell, they fell hard. Unlike Rome, Baghdad, and other Old World cities who rebuilt after a collapse, most of the great Mesoamerican capitals were completely abandoned after their respective Falls.

The Mesoamerican People suffered Multiple Collapses

900 BCE/BC	The major Olmec city of **San Lorenzo** was abandoned, and **La Venta** rose. (Gulf coast)
400-300 BCE/BC	The **Late Preclassic Collapse** snuffed the **Olmec** Horizon, and fertilized dozens of Late Formative city-states. (pan-Mesoamerica)
100 BCE/BC	**Cuicuilco**, buried by a volcanic eruption (southern Valley of Mexico), coincides with rise of Teotihuacán (northern Valley of Mexico)
200 CE/AD	The abandonment of great cities in the **Mirador Basin**. (Northern Guatemala)
600/650 CE/AD	The burning of **Teotihuacán** marks the boundary between Early and Late Classic.
600-800 CE/AD	The Late Classic saw not only a dramatic **florescence of Maya cities**, but also the appearance of new civilizations: Tajín, Huasteca, Xochicalco, Cacaxtla.
900 CE/AD	The **Classic Collapse**: Maya, Zapotec, Veracruz, etc. (pan-Mesoamerica)
1100 – 1250	The rise of the Mixteca city-states.
1350 – 1450	The Aztec/Mexica establish an empire.
1500-1540 CE/AD	The **Conquest**: Introduced disease; the fall of **Tenochtitlán** (1521), and then the rest of the Americas. (pan-Mesoamerica)

Just as we do, the Maya had
***several calendars* to record time.**

The Maya had very complex and interlocking calendar systems, which were as precise as modern day calendars. In the same way our Gregorian count ties to an important event, -the birth of Christ- the Maya calendar also counts forward from an important 'Creation' date, 11 August 3114 BCE.

The Maya recorded time mainly using 3 interconnected calendars - the **T*zolk'in***, the ***Haab***, and the ***Long Count.*** Like us, they kept track of other cycles, but these only appeared in special circumstances (*particularly in the Initial Series, in the next slide*), and we can practically ignore them in this presentation.

Drawings and photos of Yaxchilan monuments by Ian Graham et al., *Corpus of Maya Hieroglyphic Inscriptions*.

Yaxchilan *Lintel 21*, carved in limestone around the year 756 AD/CE, provides a typical Maya ceremonial-historical text, and indicates to us the ancient Maya passion for precise keeping of time. The opening date occupies more than three-quarters of the first column. About a third of the rest of the text is taken up by additional calendric information.

In other words, over half of this inscription is devoted just to stating precisely **when** the events occurred. As I said, this is typical of Maya stone inscriptions employing several aspects of Maya calendars.

Our Gregorian calendar also include multiple counts.

For example, the Gregorian date Monday, December 29th 2008 records:

Monday = One day in a *named* cycle of 7 ***days*** (week)

29th = One in a *numbered* cycle of 28, 29, 30 or 31 days

December = One in a cycle of 12 *named* ***months***

363 = One in a cycle of 365 days

2.0.0.8 AD/CE = A count of ***years*** since the birth of a Christian cycle

Two days before the end of the current year (New Year's Eve) = *Interval* or ***Distance Number*** between this day and the next significant event (2.0.0.9)

To compare, this same date as written by the Maya records:

7 Manik' 10 K'ank'in 12.19.15.17.7

Manik' = One day in a *named* cycle of 20 ***days*** (tzolk'in)

7 = One in a *numbered* cycle of 13 days

K'ank'in = One in a cycle of 18 *named* ***months*** (haab)

10 = One in a *numbered* cycle of 20 days

12.19.15.17.7 = A count of ***years*** since the birth of a Maya Cycle

13 days before the end of the 15th tun = *Interval* or ***Distance Number*** between this day and the next significant event (12.19.16.0.0)

Several other calendars can also be used:

Capricorn = Another cycle of 12 *named* ***months***

Year of the Rat = A cycle of 12 *named* ***years***

1430 AH = *Anno Hegirae,* a linear count of ***years*** since the *hegira* of prophet Muhammad. 29 December 2008 is the first day of the Muslim New Year.

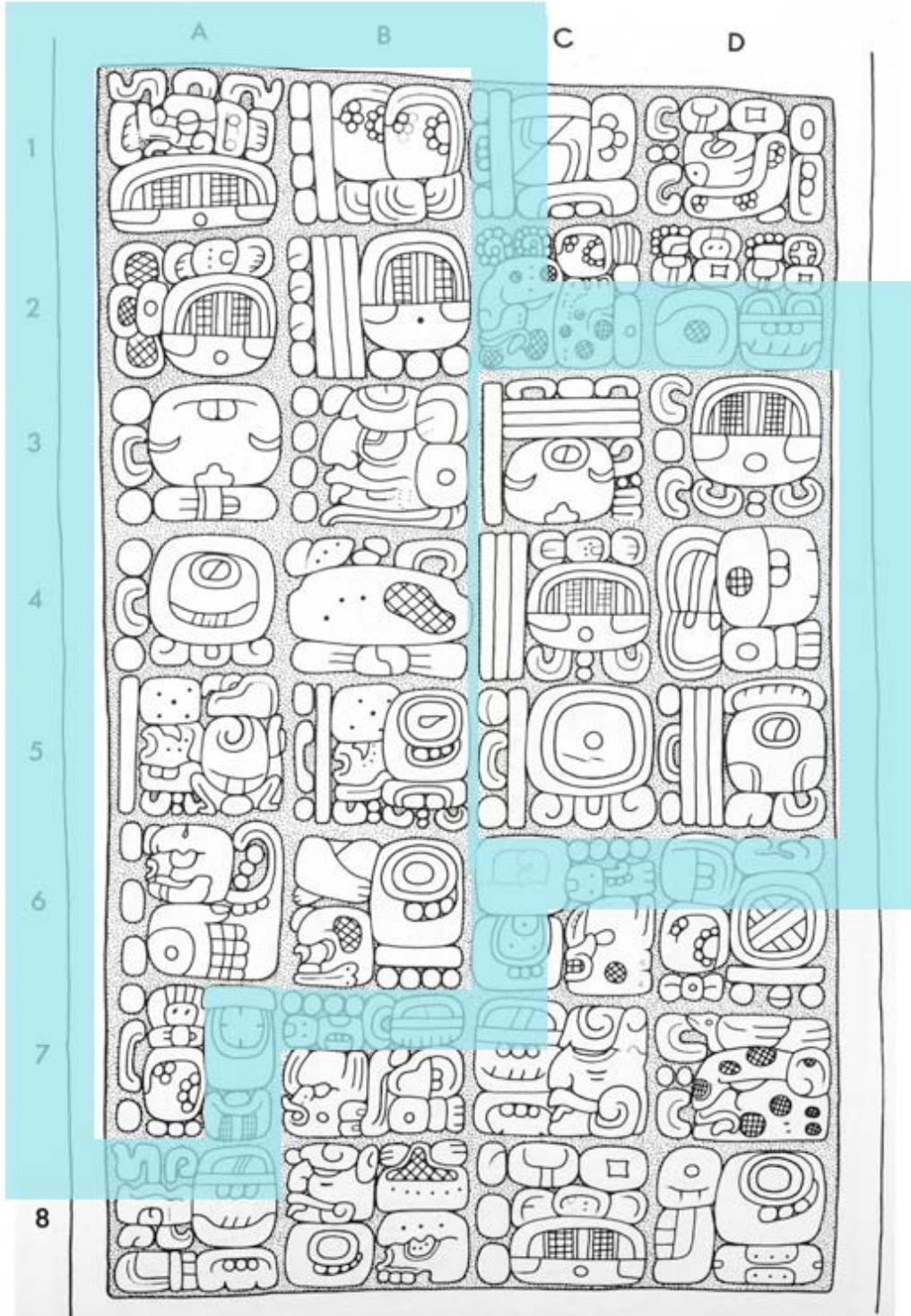
4706, 5769 = Linear counts of ***years*** since diverse "creation" events (these are the Chinese and Jewish years)

Let's look again at Yaxchilan Lintel 21

Drawings and photos of Yaxchilan monuments by Ian Graham et al., *Corpus of Maya Hieroglyphic Inscriptions*.

Yaxchilan Lintel 21

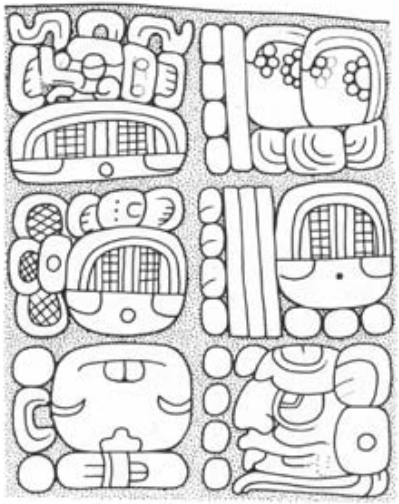
Calendric information



Maya Initial Series Calendars

ISIG
("Count of years"?)

9 *Pik* (400 Tun)
(1 *pik* = 394 years)



0 *Winikhaab*
(20 Tun)

19 Tun (or *Haab*)
('year' of 360 days)

2 *Winik*
(a "man" of 20 days)

4 *K'in* (days)
(*here, head of Sun God*)

Long Count: The years and days elapsed since Creation (13.0.0.0.0 4 Ajaw 8 Kumk'u = 11/13 August 3114 BC).

Roughly equivalent to our use of 2008 AD.

The numbers are *vigesimal*, counting in multiples of 20.
(Except for the Winal/*Winik*...)

The first six glyphs state the ***Long Count*** (the calendar which reaches a critical number in 2012). This is a number, used similarly to our numerical "year 2008," counting "years" and days since the last Creation in 3114 BC. (The "years" here counted, called *Haabs*, are only 360 days long.) Each 'digit' of the Long Count is twenty times the next one, just as each digit of **2 0 0 8** is ten times the value of the following. We call our system, based ultimately on our fingers, *decimal* notation; the Maya system is *vigesimal*, based on 20's. They counted by twenties because in the tropics people go barefoot, and counted on their fingers *and toes*.

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(*here, head of Sun God*)

2 K'an
(in 260-day *Tzolk'in*)

Tzolk'in: a divinatory calendar cycle of 260 days (13 numbers x 20 days)

The oldest and most widespread calendar in ancient Mesoamerica

Immediately after the Long Count is the ***Tzolk'in*** date. This is a divinatory calendar of 260 days stated as a numerical coefficient (from 1 to 13) attached to a *daysign* (a cycle of 20 named days, rather like a long "week"). The cycle passes through every possible combination of daysign and coefficient before repeating; this day (2 K'an) only occurs once every 260 days. The *daysign* is easy to spot, because it is enclosed in a distinctive frame called a *cartouche* (Fr. "cartridge"), which is a round-cornered square set on three 'feet,' looking rather like an old-fashioned television picture tube.

Tzolk’in – 20 Day Names

Imix		Chuwen	
Ik’		Eb’	
Ak’bal		Ben	
K’an		Ix	
Chikchan		Men	
Kimi’		Kib’	
Manik’		Kab’an	
Lamat		Etz’nab’	
Muluk		Kawak	
Ok		Ajaw	

* Daysigns from *Reading the Maya Glyphs* by Michael Coe & Mark Van Stone, 2001.

Three other cycles important enough to include in an Initial Series date are the

- **Nine Lords of the Night** (a nine-day cycle like our weekdays);
- a **7-day cycle** (here the days are numbered rather than named);
- and the **Phase of the Moon** (here given precisely in days of Moon-age since New Moon).

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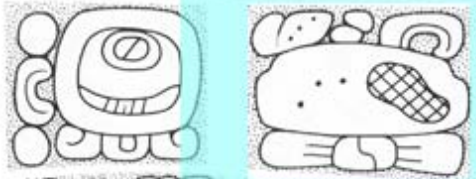
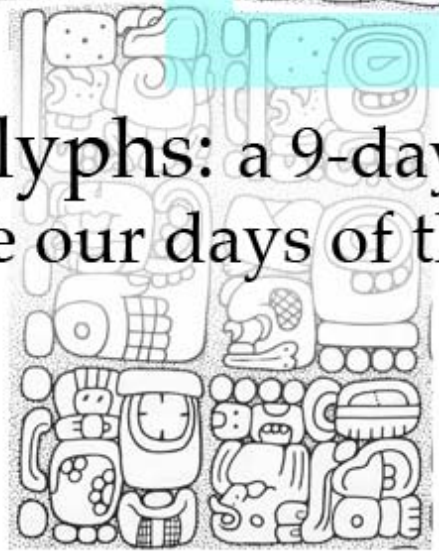
2 K'an
(in **260-day** *Tzolk'in*)



G8 + F
(in **9-Day** *Lord of Night*)



G & F glyphs: a 9-day cycle, rather like our days of the week

Maya Initial Series Calendars

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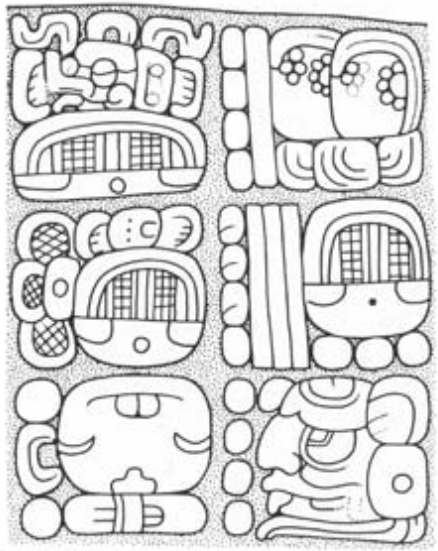

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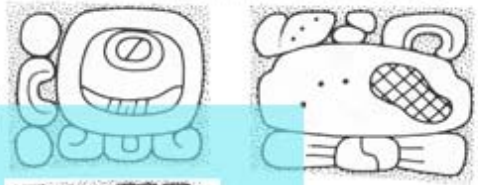
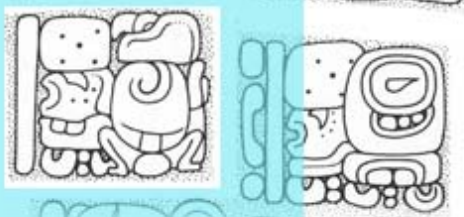


G8 + F
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)



A rarely used 7-day cycle,
like our week, but numbered
rather than named

Maya Initial Series Calendars

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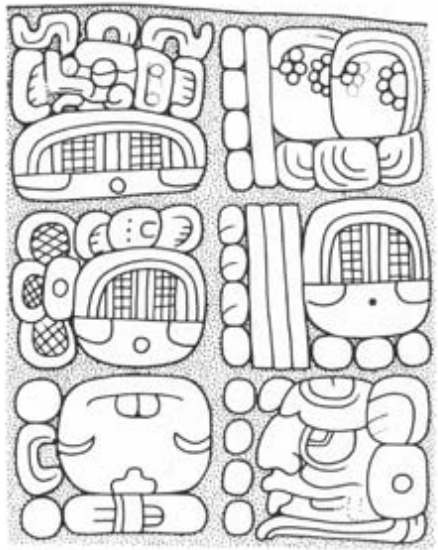

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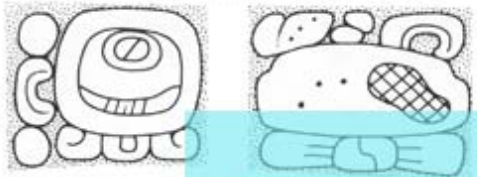
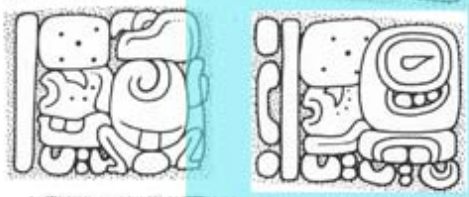


G8 + F
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')



7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')

The Phase of the Moon, expressed as the number of days since the New Moon.

(Literally, "7 arrived")

The **Moons are named** in a 6-moon cycle. This is called the "C Glyph," and it is often followed by the "X Glyph," which qualifies the C Glyph, and may actually expand the cycle to 18 moons. The fine details of this and many other abstruse Maya practices are still being worked out.

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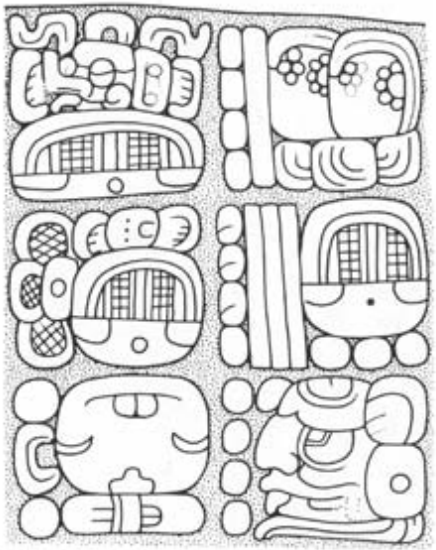

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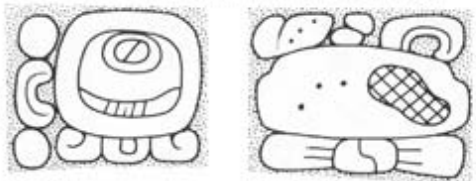
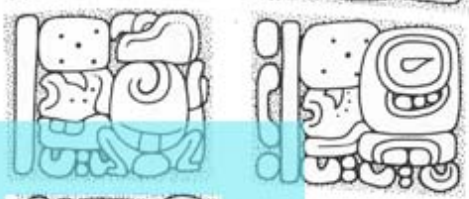


'G8' + 'F'
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')



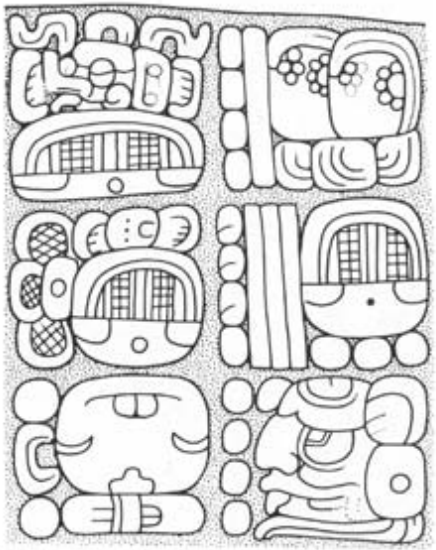
7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')

'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')

The Maya named moons in a 6-moon cycle,
(Native Americans farther north did likewise,
but in longer cycles.)

Maya Initial Series Calendars

ISIG
("Count of years"?)



9 *Pik* (400 Tun)
(1 *pik* = 394 years)

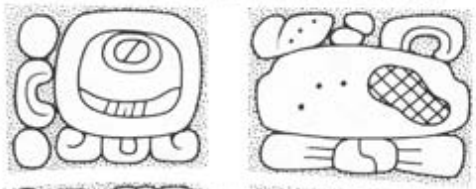
0 *Winikhaab*
(20 Tun)

19 *Haab* (or Tun)
('year' of 360 days)

2 *Winik*
(a "man" of 20 days)

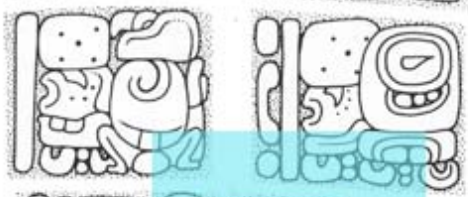
4 *K'in* (days)
(*here, head of Sun God*)

2 K'an
(in **260-day** *Tzolk'in*)



'G8' + 'F'
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')



7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')

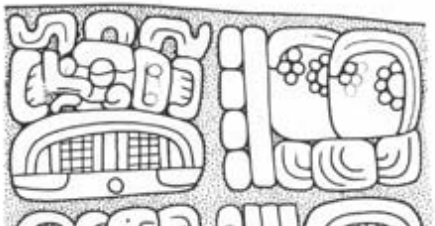
'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')

'Glyph X4'
(a god presiding over
the 3-Skull Moon)

The 'X Glyph' modifies the 6-moon cycle and complicates it in some cases.

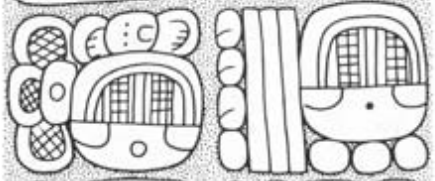
Maya Initial Series Calendars

ISIG
("Count of years"?)



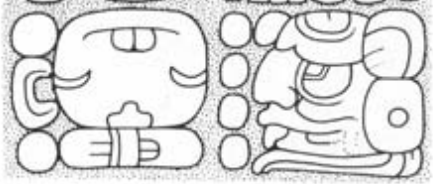
9 *Pik* (400 Tun)
(1 *pik* = 394 years)

0 *Winikhaab*
(20 Tun)



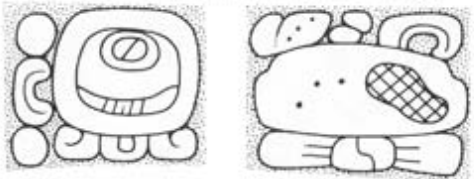
19 *Haab* (or Tun)
('year' of 360 days)

2 *Winik*
(a "man" of 20 days)



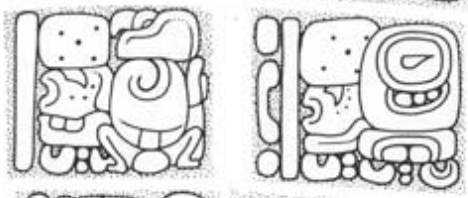
4 *K'in* (days)
(*here, head of Sun God*)

2 K'an
(in **260-day** *Tzolk'in*)



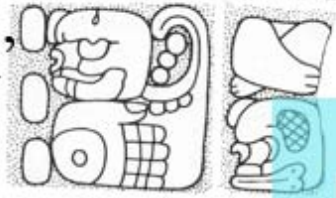
'G8' + 'F'
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')



7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')

'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')



'Glyph X4'
(a god presiding over
the 3-Skull Moon)

"29 (days)"
'Glyph A'

This specifies whether the month has 29 or 30 days.
(For calculation purposes)

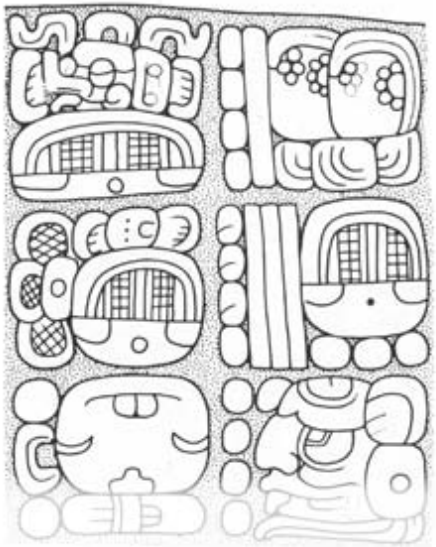
Penultimately, a number tells us whether the Maya observed this particular month as 29 days or 30 days. The Maya did not use fractions of days, so the lunar cycle of 29.53 days came out to just about 29 days one month, 30 days the next. This number (here "29"), called the "A Glyph," was empirical; the astronomers of one city might deem this a 29-day "month," while another bunch would call it a 30-days. Differences would average out, but again, we are warned not to read too much precision into some Maya calendrical calculations. John E. Teeple noted that inscriptions in five Maya cities (Piedras Negras, Yaxchilán, Copán, Naranjo and Quiriguá) all synchronize their 'A Glyphs' during an 80 year "Period of Uniformity" from 9.12.15.0.0 — 9.16.5.0.0 (**687 - 765** AD/CE) (Teeple 1930, p. 54).

Maya Initial Series Calendars

ISIG
("Count of years"?)

0 *Winikhaab*
(20 Tun)

2 *Winik*
(a "man" of 20 days)



9 *Pik* (400 Tun)
(1 *pik* = 394 years)

19 *Haab* (or Tun)
('year' of 360 days)

4 *K'in* (days)
(*here, head of Sun God*)

The *Haab* is equivalent to our **365-day year**, with named months and numbered days.
The *Haab*, however, has 18 "months" of 20 days, with a special "month" of five "dangerous" days at the end of the year

"29 days"
'*Glyph A*'

2nd day of Yax
(in **365-day** *Haab*)

Haab – Month Signs

Pop		Yax	
Wo		Sak	
Sip		Kej	
Sotz’		Mak	
Sek		K’ank’in	
Xul		Muwan	
Yaxk’in		Pax	
Mol		K’ayab’	
Ch’en		K’umk’u	
		Wayeb’	

* Daysigns from *Reading the Maya Glyphs* by Michael Coe & Mark Van Stone, 2001.

Finally, the **Initial Series** (the complex statement including all these cycles) ends with the ***Haab***, a date in a 365-day Solar year. It works precisely as our "9th of June" or "First of May" do. (Instead of a 12-month cycle of 30-day months, the Maya had an 18-month cycle of 20-day "months," with an extra "monthlet" of five days (called *Wayeb*) to round out the solar year.)

The Maya sometimes included in the Initial Series the position in other cycles, too, particularly the *819-Day Count*. The origin of this "calendar" is probably numerological: 819 is the product of 7x9x13.

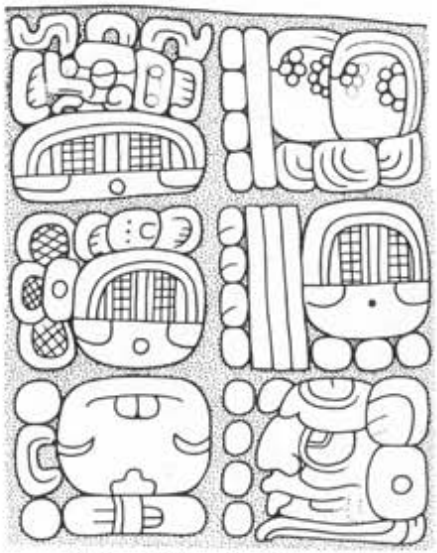
The *Haab* was the second-most important of Classic Maya calendars; most Maya dates were expressed as a combination of the *Tzolk'in* and *Haab* (as you shall see soon). Because of the arithmetic of 365-day and 260-day cycles, **2 K'an, 2nd** of **Yax**, will only recur once every 52 years, and for most dates, no Long Count is necessary. This combination is called a **Calendar Round**.

Almost all the Maya Calendars You Need to Bother About: Initial Series & Calendar Rounds

ISIG
("Count of years"?)

0 *Winikhaab*
(20 Tun)

2 *Winik*
(a "man" of 20 days)

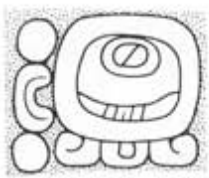


9 *Pik* (400 Tun)
(1 *pik* = 394 years)

19 *Haab* (or Tun)
('year' of 360 days)

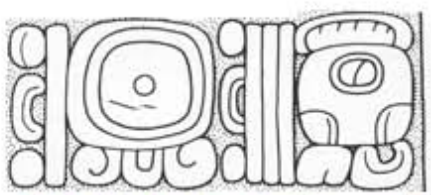
4 *K'in* (days)
(*here, head of Sun God*)

(***Initial Series***)



2 K'an
(**260-day** *Tzolk'in*)

2nd of Yaxk'in
(**365-day** *Haab*)



7 Muluk, 17th of Sek
(*Tzolk'in*) (*Haab*)

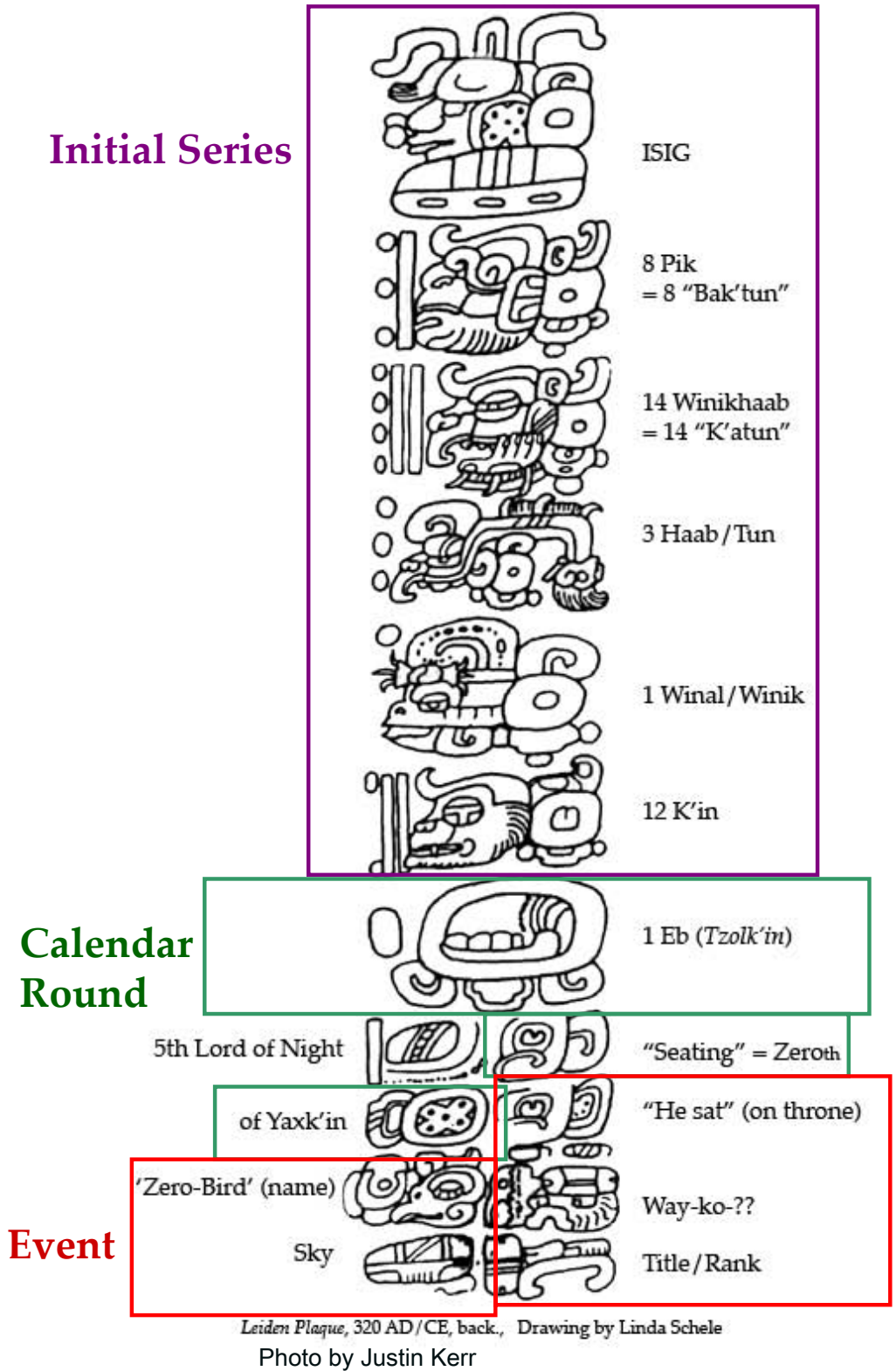
(***Calendar Rounds***)

As Mentioned above,
Just as we do, the Maya had several calendars.

Long Count: A count of years, Like our "**2008** AD/CE."
Tzolk'in: A sacred 260-day divinatory cycle, 13 x 20 named days
Lords of the Night: A "**week**" of nine named days, like "**Friday**."
Haab: A 365-day cycle, like our "**30th of May**."

But the ancient Maya were *fanatical* about situating their events in time. Often the date on a monument will occupy more space than the event that it features.

Example: the *Leiden Plaque*, a jade celt recording a lord's accession in 320 AD/CE. (*21.7 cm high, 8.6 cm wide, Museum voor Volkenkunde, Leiden, Netherlands)*



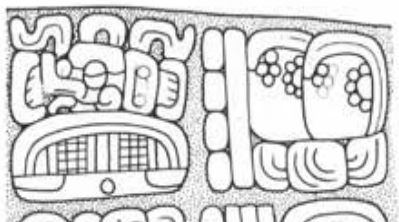
Leiden Plaque, 320 AD/CE, back., Drawing by Linda Schele

Photo by Justin Kerr

The Yaxchilan text continues, and soon states a ***Distance Number,*** the interval of days and years that elapsed between the two historical events recorded on the Lintel. The glyphs for *Winal* (20-day "month") and *"Tun"* (360-day "year," which the Maya confusingly also called *Haab*) are the same as in the Long Count, as we see.

Maya Initial Series Calendars, Distance Numbers

ISIG
("Count of years"?)



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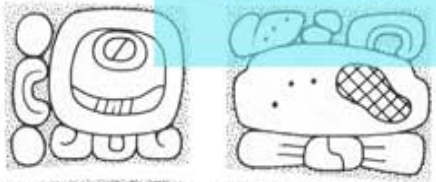
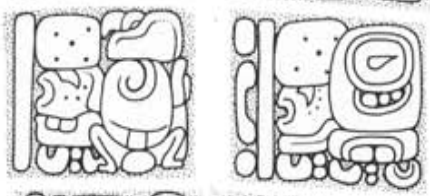
4 *K'in* (days)
(*here, head of Sun God*)

2 K'an
(in **260-day** *Tzolk'in*)



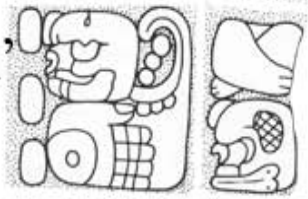
'G8' + 'F'
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')



7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')

'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')



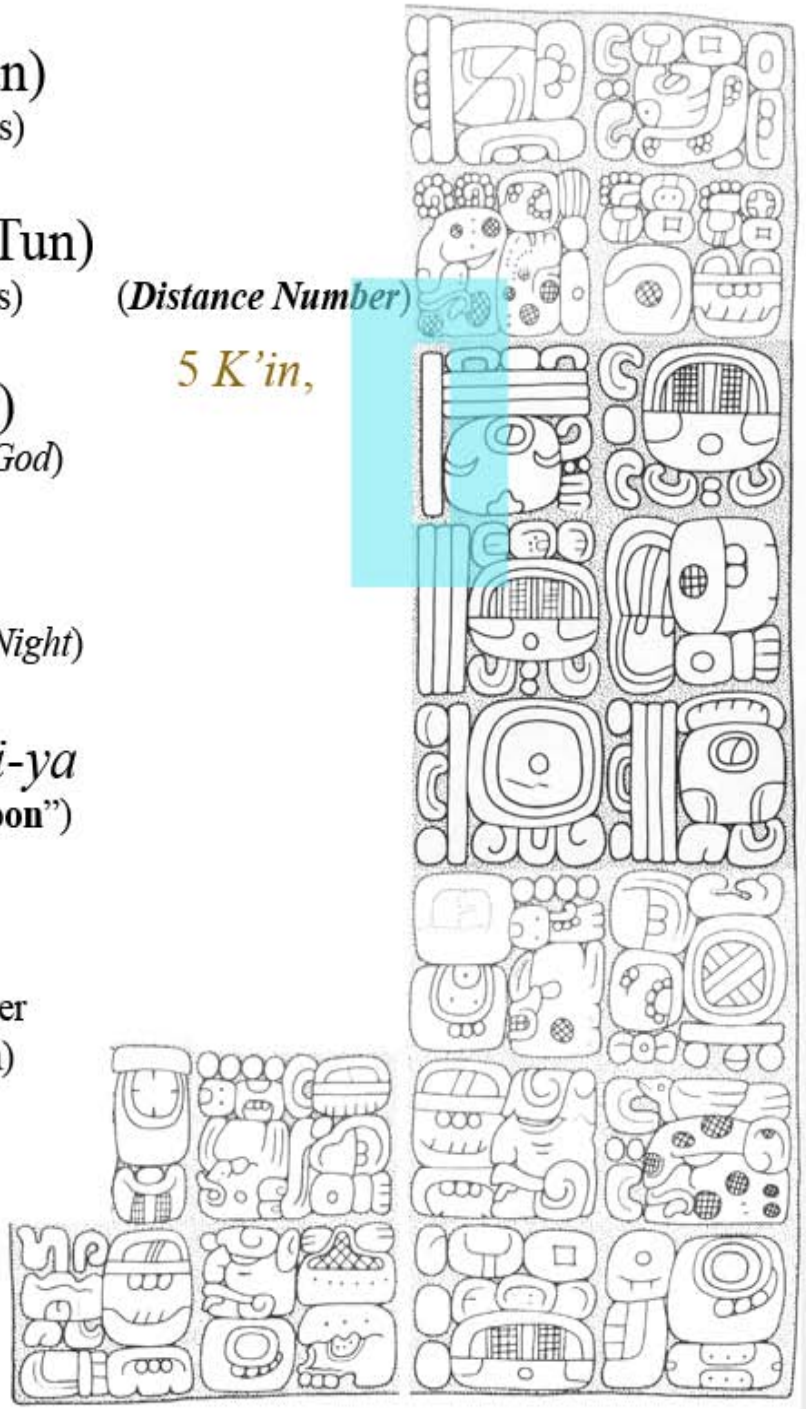
'Glyph X4'
(a god presiding over
the 3-Skull Moon)

"29 days"
'*Glyph A*'

2nd of Yaxk'in
(**365-day** *Haab*)

(***Distance Number***)

5 *K'in*,



Maya Initial Series Calendars, Distance Numbers

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19 *Haab* (or Tun)
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(a "man" of 20 days)

4 *K'in* (days)
(*here, head of Sun God*)

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(in **260-day** *Tzolk'in*)

'G8' + 'F'
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')

7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')

'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')

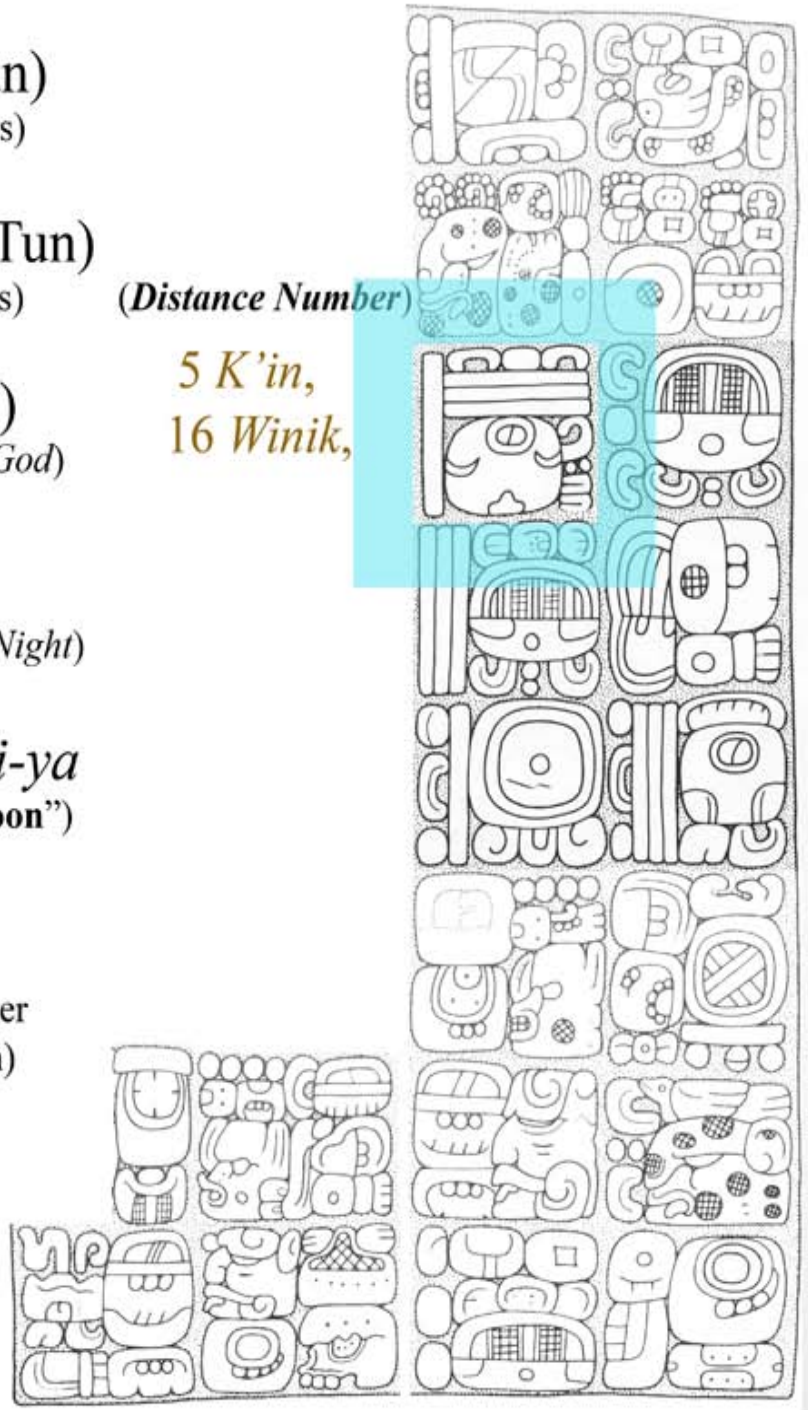
'Glyph X4'
(a god presiding over the 3-Skull Moon)

"29 days"
'*Glyph A*'

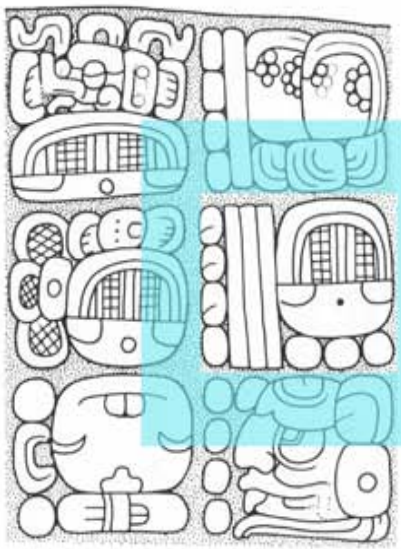
2nd of Yaxk'in
(**365-day** *Haab*)

(***Distance Number***)

5 *K'in*,
16 *Winik*,



Maya Initial Series Calendars, Distance Numbers



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('year' of 360 days)

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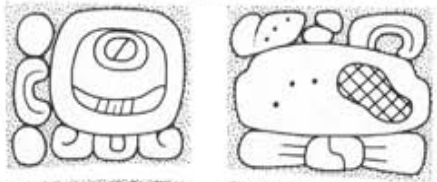
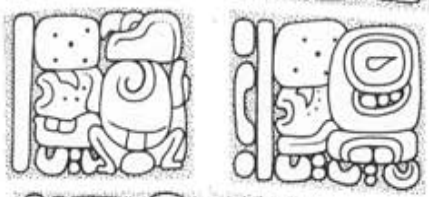
(a "man" of 20 days)

4 *K'in* (days)
(*here, head of Sun God*)



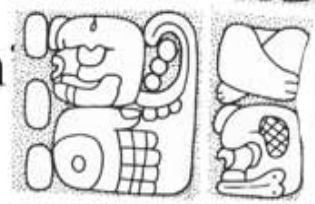
2 K'an
(in **260-day** *Tzolk'in*)

'G8' + 'F'
(in **9-Day** *Lord of Night*)



5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')

7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')



'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')

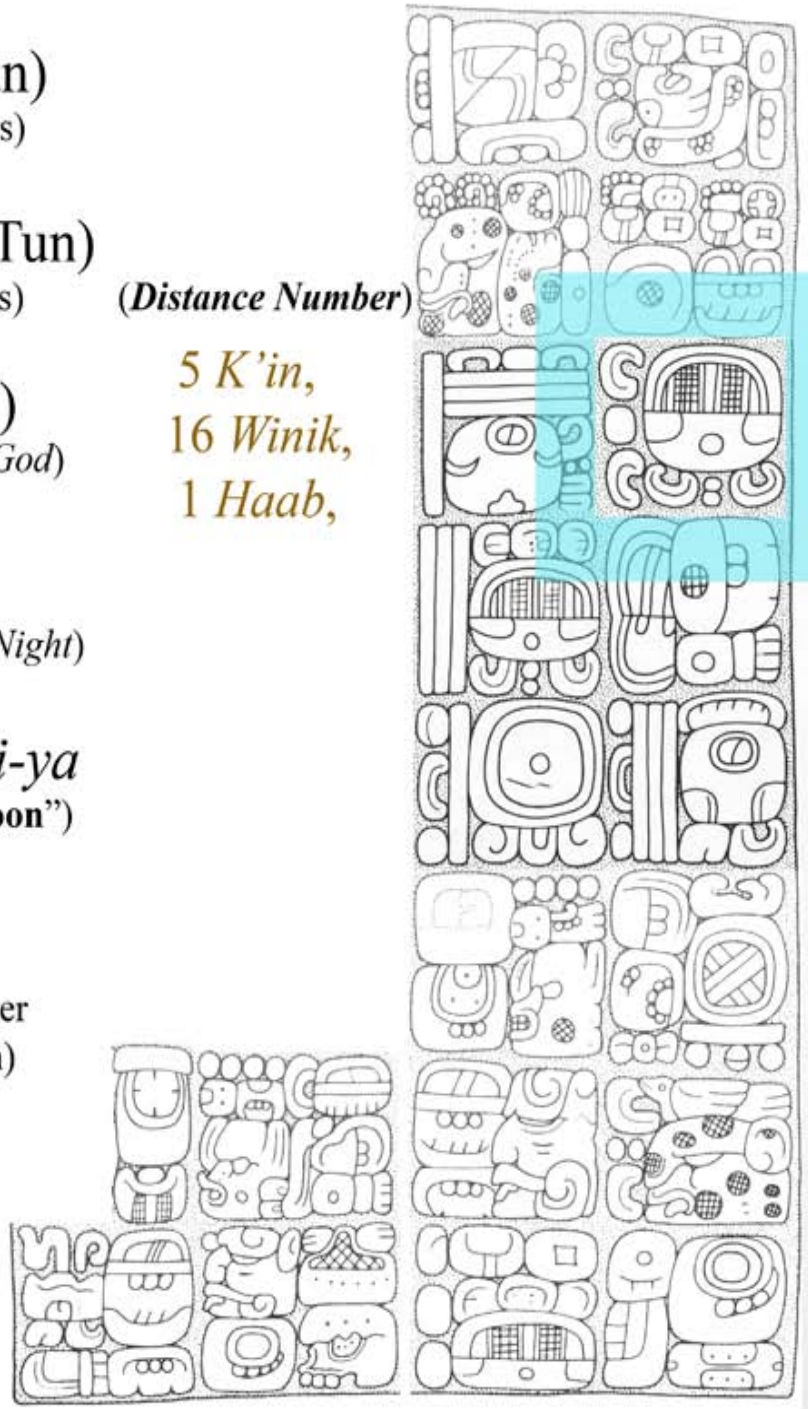
'Glyph X4'
(a god presiding over
the 3-Skull Moon)

"29 days"
'*Glyph A*'

2nd of Yaxk'in
(**365-day** *Haab*)

(***Distance Number***)

5 *K'in*,
16 *Winik*,
1 *Haab*,

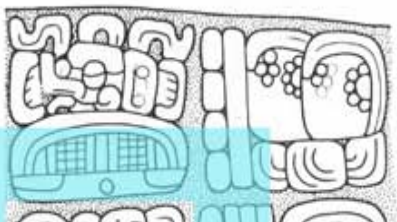


The Distance Number starts with the smallest units (days and months) first, then counts Tuns or *Haab*s, then *Winikhaabs* (groups of 20 years, often called *K'atuns*, i.e., "20-tuns"), then higher orders if necessary.

This sum is followed by a glyph reading *i-u-ti*, "And then it was…" followed by a *Calendar Round* (or *CR*), giving the precise date on which the next event occurred. Note the cartouche on the *tzolk'in* date, the first glyph of this CR pair.

Maya Initial Series Calendars, Distance Numbers

ISIG
("Count of years"?)



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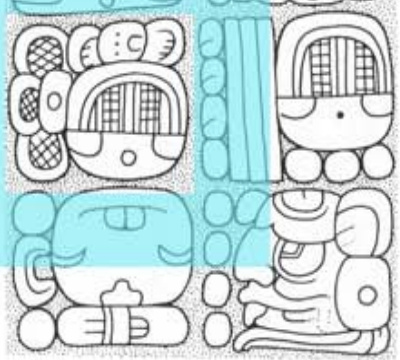
(1 *pik* = 394 years)

0 *Winikhaab*
(20 Tun)

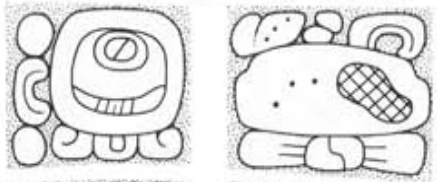
19 *Haab* (or Tun)
('year' of 360 days)

2 *Winik*
(a "man" of 20 days)



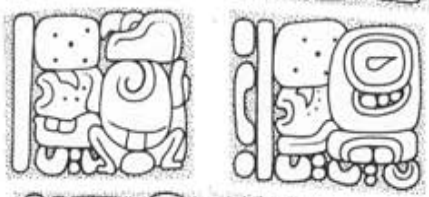
4 *K'in* (days)
(*here, head of Sun God*)

2 K'an
(in **260-day** *Tzolk'in*)



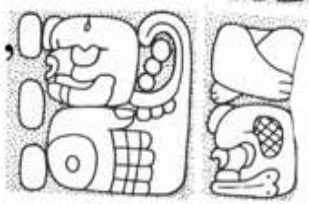
'G8' + 'F'
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')



7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')

'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')



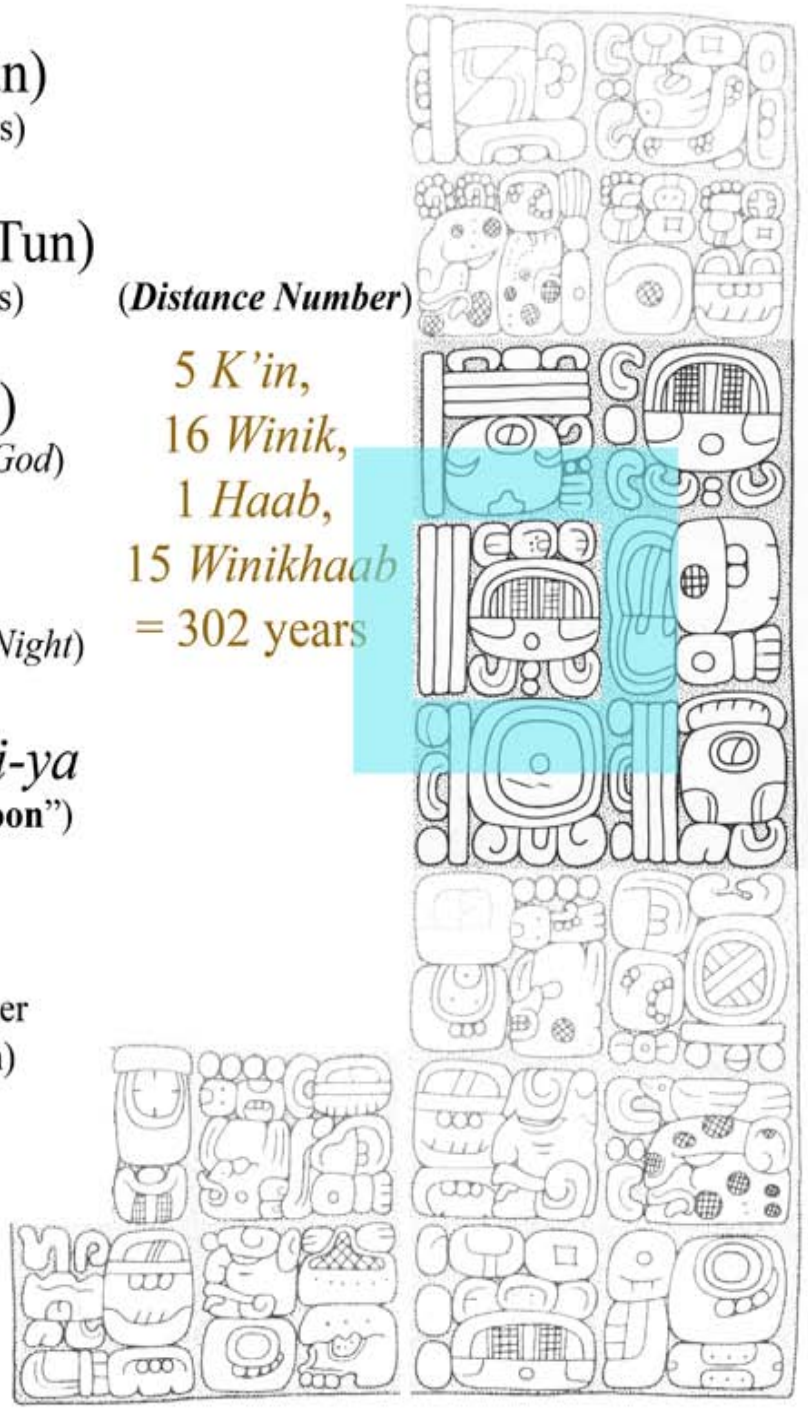
'Glyph X4'
(a god presiding over
the 3-Skull Moon)

"29 days"
'*Glyph A*'

2nd of Yaxk'in
(**365-day** *Haab*)

(***Distance Number***)

5 *K'in*,
16 *Winik*,
1 *Haab*,
15 *Winikhaab*
= 302 years



Maya Initial Series Calendars, Distance Numbers & Calendar Rounds

ISIG
("Count of years"?)

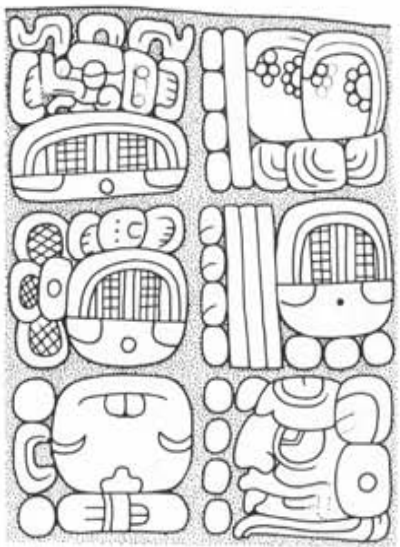
9 *Pik* (400 Tun)
(1 *pik* = 394 years)

0 *Winikhaab*
(20 Tun)

19 *Haab* (or Tun)
('year' of 360 days)

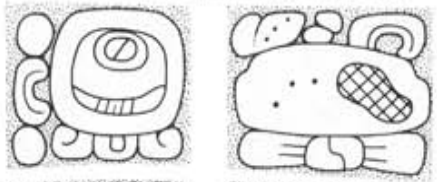
2 *Winik*
(a "man" of 20 days)

4 *K'in* (days)
(*here, head of Sun God*)



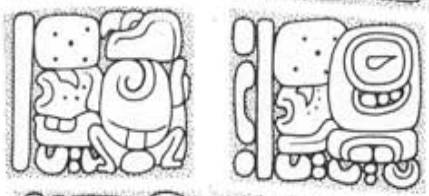
2 K'an
(in **260-day** *Tzolk'in*)

'G8' + 'F'
(in **9-Day** *Lord of Night*)



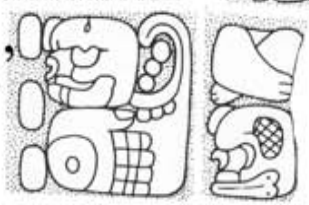
5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')

7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')



'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')

'Glyph X4'
(a god presiding over the 3-Skull Moon)

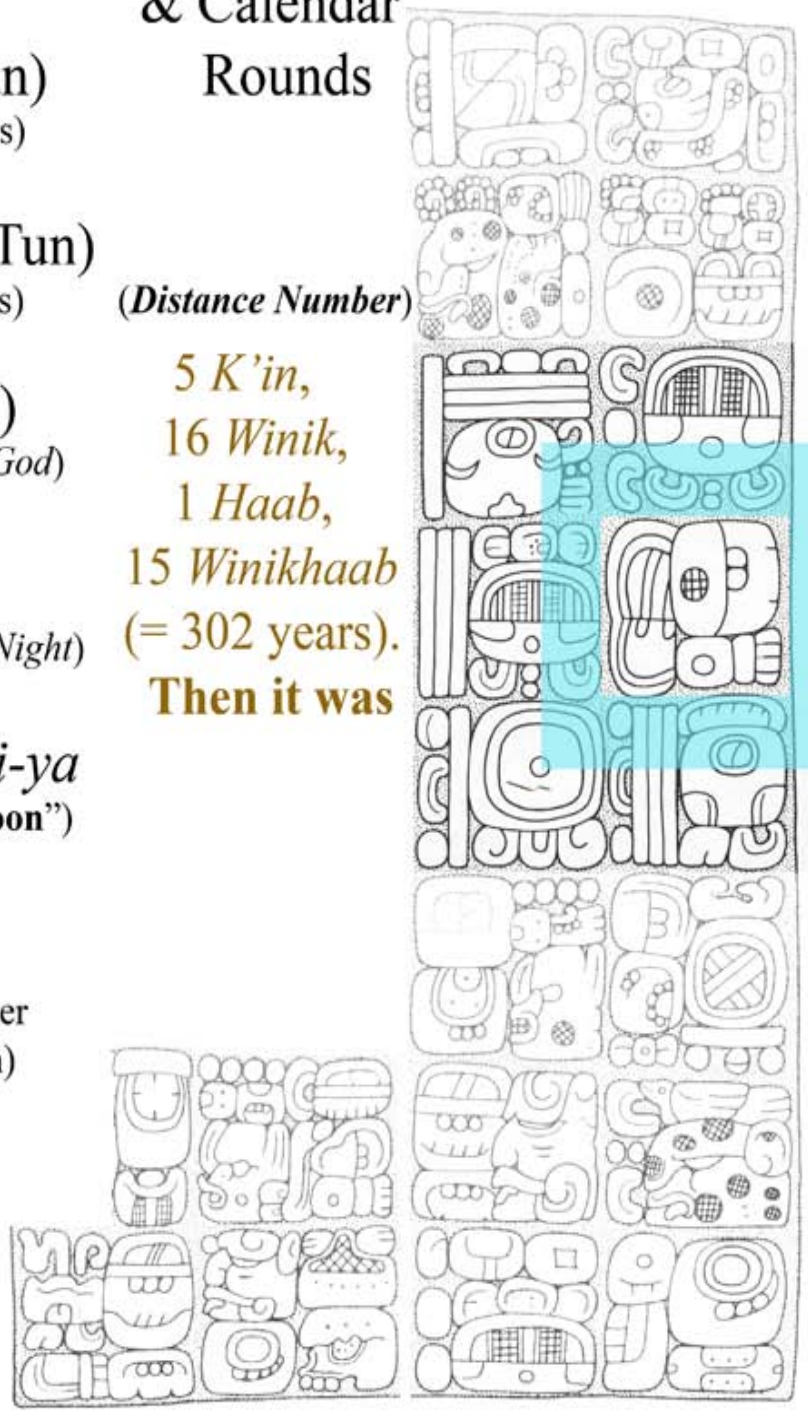


"29 days"
'*Glyph A*'

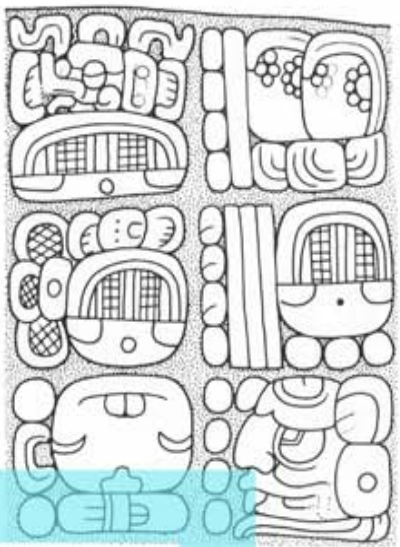
2nd of Yaxk'in
(**365-day** *Haab*)

(***Distance Number***)

5 *K'in*,
16 *Winik*,
1 *Haab*,
15 *Winikhaab*
(= 302 years).
Then it was



Maya Initial Series Calendars, Distance Numbers & Calendar Rounds



ISIG
("Count of years"?)

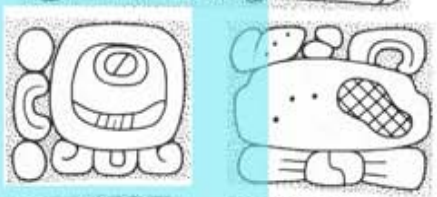
9 *Pik* (400 Tun)
(1 *pik* = 394 years)

0 *Winikhaab*
(20 Tun)

19 *Haab* (or Tun)
('year' of 360 days)

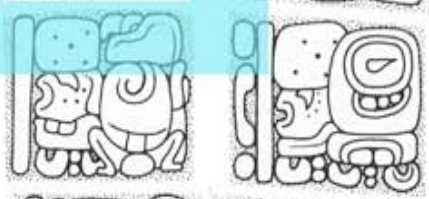
2 *Winik*
(a "man" of 20 days)

4 *K'in* (days)
(*here, head of Sun God*)



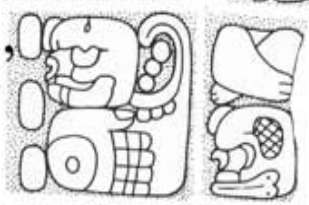
2 K'an
(in **260-day** *Tzolk'in*)

'G8' + 'F'
(in **9-Day** *Lord of Night*)



5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')

7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')



'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')

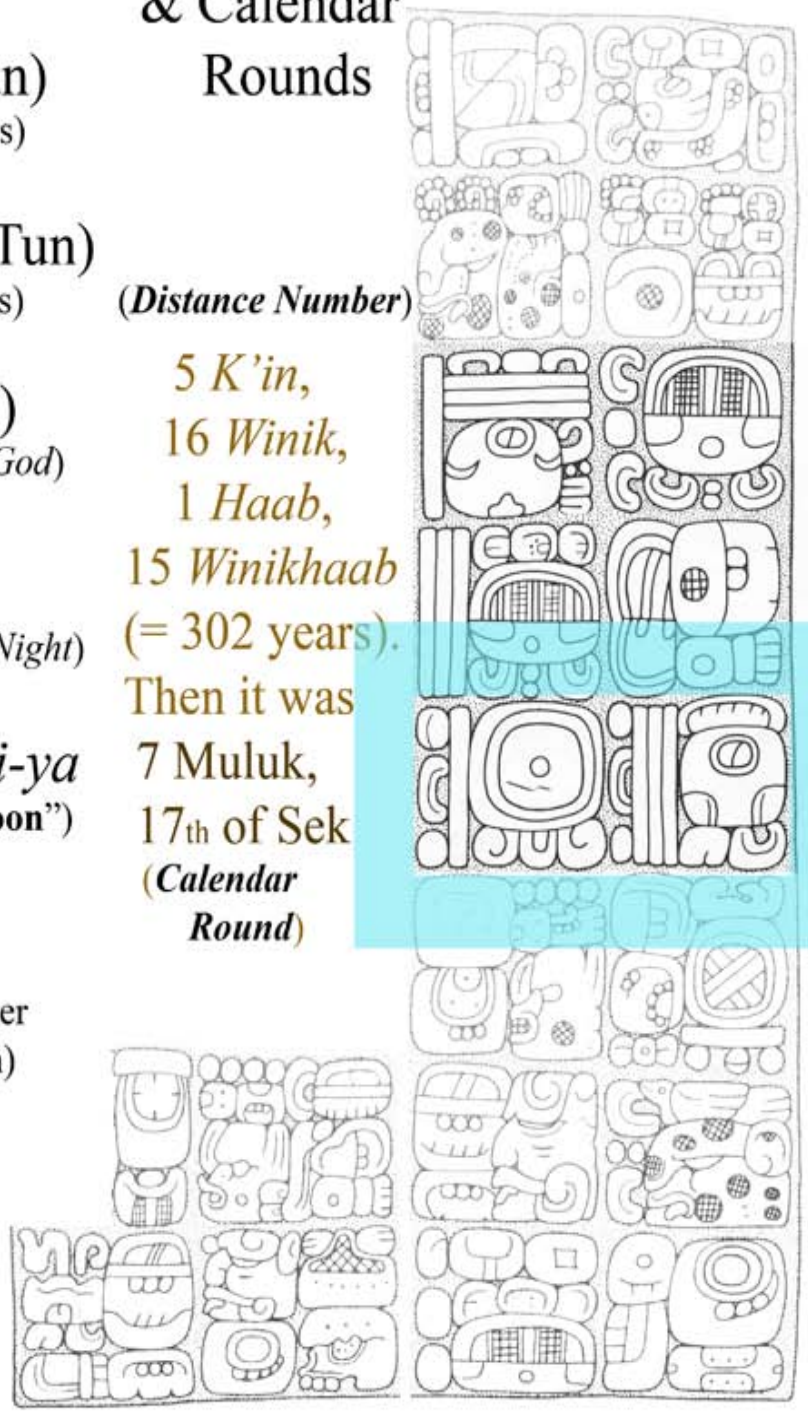
'Glyph X4'
(a god presiding over the 3-Skull Moon)

"29 days"
'*Glyph A*'

2nd of Yaxk'in
(**365-day** *Haab*)

(***Distance Number***)

5 *K'in*,
16 *Winik*,
1 *Haab*,
15 *Winikhaab*
(= 302 years).
Then it was
7 Muluk,
17th of Sek
(***Calendar Round***)



The gist of the inscription is to connect an early ruler, *Yo'Pat Balam Ajaw* ("Lord Penis-Jaguar") with a descendent, *Yaxuun Balam Ajaw* ("Lord 'Bird'-Jaguar"), 300 years later.

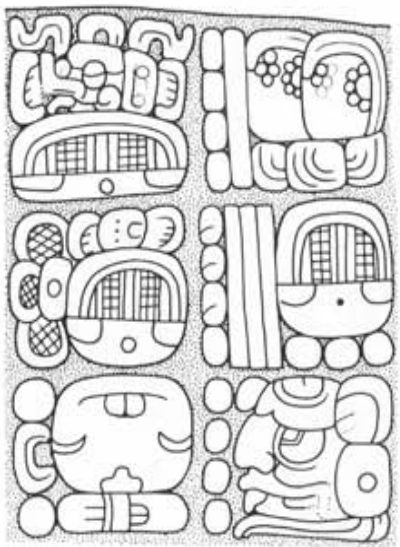
Both performed a ceremony at the "4-Zotz' House," and the inscription simply states that the earlier Lord Jaguar did so on a certain date, that 302 years and some days passed, and the later Lord Jaguar did so too.

The "4-Zotz' House" is almost certainly the temple in which the lintel was installed.

Maya Initial Series Calendars, *Ajaw*s/Lords

ISIG
("Count of years"?)

9 *Pik* (400 Tun)
(1 *pik* = 394 years)



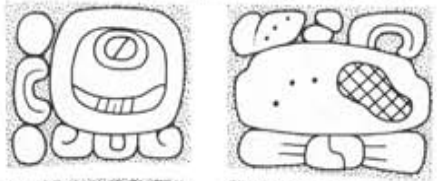
0 *Winikhaab*
(20 Tun)

19 *Haab* (or Tun)
('year' of 360 days)

2 *Winik*
(a "man" of 20 days)

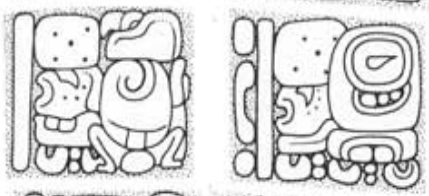
4 *K'in* (days)
(*here, head of Sun God*)

2 K'an
(in **260-day** *Tzolk'in*)



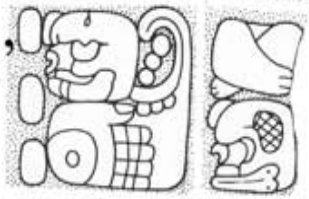
'G8' + 'F'
(in **9-Day** *Lord of Night*)

5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')



7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')

'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')



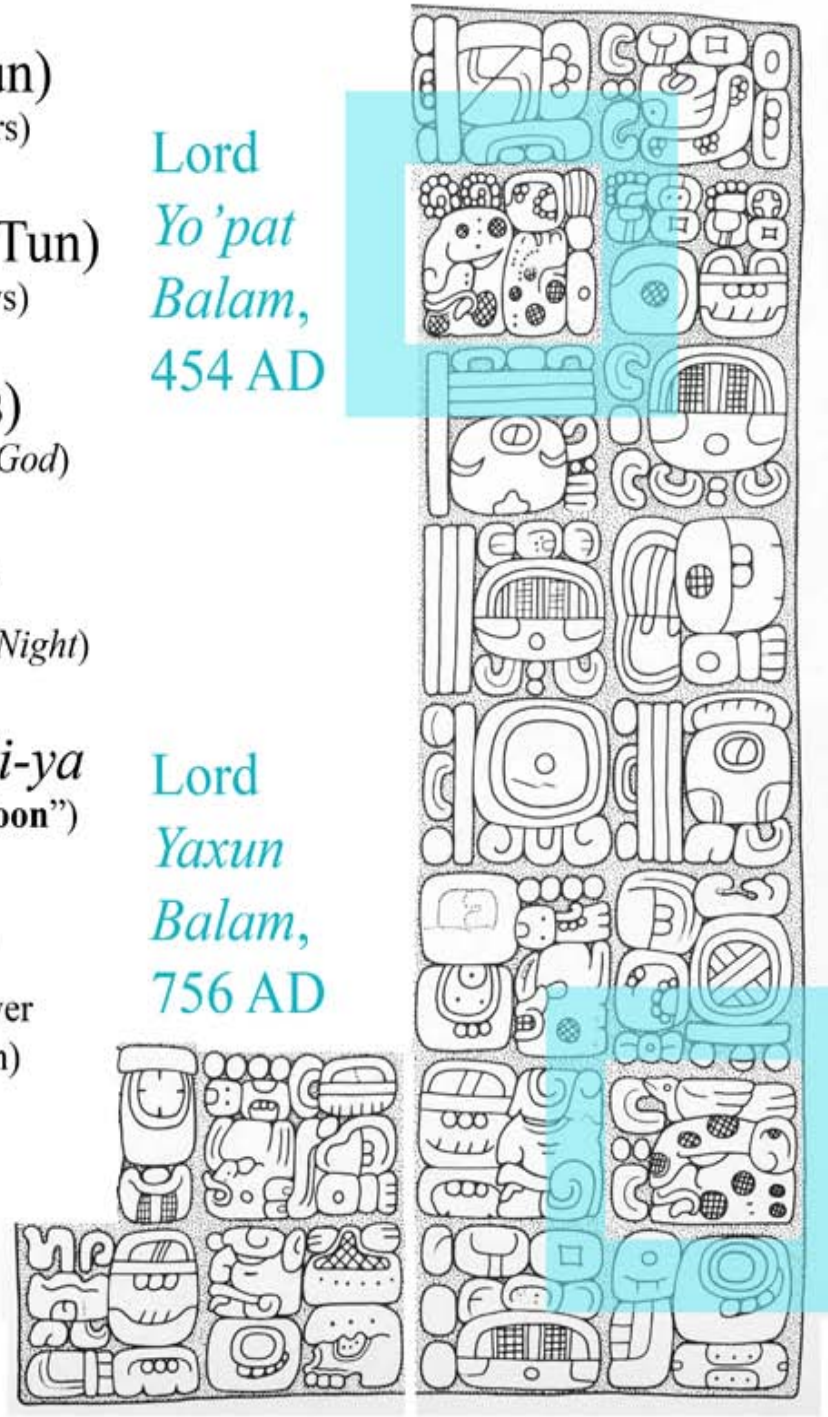
'Glyph X4'
(a god presiding over
the 3-Skull Moon)

"29 days"
'*Glyph A*'

2nd of Yaxk'in
(**365-day** *Haab*)

Lord
Yo'pat
Balam,
454 AD

Lord
Yaxun
Balam,
756 AD



Maya Initial Series Calendars, *Ajaw*s/Lords & Places

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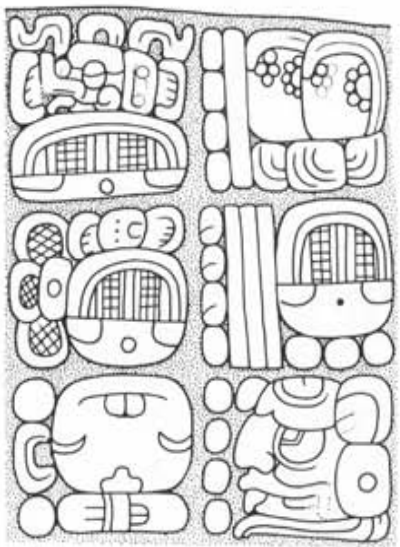
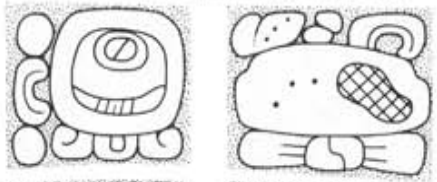


0 *Winikhaab*
(20 Tun)

19 *Haab* (or Tun)
('year' of 360 days)

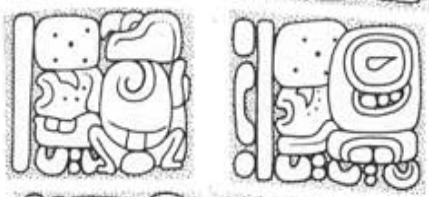
2 *Winik*
(a "man" of 20 days)

4 *K'in* (days)
(*here, head of Sun God*)



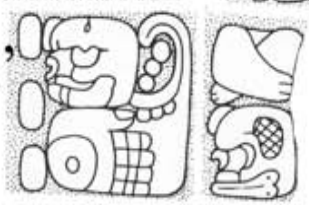
2 K'an
(in **260-day** *Tzolk'in*)

'G8' + 'F'
(in **9-Day** *Lord of Night*)



5 *Bi-xi-ya-* ??
(in a **7-day** cycle)
('*Glyph Z*')

7 *Bixiy Hul-li-ya*
("7th day of the **Moon**")
('*Glyph D*')



'3-Skull Moon'
(in a **6-moon** cycle)
('*Glyph C*')

'Glyph X4'
(a god presiding over
the 3-Skull Moon)

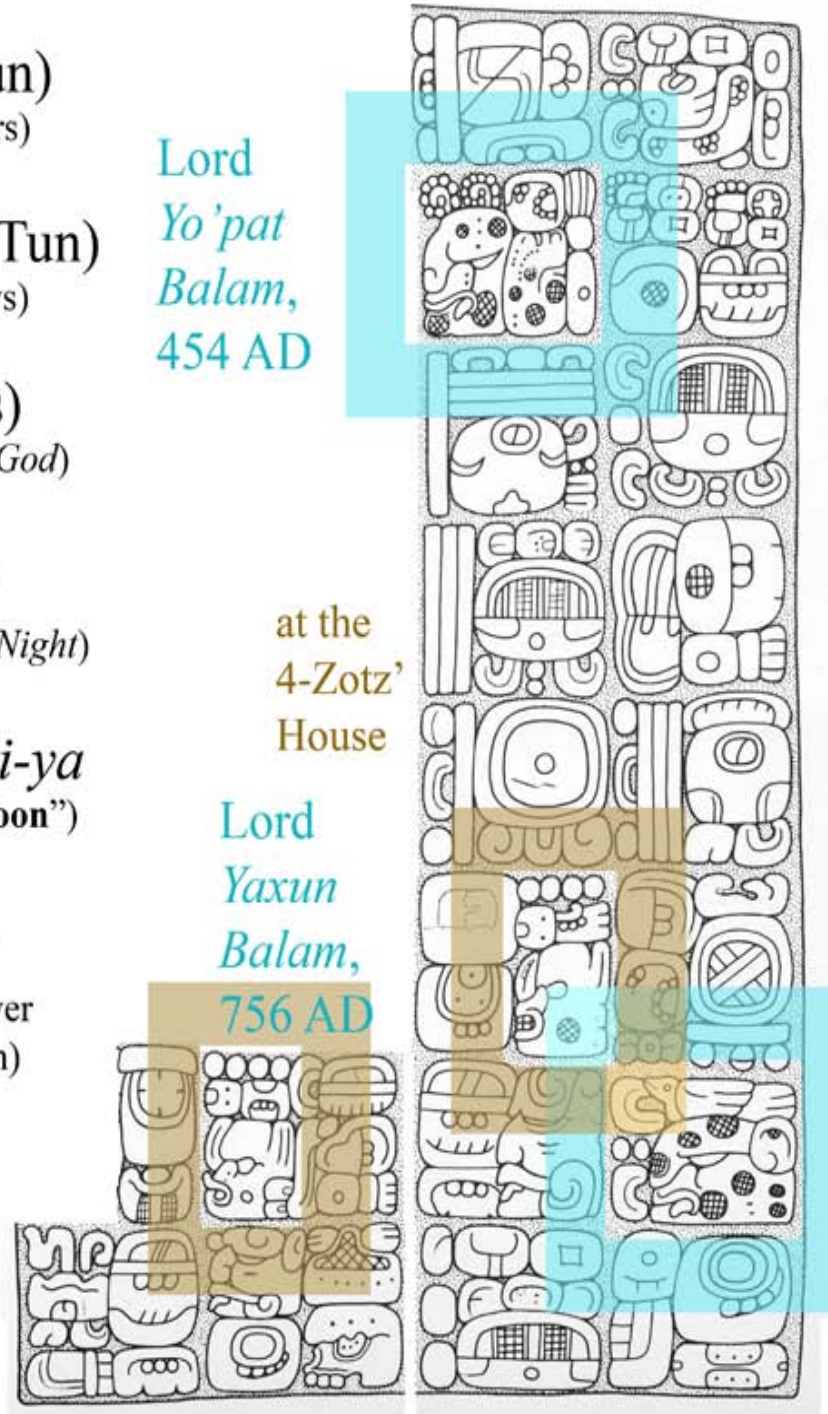
"29 days"
'*Glyph A*'

2nd of Yaxk'in
(**365-day** *Haab*)

Lord
Yo'pat
Balam,
454 AD

at the
4-Zotz'
House

Lord
Yaxun
Balam,
756 AD



This text is typical of the kind of record that the Maya deemed worthy of inscribing in stone, indicating how different their priorities were from ours.

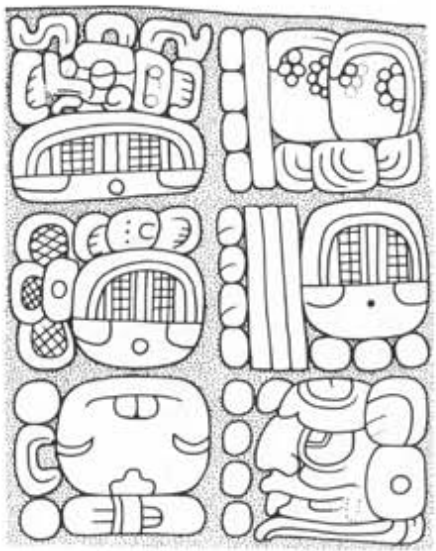
Abraham Lincoln's *Gettysburg Address* begins with a distance number: "Four score and seven years ago…" His invoking the American Revolution forms the same kind of connection with the Battle of Gettysburg which the Maya celebrated so frequently in hieroglyphic texts like this. Remarkably, Lincoln's distance number counts larger units of years in twenties, just like the Maya.

All the Maya Calendars You Need to Bother About:
Long Counts, Distance Numbers, & Calendar Rounds

ISIG
("Count of years"?)

0 *Winikhaab*
(20 Tun)

2 *Winik*
(a "man" of 20 days)



9 *Pik* (400 Tun)
(1 *pik* = 394 years)

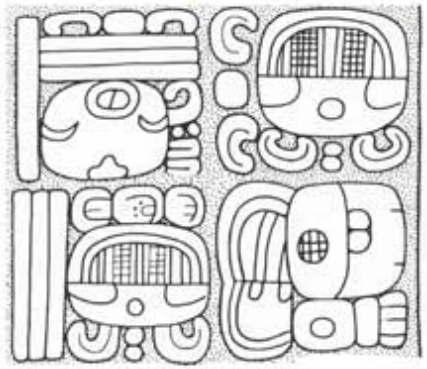
19 *Haab* (or Tun)
('year' of 360 days)

4 *K'in* (days)
(*here, head of Sun God*)

(*Long Count*)

(a special kind of Distance Number)
Like "1776 AD"

16 *Winik*, 1 *Haab*,
5 *K'in*,

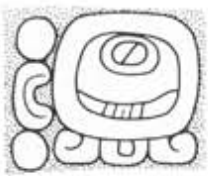


15 *Winikhaab* *i-u-ti*
(302 years). "Then it was..."

(*Distance Number*)

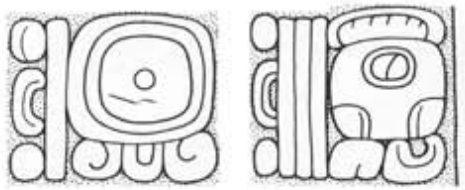
A bit like "Four score and seven years ago"

(Remember that the 'digits' here are multiples of 20))



2 K'an
(260-day *Tzolk'in*)

2nd of Yaxk'in
(365-day *Haab*)



7 Muluk, 17th of Sek
(*Tzolk'in*) (*Haab*)

(*Calendar Rounds*)

One example of a Maya Calendar chart survives in the *Madrid Codex*.

This Maya diagram (next slide), from the *Madrid Codex* (ca. 1530, around the time of the Conquest) contains a central image of two celebrants under a peculiar kind of tree or platform. The daysigns in the ring around the center have been rearranged.

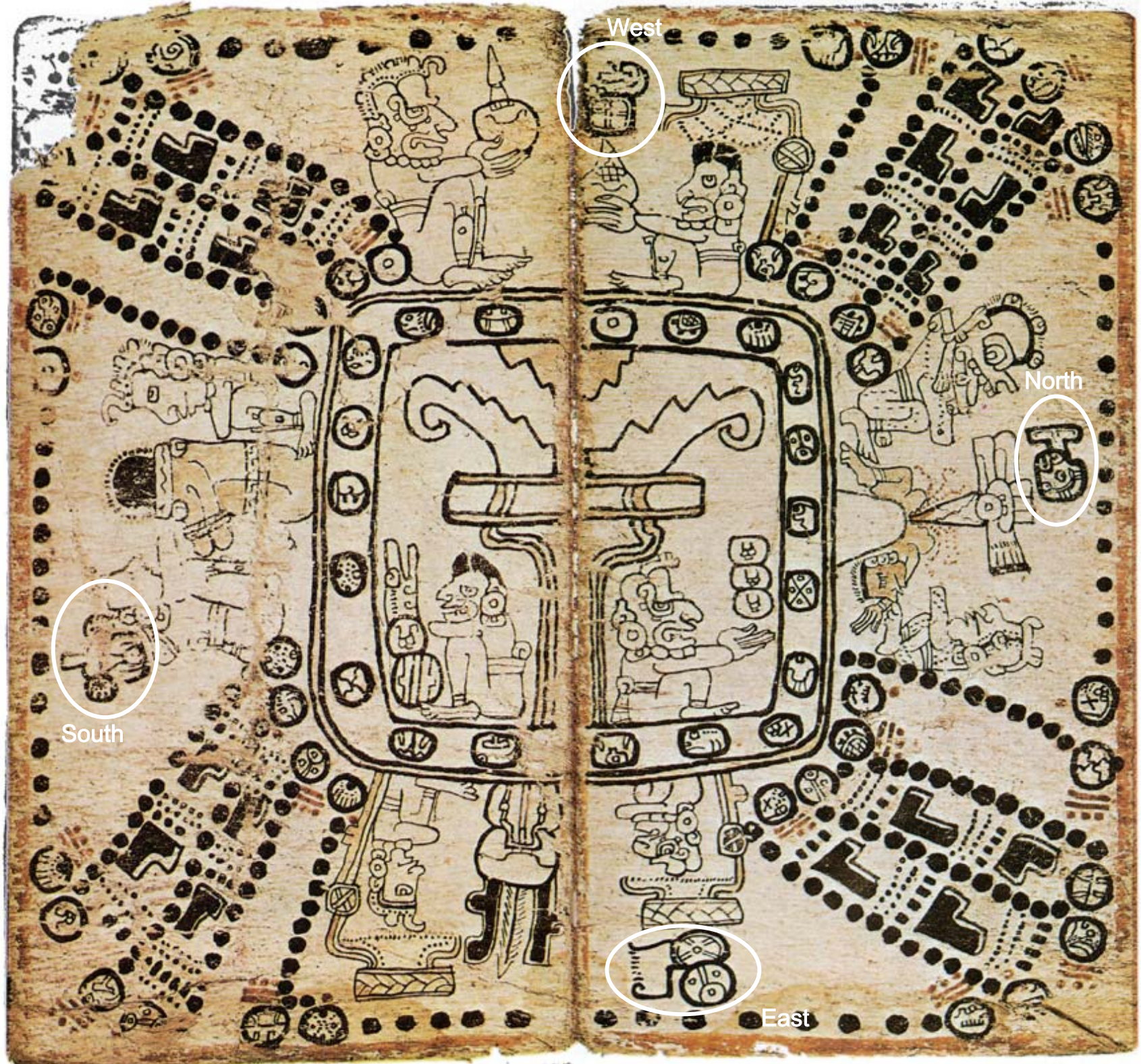
Madrid Codex,
pp. 75 - 76.
The 260-day
Divinatory
Calendar,
the *Tzolk'in.*

Each dot is a day;
footprints repre-
sent travel.

West is at Top,
East at bottom,
South at left,
North at right.

Each of the five
cardinal directions
has a pair of gods
making an appro-
priate offering.

The inner ring of
daysigns is *not*
in calendric order.



They daysigns have been rearranged according to a mathematical algorithm, except that they seem to have mixed up at least one pair of days. This kind of error is common, and stands as a warning that we should not put too much faith in Maya mathematical calculations — or predictions. On the one hand, they were astonishing mathematicians, but on the other their conception of Truth, error, accuracy, political expediency, and Divine Will were quite different from ours, and demand that we try to discern when to apply our own standards and when to attempt to understand theirs. (More on this later.)

Around this ring, connecting the calendar with the cardinal directions, are four pairs of worshippers, each labeled with the glyphs for North (right), South (left), East (bottom) and West (top). There are 260 dots, carefully labeled to correspond with the 260 days of the Maya *Tzolk'in*, the most important of the Maya calendars. Beside the dots are footprints, indicating our travel through the 260-day cycle.

The next slide shows a very similar diagram, from a Nahua-Puebla book, the *Codex Fejervary-Mayer*, also from about the time of the Conquest.

The authors of this book were a distinct culture from both Aztec and Maya, but their 260-day calendar obviously worked in the same way as the Maya.

Here the diagram is rotated 180°, with North at left, and a somewhat more tidy and complex diagram than the *Madrid* one.

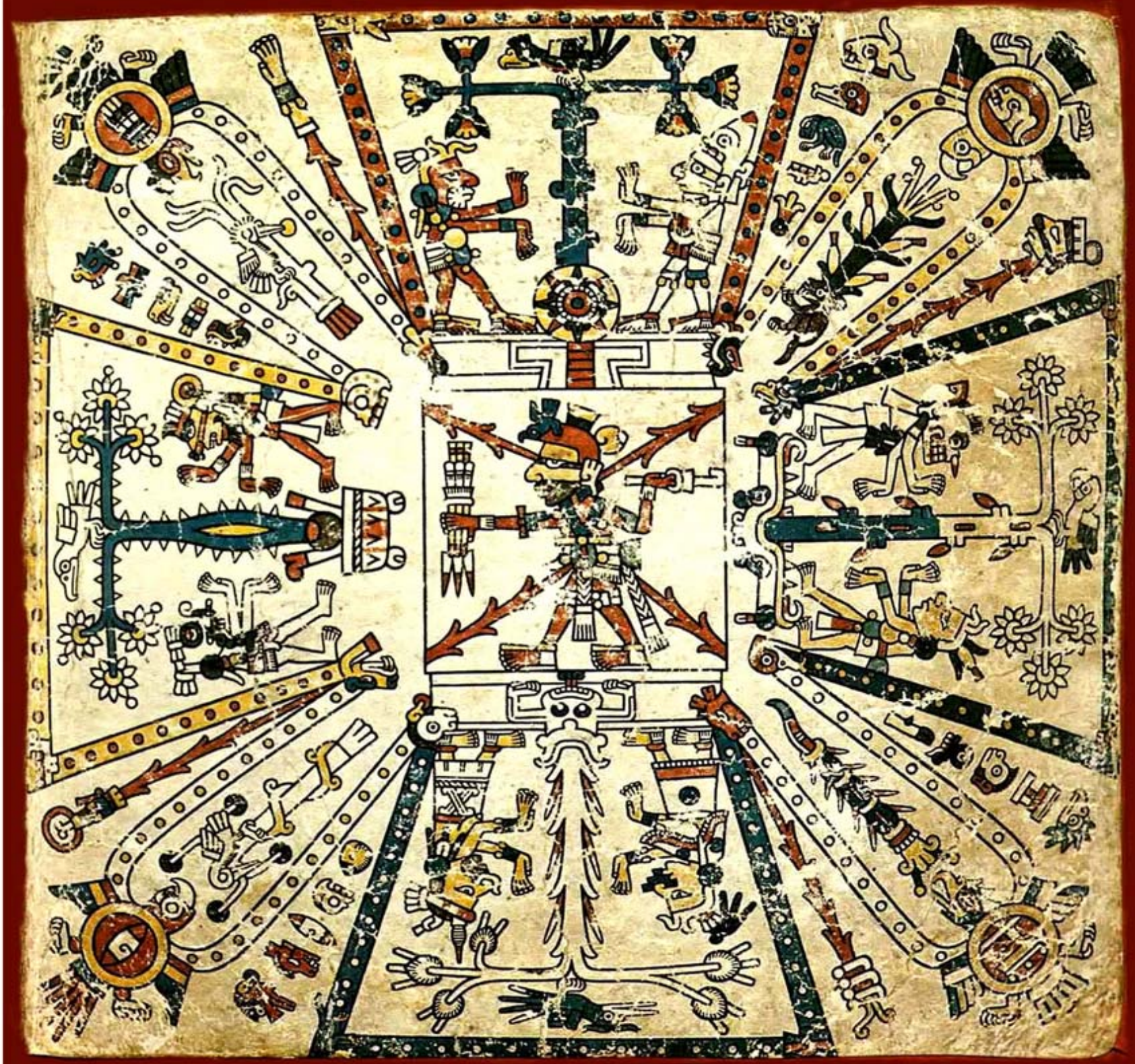
Here the central image is of a warrior, the Fire God Xiuhtecuhtli, there is no ring of daysigns, and pairs of gods here are adoring four directional Trees. But the 260 day-dots march in strict order round the diagram in an 8-petaled flower, exactly as in the *Madrid* diagram.

Mixteca-Puebla
Fejervary-Mayer Codex, p. 1.
The 260-day Divinatory Calendar, the *Tonalpohualli.*

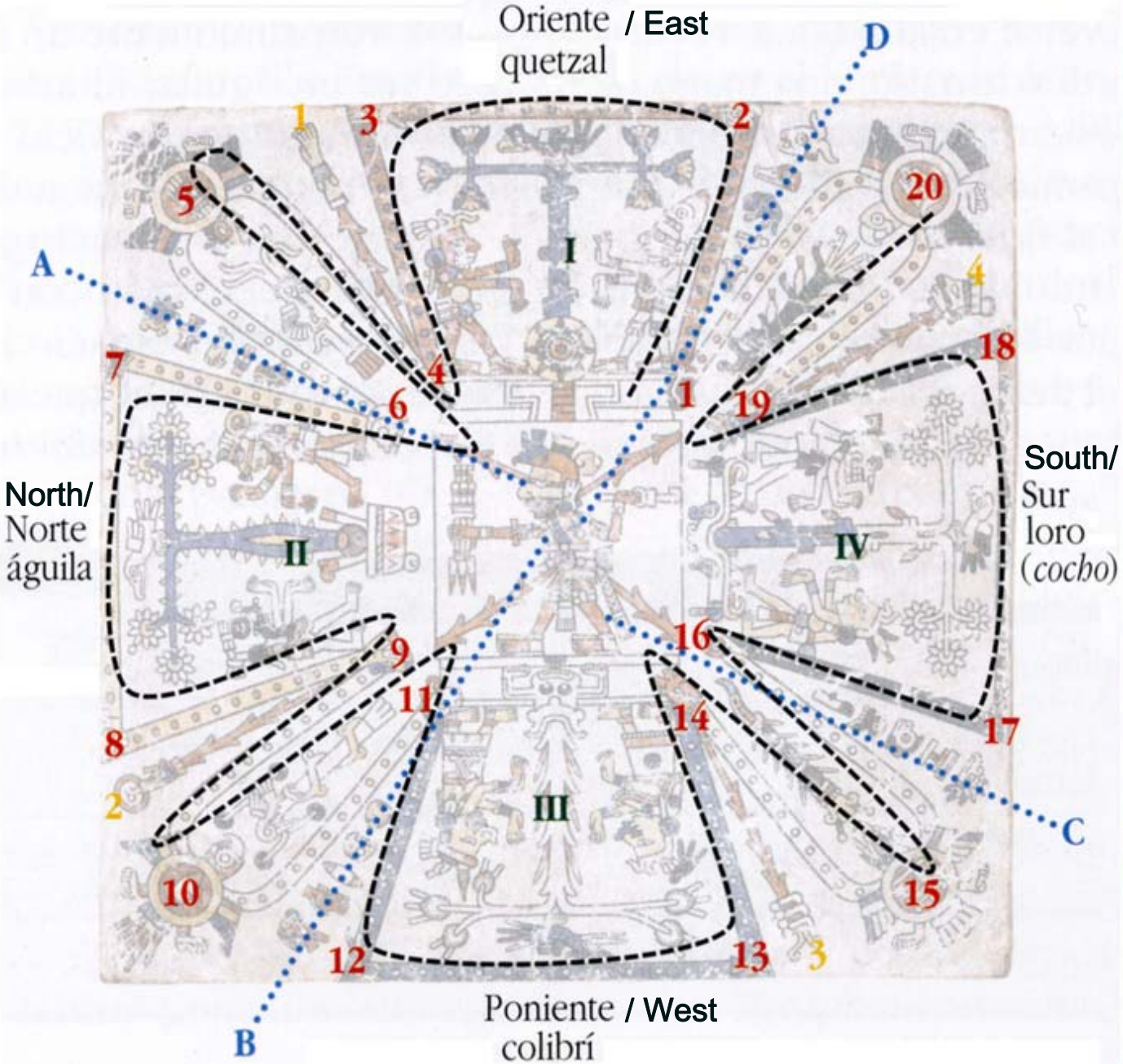
Each dot is a day.

West is at bottom,
East at top,
South at right,
North at left.
(upside-down from the *Madrid*)

Each of the four cardinal directions has a pair of gods adoring an appropriate tree, while the center has Xiuhtecuhtli as warrior. In each corner are five day-signs (*not* in order) and a bloody body-part of Tezcatlipoca.



LECTURAS DE DOS *TONALPOHUALLI*



Días de un segundo *tonalpohualli* ordenados por rumbos cósmicos

(Days associated with cardinal directions)

A. Oriente: *cipactli, ácatl, cóatl, ollin, atl.*

B. Norte: *itzcuintli, miquiztli, técpatl, océlotl, ehécatl.*

C. Poniente: *mázatl, quiáhuitl, ozomatli, calli, cuauhtli.*

D. Sur: *xóchitl, malinalli, cuetzpallin, cozcacuauhtli, tochtli.*

Árboles cósmicos

(Cosmic Trees)

I. *quetzalquáhuitl*, oriente
II. mezquite, norte
III. *quetzalpóchotl*, poniente
IV. cacao, sur

Atributos de Tezcatlipoca

(Attributes of Tezcatlipoca)

1. Mano. **2.** Hueso descarnado del pie. **3.** Torso descarnado. **4.** Cabeza con pintura facial del dios. (1. Hand. 2. Emaciated bone of the foot. 3. Emaciated torso. 4. Head with face painting of the God.)

Explanation by the brilliant Mexican scholar Miguel León-Portilla, from *Arqueología Mexicana*. You can see that each direction has an assigned species of **tree**, in which perches an assigned **bird**, honored by specific **gods**.

Nested into the petals of the 260-day cycle (shaped like the Maya glyph for "completion") are specific gods worshipping the Trees-with-birds of each Direction.

North *at left*: **Eagle** in **Ceiba** growing from a Sacrifice Vessel containing bloody bones and perforators. The Rain god Tlaloc and Tepeyollotli, "Heart of the Mountain," worship it. (I respectfully disagree with León-Portilla, who calls this tree a *Mezquite*).

South *at right*: **Macaw** (*Loro*) in a **Cacao** tree growing from the maw of the Earth Monster, worshipped by Death and Cintéotl, god of Maize.

East *at top*: **Quetzal** in a *quetzalquáhuitl* tree springing from a Sun Altar, worshipped by Tonatiuh-Piltzintecuhtli (Young Sun god) and Itztli, the personified sacrificial "Flint knife".

West *at bottom*: **Hummingbird** (on the left of the Sun) in a spiny (cactus?) *quetzalpochotl* growing out of the body of a white creature, worshipped by two goddesses: Tlazoltéotl, "filth-eater," forgiver of sinners, and Chalchiutlicue, "She of the jade skirt."

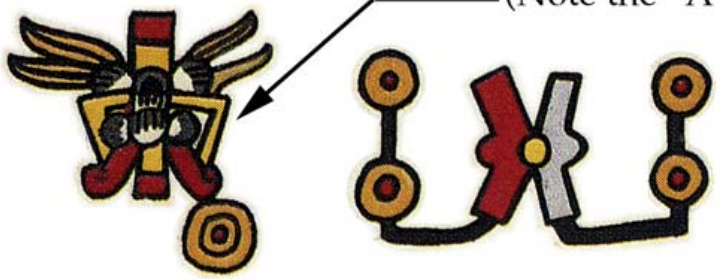
Center: Xiutecuhtli, god of Fire, as a warrior, clutching darts and *atlatl*, a spear-thrower.

The four intercardinal directions are crowned by species of birds emblazoned with the four year-bearer daysigns (Reed, Flint, House, Rabbit): two members of the parrot family and two raptorial birds. They descend in turn to four *more* species of plants… for example, the "Rabbit"-marked parrot in the upper right dives toward a maize plant growing from the head of a large rodent (a gopher? rat? paca?). Flanking his descent, we see on one side the glyphs of five days associated with this direction, on the other the decapitated head of Tezcatlipoca, connected by a stream of blood to Xiuhtecuhtli in the Center. The other three corners contain similar iconography whose details really do not concern us here further.

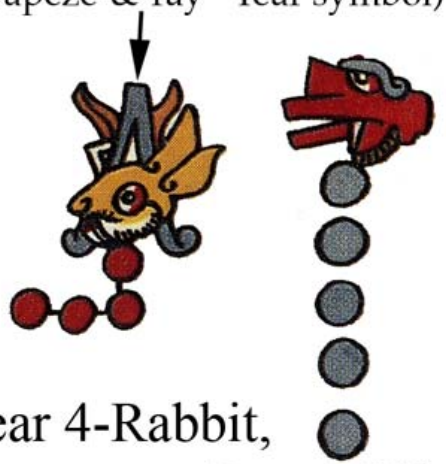
The counter-clockwise progression of the 260 days reflects the direction followed by priests, dancers, and other celebrants in the ritual circuits that feature in every Precolumbian ceremony. As Wendy Ashmore points out, "All static images of space have to do with movement through them." They are counter-clockwise, reflecting the perceived direction of the sun's movement.

All the Aztec and Mixtec Calendrics You Need to Know:
They only used the 260-day and (rarely) the 365-day cycles.

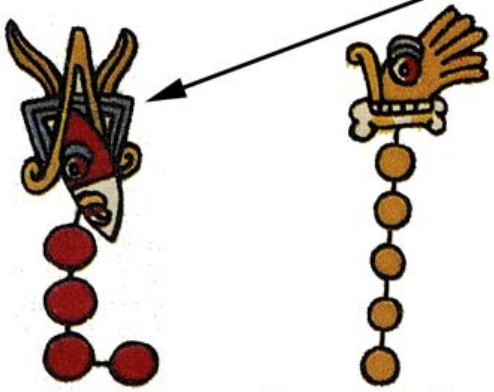
(Note the "A-O" or "trapeze-&-ray" Year symbol)



Year 1-Reed, Day 4-Movement
from *Codex Borgia*, p. 71



Year 4-Rabbit, Day 5-Wind
from *Codex Borgia*, p. 50

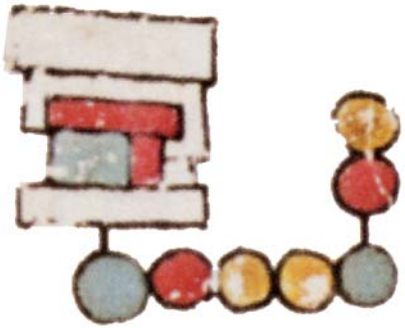


Year 4-Flint, Day 5-Grass
from *Codex Borgia*, p. 52

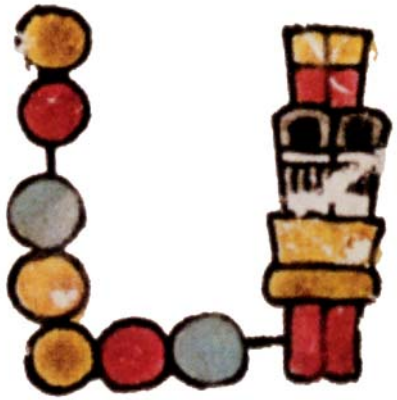
The Mixteca and Mexica/Aztecs did not use a Long Count calendar. Their 52-year "Calendar Round" worked the same way as the Maya CR. They named each year for the day on which it began in the 260-day cycle, giving them 52 individual designations.

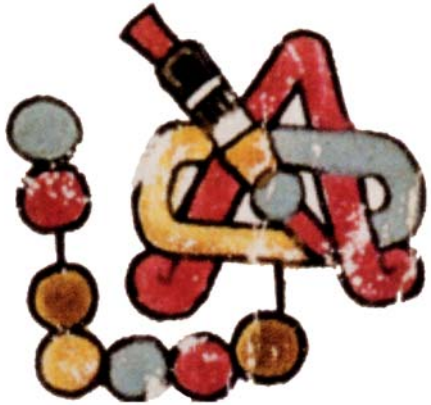
The *Tonalpohualli*, the Aztec name for the 260-day sacred calendar, is derived from the Maya *tzolk'in*, and works precisely the same way, with a numerical coefficient from 1 to 13 attached to 20 cycling day-names. Their day-names are refreshingly simple: "Rabbit," "Wind," "Grass;" for the most part they reflect the meanings of the (often obscure) Maya day names.

Year 6 Flint,



Day 7 House





Day 7 Reed, (*first day of*) Year 7 Reed

from *Vienna Codex*, p. 39

Though the Aztecs also used a 365-day cycle, also derived from that of the Maya (or perhaps they both derive from a common *source*), they used it much less often in their writings.

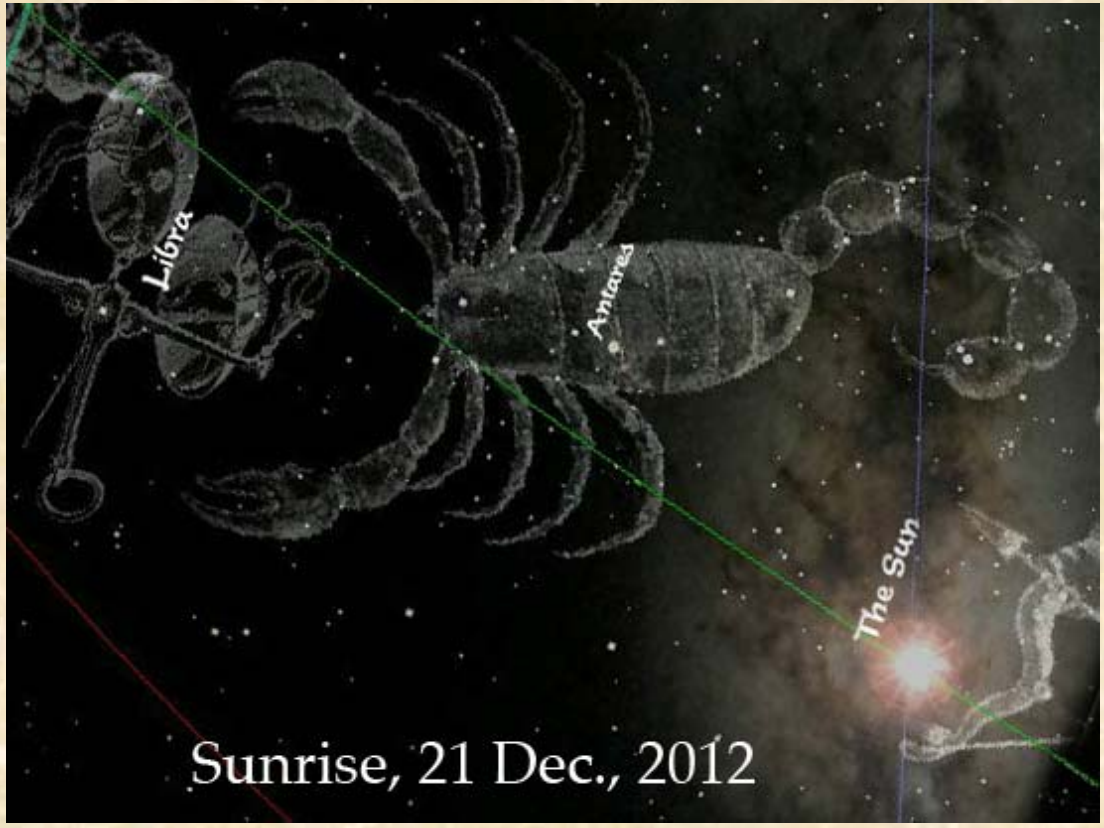
Instead of pairing a 260-day date with its 365-day date, the Aztec and Mixtec simply mentioned the 365-day year in which the date fell. Each year was named for the *tonalpohualli* date on which it began, and indicated the *Year-Bearer* or "name of the year" with a sign we call the "A-O Sign," the "Mexican Year Sign," or the "Trapeze and Ray."

The 2012 Galactic Alignment: How rare is it?

Some researchers claim that the Maya Calendar was set, originally devised, specifically to reach its "end" (the Long Count date 13.0.0.0.0) coinciding with this very special event.

So how rare is this "galactic alignment," that occurs every 26,000 years?

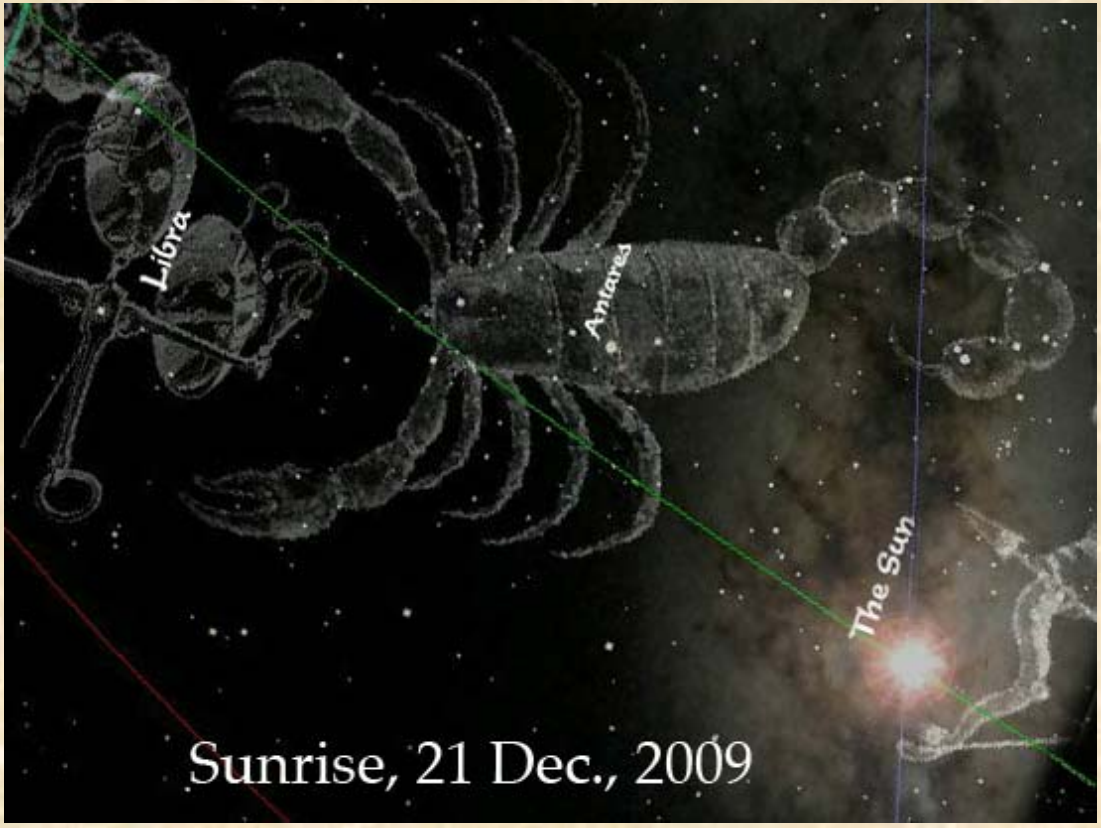
The 2012 Galactic Alignment: How rare is it?



The Galactic Center is about here: X

Here is a sky chart showing the sun on the morning of 21 Dec., 2012.
The line marking the Ecliptic is green, and the Galactic Equator is violet.

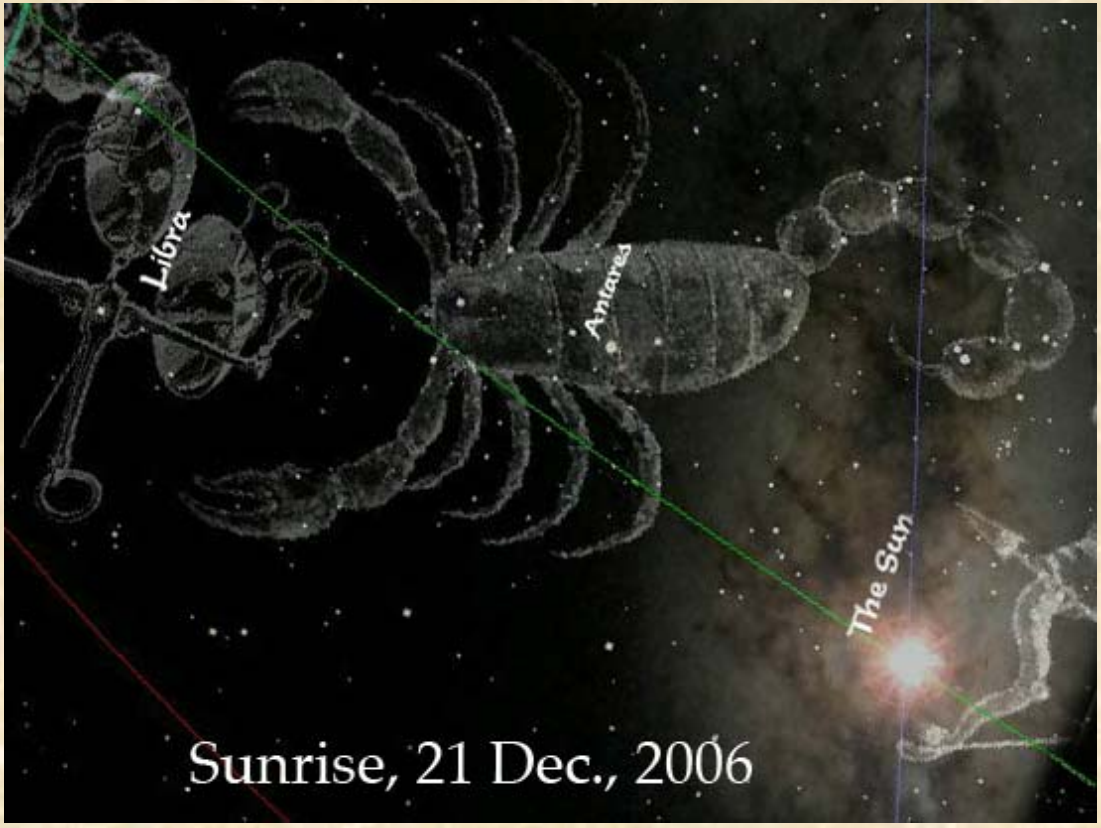
The 2012 Galactic Alignment: How rare is it?



The Galactic Center is about here: X

Here is a sky chart showing the sun on the same day, three years earlier in 2009.

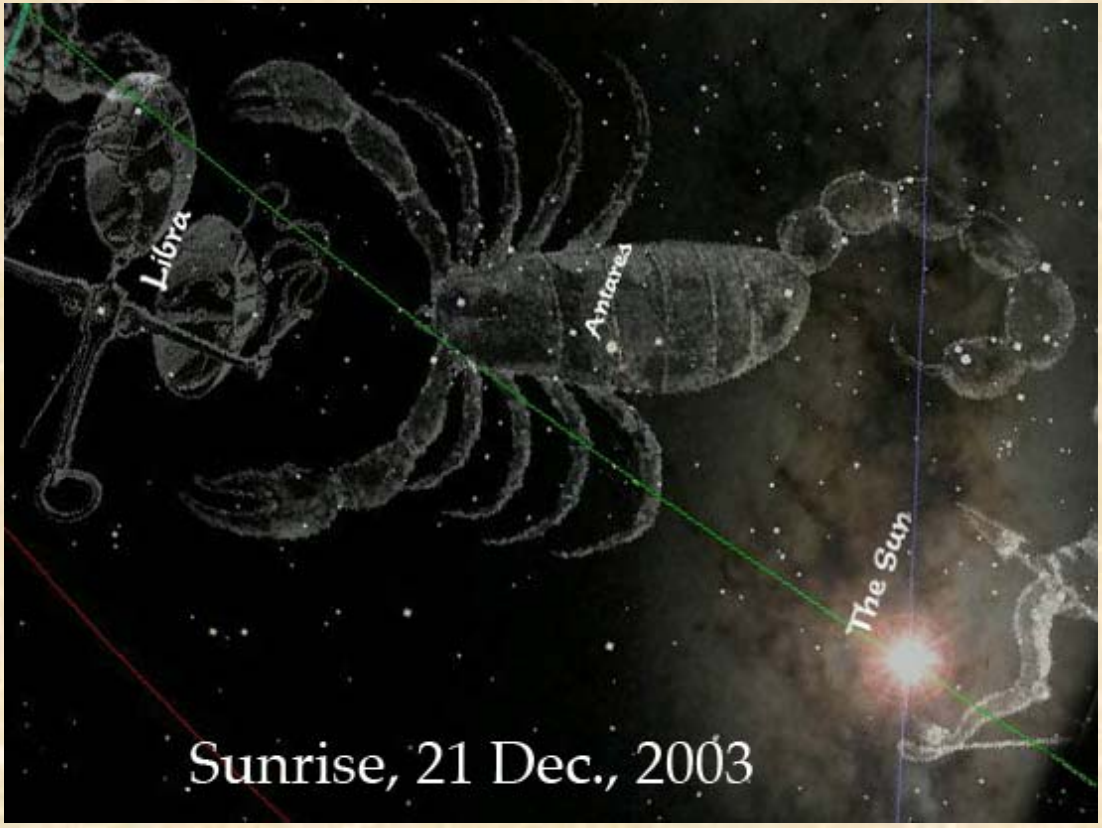
The 2012 Galactic Alignment: How rare is it?



The Galactic Center is about here: X

Here is a sky chart showing the sun on the morning of Dec. 21, 2006.

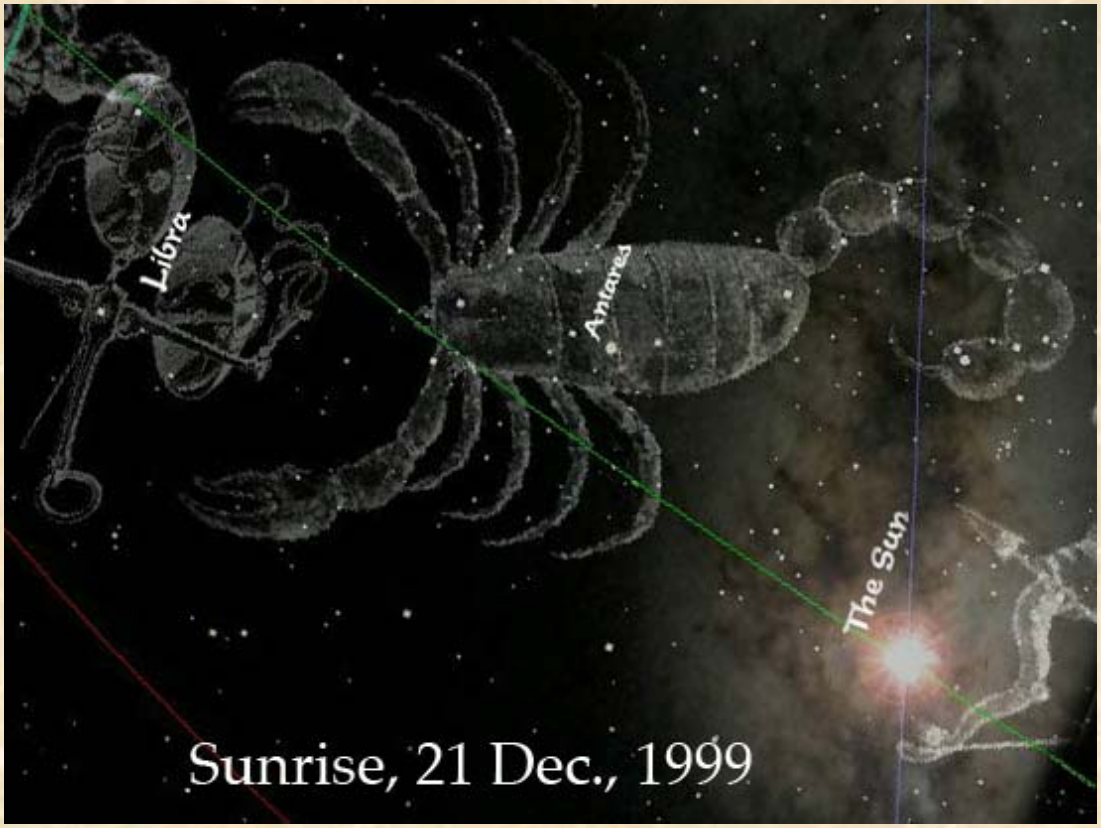
The 2012 Galactic Alignment: How rare is it?



The Galactic Center is about here: X

The sky chart showing the sun on the morning of Dec. 21, 2003. To see the slight movement of the sun at these three-year intervals, click back and forth through the last three slides a few times. You will notice that the sun has been in virtually the same spot *every* Dec. 21st for many years.

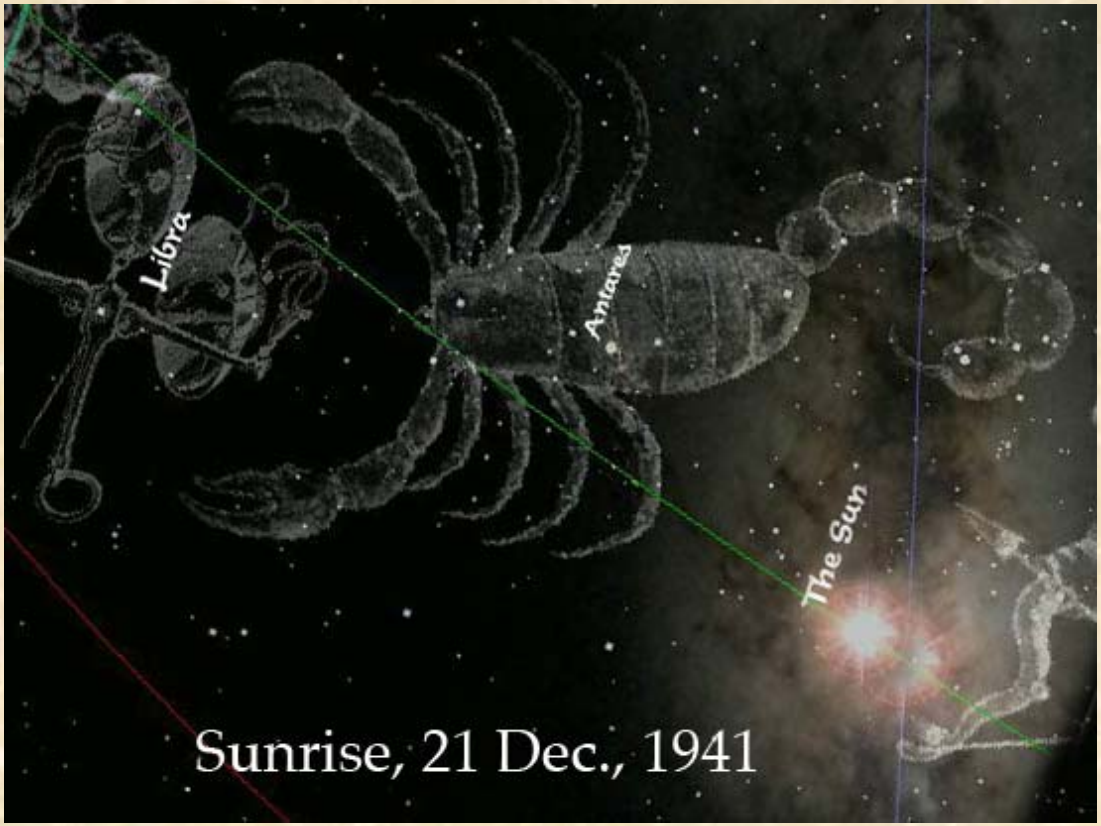
The 2012 Galactic Alignment: How rare is it?



The Galactic Center is about here: X

In fact, the sun has already crossed the Galactic Equator in 1999. The edge of the sun first touched that Equator in the early 1980's, and will be in contact with it each 21st of December until about 2019. Again, this "rare" alignment has already been happening for twenty-five years and will continue for a decade more.

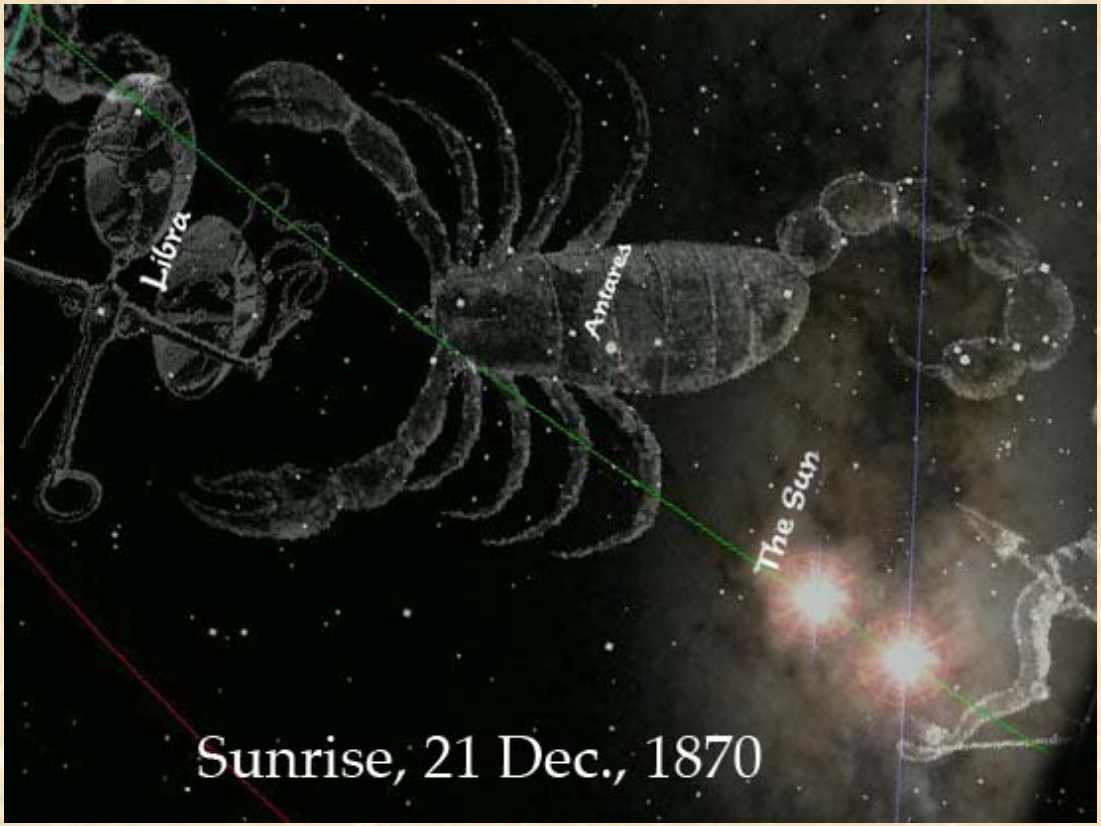
The 2012 Galactic Alignment: How rare is it?



The Galactic Center is about here: X

Sky chart showing the position of the sun on the morning of the solstice in 1941, seventy-one years before 2012. It is approximately one degree, or two solar diameters, away from the Galactic Equator. This slow movement is what astronomers call "Precession of the Equinox."

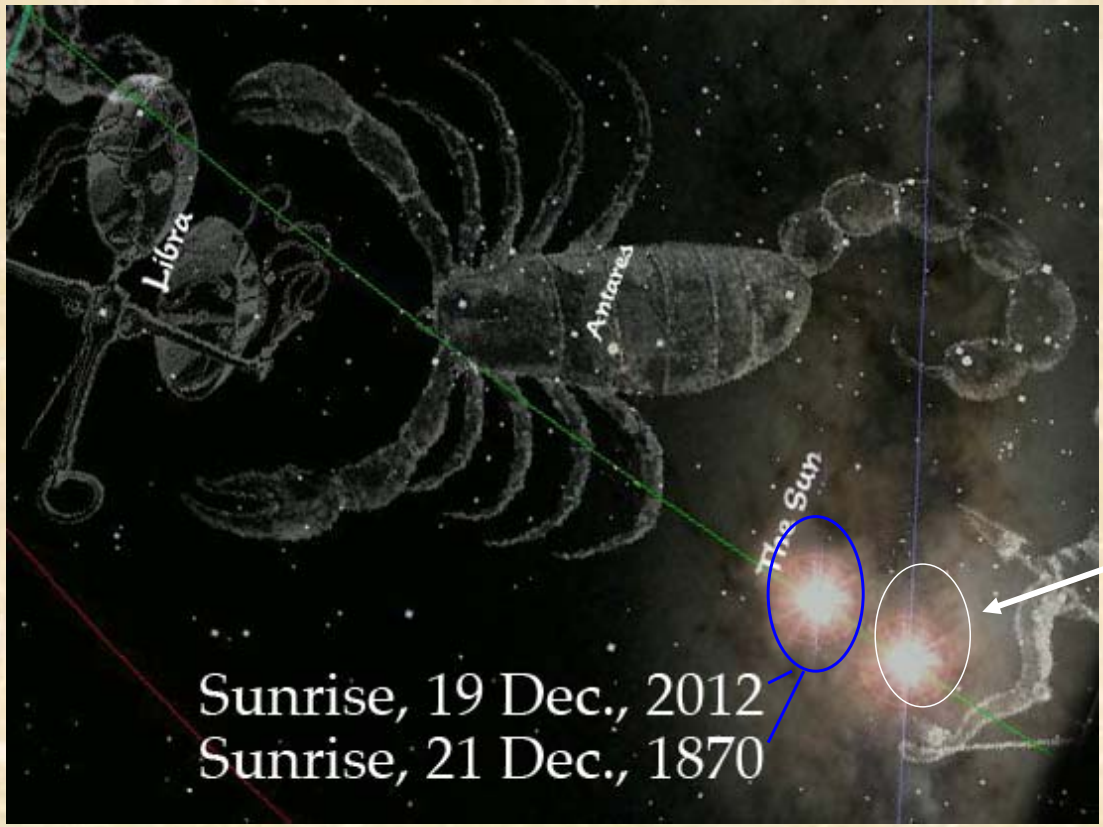
The 2012 Galactic Alignment: How rare is it?



The Galactic Center is about here: X

This shows the sun's position at dawn of the solstice 71 years earlier still, when it was two degrees short of the Galactic Equator.

The 2012 Galactic Alignment: How rare is it?



The sun's position on 21 Dec., 2012 and on 23 Dec., 1870.

The Galactic Center is about here: X

Here we show the sun's position on mornings two days apart, in 1870 and 2012. The sun in 2012 occupies precisely the same positions as it did 142 years and two days earlier. They are two degrees apart, or four solar diameters.

The 2012 Galactic Alignment: How rare is it?

The Galactic Center is about here: X

However, two days later in 1870 on Dec. 23rd, the sun *did* cross the Galactic Equator. And in 1941 it crossed on the 22nd.

The 2012 Galactic Alignment: How rare is it? *Not very!*

The Galactic Center is about here: X

Allow us to repeat, the sun has crossed the galactic equator *every* winter solstice since 1983, and will continue to do so until 2019. In fact, it has aligned annually (on other days) since time began. (It precesses a solar diameter in 36 years.)
This is an annual event, **not rare** at all.

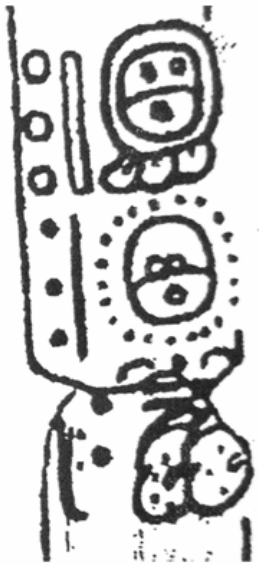
However, the Maya *did* celebrate the Sun's almost-imperceptibly slow progression through the Zodiac (*or* "around the sky") called the *Precession of the Equinox*.

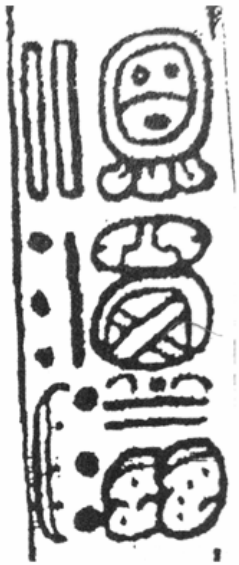
The 3-11-Pik Formula

Barbara MacLeod

13.0.0.0.0 4 Ajaw 8 Kumk'u	13.0.0.0.0 4 Ajaw 8 Kumk'u
+ 1.4.1.0	+11.0.0.0 0
13.1.4.1.0 6 Ajaw 8 Mak	1.4 .0.0.0.0 6 Ajaw 8 Mak

8660 days mirrors the product of 11 times 144,000 days,





Barbara MacLeod has been working with an unusual Maya concept, a significant interval of time they called "3-11-*Pik*" (or "3-11-*Baktun*," to use the traditional epigrapher's name for the 144,000-day/400-year period). 3 x 11 x 144,000 days is 4,752,000 days, or **13,010.5 years**, half the length of the Precession cycle.

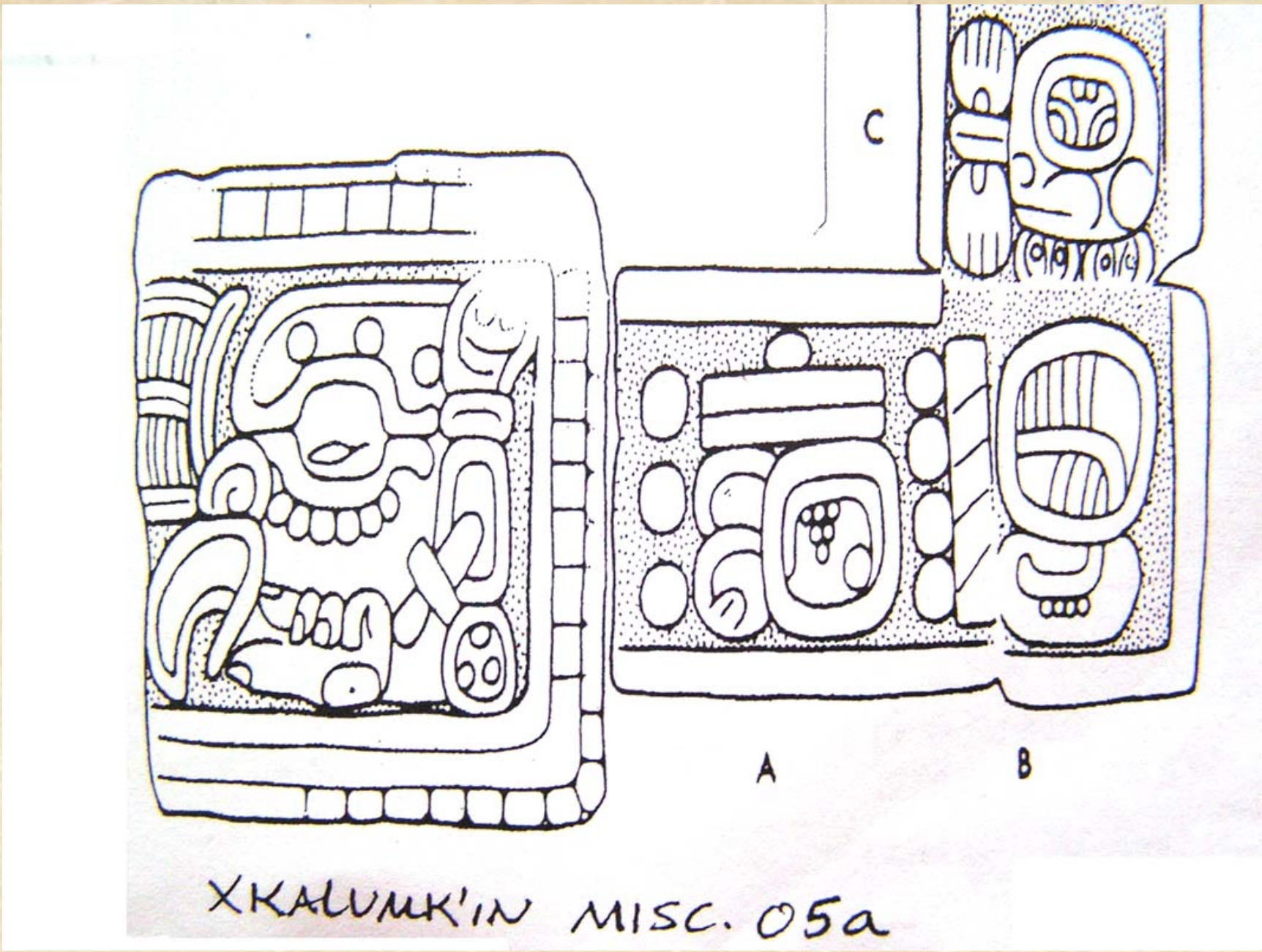
Maya rulers celebrated a micro-cycle of this huge interval: every 8660 days (about 24 years) was an "11-Pik station" in the Long Count, (it would have the same Calendar Round as 11 Piks later would have). If a king lived long enough, he would witness three of these in succession (taking 25,980 days, about 71 years; 3.12.3.0 in Maya numerals) and be given the title "3-11-*Pik Ajaw*." This 71 years is the length of time for the Equinox sun to precess one day. In other words, the sun's position against the backdrop of stars would have shifted to the adjacent day's position 71 years before.

…Not only did the Maya occasionally celebrate the Precession, they observed and measured its progress sufficiently to calculate with it.

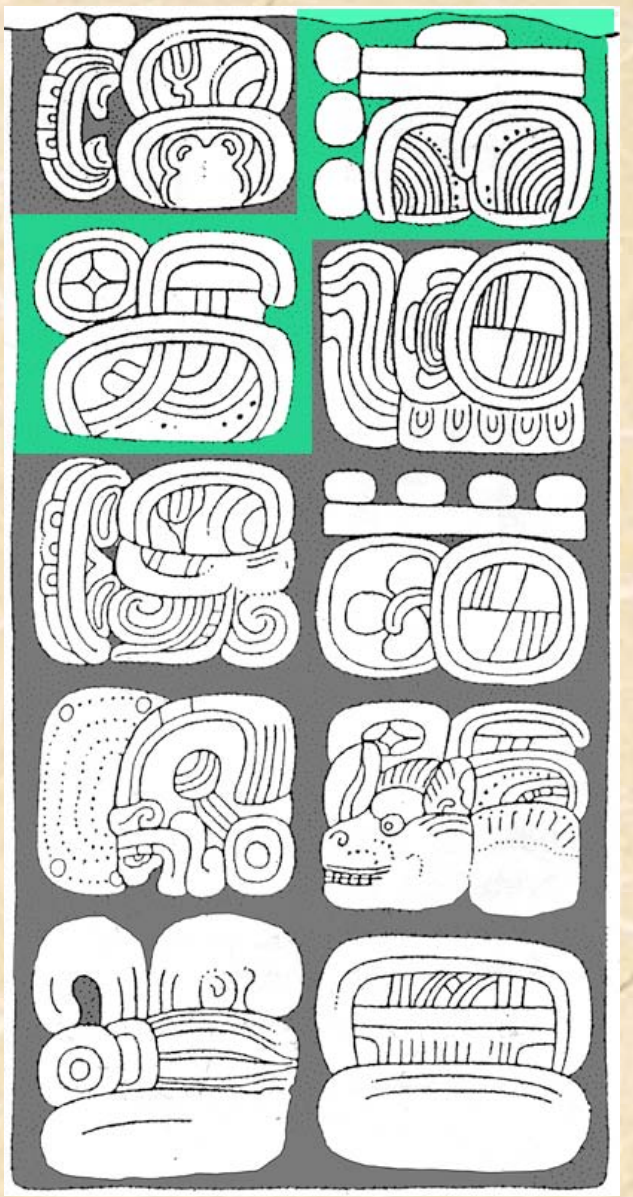
If a lord saw 3 successive 8660-day periods (about 71 years), he was given the title "3-11-Pik Ajaw."

(71 years is the time it takes for the sun to precess back one day. Thrice 8660 is also 25,980 *days*, microcosmically reflecting the full Precession cycle of 25,800 *years*. Perhaps.)

Premier archaeoastronomer Anthony Aveni is not at all convinced by Barbara MacLeod's evidence, which he calls coincidental. (We scholars are not at all monolithic.)



This is a drawing of a Xcalumk'in inscription (*CMHI 4:197*) one of the handful of monuments mentioning this 9-11-*Pik* interval/title. Glyph A is the title "3-11-*pi-k(u)*," or "3-11-*Pik-ku*," one of a string of titles boasted by the Lord ending at glyph J with "Ajaw".



Drawing after David Stuart

This is a drawing of a Copan Stela 49 with the 9-11-*Pik Ajaw* interval/title highlighted.

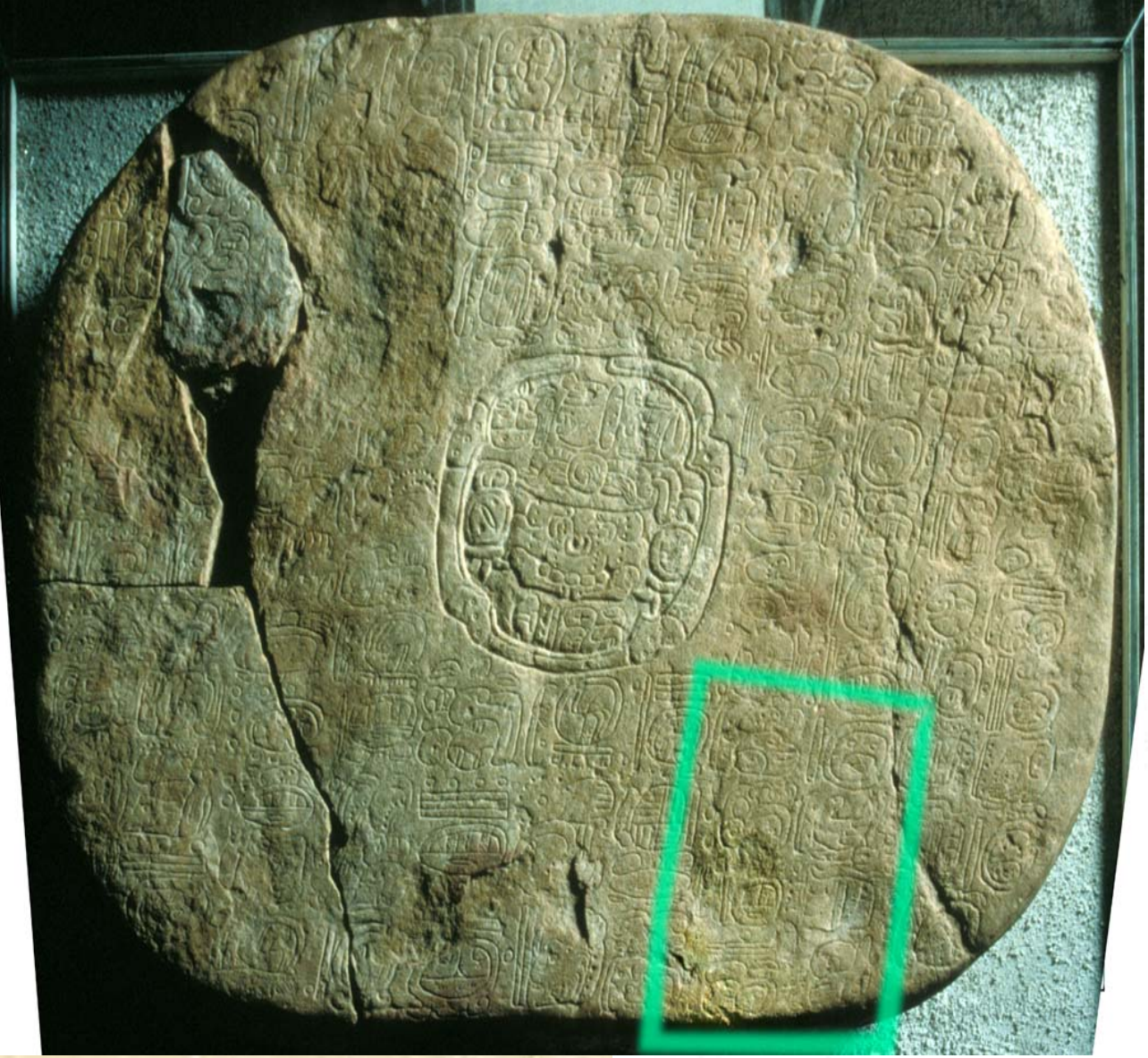
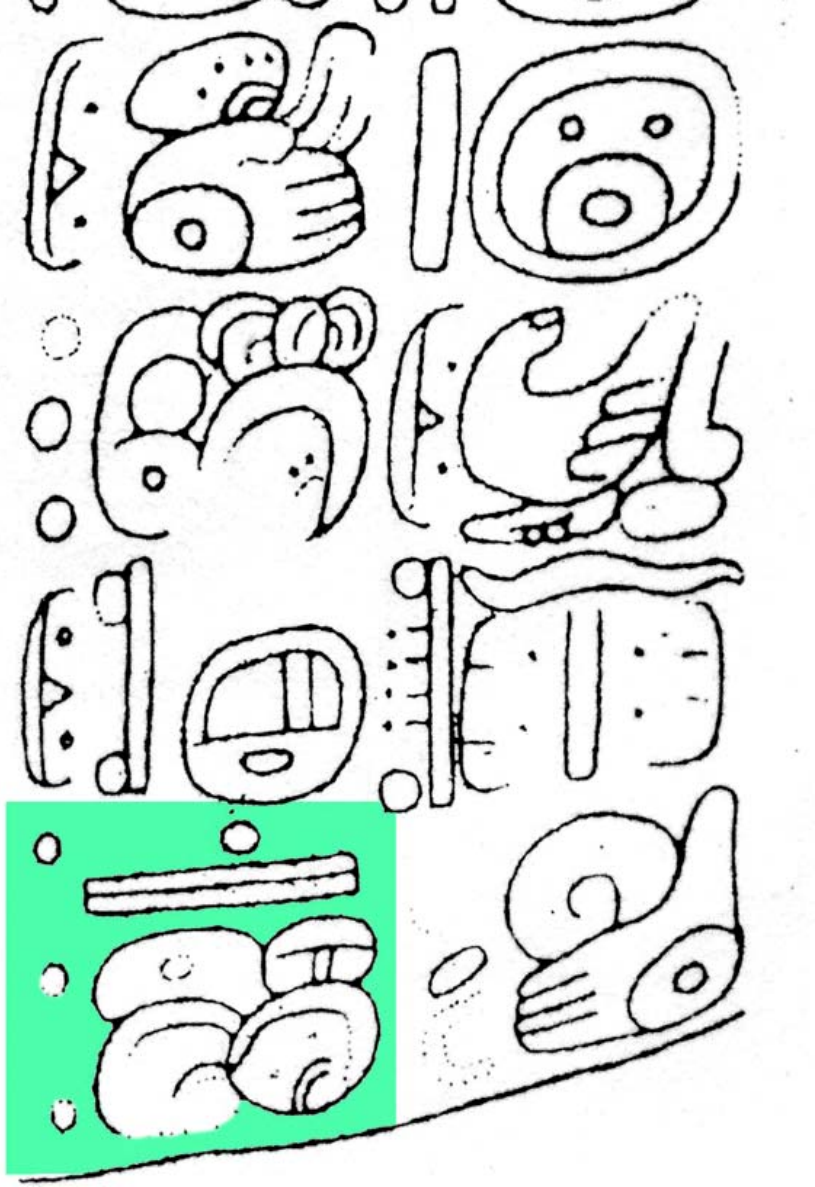
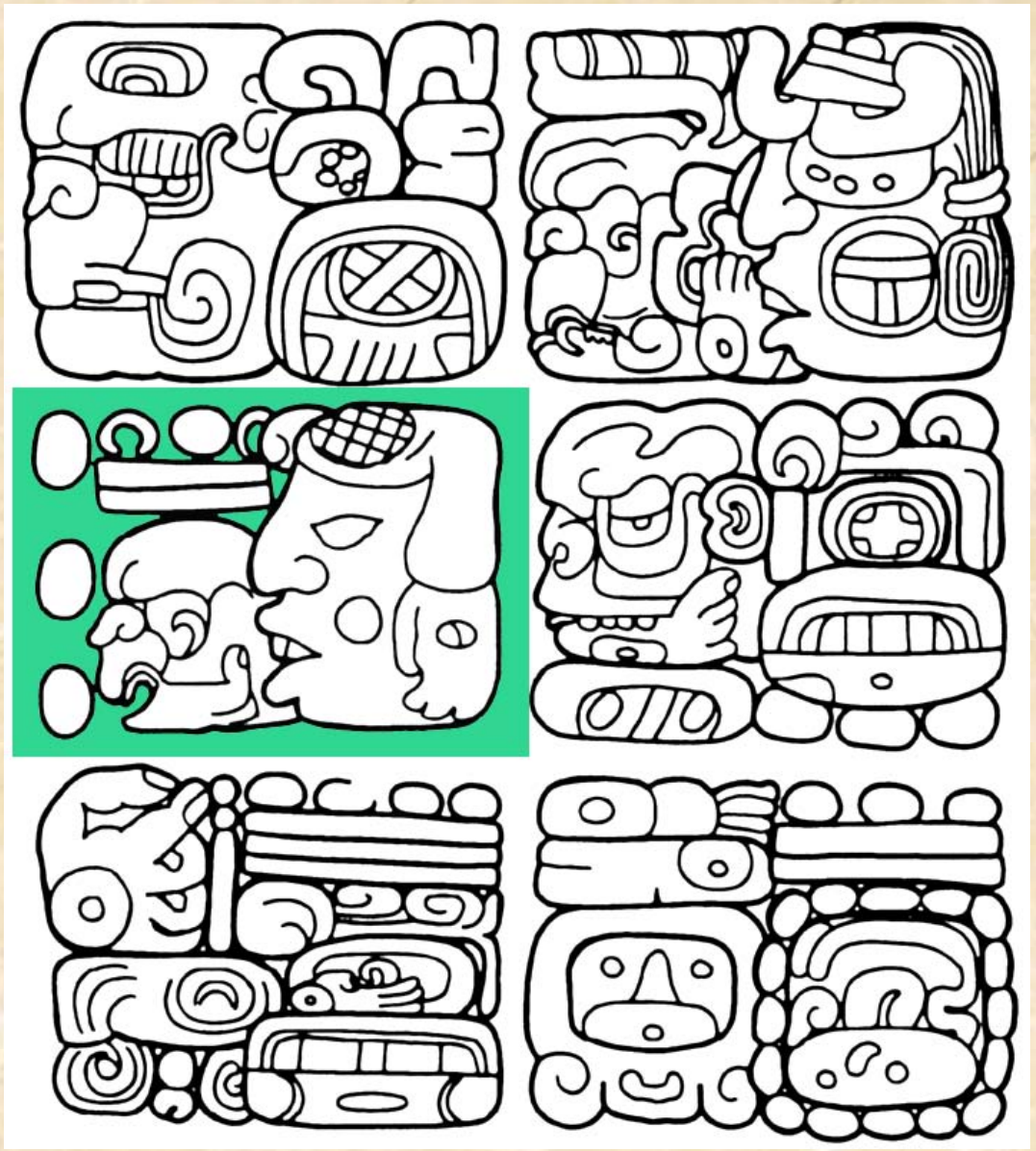


Photo courtesy of the Morisawa Type Company, Tokyo, Japan



Drawing by Ian Graham (CMHI)

This is a photograph of Naranjo Altar 1 along with a drawing of the altar. The text selected is H9 – I12. The *3-11 Pik Ajaw* title exists in H12 (highlighted).



Drawing by Matt Looper

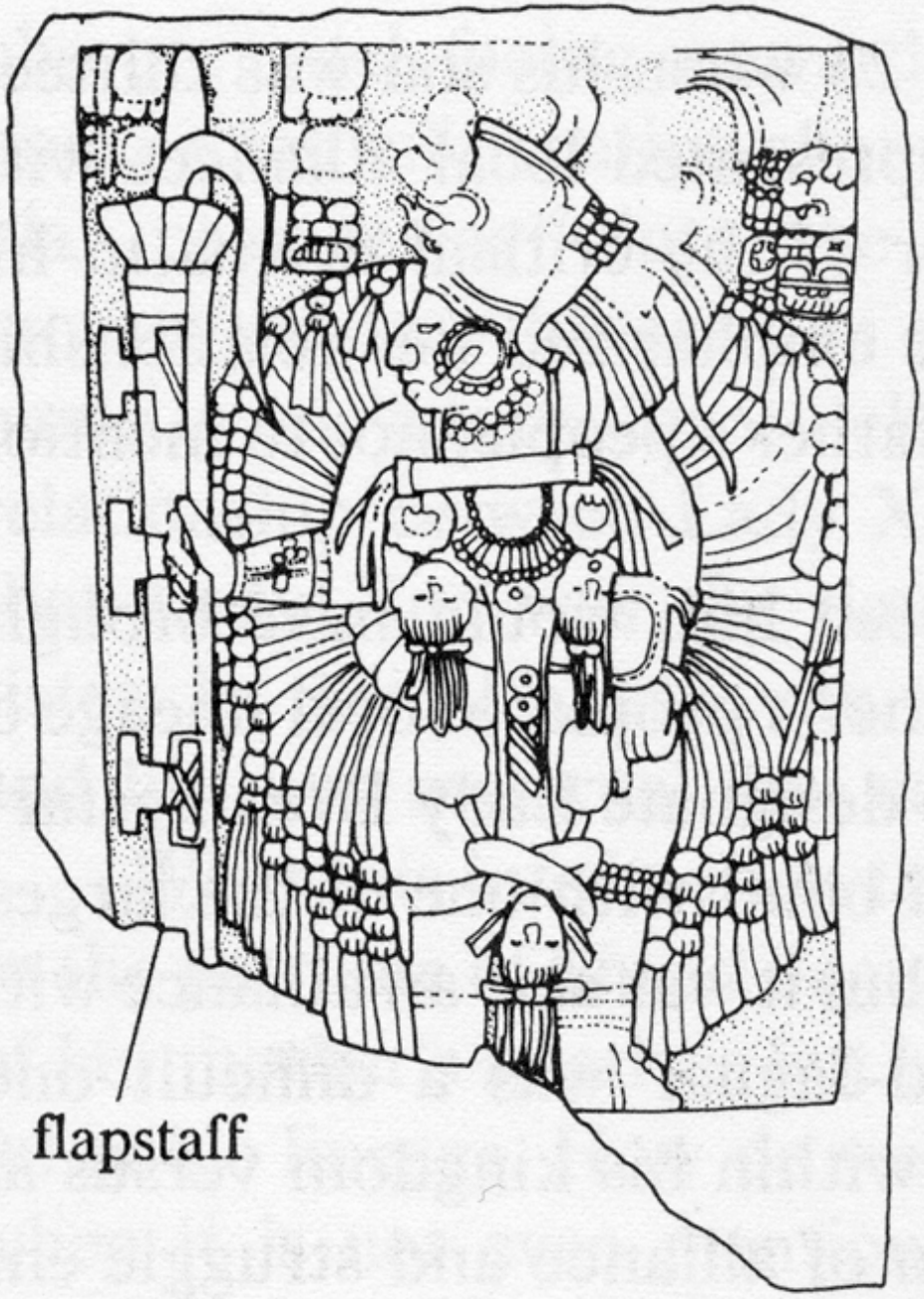
This is a drawing of Quirigua Stela F, A12 – B14. The *3-11 Pik Ajaw* interval/title is highlighted in A13.

Solstices: How important were they?

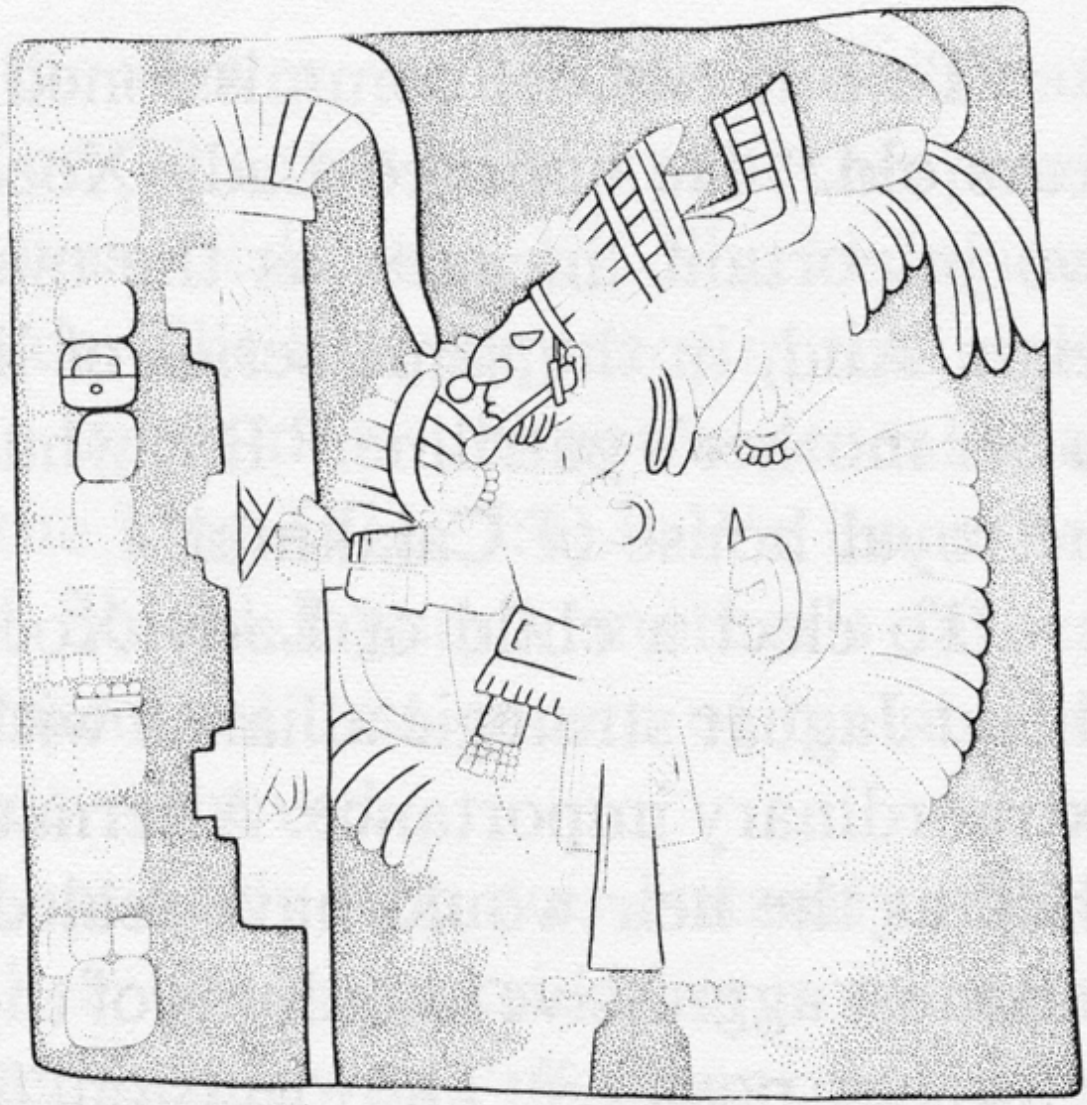
Observatory,
Palenque Palace

Photo by Linda Schele

So far, we have found no glyphic inscription that refers to a solstice or an equinox *per se*. The only events recorded in inscriptions that consistently fall near one of these dates are the "Flapstaff Dance" lintels at Yaxchilan. The Maya called this baton/banner *Jasaw-Chan*, and the handful of records of this dance always happen a couple days after the summer solstice: June 25, June 26, etc. (*GMT+2 correlation; two days earlier in the GMT correlation*).

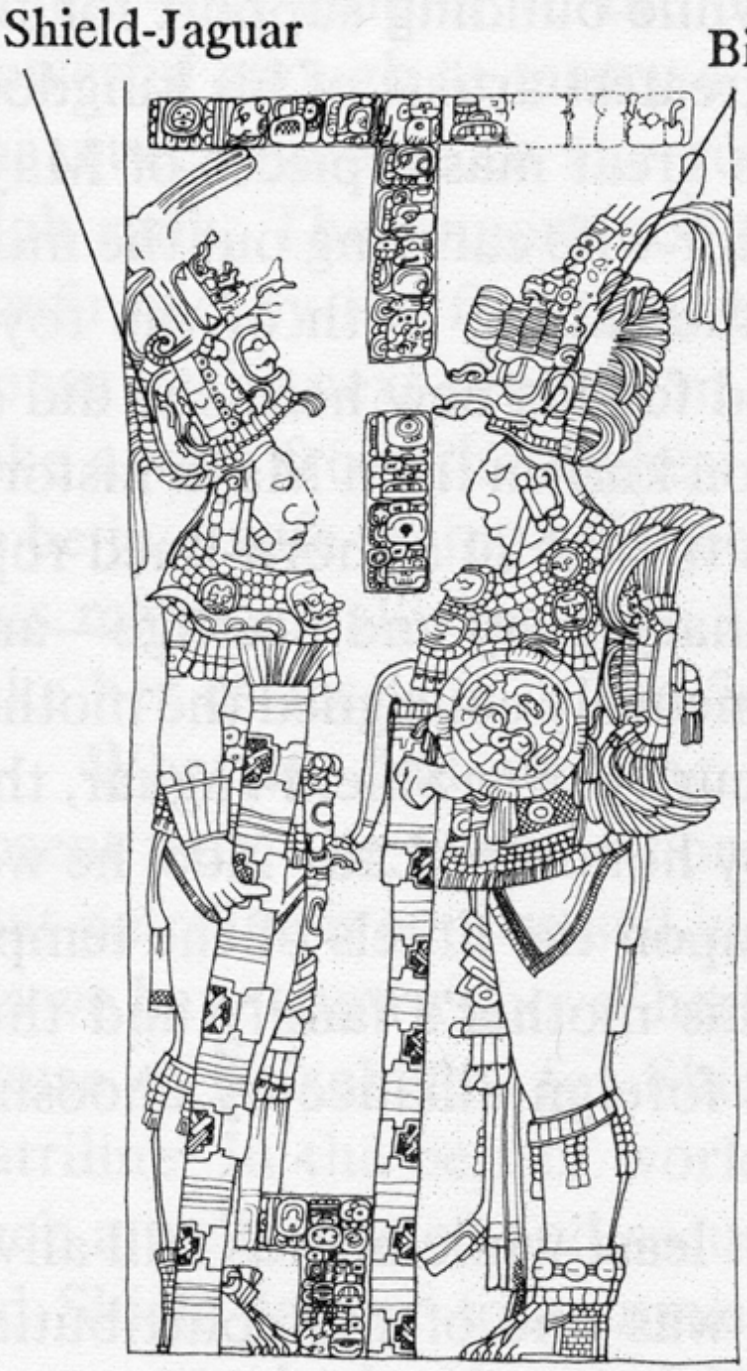


a. Stela 16: the first flapstaff event by Shield-Jaguar on June 27, 736(?)



drawing by Ian Graham

b. Lintel 50: Shield-Jaguar in first flapstaff event??



c. Stela 11: Shield-Jaguar enacts his flapstaff rite with his son Bird-Jaguar on June 26, 741.

drawing by Ian Graham

d. Lintel 33: Bird-Jaguar in his flapstaff rite on June 25, 747

Further, Maya rulers could choose the date of their inauguration. They had substantial leeway for it; a typical Maya Ajaw-to-be had between a month and about two years after his predecessor's death to set a date.

Examining 80 recorded coronations for Maya lords, I found only *one* (in each correlation) that fell on either a solstice or an equinox, which is precisely what chance would predict. In fact, I found *four* that coincided with February 14th, but that does not prove that the Ancient Maya celebrated St. Valentine's day. Remember that!!

When faced with a choice of an auspicious day on which to schedule an important event, Maya almost *never* chose a solstice or an equinox.

Solstices:
How important were they?

Answer:
Not very