

# TTT of Quirigua Stela F

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[This document is part of the [Learner's Maya Glyph Guide](#).]

[An [HTML version of this TTT](#) is also available.]

[Separate drawings and additional TTTs are available on the [main TTTs page](#).]

## Introductory Notes

- Drawings used for this TTT (by Looper):
  - QRG - Stela F (west side) – Looper-LW.p126.pdfp139.fig4.6.
  - QRG - Stela F (east side) – Looper-LW.p125.pdfp138.fig4.5.
- A Sketchfab 3D model is also available.
- This TTT has been cross-checked against the MHD TTT (“objabbr = QRGStF”).
- There are at least 3 different systems of glyph-block labelling:
  - Looper-LW:
    - East side: C-D.
    - West side: A-B.
  - MHD (same drawings as in Looper-LW, but with column labels interchanged):
    - East side: A-B.
    - West side: C-D.
  - Labelling used by Stuart-YM: MHD’s B6 = Looper-LW’s D6 = Stuart-YM’s F6, i.e., in some way column B or D in the other two systems is column F in this third one.

The end notes here are labelled according to the Looper-LW system, but the TTT table also includes the MHD system in an additional column, for ease of reference.

- Looper explains that Looper-LW/GutiérrezGonzález-PhD follow the Morley labelling whereas the “unexpected” order in MHD is because the reading order should be east first, then west (personal communication, 2023-04-20).
- Despite this, I’ve put west first, as it seems to me to read more smoothly that way. This is at odds with the fact that most epigraphers have accepted the MHD order of reading. I will perhaps go with the flow in a future release of the TTT’s.
- Sources used:
  - GutiérrezGonzález-PhD (*Los Dioses y la Vida Ritual de Quirigua en sus Textos Jeroglíficos* (Gutiérrez González; 2012)): Not just a TTT, but a transliteration, a transcription, *two* linguistic analyses (one morphological and one with syntax parsing), a literal translation, a smooth translation, *and then* a commentary.
  - Looper-LW (*Lightning Warrior - Maya Art and Kingship at Quirigua* (Looper; 2003)):
    - Extensive information on QRG Stela F, including background information on the stela itself.
  - Looper-T311PT (*The 3-11-Pih Title in Classic Maya Inscriptions* (Looper; 2002)):
    - Explains the meaning of the 3-11-Pih Title at glyph-block C13.
- Sources used for the “yax tzip”-issue (see end notes under glyph-block C15):
  - Fahren-RODPD (*Rescuing the Origins of Dos Pilas Dynasty - a Salvage of Hieroglyphic Stairway No.2, Structure L5-49* (Fahren, 2002)).
  - Boot-TLaToBCK (*The Life and Times of B’alah Chan K’awil of Mutal (Dos Pilas), According to Dos Pilas Hieroglyphic Stairway 2* (Boot; 2002)).

- Guenter-TloDPawBCK (*The Inscriptions of Dos Pilas Associated with B'ajlaj Chan K'awiil* (Guenter, 2003)).
- CrasbornChavarría&Garay-ESdP (*El Sustento del Poder - El Discurso Político y Religioso de K'ahk' Tiliw Chan Yopaat* (Crasborn Chavarría, Garay; 2014)).
- Garay-BSc (*La Carga del K'uhul Ajaw - Legitimidad y Gobierno en el Reinado de Waxaklajuun Ub'aah K'awiil de Copán (695-738 d.C.)* (Garay; BSc-2017)).
- Kupprat-TRoCMI (*Textual Reconstruction of Classic Maya Inscriptions - What Adaptions and Copies Tell Us About Scribes and the Practice of Writing* (Kupprat; 2020)).
- Unusual aspects of this inscription:
  - There are two ISIG's (one for each side having glyphic text) but one of the ISIG's LC's doesn't have an SS.
  - The one ISIG's LC with SS has an additional (non-standard) word in the SS, between Glyph-F and Glyph-DE: *ak'biy* = "last night".
  - The LC of the other ISIG doesn't have an SS. While an overwhelming majority of ISIG LC's *do* have an SS, the few which don't sometimes have at least Glyph-G and Glyph-F. However, this LC doesn't even have that.
- This inscription gives quite an extensive list of names/titles of K'ahk' Tiliw Chan Yopaat:
  - *Chan Te' Ihk' Xib* = "Four Black Men".
  - *Ihk' Xukuup Ajaw* = "Black 'Copan' Lord".
  - *Uchanlajuun Tz'akbul Wiin Te' Naah* = 14<sup>th</sup> in succession from Wiin Te' Naah.
  - *Waklajuun Yoon, Balun Yoon* = "16 Yoon, 9 Yoon".
  - *Sibik Naah Ajaw* = "Ink/Soot House Lord".
  - *K'uhul "Tol" Ajaw* = his "standard" title, with the QRG-EG.
  - *Ch'ahoom* = "Incense Scatterer".
  - *Baah Kab* = "First (Lord of the) Earth".

Comments:

- Some of these titles are extremely common throughout the Classic Maya world as additional names/titles (e.g., *Ch'ahoom*, *Baah Kab*), a few seem to be specific to QRG, and two (*Sibik Naah Ajaw*; *Waklajuun Yoon*, *Balun Yoon*) are very uncommon. *Sibik Naah Ajaw* also occurs on QRG Stela D.
- The title *Chan Te' Ihk' Xib* = "Four Black Men" seems syntactically a little odd.
  - In the comments section, GutiérrezGonzález-PhD.p117.pdfp130.para3 has *Es a partir de este momento que K'ahk' Tiliw Chan Yopaat comienza a vincularse con el numeral cuatro en sus títulos*. In English (via GoogleTranslate): *It is from this moment that K'ahk' Tiliw Chan Yopaat begins to be linked to the number four in his titles*.
  - It's not clear to me which moment is meant, but the general fact that "Four" occurred often in the titles of K'ahk' Tiliw Chan Yopaat can be seen from two other titles with the same syntax – *Chan Te' Ch'oktaak* = "The Four Youths" and *Chan Te' Ch'ahoom* = "The Four Ch'ahooms" – found at the end of the inscription on QRG Stela J.
- Despite the clarity of the lines in the drawing (= lack of erosion or breakage in the glyphic text), the meaning of many of the parts proved to be quite obscure. In particular, this inscription has "extra-high calendar units" on the east side (see end note under D13-C17a). These haven't, up to now, been well understood.
  - *The Deep Time references at Quirigua contain higher periods that count vast spans of time. Although the higher periods values on Stela F are known (e.g., 19 Hablatuns*

and 13 K'inichiltuns), when calculated from their base date, the intended target dates are not reached. However, Carl Callaway (2024) has proposed a mathematical solution where the higher periods are preceded by a unique mathematical notation indicating they represent cumulative counts, that when applied, reach the intended target dates. He further showed how all the higher periods at Quirigua and Yaxchilan are solvable using cumulative counts, and the target dates that these huge distance numbers count to are solved by standard modular arithmetic. [Carl Callaway, personal communication, 2024-10-22.]

- Summary – the inscription recounts:
    - West side (Columns A-B):
      - How K'ahk' Tiliw Chan Yopaat accessed to the rulership of QRG in the “grasping of the K'awiil sceptre” ritual (724 AD) – the K'awiil sceptre was the symbol of royal authority.
      - How, about 14 years after his accession, K'ahk' Tiliw Chan Yopaat ordered the ritual beheading of his overlord Waxaklajuun Ubaah K'awiil, the ruler of CPN, presumably after first having captured him, either in a declared battle or in a surprise attack (738 AD).
      - That there was a *katun* period ending (9.15.0.0.0; 731 AD) and a half-*katun* period ending – the *tahn-lam* (9.15.10.0.0; 741 AD).
        - The decapitation of Waxaklajuun Ubaah K'awiil was on 9.15.6.14.6, which happens to fall between the two period endings, but there's no explicit statement relating either of these two period endings to the decapitation date.
        - An image was renewed or replaced, in connection with the *katun* period ending (9.15.0.0.0; 731 AD).
      - How, about 36 years after K'ahk' Tiliw Chan Yopaat's accession, there was yet another half-*katun* period ending (9.16.10.0.0; 761 AD).
    - East side (Columns C-D):
      - How, on a half-*katun* period ending (9.16.10.0.0; 761 AD), K'ahk' Tiliw Chan Yopaat, the ruler of QRG, performed an incense scattering ritual and raised a stela. This date having already been very briefly referred to at the end of the inscription on the west side.
      - How, at some other point(s) in time (related to a *piktun*, *alawtun*, *kinchiltun*, and perhaps an even higher unit of the calendar), two events occurred:
        - One event was on a “Yax Tzip” (see below) at(?) Juun Witz' on 1-Ajaw 13-Mol.
        - The other event was at Ihk' Nahb Nal on 1-Ajaw 13-Yaxk'in.
- Mostly, in Maya inscriptions, something actually happens on a particular LC (usually specified just by the CR) – i.e., a person did something, or something was done to a person or object. However, occasionally, the date of the event *is* the event itself (e.g., *hotun* period endings). That is to say, the CR (with implied LC) only provides an anchor point – implicit (without a DN) or explicit (with a DN) – for the wider narrative. The first of the two above events appears to be just such an anchor point, while something “actually happened” in the second one. The “date” of both these events is difficult to calculate, because of the “extra-high calendar units”. MHD doesn't assign an LC to either, contrary to usual MHD practice.

- The second of the two events concerned the decapitation of a lord named Yapam? K'inichil. Perhaps an even more localized toponym (than Ihk' Nahb Nal) is given, where this decapitation took place, but this is too eroded to be read. The decapitation was ordered by someone, but the name of this personage is also too eroded to be read. This event is probably recounted in order to provide a parallel and (mythical) antecedent to the historical one of Waxaklajuun Ubaah K'awiil's beheading by K'ahk' Tiliw Chan Yopaat in 738 AD, as recounted at the start of this inscription.

About two thirds of the east side is quite cryptic. The only well understood part is the incense scattering and stela raising ritual of K'ahk' Tiliw Chan Yopaat, at the start of the text. Quite a bit more of the west side can be easily read.

MHD	Looper-LW	Transliteration	Translation
		<b>West side</b>	
C1-D2	A1-B2	tzi:<ka[IXIIM?/UH? <sup>1</sup> ]:>:HAAB	ISIG
C3	A3	9.PIK	LC = 9.14.7 → 13.4.17, ...
D3	B3	14.WINIKHAAB	
C4	A4	*7.HAAB <sup>2</sup>	
D4	B4	4.WINIK <sup>3</sup>	
C5	A5	17.K'IN <sup>4</sup>	
D5	B5	12.KAB	... (on) 12-Kaban ...
C6	A6	5.<<[K'AN]a>:si:ya>	(There is no SS) ... 5-K'ayab <sup>5</sup> ... (LC = 9.14.13.4.17; 29 December 724 AD)
D6	B6	<CH'AM:wi>+K'AWIIL <sup>6</sup>	... he grasped (the) K'awiil(-sceptre), ... (= "accessed to the rulership")
C7	A7	K'AHK'.<TIL{iw}:CHAN>.<*YOP:*AAT:ti> <sup>7</sup>	... K'ahk' Tiliw Chan Yopaat, ...
D7a	B7a	u:14:TZ'AK:bu{l}	... (he is the) 14 <sup>th</sup> (in the) succession of ...
D7b	B7b	<WIIN:NAAH>.TE'	... Wiin Te' Naah, ...
C8	A8	CH'AHOOM.<4:TE'>	... (the) Ch'ahoom, Chan Te' ...
D8	B8	<IHK':XIB>.<u:?:?> <sup>8</sup>	... Ihk' Xib <sup>9</sup> , ... (= "Four Black Men")
C9	A9	<16:YOON>.<9:YOON:ni> <sup>10</sup>	... Waklajuun Yoon, Balun Yoon, ... (= "the 16 Yoon and the 9 Yoon")
D9	B9	<IHK':xu[ku]>.<pi:AJAW>	... Ihk' Xukuup Ajaw, ... (= "The Lord of Black Xukuup") <sup>11</sup>
C10a	A10a	K'UH{ul}.<<"TOL">:AJAW:*wa?>	... (the) Holy Lord of QRG, ...
C10b	A10b	<ba.ka>:ba	... (the) Baah Kab.
D10	B10	9.<9:WINIK:ji:ya>.<13:HAAB:ya>	... DN = 13.9.9, ... (a bit less than 13.5 years)
C11a	A11a	u{h}:ti:ya	... since it happened ...
C11b	A11b	12:*KAB <sup>12</sup>	... (on) 12-Kaban, (= the ISIG's LC date)
D11	B11	<i:u{h}:ti>.<6:KIMI>	... then it happened on 6-Kimi, ...
C12a	A12a	4:<[ka]se>:wa	... 4-Sek <sup>13</sup> , ... (LC = 9.15.6.14.6; 29 April 738 AD)
C12b	A12b	<CH'AK.<*ji:ya>>:<*u.*BAAH> <sup>14</sup>	... (it was) chopping (the) head of ...

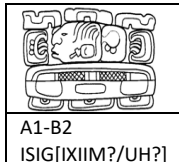
D12	B12	<18:<u:BAAH>>.K'AWIIL	... Waxaklajuun Ubaah K'awiil, ...
C13a	A13a	<xu[ku]:>:pi:AJAW	... Xukuup Ajaw; ... (= "the Lord of CPN")
C13b	A13b	u:*KAB:<[ji]ya> <sup>15</sup>	... he ordered it, ...
D13a	B13a	SIBIK:NAAH:AJAW <sup>16</sup>	... Sibik Naah Ajaw, ... (= "The Ink/Soot House Lord")
D13b	B13b	K'AHK'.<TIL:CHAN:wi> <sup>17</sup>	... K'ahk' Tiliw Chan ...
C14a	A14a	yo.<YOPAAT:AAT:ti> / yo.<<YOPAAT+AAT>:ti>	... Yopaat, ...
C14b	A14b	u{h}:ti:ya	... it happened at, ...
D14a	B14a	<NAL:na>:<<[IHK']WAY>:la>	... lhk' Waynal, ...
D14b	B14b	??:? <sup>18</sup>	... <Something> Naah?, ... (= a more general or specific toponym?)
C15	A15	<3:AJAW>.<3:<mo+lo>>	... (on) 3-Ajaw 3-Mol <sup>19</sup> , ... (LC = 9.15.10.0.0; 26 July 741 AD)
D15	B15	<<*LAKAM>:TUUN:ni>.<*xu:ku:*pi> <sup>20</sup>	... (at? the) stela (at) Xukuup (= CPN); ...
C16a	A16a	10:tu:TUUN	... (after?) 10 years ...
C16b	A16b	[<[*ta]<ta?+*TAHN>>]LAM:ja <sup>21</sup>	... (it is) half diminished, ...
D16a	B16a	4:wi?:ti?:ku?	... (at) Chan Wintik? (= CPN?), ...
D16b	B16b	<JEL:ja>:k'o:ba <sup>22</sup>	... it was renewed / replaced, (the) image, ...
C17	A17	<ti:4:AJAW>.<13:YAX:SIHOOM>	... on 4-Ajaw 13-Yax <sup>23</sup> . (LC = 9.15.0.0.0; 18 August 731 AD)
D17	B17	3.<13:WINIK:ji:ya>.<16:HAAB:ya>	DN = 1.16.13.3, ... (about a bit more than 36 years) <sup>24</sup>
C18	A18	<1:WINIKHAAB:ya>.<12:KAB>	... (after) 12-Kaban ...
D18	B18	<5:<[K'AN]a:si:ya>>.<<i:u{h}>.ti>	... 5-K'ayab, ... (LC = 9.14.13.4.17; 29 December 724 AD = the ISIG's LC) ... then it happened, ...
C19	A19	<1:AJAW>.<3:CHAK:AT>	... (on) 1-Ajaw 3-Sip <sup>25</sup> , ... (LC = 9.16.10.0.0; 13 March 761 AD)
D19	B19	<ti:ta:<[TAHN]LAM>>.<ti:13:AJAW>	... on (the) half diminished (on the way) to 13-Ajaw. <sup>26</sup> (LC = 9.17.0.0.0; 20 January 771 AD)
		<b>East side</b>	
A1-B2	C1-D2	tzi:<ka[MIIN <sup>27</sup> ]:>:HAAB	ISIG
A3	C3	9.PIK	LC = 9.16.10.0.0, ...
B3	D3	16.WINIKHAAB	
A4	C4	10.HAAB	
B4	D4	0.WINIK	
A5	C5	0.K'IN	
B5	D5	1.AJAW	... (on) 1-Ajaw ...
A6	C6	<[yi]IHK'IN>.<TI':HUUN>	[ ← SS starts here Glyph-G <sub>9</sub> , Glyph-F
B6a	D6a	<AK'[bi]:>:ya	... yesterday, ...
B6b	D6b	hu:li:ya	... it arrived ... ("Glyph-DE" = it is 2 days into the current lunation) <sup>28</sup>

A7	C7	u.6.<<TMG:ja>:K'AL>	Glyph-C = it is the 6 <sup>th</sup> of the 6 lunations governed by the <b>TMG</b>
B7	D7	<CHAN:KAB>.<<ka.KAMIS>:si>	Glyph-X = the one corresponding to Glyph-C=6+ <b>TMG</b>
A8	C8	20:9 <sup>29</sup>	Glyph-B is absent Glyph-A = there are 29 days in the current lunation SS ends here →]
B8	D8	3.<CHAK:AT>	... 3-Sip <sup>30</sup> , ... (LC = 9.16.10.0.0; 13 March 761 AD)
A9	C9	<cho:ka:ja>.<ch'a:ji>	... it was scattered, incense, ...
B9	D9	<ti:pi:hi>.<WITZ:yi>	... at Pih Witziy? ...
A10	C10	<TUUN:ni:li> <sup>31</sup> .<u:K'UH:lu>	... Tuunil; (= "8,000 <b>Mountaining?/"Heaping" Stones") (it is the) holy ...</b>
B10	D10	<<K'ABA'+a>:a>.<1:AJAW:wa>	... name <b>of</b> (the) 1-Ajaw ...
A11	C11	<TUUN:ni>.<u:<tz'a[pa]>:wa>	... Stone; <sup>32</sup> he raised it, ...
B11	D11	<u:MAM>.PIK	... (at?) Umam Pik ...
A12	C12	CHAN <sup>33</sup> .<K'AHK':TIL{iw}:CHAN>	... Chan, ... (= " <b>The Grandfather of 8,000 Snakes/Skies"?</b> , a toponym, or an additional name/title of) ... K'ahk' Tiliw Chan ...
B12	D12	<yo:YOPAAT> <sup>34</sup> .CH'AHOOM	... Yopaat, (the) Ch'ahoom, ...
A13	C13	3.<11:PIK>.<AJAW> <sup>35</sup>	... (the) 3-11-Pik Ajaw.
B13	D13	<MIH:li>.<<5?.K'AN>:HAAB:NAL:<la/●>> <sup>36</sup>	0 <b>5?</b> <i>alawtuns</i> ... (a higher calendar unit)
A14a	C14a	TZUTZ:ji:ya	... since it was completed, ...
A14b	C14b	19:MIH:NAL:HAAB <sup>37</sup>	... 19 <i>hablatuns?</i> ... = <an even higher calendar unit>
B14	D14	<ti:1:AJAW>.<13:<mo+lo?>>	... on 1-Ajaw 13-Mol, ...
A15	C15	<u{h}:ti:ji:ya>.<ti:YAX:tzi:pi> <sup>38</sup>	... since it happened (on a?) <i>Yax Tzip?</i> (period ending) ...
B15	D15	<1:WITZ'>.<u{h}:ti:ya>	... (at?) <i>Juun Witz'</i> , it happened ...
A16	C16	<IHK':NAHB:NAL?> <sup>39</sup> .<<MIH?.li>:"PIKTUN">	... (at) Ihk' Nahb Nal, 0 <i>piktuns</i> ...
B16	D16	<13:"KINCHILTUN">.<ti:1:AJAW>	... 13 <i>kinchiltuns</i> ; (additional higher calendar units) on 1-Ajaw ...
A17a	C17a	13:YAX:K'IN:ni	... 13-Yaxk'in, ... <sup>40</sup>
A17b	C17b	<CH'AK[ja]:ka>.<u.BAAH> <sup>41</sup>	... it was chopped, (the) head <b>of</b> ...
B17	D17	<<ya[*pa?]>:*ma?>.<<<[K'IN]chi>:ni>:la> <sup>42</sup>	... Yapam? K'in(i)chil ...
A18	C18	<AJAW:wa>.<LAKAM:TUUN:ni>	... Ajaw, ... (= Lord Yapam? K'inichil was ritually executed) (at? the) stela, ...
B18a	D18a	<completely-eroded> :< completely-eroded> <sup>43</sup>	... <name of the stela?> <polity-name?>; ...
B18b	D18b	u:KAB:ji:ya	... he ordered it, ...

<b>A19</b>	<b>C19</b>	<<*K'UH?{ul}>.<eroded>>:<eroded>	... (the) Holy ? ...
<b>B19a</b>	<b>D19a</b>	<eroded>:<eroded>	... ? ...
<b>B19b</b>	<b>D19b</b>	NAL?:<eroded>:ji	... ?.

## End Notes

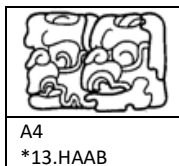
<sup>1</sup> A1-B2.



The LC **HAAB**-month is K'ayab, whose patron **IXIIM** would be what is expected infixed in the ISIG. However, there is definitely a moon glyph to the right of the infixed head, suggesting that the infixed head might be **UH** (the Moon Goddess), the patron of the Haab-month Ch'en. Might the carver have mistakenly carved **UH** instead of **IXIIM**? Or is this indeed an **IXIIM**, with a syllabogram **ja** for some sort of inflection?

MHD transliterates pure **IXIIM**, without question mark, and without mention of the moon glyph.

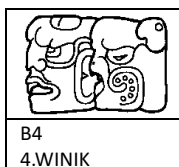
<sup>2</sup> A4.



The unit must be **HAAB** both from context (coming after the **WINIKHAAB** and before the **WINIK**) and from its own intrinsic features of the drawing (bird-head with bone-jaw). The coefficient appears to be a very clear "7" (a "left-feeler" scroll in eye, with no bone-jaw). MHD reads "13" but the standard diagnostics for "13" – the **IK'** glyph infixed on the right and (frequent) round forehead ornament – are not present, nor is there a bone-jaw.

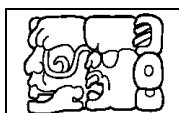
The "13" can be inferred from other redundancies in the calendar system (see end note under B5-A6).

<sup>3</sup> B4.



The unit must be **WINIK** both from context (coming after the **HAAB**) and from its own intrinsic features of the drawing (the spiral to the right of the mouth, with dotted spine, for an iguana head). That the coefficient is "4" is clear from the **K'IN** infixed into the right of the head.

<sup>4</sup> A5.

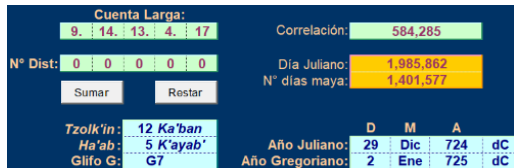


A5  
17.\*K'IN

The unit must be **K'IN** from context (coming after the **WINIK** and before the Tzolk'in date) but it isn't at all obvious based on its own internal characteristics in the drawing. The coefficient is "17" based on the bone-jaw for "10" and the "scroll in the eye" plausibly being a "7". That it is "17" can be confirmed from other redundancies in the calendar system (see end note under B5-A6).

<sup>5</sup> B5-A6. 12-Kaban 5-K'ayab.

Calendrical calculations:



	D	M	A
Año Juliano:	29	Dic	724 dC
Año Gregoriano:	2	Ene	725 dC

The ISIG LC = 9.14.13.4.17 agrees with the CR = 12-Kaban 5-K'ayab.

Alternatively, if we're unsure of the reading of the **K'IN** and **HAAB** coefficients, we can fill in the coefficients we are sure of, with asterisks for the unclear values (9.14.\*.4.\*), plus the CR of 12-Kaban 5-K'ayab into the Bonn calendar calculator:

Long Count Date

9.14.\*.4.\*

Enter a Long Count Date consisting of 5 elements, separated by periods (e.g. \*.3.10.5.10-12).

Calendar Round Date

12 Caban × 5 Kayab ×

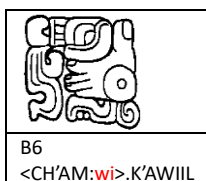
This gives only one possible value for the less certain coefficients:

CORRELATION CONSTANT: 584285					
Long Count	G	Y	Tzolk'in	Greg. Date	Julian Date
▼ 9.14.13.4.17	G7	Y5	12 Caban 5 Kayab	2.1.725	29.12.724

These are more or less the LC value we were expecting, except that the "7" of the **HAAB** coefficient at A4 has to be amended to "13".

Further confirmation comes from M&G.p218.pdfp218, which gives the reign of K'ahk' Tiliw Chan Yopaat as being from 724 AD to 785 AD.

<sup>6</sup> B6.

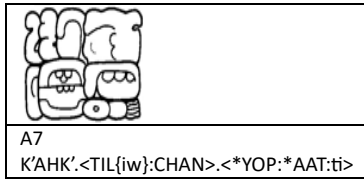


The **wi** in the bottom right – under the **CH'AM** – is a bit puzzling. Is it:

- An *internal* phonetic complement -w- for **K'AWIIL**, or
- A verbal inflection – the antipassive ending of **CH'AM**?

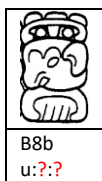


<sup>7</sup> A7.

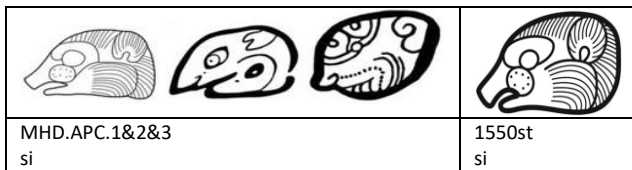


Although it's quite clear from context that *Yopaat* is the word intended, it wasn't initially at all clear to me how the "rotated-L" glyph at the top of A7b contributed to writing *Yopaat*. However, MHD provided the solution of **\*YOP:\*AAT:ti**, where it's simply the eroded form of the leaf logogram, perhaps rotated 90 degrees clockwise.

<sup>8</sup> B8b.

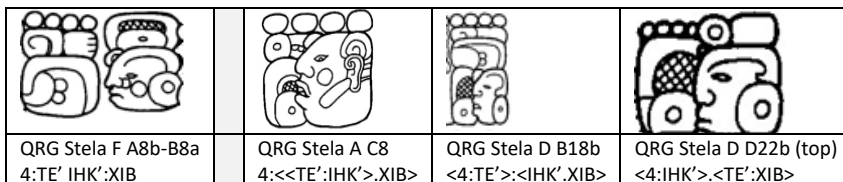


MHD gives B8b as u:si?:<na/li> → u-? = "?". The reading of si? is because it could be the relatively rare "rat-head" variant of si.

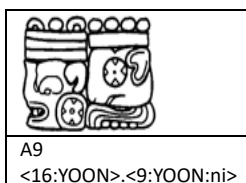


From the context, this would have to be an additional name/title of K'ahk' Tiliw Chan Yopaat, coming – as it does – between some *well-known* additional names/titles (*Chan Te' Ihk' Xib*) and his very commonly used "official" titles (*Ihk' Xukuup Ajaw* and *K'uhul "TOL" Ajaw*).

<sup>9</sup> A8b-B8a. The **XIB** at B8a (bottom) is from MHD. The four-word phrase *Chan Te' Ihk' Xib* = "Four Black Men" appears to be a name/title, and occurs on QRG Stela A C8, QRG Stela D B18b, QRG Stela D D22b (top), and QRG Stela F C8b-D8a, all in connection with K'ahk' Tiliw Chan Yopaat. See also the introductory notes for the frequent occurrence of the word "Four" in the extended names/titles of K'ahk' Tiliw Chan Yopaat.



<sup>10</sup> A9.



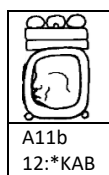
A slightly obscure title, it occurs on QRG Stela A as *Nohol Chan Yoon* (= "The South Sky Yoon", whatever "Yoon" means) as one of the extended titles/names of K'ahk' Tiliw Chan Yopaat. Here on QRG Stela F it occurs as

*Waxlajuun Yoon, Balun Yoon*, (“Sixteen Yoon”, “Nine Yoon”). The title is also known in PAL, where the title(s) are found on the East and Central Tablets of the Temple of the Inscriptions, applying, apparently, to a deity. It’s also found on PAL Palace Tablet, in the form of *Ucha’ Tal Yoon* (“The Second Yoon”), as one of the extended titles of K’inich K’an Joy Chitam II, one of the sons of Pakal the Great.

Neither MHD (MHD.AP5) nor Bonn (0734st) provide a reading for this glyph. See the CMGG for more information.

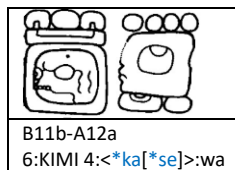
<sup>11</sup> B9. *Ihk’ Xukuup* (if it is indeed *Xukuup*) is a toponym associated with the QRG polity. It’s unclear to me whether it refers to the central part of the QRG site or a subsidiary site within the QRG polity. The main title of the rulers of QRG (the “EG”) had a main sign with “TOL” a vine/gourd rotated 90 degrees clockwise (e.g., A10a of this inscription), but *Ihk’ Xukuup Ajaw* was an additional title.

<sup>12</sup> A11b.



The day name is completely eroded, but because of the *-iij* clitic on the preceding *uhtiiy*, we may infer that this relates the DN to the previous CR (which is the normal interpretation anyway), repeating the Tzolk’in of that CR here. The fact that the coefficient in A11b is the same as in B5 earlier further supports this interpretation.

<sup>13</sup> B11b-A12a.



A12a:

- The eroded outline of the main sign is probably the “full body of a fish” variant of **ka**.
- The eroded outline of the element infixed in the main sign is probably the “boulder” variant of **se**.
- Context also helps us to read this, as it’s well known from other inscriptions (for example, QRG Stela E C12-C13) that Waxaklajuun Ubaah K’awiil was beheaded on 6-Kimi 4-Sek.
- Lastly, the calendrical calculations also get us to 6-Kimi 4-Sek as well anyway.

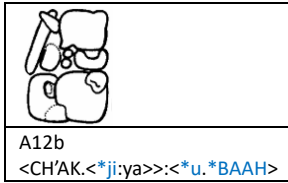
Calendrical calculations:

<table border="1" style="width: 100%; background-color: #003366; color: white;"> <tr><td colspan="2">Cuenta Larga:</td></tr> <tr><td>9</td><td>14</td><td>13</td><td>4</td><td>17</td></tr> <tr><td colspan="2">Correlación:</td><td colspan="3">584,285</td></tr> <tr><td colspan="2">N° Dist:</td><td colspan="3">0 0 13 9 9</td></tr> <tr><td colspan="2">Día Juliano:</td><td colspan="3">1,985,862</td></tr> <tr><td colspan="2">N° días maya:</td><td colspan="3">1,401,577</td></tr> <tr><td colspan="2">Sumar</td><td colspan="3">Restar</td></tr> <tr><td colspan="2">Tzolk’in:</td><td colspan="3">12 Ka’ban</td></tr> <tr><td colspan="2">Ha’ab:</td><td colspan="3">5 K’ayab’</td></tr> <tr><td colspan="2">Glifo G:</td><td colspan="3">G7</td></tr> <tr><td colspan="2">Año Juliano:</td><td>D</td><td>M</td><td>A</td></tr> <tr><td colspan="2"></td><td>29</td><td>Dic</td><td>724 dC</td></tr> <tr><td colspan="2">Año Gregoriano:</td><td>2</td><td>Ene</td><td>725 dC</td></tr> </table>	Cuenta Larga:		9	14	13	4	17	Correlación:		584,285			N° Dist:		0 0 13 9 9			Día Juliano:		1,985,862			N° días maya:		1,401,577			Sumar		Restar			Tzolk’in:		12 Ka’ban			Ha’ab:		5 K’ayab’			Glifo G:		G7			Año Juliano:		D	M	A			29	Dic	724 dC	Año Gregoriano:		2	Ene	725 dC	+	Sumar	=	<table border="1" style="width: 100%; background-color: #003366; color: white;"> <tr><td colspan="2">Cuenta Larga:</td></tr> <tr><td>9</td><td>15</td><td>6</td><td>14</td><td>6</td></tr> <tr><td colspan="2">Correlación:</td><td colspan="3">584,285</td></tr> <tr><td colspan="2">N° Dist:</td><td colspan="3">0 0 13 9 9</td></tr> <tr><td colspan="2">Día Juliano:</td><td colspan="3">1,990,731</td></tr> <tr><td colspan="2">N° días maya:</td><td colspan="3">1,406,446</td></tr> <tr><td colspan="2">Sumar</td><td colspan="3">Restar</td></tr> <tr><td colspan="2">Tzolk’in:</td><td colspan="3">6 Kimi</td></tr> <tr><td colspan="2">Ha’ab:</td><td colspan="3">4 Sek</td></tr> <tr><td colspan="2">Glifo G:</td><td colspan="3">G7</td></tr> <tr><td colspan="2">Año Juliano:</td><td>D</td><td>M</td><td>A</td></tr> <tr><td colspan="2"></td><td>29</td><td>Abr</td><td>738 dC</td></tr> <tr><td colspan="2">Año Gregoriano:</td><td>3</td><td>May</td><td>738 dC</td></tr> </table>	Cuenta Larga:		9	15	6	14	6	Correlación:		584,285			N° Dist:		0 0 13 9 9			Día Juliano:		1,990,731			N° días maya:		1,406,446			Sumar		Restar			Tzolk’in:		6 Kimi			Ha’ab:		4 Sek			Glifo G:		G7			Año Juliano:		D	M	A			29	Abr	738 dC	Año Gregoriano:		3	May	738 dC
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LC = 9.15.6.14.6; 29 April 738 AD.

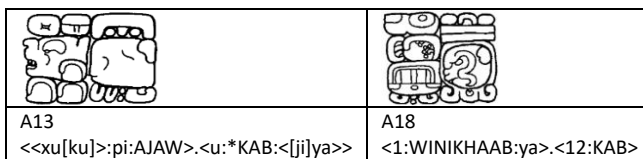
The previous CR + DN matches the current CR.

<sup>14</sup> A12b.



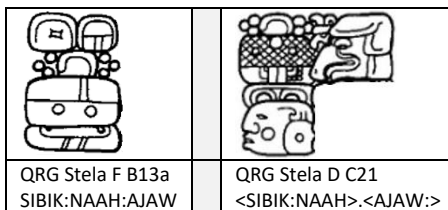
- The reconstructed **\*ji** in the top right is presumably the “rat-head with teeth” variant.
- The reconstructed **\*u** in the bottom left is presumably some variant of the “crescent” **u**.
- The reconstructed **\*BAAH** in the bottom right is presumably the gopher head – the mammal ear can be made out at the top right (of the head) and the element at the bottom left (of the head) is probably the protrusive tongue.
- Context also helps us to read this, as what follows at B12 is a very clear *Waxaklajuun Ubaah K'awiil*.

<sup>15</sup> A13.



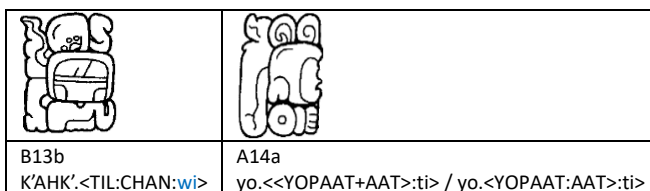
The main sign in A13b is probably an eroded form of the “rat-head” **KAB**, with a mammal ear in the top right and the few remaining internal lines the “protector” of the upper cross-hatched circle and other facial features of the rat. Compare this to A18b, where the “rat-head” **KAB** is much more obvious.

<sup>16</sup> B13a.



- MHD reads **SIBIK?** = “ink”/“soot” with a question mark (and also gives an alternative of **SABAK**).
- The **NAAH** is the usual abstract/“axe-head” variant.
- The same name/title occurs at QRG Stela D C21 with the same glyph for **SIBIK** but rather different variants of the glyphs for **NAAH** (the “full-head” variant) and **AJAW** (the “vulture-head” variant).

<sup>17</sup> B13b-A14a. K'ahk' Tiliw Chan Yopaat.






- B13b: It's interesting to see that the *-iw* of *Tiliw* is written at the bottom right of B13b. This is *a bit* like how **AJAW** is sometimes written with the **wa** end phonetic complement on the bottom, disconnected from the (reduced) **AJAW** (the “BEN-ICH” variant) on the top, with a “main sign” in between, usually the EG of a polity. However, in the case of **AJAW**, the **AJAW** glyph and its phonetic complement don't have to be considered to be *completely* disconnected, as the main part of the “full AJAW” may be considered present, just obscured by the EG which is between the reader and the “full AJAW” glyph, with just the “BEN-ICH” poking out above (from behind the EG). In the case of **TIL** here however, there's nothing being obscured by the **CHAN** – the **TIL** is simply disconnected from the **wi**. One

difference is of course that the **wi** isn't acting as an end phonetic complement to a "TILIW", but in fact *spelling* the *-iw* as an addition to **TIL**.

- A14a: There are two ways of reading this arrangement of glyphs:
  - The **YOPAAT** is a full head-variant, with two protected scrolls on top and a deity-head on the bottom. The deity-head is, however, obscured by the **AAT**, which comes between the viewer and the full head-variant of **YOPAAT** (here informally notated as a conflation of the two), leaving just the two protected scrolls to stick out above, from "behind" the **AAT**.
  - The **YOPAAT** is a reduced (horizontally rectangular) variant *consisting of* just two protected scrolls. The **AAT** then comes directly below this reduced variant.

<sup>18</sup> B14.

		
QRG Stela F B14 <<NAL:na><[IHK']WAY>:*la>>. <*u?:NAAH?:?>	QRG Stela A C9 <IHK':AJAW>.<WAY:NAL:la>	QRG Stela J D17 <[IHK']WAY>:NAL:la

This reading is taken from MHD:

- B14a:
  - The "bay" of the **WAY** = "cenote" normally has three non-touching dots in a SW-to-NE diagonal. This seems to have been replaced by an infixed **IHK'**. Indeed, QRG Stela J D17 is an example of precisely such an **IHK'** infixed in the bay of **WAY**, making this reading of B14a more likely to be correct.
  - There appears to be a **na** obscuring the main body of a full **NAL**, just below the "leaves". This could be treated as an initial phonetic complement of **NAL**, though this would be rather unusual.
  - The two horizontally touching circles at the very bottom could be the eroded outlines of **la** – two upside-down **la**-faces, with only the mouth left, and the eyes and nose eroded away.
  - This gives us: **IHK'-WAY-na-NAL-la** → *Ihk' Waynal*.

These readings are not the most obvious ones, but one could interpret the drawing this way, based on knowing that the (real or mythical) toponym *Ihk' Waynal* exists (e.g., QRG Stela A C9 and QRG Stela J D17).

- B14b – MHD reads **u-NAAH-?**:
  - The top element could be the eroded outline of some variant of **u**.
  - The middle element *could* be a **NAAH** because of the crossed bands in the centre, but *what appears to be a dot on each side* make it less likely to be **NAAH**.
  - MHD does not attempt to read the bottom element.
  - How about <some-animal-head>:**NAAH:hi** → <some-animal> *Naah* = "<Some-Animal> House"?

<sup>19</sup> A17. 3-Ajaw 3-Mol.

Calendrical calculations:

Putting in 9.\*.\*.\* and 3-Ajaw 3-Mol into the Bonn calendar program gives this as the only "round" (period ending) date:



CORRELATION CONSTANT: 584285

▲ 3 Ahau 3 Mol				
Long Count	G	Y	Greg. Date	Julian Date
▼ 9.2.6.7.0	G5	Y7	31.8.481	30.8.481
▼ 9.4.19.2.0	G4	Y3	19.8.533	17.8.533
▼ 9.7.11.15.0	G3	Y6	6.8.585	4.8.585
▼ 9.10.4.10.0	G2	Y2	25.7.637	22.7.637
▼ 9.12.17.5.0	G1	Y5	12.7.689	9.7.689
▼ 9.15.10.0.0	G9	Y1	30.6.741	26.6.741
▼ 9.18.2.13.0	G8	Y4	17.6.793	13.6.793

LC = 9.15.10.0.0; 26 July 741 AD.

This agrees with the Tahn Lam at A16b.



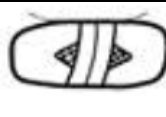


<sup>20</sup> B15.

	
QRG Stela F B15 <[*LAKAM:TUUN:ni].<xu:ku:pi>	QRG Stela D B23b <4.<TE':?>.<LAKAM>:ma

MHD gives <LAKAM:TUUN:ni>.<\*xu:ku:pi> → *lakamtuun xukuup* = “stela ‘large stone’ Xukup? (Copan)”:

- B15a: There is full confidence in the reading of the top of B15a as **LAKAM**. It looks a lot more like **BAAH** to me (and surely *baah tuun* would work also). Or perhaps the slightly curved internal lines on the left are the “trunk and branches” of **LAKAM**? A very similar glyph can be seen in QRG Stela D B23b, where a probable eroded **LAKAM** might also be read as **BAHLAM**. In the latter case, the evidence seems to favour **LAKAM** (less erosion shows that there is more of the “trunk of a tree” on the left and more “leaves” at the end of the “trunk”) which may influence us here in the same direction.
- B15b: Although it’s quite eroded, **xu** at the top of B15b is reasonable, both because there is the outline of what could be the upturned nose of the head of the leaf-nosed bat on the left, and also from context (with **ku** and **pi** below).


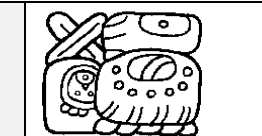
<sup>21</sup> A16.

				
A16 <10:tu:TUUN>. <[<[*ta]<ta?+*TAHN>>]LAM:ja>	3D Model	TOK.p6.r2.c1 (flint) ta	TOK.p14.r1.c2 (boulder) ta	O606st TAHN

- A16a: This is <10:tu:TUUN> and *not* <10:SAK:SIHOOM> – the **tu** is the initial phonetic complement of **TUUN**.
- A16b:
  - MHD doesn’t transliterate a (flint variant) **ta**, but I feel there’s one present between the very top and the **LAM**. This is the most common variant of **ta** – the (long, rectangular) “flint outline with one or two elements in the middle, bound to the flint by a short vertical band” (though the bound element(s) are not visible in the drawing in this case).
  - If there is indeed a **ta** present, it covers the horizontal bar which is normally found between the “bow tie” / “butterfly” **ma** at the top and the **MIH**/flower-like element in the middle of A16b.
  - The very centre of the **LAM** seems to be an infixed (boulder variant) **ta** rather than a **TAHN**. It might even be **TAHN** conflated with the boulder variant of **ta** (the boulder outline with a

horizontal three-bump line in the middle, with two slightly curved pillars from the bold ceiling to the three-bump line, and a scroll-like element in the bottom left). If so, then there is both a flint variant of **ta** near the top and a boulder variant of **ta** in the centre of A16b. I venture this opinion because a regular **TAHN** doesn't have two slightly curved pillars going from the ceiling to the middle of the glyph and instead should have two or three mostly horizontal dots in a very slight arc. A close look at the 3D model doesn't reveal these two slightly curved pillars, though the carved lines seem very blurred (from erosion?) compared to the east side. So blurred that even changing the angle of incident light doesn't help.

<sup>22</sup> B16.

	
QRG Stela F B16 <4:wi?(n):ti?:ku?>.<<JEL.ja>:k'o:ba>	QRG Stela C B6 <JEL:<[la]ja>>.<k'o:ba:•>

MHD:

- B16a: **4:wi?(n):ti?:ku?** → *chan wintik?* = “CPN”. [Sim:
  - But traditionally CPN is *Uhx/Hux Wintik*. Why is “3” now “4” here?
  - What is the mystery element / glyph between the **ti** and the **ku**?
- B16b: <JEL.ja>:k'o{o}j}:ba{l} → *jehlaj k'oojbal* = “it was renewed/replaced, (the) image?”.

GutiérrezGonzález-PhD.p130.pdfp143 gives:

- B16a: 04-wi-ti-?? (doesn't view the element at the bottom as a possible **ku**)
- B16b: JAL-ja-k'o-b'a.

The (passive) verb + subject combination *jehlaj k'ob* is known also from QRG Stela C B6 = “renew/replace (the) image”. In the latter case, it refers to an event in mythical times (i.e., at the time of the creation of the current Maya universe in 0.0.0.0.0; 3114 BC) whereas here it seems to refer to a “contemporary” event in the Late Classic period (731 AD).

<sup>23</sup> A17. 4-Ajaw 13-Yax.

Calendrical calculations:

Putting in 9.\*.\*.\* and 4-Ajaw 13-Yax into the Bonn calendar program gives this as the only “round” (period ending) date:

CORRELATION CONSTANT: 584285					
▲ 4 Ahau 13 Yax					
Long Count	G	Y	Greg. Date	Julian Date	
▼ 9.1.16.7.0	G5	Y5	23.10.471	22.10.471	
▼ 9.4.9.2.0	G4	Y1	11.10.523	9.10.523	
▼ 9.7.1.15.0	G3	Y4	28.9.575	26.9.575	
▼ 9.9.14.10.0	G2	Y7	16.9.627	13.9.627	
▼ 9.12.7.5.0	G1	Y3	3.9.679	31.8.679	
▼ 9.15.0.0.0	G9	Y6	22.8.731	18.8.731	
▼ 9.17.12.13.0	G8	Y2	9.8.783	5.8.783	

LC = 9.15.0.0.0; 18 August 731 AD.

<sup>24</sup> B17.

	A	B	C	D	E	F
1			LC/DN	x factor	# of days	
2	Bak'tun	Pik		144,000	0	
3	K'atun	Winikhaab	1	7,200	7200	
4	Tuun	Haab	16	360	5760	
5	Winal	Winik	13	20	260	
6	K'in	K'in	3	1	3	
7					13,223 Total # of days	
8					36.2 Total # of years	

DN = 1.16.13.3 ≈ 36.2 years.

<sup>25</sup> A19. Calendrical calculations:

Cuenta Larga:

9. 14. 13. 4. 17

Correlación: 584,285

N° Dist: 0 1 16 13 3

Día Juliano: 1,985,862

N° días maya: 1,401,577

Sumar Restar

Tzolk'in: 12 Ka'ban

Ha'ab: 5 K'ayab'

Glifo G: G7

Año Juliano: 29 Dic 724 dC

Año Gregoriano: 2 Ene 725 dC

+

Cuenta Larga:

9. 16. 10. 0. 0

Correlación: 584,285

N° Dist: 0 1 16 13 3

Día Juliano: 1,999,085

N° días maya: 1,414,800

Sumar Restar

Tzolk'in: 1 Ajaw

Ha'ab: 3 Sip

Glifo G: G9

Año Juliano: 13 Mar 761 dC

Año Gregoriano: 17 Mar 761 dC

=

LC = 9.16.10.0.0; 13 March 761 AD.

The previous CR + DN matches the current CR.

<sup>26</sup> B19. The 13-Ajaw appears to be a reference to the 17<sup>th</sup> *katun* (13-Ajaw 18-Kumk'u; LC = 9.17.0.0.0; 20 January 771 AD).

CORRELATION CONSTANT: 584285					
Long Count	G	Y	Tzolk'in	Greg. Date	Julian Date
▼ 9.17.0.0.0	G9	Y7	13 Ahau 18 Cumku	24.1.771	20.1.771

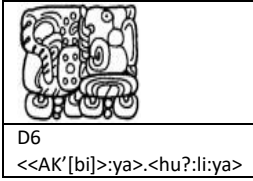
The preceding CR of 1-Ajaw 3-Sip corresponds to LC = 9.16.10.0.0 (see previous end note). The *tahn-lam* therefore is a reference to this LC = 9.16.10.0.0, which is halfway through to the *katun ending* on LC = 9.17.0.0.0. (GutiérrezGonzález-PhD.p132.pdf145: Pasaron tres días, trece winales, dieciséis *tunes* y un *k'atuun* desde el 12 Kab'an 5 K'ayab' (9.14.13.4.17, 2 de enero, 725 d.C.) y entonces ocurrió el 1 Ajaw 3 Sip (9.16.10.0.0, 17 de marzo, 761 d.C.). (9.16.10.0.0, 17 de marzo, 761 d.C.) en la mitad del hundimiento del 13 Ajaw (el *k'atuun* 9.16.10.0.0 es la mitad del *k'atuun* 9.17.0.0.0, 13 Ajaw 18 Kumk'u, 24 de enero, 771 d.C.) = (via Google Translate) Three days, thirteen *winals*, sixteen *tuns* and one *katun* passed from 12 Kab'an 5 K'ayab' (9.14.13.4.17, January 2, 725 AD) and then 1 Ajaw 3 Sip (9.16.10.0.0, March 17, 761 AD) occurred. (9.16.10.0.0, March 17, 761 AD) [is] in the middle of the sinking of 13 Ajaw (the 9.16.10.0.0 *k'atuun* is half of the 9.17.0.0.0 *katun*, 13 Ajaw 18 Kumk'u, January 24, 771 AD).)

<sup>27</sup> C1-D2.



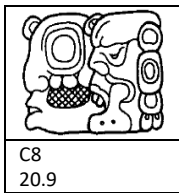
The LC **HAAB**-month is Sip, whose patron "**SNB**"/**MIIN** matches the patron infixed in the ISIG.

<sup>28</sup> D6.



Although the regular word *ak'biyy* = “last night”, “yesterday” is written, this is at the spot in the SS where Glyph-DE (giving the number of days since the new moon, in the current lunation) would normally occur. The *ak'biyy* is immediately followed by *huliiy*, the expected component in Glyph-DE as well. This suggests that this *is*, indeed, just an unusual way of giving the Glyph-DE information – indicating that it’s 1 day since the new moon, i.e., 2 days into the current lunation. This matches what the Villaseñor calendar program calculates (see next end note).

<sup>29</sup> C8.



It’s easy to make the mistake of thinking that C8b is “10”. But the (god-)head variant of “10” is a full and proper skull – percent sign, “bone” property marker (three non-touching dots in an oval), hole representing sunken nose, etc (some optional) – while C8b is just an anthropomorphic head. The forehead ornament could also be interpreted as a YAX. This means that it’s actually just the head variant of “9”. What appears to be a bone-jaw is perhaps just an attempt to draw the dots around the mouth of “9” (it can’t be “19” because the only choice we have here is between “9” and “10”). The final point to support reading a “9” is that the Villaseñor calendar program gives a value of “29” not “30” for Glyph-A (see next end note).

<sup>30</sup> D5 & D8. 1-Ajaw 3-Chakat/Sip.

Calendrical calculations:

<b>Cuenta Larga:</b>		Correlación:	584,285
9 . 16 . 10 . 0 . 0		Día Juliano:	1,999,085
Nº Dist: 0 0 0 0 0		Nº días maya:	1,414,800
Sumar	Restar		
Tzolk'in:	1 Ajaw	D M A	
Ha'ab:	3 Sip	Año Juliano:	13 Mar 761 dC
Glyph G:	G9	Año Gregoriano:	17 Mar 761 dC
Tamaño Luna:	2 D	Edad astronómica	
Nº de lunación:	1 C	aproximada de la Luna:	2.7 días
Tamaño lunación:	A 9		

LC = 9.16.10.0.0; 13 March 761 AD.

The ISIG LC matches the CR = 1-Ajaw 3-Sip.

SS cross-checks:

- The variant of Glyph-G and the values of the various coefficients of the SS as calculated by the Villaseñor calendar program can be cross-checked against what appears in the inscription.
- The variant of Glyph-X as it appears on the inscription can also be cross-checked against the coefficient and ruling god of Glyph-C.

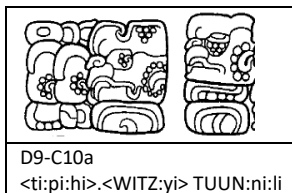
SS	Program	Inscription	
Glyph-G	G9	G9	✓
Glyph-DE	2	2 ( <i>ak'biyy</i> )	✓
Glyph-C	1	6	✗
Glyph-X	n/a	For Glyph-C=6+TMG	Actual Glyph-C=6+TMG



Glyph-A	29	29	✓
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Four of the five values match, which, while not perfect, is quite good.

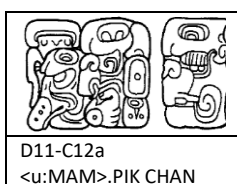
<sup>31</sup> D9-C10a.



- This reading is adapted from MHD (no essential changes, I just adapted the conventions used in transliteration): **ti-PIK-WITZ-yi TUUN-ni-li** → *ti pik witziy? tuunil* = "on Pik Witziy? Tuunil". The only small change is that I read **PIH/PIH-hi** rather than **PIK**, influenced by what appears to be an end phonetic complement of **hi** at D9a (bottom).
- There is a deliberate difference in reading of D9b (top) = **WITZ** vs. C10a (top) = **TUUN**, based on the presence and absence of an internal scroll along the outline of the glyph (at the top in this case) – the standard way to distinguish **WITZ** from **TUUN**.
- MHD gives the transcription *witziy?* with a question mark, perhaps because it's unclear what such a word might mean.

<sup>32</sup> D10-C11. The stela is called the "1-Ajaw Stone" because it was raised on 1-Ajaw.

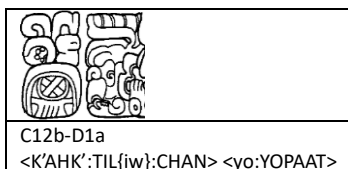
<sup>33</sup> D11-C12a.



The transliteration is taken from MHD. MHD gives it with confidence (no question marks on any of the glyphs). We know that it's **PIK/PIH** and not **MIH** – both are head glyphs with a hand-jaw, but **PIK/PIH** is a bird-head, while **MIH** is an anthropomorphic head.


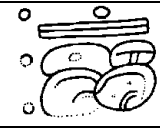
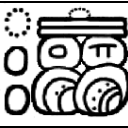
**u-MAM-PIK CHAN** → *Umam Pik Chan*, but MHD doesn't try to translate this name, rendering it in English as just the name "Umam Pik Chan" (cf. end note under C13 below, where the name *is* translated). **Here I venture the translation "The Grandfather of 8,000 Snakes/Skies"?**

<sup>34</sup> C12b-D1a.



- The element consisting of "crossed bands in a bold (partial) circle" infixed in **CHAN** is not the glyph **AT** of *Yopaat* displaced into a rather odd position in another glyph-block. Rather, it's just the central component in one of the variants of **CHAN**. Such crossed bands are not an extremely common variant, but are by no means rare – the only unusual aspect is that the normally parallel pillars flanking the crossed bands are in this case a bold (partial) circle.
- The **yo** at the top of D1a is a slightly unusual form of the "leaf" variant of **yo**, showing multiple "veins" in the main structure of the leaf.

35 C13.

		
Looper QRG Stela F C13 3.<11:PIK>.AJAW	Graham NAR Altar 1 H12 3.<11:PIK>.AJAW	Esparza&Pérez-AaESiPB.p7.pdfp7.fig7 PBX (Pol Box) Stela 3 H6 3.<11:PIK>.AJAW

- Looper-T311PT (2002) explains that 3-11-PIK is a known collocation. In this context:
  - The PIK can be written either with the “double KAWAK” variant or as the “bird-head with hand-jaw” variant.
- Callaway (personal communication 2024-10-23):
  - The 11-PIK part stands for a period of 8,660 days (a few months short of 24 years). So, 3-11-PIK-AJAW functions as a title signifying age, indicating that a ruler's life overlaps three, “3-11-PIK” stations, where each station records an elapsed span of 8,660 days. Someone who is a 3-11-PIK Ajaw, lived a life that overlaps three stations of 3 x 8,660 days (that includes a final 3rd “triple” station (in the sequence of three stations). Furthermore, since 3 x 8,660 days is very close to one degree of precessional drift, the 3-11 PIK stations may originate from a Maya almanac that once tracked precessional drift of the fixed stars from the era base date, 4 Ajaw 8 Kumk'u, (MacLeod n.d.).
- Sim:
  - The <N>-WINIKHAAB-AJAW title functions in a similar way:
    - The WINIKHAAB = *katun* is a period of 20 years.
    - The <N> is the coefficient (1 to 6) which indicates a multiple of that period.
    - The Ajaw gives the title of the protagonist.

An *N-Katun Lord* is hence in his <N><sup>th</sup> 20-year period of life, i.e., anywhere above <N-1> x 20 years. The coefficient rarely goes beyond 4, because of the natural limitation in the lifespan of humans, though the wife of Yaxuun Bahlam III was a *6-Katun Kaloomte'* and Kokaaj Bahlam III was a *5-Katun Ajaw*.
  - The <N>-WINIKHAAB system is used for other titles too. For example, YAX Lintel 3 refers to a *3-Winikhaab Sajal*, and YAX Lintel 23 to a *(1-)Winikhaab Sajal*.
  - In the case of <N>-11-PIK, the “11-PIK” part represents a period of about 24 years, and the <N> coefficient indicates a multiple of it (the only known instances are with a “3”).
- Looper-T311PT was written in 2002 and gives two examples of 3-11-PIK-AJAW (NAR Altar 1 H12 and QRG Stela F C13). Now that MHD is available, a search on “bllogosyll contains 11” and “bllogosyll contains PIK” and “bllogosyll contains AJAW” gives 4 hits (as of 2024-10-18) – the two already cited, a “Vase with Waterlily Monster” pF, and PBX (Pol Box) Stela 3 H6.
- Unlike the <N>-WINIKHAAB-AJAW title, which occurs quite frequently and can occur in any context where the age of the protagonist is being given, the <N>-11-PIK title occurs often in tandem with “deep time” dates, i.e., before the creation of the “current Maya universe” in 13.0.0.0 4 Ajaw 8 Kumk'u. [Carl Callaway, Washington reading group, June 2024; and personal communication, Barbara MacLeod, June 2024.]



36 D13.


D13 <MIH:li>.<<5.K'AN>:HAAB:NAL:<la/●>>




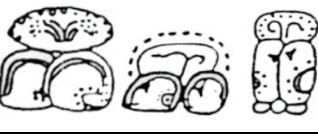
- D13a is the coefficient “0”.

- The three touching circles at the bottom of D13b can be viewed as either:
  - **la** as an end phonetic complement to **NAL**, or
  - An element consisting of two or three small dots at the bottom of boulder-outline glyphs (especially **HAAB**). It's shown as a blue dot ● in the transliteration. This element is pure decoration and doesn't contribute to the reading of the text.
- D13b is the calendar unit known to epigraphers as an "*alawtun*", one of the highest units in the Maya calendar with a (nick)name. The units go: *k'in*, *winal*, *haab*, *winikhaab*, *pik/pih*, "*piktun*", "*kalabtun*", "*kinchiltun*", "*alawtun*" (where the names after *pik/pih* are all only nicknames).
- However, it's difficult to make sense of a 0-coefficient for the "*alawtun*". Perhaps Callaway's proposal can explain this unusual aspect as well (see Introductory Notes above).



<sup>37</sup> C14b.

	
C14b 19:NAL:<mi/MIH>:HAAB = <i>hablatun</i>	YAX HS2 Step 7 J2 (Montgomery) = Coll-1 13.<NAL:?:HAAB> = <i>hablatun</i>

<sup>38</sup> C15b.

			
C15b ti:YAX:tzi:pi	MHD.1GB.1&2&3&4 -	0042bt -	K&L.p61.pdfp61.#4.1&2&3 <i>piktun</i>

Is it possible that the tripartite element above the two KAWAK's is actually an unusual variant of the two-scroll "flames"-element with a single "dotted protector" (T42/MHD.1G8/0042bv/0042bt)? If so, then this is ti:YAX:<"PIKTUN">, i.e., "in the first *piktun*". I think this is quite unlikely because the number of scrolls at the top of "PIKTUN" seems always to be two, not three, and always seem to have a dotted protector. Here in C15b there are three scrolls with no protector. I mention the *piktun* possibility merely to exclude it.

	
TOK.p10.pdfp10.r2.c3 tzi	TOK.p36.pdfp36.r1.c1 pi

Another possibility is **tzi:pi**, with the reduced (i.e., "crest") variant of **tzi** and the "2-KAWAK" variant of **pi**. Two sources, Boot-TLaToBCK and Guenter-TloDPawBCK, support this. Both discuss DPL HS2.

We know that many of the steps of DPL HS2 have the same general format, namely:

DN	A certain number of days after/before ...
<i>uhtiy</i>	... it happened ...
CR <sub>1</sub>	... (on) a date (which is an anchor point)
<type-of-period-ending>	... (which was a) <ul style="list-style-type: none"> <li>• <i>wi' hotun</i> (5-year period ending)</li> <li>• <i>tahn lam</i> (10-year period ending)</li> <li>• 10<sup>th</sup> <i>katun</i> period ending</li> <li>• 11<sup>th</sup> <i>katun</i> period ending</li> </ul>
<optional-extra>	... <i>ti</i> = on / <i>uti</i> = it happened (on)
CR <sub>2</sub>	... another date (which works out to be CR <sub>1</sub> +/- DN),
<verb>	... he <i>sihyaj</i> = "was born" / <i>cham</i> = "die" / <i>lok'</i> = "depart" / <i>ak'taj</i> = "dance" / <i>ch'am</i> "grasp" / <i>k'al</i> = "present, bind" / <i>chuk</i> = "capture" / <i>nak</i> = "attack" (including passive forms) ...

<optional-object>	... (present for transitive verbs, e.g., the K'awiil sceptre, when the verb is <i>ch'am</i> , the headband, when the verb is <i>k'al</i> , etc), ...
<subject>	... (person who did <verb>).
<optional-additional-information>	Not often present.

This standard template is particularly present for the Central and East Stair:

- Central Stair – where it holds for *all* the steps (Steps I, II, III, IV, V, VI), and
- East Stair – where it holds for *almost all* the steps (Steps II, V, VI, with the relevant portion being partially eroded in Step I and IV, and totally eroded in Step III).

If we reconstruct the eroded information, it's likely that *every* step in the Central and East Stair fits this format. Furthermore, Step II of the West Central Stair also has this format (though apparently none of the other steps have). In particular DPL HS2 Step IV D1 has **YAX:<tzi-pi>** → *Yax Tzip*. With all the other steps being a period ending, it seems quite reasonable to view *Yax Tzip* also as a period ending of some sort (albeit a rather unusual one).

In fact, calendrical calculations show that DPL HS2 Step IV D1 (2-Ajaw 13-Pax) is LC = 9.10.3.0.0. So we could put forward the hypothesis that "*Yax Tzip*" is the third year (*tun*) of a *katun*. Further evidence to support this can be found by doing a search in MHD on "bllagosyll contains yax" and "bllagosyll contains tzi" and "bllagosyll contains pi". (The last clause here is "contains pi" instead of "contains PIK" in order to catch instances where the double-KAWAK (and variants) might have been transliterated as PIK or PIH. As it turns out, MHD is completely consistent in transliterating all instances of interest to us as PIK, but we don't know that prior to doing the search.)

Such a search yields 10 hits (as of 2024-09-10). Of these, 6 are considered to be period endings (add a clause "eval contains period"). 4 of these 6 (in turn) have an LC of 9.X.3.0.0. Unfortunately, 1 of the 6 has 9.X.0.0.0, and another is unclear; most unfortunately, this happens to be QRG Stela F A15.

- CPN Stela 2 D7: 9.11.0.0.0
- [DPL HS2 Step IV D1](#): 9.10.3.0.0.
- [NAR Stela 29 I12](#): 9.13.3.0.0
- [NAR Stela 29 H17](#): 9.13.3.0.0
- QRG Stela F A15: unclear
- [TIK Temple I Lintel 3 A2](#): 9.13.3.0.0
  - MHD calls it Temple I Lintel 3
  - Garay-BSc.p126.pdfp170.para2.l+7-8 calls it Temple I Lintel 1

This combination of glyphs is also mentioned (in passing) in CrasbornChavarria&Garay-ESdP.p702.pdfp9.fig5c, but there it's treated as a toponym. I think there's sufficient evidence that this is incorrect, and that this is indeed also a period ending.

It is, however, very promising that 4 of the 6 are, nevertheless, the third year of a *katun* (and of two different *katuns*, at that).


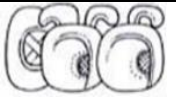
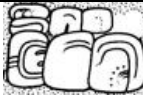


CPN Stela J A4:

- To the four above instances of its clear use as a period ending can be added CPN Stela J A4. This doesn't turn up in the above MHD search because the **tzi** is written with an unusual variant – the "**pa-ja**" glyph, which MHD doesn't read as **tzi**. The LC of this event is 9.0.3.0.0, and if we allow a **tzi** reading for the "**pa-ja**" glyph, then we have five instances of *Yax Tzip* as a "third year of the *katun*" period ending. In an argument which may appear slightly circular, I feel that this justifies such a **tzi**-reading for the "**pa-ja**" glyph.
- Garay-BSc.p126.pdfp170.para2.l+7-8 (with reference to CPN Stela J A4): Notably for the 3rd *tun*, a reference to *Yax Tzip Pihk?* is found, which appears to be another type of calendar season celebrated with the arrival of the 3rd *tun* in a *k'atun*; This can be seen in other texts, such as on [Lintel 1 of Temple I in Tikal](#), where a phrase opens with a Calendar Wheel: 9 Ajaw 13 Pop, followed by a brief *Yax Tzip* (in A2); This date corresponds to 9.13.3.0.0 (March 1, 695), which is the 3rd *tun* of the 13th *k'atun*. (=Notablemente para el 3º *tun*, se encuentra la referencia a *Yax Tzip? Pihk*, que parece ser

otra clase de estación calendárica que se celebra con la llegada del 3º *tun* en un *k'atun*; esto se puede ver en otros textos, como en el Dintel 1 del Templo I en Tikal, donde se abre una frase con una Rueda Calendárica: 9 Ajaw 13 Pop, seguida de un escueto *Yax Tzip* (en A2); esta fecha corresponde al 9.13.3.0.0 (1 de marzo de 695), que es el 3º *tun* del 13º *k'atun*.)

- There is some lack of clarity as to the LC of CPN Stela J A4. Garay-BSc assigns it 9.13.3.0.0 (1 March 695 AD) whereas MHD assigns it 9.0.3.0.0 (24 November 438 AD). This is less serious for our purposes, as both are the 3<sup>rd</sup> year of a *katun*.

These five examples seem to me to be sufficient evidence to consider (at least some instances of) the term to be a period ending.

				
CPN Stela J (north side) A4 <YAX:tzi>:pi?	DPL HS2 Step IV D1 YAX.<tzi:pi>	NAR Stela 29 I12 <u:YAX>.<tzi:pi>	NAR Stela 29 H17 <K'AL+TUUN>. <ti:YAX:tzi:pi>	TIK T1 Lintel 3 A2 YAX.<tzi:pi>•>

There's an element consisting of two or three small dots at the bottom of the two KAWAK's. It is shown as a blue dot • in the transliteration. I think it's pure decoration and doesn't contribute to the reading of the text.

There is also the issue of the actual transliteration (and transcription = the Maya words) written by these glyphs. Is it:

- **YAX-tzi-pi** → *Yax Tzip* (with no **PIK** involved) [Boot-TLaToBCK.p4.pdfp4, Guenter-TloDPawBCK.p7.pdfp7].
- **YAX-tzi{p}-PIK** → *Yax Tzip Pik* [CrasbornChavarría&Garay-ESdP.p702.pdfp9.fig5c].
- **YAX-TZIP-PIK** → *Yax Tzip Pik* [Garay-BSc.p123.pdfp167].

Note that Kupprat-TRoCMI.p26.pdfp26 has CPN Stela 12 F10 **YAX-tzi-pi** → *Yax Tzip*, but it's not clear how relevant it is to the current discussion as the context there may be that of a theonym (or perhaps a toponym?), not necessarily a period ending.

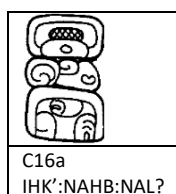
Of the four readings, the middle two seem less likely to me:

- It's probably not *Yax Tzi Pik* because it looks "phonetically odd" – words rarely end in a vowel in Classic Maya (*Sak Tz'i'* ends in a glottal stop).
- It's probably not *Yax Tzip Pik* because *-p* is very rarely underspelled.

Garay-BSc.p123.pdfp167's **YAX-TZIP-PIK** means that he reads the "**pa-ja**" glyph as a logogram **TZIP**. This is not at all at odds with a reading as syllabogram **tzi**, as loss of final consonants of a logogram to produce a syllabogram is a known process. However, such a reading of **TZIP** leaves us with an additional **PIK**, which is not present in the other contexts. It seems to me that the **tzi** reading is the best for the "**pa-ja**" glyph.

This leaves us with *Yax Tzip* = "the first *tzip*", with all five instances being the (end of the) first three years of a *katun*. In the case of Stela F C15b I'm unable to check this date, as it's part of a narrative involving the "extra-high calendar units" (see end note under C17a).

<sup>39</sup> C16a.



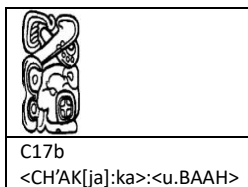
- MHD gives ik' ?? nal → *ihk' ??-nal*.
- GutiérrezGonzález-PhD.p126.pdfp139 gives IK'-NAL-NAB'? → *ik' naahb' nal*.

- Sim: I wonder if the two elements under the (undoubted) **IHK'** might be just **NAHB**, without a **NAL** being present. This is because there are variants of **NAHB** with a **NAL**-like element at the top, where no separate **NAL** is actually being written (though these variants usually have a “**WINIK**” as the main boulder-part). MHD in any case *doesn't* read a **NAHB** (treating the bottom, boulder component as undeciphered) and reads the middle component of C16a as **NAL**.

<sup>40</sup> D13-C17a. The glyphic text at the end of the east side of this inscription (D13 to D19) has “extra-high calendar units”. It seems to recount two events, at two different (mythical?) places: one at *Juun Witz'* (on 1-Ajaw 13-Mol) and another at *Ihk' Nahb Nal* (on 1-Ajaw 13-Yaxk'in). The latter event speaks of a ritual execution and is, in that sense, connected to the historical execution of Waxaklajuun Ubaah K'awiil recounted on the west side (a “historical/mythical reference”).

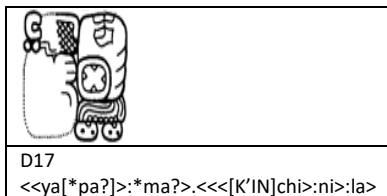
Without more understanding of the higher units, I'm unable to do the calendrical calculations to cross-check the various parameters. In particular, I can't calculate the LC of the period ending (see end note under C15b). This has been solved by a proposal by Carl Callaway (see Introductory Notes).

<sup>41</sup> C17b.



My first impression is that the three little dots in the “blade” of the **CH'AK**-axe is an infix **ja** – this would provide a nice passive inflection. However, MHD doesn't transliterate a **ja** here, inserting it only as underspelled in the transcription.

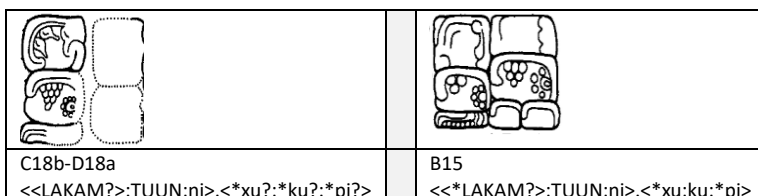
<sup>42</sup> D17.



This reconstruction of the eroded parts of D17a is from MHD, which can't make much of it either: *ya pa? ma? \_ k'in ni chi la* → *?? \_ k'inichil* = “? \_ radiant?”.

If the glyphs in D17 are correctly read, then *Yapam K'in(i)chil* might be a possible transcription.

<sup>43</sup> C18b-D18a.



D18a is completely eroded, leaving only two boulder outlines. An outside possibility is to notice that B15 (also eroded, but not as drastically) can be reconstructed to read <<\*LAKAM?>:TUUN:ni>.<\*xu:ku:\*pi> → *lakam tuun xukuup* = “(at the) stela (at/in) CPN”. Although the drawing of D18a shows only two boulder outlines, this could be because the erosion is so much greater. As C18b might be the same as B15a, this leaves the possibility open that D18a might be the same as B15b, i.e., also <\*xu:\*ku:\*pi>, both then being *lakam tuun xukuup* = “(at

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the) stela (at/in) CPN". This would fit in meaning: "On 1-Ajaw 13-Yaxk'in, it was the decapitation of Yapam Kinchil Ajaw, at the stela in CPN; it was ordered by ...".