

The Classic Mayan Calendar Is Not Cyclical Any More than Our Calendar

Lloyd Anderson, Ecological Linguistics, ecoling@aol.com Sixth Annual Tulane Maya Symposium, 6-8 Feb. 2009. www.TraditionalHighCultures.com/MayaMath&WorldAges.html

Because of the Long Count, the Mayan calendar is just as linear as our own. It is not essentially cyclical and exotic. The famous interlocking geared wheels do not show something uniquely Mayan, and so to a great degree misrepresent Mayan calendrics. Because of our leap day, we have our own cycle of four years (1461 days = 4 x 365 +1) and a cycle of 7 week days, these two cycles meshing every 28 years. We have to re-set it three out of every four even centuries when we skip the leap day. (The Central Mexican calendar lacks a Long Count, so is much more cyclic than ours.)

Western Calendars

1 "Long Count", the count of years
It is now the year 2009

One year cycle of 365 & 366 distinct day names

A second week cycle of 7 distinct day names

For units above the year,
our calculations are decimal (multiples of 10).

No "Long Count" begins with a "0", no year "0800 AD" or "0"

Two Differences:

We use subtraction.

Our "years BC/BCE" count backwards before the year 1.

The Mayan Calendar

1 "Long Count", the count of days
New Year's day 2009 = 12.19.15.17.8

One year cycle of 365 distinct day names

A second Tzolk'in cycle of 260 distinct day names

For units above the year,
Mayan calculations are vigesimal (multiples of 20).

No "Long Count" begins with a "0", no day notated "0.x.x.x.x" or "0.0.0.0.0"

The Maya did not use subtraction but used ring numbers instead.

(part of a larger interval was completed by the time of the Era Date)

The Maya counted forwards before their day 1.

Additional truly cyclical elements, near equivalents in the two calendars

These elements in each calendar are the same size as the base of the counting systems, decimal (10's) vs. vigesimal (20's), so yet another equivalence.

The sequence of centuries is not cyclical:
16th century, science fiction set in the 24th century, etc.
But phrases for decades "in the 20's", "in the 30's"
(of an unnamed century) are cyclical.

The "count of the K'atuns" (a sequence of names for scores of years) is cyclical:
11 Ajaw, 9 Ajaw, 7 Ajaw, 5 Ajaw, 3 Ajaw, 1 Ajaw, 12 Ajaw, 10 Ajaw,
8 Ajaw, 6 ajaw, 4 Ajaw, 2 Ajaw, 13 Ajaw (and then repeating)
The auguries for the named K'atuns are cyclical, when thought to recur.

The Maya did not expect any new beginning in 2012, nor did they signal a new beginning in 3114 BCE. That was simply the zero point of their Long Count. There was no special cycle of 13 Baktuns.

The Palenque Temple of Inscriptions shows that 20 Baktuns = 1 Pictun in the future. Long-distance calculations show that 20 Baktuns = 1 Pictun in the past, and so also for larger units. Tikal Stela 10 includes a date 1.11.19.9.3.11.2.[? days], showing that a numeral 19 can occur in the larger units (not only 0 to 12). (The date intended was probably a simple 9.3.11.2.[6?].) There was no Mayan cycle of recurring world ages, as is imagined for the Central Mexican *Leyenda de los Soles*. Both there and in the Mayan *Popol Vuh*, the current world age is not usually viewed as to be succeeded by another. Rather, the current age is the culmination of a linear punctuated development towards true humans. (There is an exception, in some Palenque texts and in the Mayan Codices (Dresden), that the Era Date itself may be notated as 13.0.0.0.0 if in addition to the Calendar Round 4 Ajaw 8 Cumk'u a long count is also given. As a secondary result, some dates closely preceding the Era Date came to be expressed as 12.x.x.x.x)

The numeral "13" could be used in a symbolic value which was not intended as part of a mathematical calculation. In these cases it probably was an elegant expression for 'past completed'.

The Palenque and Dresden Codex exceptions noted above are perhaps late developments, when some Maya started to use the notation of the Era Date 13.0.0.0.0 as a base of calculation, treating it numerically instead of symbolically. Following comments apply even to those exceptions.

There was no cycle of 13 Baktuns, and no "base-13" anywhere except in the numeral coefficients in the Tzolk'in. If there had been, then adding one to "12" would have yielded a "0" with a carry of "1" to the next higher unit. It would not have yielded a "13", and indeed we would almost never see a "13", just as on monuments we almost never do see a "20", in the actual base-20 system of Maya calculations.

Long strings of "13"s, as on Cobá Stela 1, or Yaxchilan Hieroglyphic Stairway 2, Step VII, are not to be calculated with. If we wish to calculate, we must replace all of those "13"s with zeros (13.13.13.13.13.9.15.13.6.9 is equivalent in meaning to 9.15.13.6.9).

With /ux/ or /ox/ '3', compare the verbal prefix /x-/ 'completive' in both Western and Eastern Mayan (Kaufman's PMayan morphology)

With /lajun/ '10' compare /laj-/ 'complete'; 'finished, at an end' (first two entries for *LAH* in the Cordemex dictionary of Yucatec, pp.430-431).

Such symbolic value is not much different from the use of the numeral "9" to signal 'many', as is accepted by many Mayanists:

Bolon Tz'akab, perhaps 'he of many successions', or *Bolon OK-TE*, perhaps 'he who frequently enters the (world?) tree'.

Or uses of the numeral "1" to signal 'first'. Or uses of the numeral "7", sounding similar to the word 'together'.

Or uses of the numeral "4", a near-homonym with 'sky' in some regions. Even "12" may possibly be a metaphor for 'and complete'.

The only text referring to a future 13.0.0.0.0 is Tortuguero Mon.6, confirmed as future by the Calendar Round 4 Ajaw 3 Uniiw (= K'ank'in).

Nothing in the text argues that this date completes anything more than just one more Baktun in series. Nothing argues against what the

Palenque Temple of Inscriptions requires, that it takes 20 Baktuns to make 1 Pictun. So 13 Baktuns is simply followed by 14 Baktuns etc.

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