

Distance Numbers across the Era Date

4 Ajaw 8 Kumk'u, 3114 BCE

Explicit long count dates shortly preceding 13.0.0.0.0 4 Ajaw 8 Kumk'u (3114 BCE)

There are a number of references to dates shortly preceding the current era date, often referred to as being in "the prior era". In two cases at Palenque there are explicit long counts (Initial Series) before 4 Ajaw 8 Kumk'u as shown here. These long counts make sense only if counted from a base date 13 BAKTUNs before 4 Ajaw 8 Kumk'u. This has become one basis for the speculation that the Maya had a series of world ages similar to those of central Mexico. Since that prior base date is not written anywhere (?) in long count form, nor is its Calendar Round ever given (?), it is illustrated here only by giving its Calendar Round in brackets.

Hypothetical prior base date [4 Ajaw 8 Sotz'] [8240 BCE]

The first example below is from Schele (1987 p.). The second is from Stuart (2005 pp.60, 77)

Palenque Temple of the Cross, tablet

| | | |
|----------------|--|----------|
| 12.19.13. 4. 0 | 8 Ajaw 18 Tzek (Sek), Palenque Tablet of the Cross | |
| 6.14. 0 | Distance number linking to the "era date" | |
| 13. 0. 0. 0. 0 | 4 Ajaw 8 Kumk'u | 3114 BCE |

Palenque Temple XIX, South Panel G2-H6

| | | |
|----------------|---|--|
| 12.10. 1.13. 2 | 9 Ik' 5 Mol (seating of GI) | |
| 2. 8. 3. 8. 0 | | |
| 1.18. 5. 3. 2 | 9 Ik' 15 Keh (rebirth of GI, this date also in Temple of the Cross) | |

There probably already exists a compilation of all known long counts preceding the era date 3114 BCE.

But these examples may be accidental in one sense. In Palenque, the Temple of the Sun and the Temple of the Foliated Cross also have texts which near their beginning recount the birth of one of the gods, and those dates are later than the era date.

More below

"Long Reckonings" from implicit dates preceding 13.0.0.0.0 4 Ajaw 8 Kumk'u (3114 BCE)

There is a second way in which dates preceding 4 Ajaw 8 Kumk'u are referred to. These are dates in the "prior era" which are not explicitly stated as long counts but which are implied by a Ring Number, a distance number with the K'IN coefficient (exceptionally also the WINAL) enclosed in a red loop tied at the top. A long reckoning is a distance number which connects from the implied earlier date to a date in the current era.

Thompson (1972 p.21) remarks of the mathematical function of the encircling ring that "As used with 4 Ahau 8 Cumku it serves more or less as do our letters B.C. to indicate a distance before the starting point of our current count. The writer here (Lloyd Anderson) believes a reasonable interpretation closer to Maya thinking may be that the "ring" refers to time completed (bundled or tied up) already by 4 Ajaw 8 Kumk'u, given that the distance reckoning is starting from a date before that – almost like planting a pole in the ground and noting how much of it is below the surface, before adding its length to reach the resultant height of its tip above the ground.

Here is how Thompson illustrates the last example from the Dresden Codex p.63, with slight additional clarifications. Because the long count position of the era date was so taken for granted by the Maya, it may be regarded as explicit whenever the Calendar Round "4 Ajaw 8 Kumk'u" is given, unless there is some contrary indication.

| | | |
|---|------------------|--------------------|
| Ring number date (starting point of Long Reckoning) | (12.12.17. 3. 1) | 13 Imix 9 Wo |
| Long Reckoning (a Distance Number "DN") | 10.13.13. 3. 2 | |
| Long Count Position reached | (10. 6.10. 6. 3) | 13 Ak'bal (1 Uniw) |
| | | |
| Ring number (portion of the DN preceding era date) | 7. 2.14.19 | |
| Add Ring number to the ring number date to reach | 13. 0. 0. 0. 0 | 4 Ajaw 8 Kumk'u |

Such Long Reckonings occur quite often in the Dresden codex, but not on monuments. Thompson notes something partly similar in the opening section of the panel of the Temple of the Cross, Palenque, using a Long Reckoning to count forward from a date preceding the era date to one after it, but instead of linking the earlier date to the era date, it is the later date which is linked to the era date. Presenting this in a format very like that of the Dresden Long Reckonings (above), we have this:

| | | |
|--|------------------|-------------------------------|
| Ring number date (starting point of Long Reckoning) | (12.19.13. 4. 0) | 8 Ajaw 18 Tzek |
| Long Reckoning (Distance Number) (written 8.5."0") | 8. 5. <u>2</u> | |
| Long Count Position reached | 13. 0. 1. 9. 2 | 13 Ik' completion of Mol |
| | | |
| Portion of the DN following era date = Long Count | 1. 9. 2 | (Functions as Initial Series) |
| The era date is the base for this forward count, not the result of counting forward from an earlier date | 13. 0. 0. 0. 0 | 4 Ajaw 8 Kumk'u |

This author (Lloyd Anderson) thinks this may rather be simply another example of the Maya using the era date like other period endings, as a way of locking specific dates into a larger framework. That is to say, the era date was not the point of this text here, it was merely nearby so it could be used as a framework. It is as if we were to say that the marriage of some friends occurred one week before or after the beginning of the year 2000.

The typical Long Reckonings which occur in the Dresden Codex were listed by Satterthwaite, and Thompson made some improvements (1972 pp.20-22). Thompson's list is repeated here with minor formatting changes for readability, more modern spelling, replacing the traditional month name K'ayab with the current reading K'anasiy, and replacing K'ank'in with Uniiw. Underlining marks his corrections; the symbol <%> marks month positions displaced by one column; and <#> here marks his "completely wrong" month positions. The 10.13.13.3.2 distance number on page 31 was written 10.13.3.13.2 with TUUN and WINAL numbers reversed.

| Page | Color | Ring Number | Ring No. date (or) 4 Ajaw 8 Kumk'u | DN Long Reckoning | Long Count | Calendar Round |
|------|-------|-------------------|---------------------------------------|-----------------------|-----------------------|----------------------------|
| 24 | black | | 4 Ajaw 8 Kumk'u | | 9.9.9.16.0 | 1 Ajaw 18 K'anasiy |
| 24 | black | 6.2.0 | (1 Ajaw) | 9.9.16.0.0 | 9.9.9.16.0 | 1 Ajaw 18 K'anasiy |
| 51 | black | 8 | 12 Lamat | <u>9</u> .16.4.10.0 | 9.16.4.10.8 | 12 Lamat (1 Muwan) |
| 52 | black | | 4 Ajaw 8 Kumk'u | | 9.16.4.10.8 | 12 Lamat (1 Muwan) |
| 52 | red | | 4 Ajaw 8 Kumk'u | | 9.16.4.11.3 | 1 Ak'bal (16 Muwan) |
| 52 | black | | 4 Ajaw 8 Kumk'u | | 9.16.4. <u>11</u> .18 | 3 Etz'nab (11 Pax) |
| 52 | red | | 4 Ajaw 8 Kumk'u | | 9.19. <u>7</u> .7.8 | <u>12</u> Lamat (11 Uniiw) |
| 51 | red | | 4 Ajaw 8 Kumk'u | | 10.19.6.1.8 | 12 Lamat (6 Kumk'u) |
| 58 | black | 1. 7.11 | 13 Muluc | 9.18.2.2.0 | 9.18.0.12.9 | 13 Muluc (2 Mol) |
| 58 | black | 12.11 | 13 Muluc | 9.12.11.11.0 | 9.12.10.16.9 | 13 Muluc (2 Sip)# |
| 63% | black | 11.15 | (3 Chicchan) 13 Xul | 8.11.8.7.0 | 8.11.7.13.5 | 3 Chicchan <u>8</u> Uniiw |
| 63 | black | 17 | (13 Ak'bal) | 8.16.3.13.0 | 8.16.3.12.3 | 13 Ak'bal (11 Yaxk'in)# |
| 62% | black | 6. 1 | (13 Kawak) <u>7</u> Keh | 8.16.14.15.4 | 8.16.14.9.3 | 13 Ak'bal <u>16</u> Pop |
| 62 | black | 1. 4.16 | (3 K'an) | 8.16.15.16.1 | 8.16.14.11.5 | 3 Chicchan <u>18</u> Sip |
| 63 | black | 7.2.14.19 | 13 Imix 9 Wo | 10. <u>13</u> .3.16.4 | 10.6.1.1.5 | 3 Chicchan (8 Sak) |
| 63 | red | 7.2.14.19 | 13 Imix 9 Wo | 10.13.13.3.2 | 10.6.10.6.3 | 13 Ak'bal (1 Uniiw) |
| 70 | black | 4. 6 | 9 Ix | 8.6.16.12.0 | 8.6.16.7.14 | (9 Ix) (7 Mak) |
| 70 | black | 10. 8 | 4 Eb | 8.16.19. <u>11</u> .0 | 8.16.19.0.12 | (4 Eb) (5 Yax) |
| 70 | black | 1.12. 6 | (9 Ix) | 9.13.12.10.0 | 9.13.10.15.14 | 9 Ix (12 Muwan) |
| 70 | black | 4.10. 6 | (9 Ix) | 9.19.11.13.0 | 9.19.7.2.14 | 9 Ix (17 Ch'en) |
| 70 | black | | (4 Ajaw) 8 Kumk'u | | 10.11.4.0.14 | 9 Ix (7 Sip)# |
| 70 | black | | (4 Ajaw) 8 Kumk'u | | 10.17.13.12.12 | (4 Eb) (5 Pop)# |
| 31 | black | 17 | (13 Ak'bal) | 8.16.3.13.0 | 8.16.3.12.3 | 13 Ak'bal (11 Yaxk'in) |
| 31 | black | 6. 1 | (13 Kawak) | 8.16.14.15.4 | 8.16.14.9.3 | 13 Ak'bal (16 Pop) |
| 31 | black | 7.2.14. <u>19</u> | (13 Imix 19 Wo) | 10.13. <u>13</u> .3.2 | 10.6.10.6.3 | 13 Ak'bal (1 Uniiw) |
| 43 | black | 17.12 | 3 Lamat | 9.19.8.15.0 | 9.19.7.15.8 | 3 Lamat (6 Sotz') |
| 43 | black | 1.10 | (13 Ok 18 Pax)# | 8.17.11.3.0 | 8.17.11.1.10 | 13 Ok (3 Mol) |

A series of "Serpent Numbers" in a Dresden Codex almanac pp.61-69 have long reckonings all from a date 34,000 years in the past leading to what were contemporary dates for the Maya, thus also distance numbers whose span crosses the era date 4 Ajaw 8 Kumk'u.

Counting from a base date just **after** a period ending.

This is an analog to the Long Reckonings which count from base dates just before 4 Ajaw 8 Kumk'u. An example occurs on Dresden page 52 section A column 4. The text can be paraphrased thus:

First, 8 days after 4 Ajaw 8 Cumk'u is 12 Lamat 16 Cumk'u.

The additional 5 TUUNs and 1 WINAL is $5 \times (360 + 4)$,

and that number of days 1820 is also divisible by 260, $7 \times 260 = 1820$.

So it yields the same Tzolk'in day but is 5 days short of an even number of 365-day years.

So from 12 Lamat 16 Cumk'u with an interval 5.1.0 we arrive at a date 12 Lamat 11 Cumk'u.

More specifically, the date (13).0.0.0.8 12 Lamat (16 Cumk'u)

may **not** be one of the Lub's of the Eclipse table, it may be rather a base date after 4 Ajaw 8 Cumk'u which is analogous to the dates preceding 4 Ajaw 8 Cumk'u, reached by ring numbers in the other kind of long reckoning. From that base date, Distance Numbers lead to possible Lub's.

Here

0. 0. 0. 0. 8 (Long count reached on p.51A) (not a Lub?)

+ 9.16. 4.10. 0 (yields)

(9.16. 4.10. 8) 12 Lamat (16 Cumk'u).

The concept of a date just past a period ending is expressed on Dresden p.52 with this sequence, as pointed out by Carl Callaway: Following the day 12 Lamat there is "8 k'in ti ha"

I have believed for years that this expression is spelling /tip' / or /tip'a/ with glottalized /p' /. That is to say, the syllabary sign which is /ba/ with simple central element and /ma/ when it has a small face as central element and /ha/ or "water" when it has a cross-hashed central element can also in the Dresden read /p'a/ in this last form. There is a Yucatec root /tip' / with meanings in the range of 'be above, exceed, surpass', and a root /p'a/ also exists with meanings not too far from these. I do not yet have details much beyond that.

Another way of expressing "beyond" in a temporal sense may be from "on the other side of" using the root meaning 'back side', as in /tu-pat/ seen (?) on the Emiliano Zapata panel.