

TTT of Quirigua Stela D

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

Introductory Notes

- This TTT is based on drawings by Looper.
- Drawings – the monument consists of glyphic text on the west and east sides, and with iconography on the other two (north and south) sides.
 - The west side has two columns of glyphic text with 24 rows: A1-B24 (Looper-LW.p144.pdfp157.fig4.28).
 - The east side has two columns of glyphic text with 22 rows: C1-D22 (Looper-LW.p142.pdfp155.fig4.26).
 - The south side (Looper-LW.p145.pdfp158.fig4.29).
 - The north side (Looper-LW.p146.pdfp159.fig4.31).
- Photos (from MHD):
 - QRGStDob1 (south side).
 - QRGStDob2 (north side).
 - QRGStDob3 (viewed from north-east).
 - QRGStDob4 (viewed from north-west).
- A Sketchfab 3D model is also available.
- 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 D, including:
 - Background information on the stela itself – its location at QRG (Platform 1A-1) and its relationship to other monuments close by (Stela A, Stela C, Zoomorph B; and Stelae E and F).
 - Discussions of the iconography on the north and south sides.
 - Some discussion of the relationship between Stela D and astronomical events.
 - Tokovinine-TPoPDB (The Power of Place Database): An Access database with the results of Tokovinine's research for his PhD dissertation (Tokovinine; 2008).
- This TTT has not been cross-checked against GutiérrezGonzález-PhD but it has been consulted for its transliteration of a few specific glyph-blocks.
- This TTT has been cross-checked against the MHD TTT ("objabbr = QRGStD").
- There are two different systems of glyph-block labelling:
 - Looper-LW and GutiérrezGonzález-PhD:
 - West side: columns A-B.
 - East side: columns C-D.

- MHD:
 - West side: columns C-D.
 - East side: columns A-B.

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.
- For the more complex glyph-blocks, the labelling of the sub-components of a glyph-block is a little tricky. In the most complex cases, a glyph-block can be conveniently divided into Xa, Xb, Xc, Xd (read down then across: <Xa:Xb>.<Xc:Xd>). However, even in some instances where the glyph-block divides up naturally in this way, I still only use <Xa.Xb>. This is because the quarters are so simple (one or two glyphs only, per quarter) that it would be a waste of space to have each of the four quarters in its own table row. MHD also struggles with the same issue and in some cases of a natural division into quarters doesn’t even have <Xa.Xb> but instead transliterates the whole glyph-block as just <X>. In that sense, there are slight mismatches between the sub-glyph-block labels in MHD and those in the TTT table below.
- There are two ISIG’s on this monument – one at the start of the inscription on the west side and one at the start of the inscription on the east side.
 - Each ISIG has an associated SS.
 - Although the two parts of the inscription each have their own ISIG, the events of the two narratives are quite close together in time, being (as they are) less than two years apart.
 - One very interesting feature is that the ISIG’s LC’s consist entirely of full-figure glyphs.
 - Not only the calendar units, but even the coefficients of the LC are full-figure glyphs.
 - The coefficient glyphs and their corresponding unit glyphs interact with one another, in ways that are anything from minimal to very intense.
 - Further to this, even the Tzolk’in date of both ISIG’s LC’s are full-figure glyphs.
 - The corresponding Haab date, however, does *not* consist of full-figure glyphs.
 - As there’s an intervening SS, with all its glyphs of conventional size and style (i.e., not full-figure), it would be highly irregular and unaesthetic to then try to re-introduce full-figure glyphs for the Haab date.
 - Though this makes total sense, my perhaps naïve and simplistic coupling of the Tzolk’in and Haab dates “as a CR” made the asymmetry between the Tzolk’in and Haab dates, initially, slightly surprising.
 - One irregularity is that the SS on the east side has the words *tahn chapaat* (“in the middle of the centipede”) where Glyph-DE is expected. The LC of the ISIG happens to be a *wi’ hotun* (9.16.15.0.0) so this is perhaps a metaphorical way of saying halfway through a half-*katun* (10 years).
- Summary:
 - Columns A-B (the west side) recounts:

- The second *katun* anniversary of the rulership of K'ahk' Tiliw Chan Yopaat in 764 AD.
 - Some additional titles of the ruler might be given and perhaps some places where the anniversary was commemorated, but these remain quite obscure.
 - The name *Ha' <something> Ek'* is mentioned. This is a name which occurs in TIK, CPN, and QRG. Here it appears to be part of the extended name/title of K'ahk' Tiliw Chan Yopaat.
 - The Waterlily Serpent (*Juun Witz' Naah Kan*) is mentioned, but this is just part of the extended name/title of the ruler whose city (*tu' che'en*) this all occurred in (namely K'ahk' Tiliw Chan Yopaat).
- The incense scattering ritual which took place in 766 AD, on the occasion of a *wi' hotun* period ending less than two years later.
- Something else happened, possibly in connection with a “young stone” but the glyphic text is too eroded to read. *If* it's the raising of the stela, then both the raising of the stela and the incense scattering ritual are mentioned on both the west and east sides (but in the opposite order).
- Columns C-D (the east side) recounts:
 - The aforementioned *wi' hotun* period ending (766 AD).
 - Once again, the incense scattering ritual.
 - The raising of Stela D:
 - The stela is called, “generically”, the “7-Ajaw Stone” because it was raised on the occasion of the *hotun* period ending on 7-Ajaw 18-Pop.
 - The specific name of the stela, K'an Naah Chan Yopaat (= “Yellow/Precious House (in the?) Sky Yopaat”), is also given.
 - This raising ritual may or may not also have been recounted on the west side (in the eroded part). If so, then both rituals are mentioned on both sides (but in the opposite order).
 - A similar period ending event in the mythical time:
 - It's 13 *kinchiltuns* and such “extra-high calendar units” haven't, up to now, been well understood (see end note under C20a-C20b).
 - *The Deep Time references at Quirigua contain higher periods that count vast spans of time. 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.]*
- In both narratives, K'ahk' Tiliw Chan Yopaat's additional names/titles of *Chan Te' Ihk' Xib, Ihk' Xukuup Ajaw*, and *Baah Kab* are given (but in a slightly different order). These of course are given in addition to his “standard” EG-title: *K'uhul “TOL” Ajaw*.
- In the second narrative, yet another two names/titles are given: *Ahkul K'an “Ch'ajan”* and *Sibik Naah Ajaw*. The latter also occurs on QRG Stela F.

- One of the most significant things about K'ahk' Tiliw Chan Yopaat is that he was the ruler who rebelled against his CPN overlord Waxaklajuun Ubaah K'awiil (he captured and executed him). However, no reference is made to this in this inscription.

MHD	Looper-LW / GG-PhD	Transliteration	Translation
		West Side	
C1-D2	A1-B2	tzi:<ka[K'INICH?¹]>:HAAB	ISIG
C3-D4	A3-B4	9.PIK	LC = 9.16.13.4.17 ²
D5-D6	B5-B6	16.WINIKHAAB	
C7-D8	A7-B8	13.HAAB	
C9-D10	A9-B10	4.WINIK	
C11-D12	A11-B12	17.K'IN	
C13-D14	A13-B14	8.KABAN ³	... (on) 8-Kaban ...
C15	A15	NAAH.<tz'i:lo:?:na>	[← SS starts here ... Glyph-G ₇ ⁴
D15	B15	TI' HUUN ⁵	Glyph-F
C16a	A16a	<4.HUL>:li:ya	Glyph-DE = it is 4 days into the current lunation
C16b	A16b	4:<CHUWAJ.ja>:K'AL	Glyph-C = it is the 4 th of the 6 lunations governed by the JGU
D16a	B16a	MIIN+CH'ICH'	Glyph-X = the one corresponding to Glyph-C=4+JGU
D16b	B16b	u:<<ch'o:ko>+K'ABA'>	Glyph-B = (that is) his youth(ful) name
C17a	A17a	20:*9	Glyph-A = there are 29 days in the current lunation SS ends here →]
C17b	A17b	5:YAX:K'IN:ni	... 5-Yaxk'in ⁶ , ... (LC = 9.16.13.4.17; 2 June 764 AD)
D17a	B17a	<TZUTZ:*yi>:u ⁷	... it was completed, (the) ...
D17b	B17b	<2:WINIKHAAB>:<ti:AJAW:*le{l}> ⁸	... second <i>katun</i> in (the) rulership of, ...
C18	A18	K'AHK'.<TIL{iw}:CHAN>.YOPAAT	... K'ahk' Tiliw Chan Yopaat, ...
D18a	B18a	CH'AHOOM	... Ch'ahoom, ... (= "The Incense Offerer")
D18b	B18b	<4:TE'>:<IHK'.XIB>	... Chan Te' Ihk' Xib ⁹ , ... (="Four Black Men")
C19a	A19a	IHK'.<<xu[ku]>:pi>	... Ihk' Xukuup ...
C19b	A19b	AJAW	... Ajaw, ... (= "The Lord of Black Xukuup")
C19c	A19c	K'UH{ul}.<*“TOL”:AJAW:wa> ¹⁰	... (the) Holy Lord of QRG, ...
C19d	A19d	ba.<ka:ba>	... (the) Baah Kab; ...
D19a	B19a	<u{h}:ya>.ti	... it happened ...
D19b	B19b	AHK?	... (at) Ahk? ...
D19c	B19c	<BAAH:hi>/<ch'o:ji>	... Baah?/Ch'ooj? ... (= "Turtle <something> < something >")
D19d	B19d	<MUWAAN?/WITZ'?'> ¹¹	... Muwaan?/Witz'?, (=Predatory-Bird/Waterlily Serpent") ...

C20a	A20a	ye{h}.TE'	... (it was the) deed of ...
C20b	A20b	TE'.<WINIK:ya>	... Te' Winikiy, ...
C20c	A20c	1:PIK	... Juun Pik ...
C20d	A20d	K'UH	... K'uh; ... (= "Wood Person, Eight Thousand Gods"?)
D20a	B20a	<u{h};ya>.ti	... it happened ...
D20b	B20b	ma.<KAN>:la>	... (at) Makaanal, ...
D20c	B20c	<AJAN:NAL>/<wi:tzi>	... Ajan? Nal? / Witz?, ...
D20d	B20d	tu.<*u:*CH'EEN:*ni> ¹²	... in (the) city of ...
C21a	A21a	"ADWH":<HA'[EK']> ¹³	... Ha' <something> Ek', ... (= "The Water <something> Star"?)
C21b	A21b	<JUUN.WITZ'>	... Juun Witz' ...
C21c	A21c	NAAH.KAN	... Naah Kan. (= "The Waterlily Serpent")
C21d	A21d	u.<TZ'AK:AJ>	DNIG, ...
D21a	B21a	3.<13:WINIK:<[ji]ya>>	... DN = 1.13.3, ... (about 1 year and 263 days = 1.7 years since)
D21b	B21b	<1.<HAAB:ya>>	
D21c	B21c	<eroded>	... <verb? = something happened> ...
D21d	B21d	tu?.<eroded>	... at? the <something> = place? of, ... ¹⁴ (LC = 9.16.13.4.17; 2 June 764 AD)
C22a	A22a	*i.<u{h}:ti>	... then it happened ...
C22b	A22b	<eroded=*7?-*AJAW?>	... (on) 7-Ajaw ...
C22c	A22c	18.<eroded=*<kan-jalaw>?>	... 18-Pop ¹⁵ , ... (LC = 9.16.15.0.0; 15 February 766 AD)
C22d	A22d	<eroded>	
D22a	B22a	i.<AJAW:ja>	... then he became (the) lord; ...
D22b	B22b	*u?.BAAH:hi	... (it is the) image of ...
D22c	B22c	<badly-eroded>	... (the) <something> ...
D22d	B22d	ch'o:ko ¹⁶	... young ...
C23a	A23a	<TUUN:li>.ni	... stone ...
C23b	A23b	u.<ch'o:ko:wa>	... (and) he scattered ...
C23c	A23c	ch'a.ji	... incense, ...
C23d	A23d	i.<u.<?:*ji?>> ¹⁷	... <part of extended name/title?>, ...
D23a	B23a	4.<TE':xi?[?]>	... Chan Te' <Something=Xib?>, ...
D23b	B23b	LAKAM:ma ¹⁸	... Lakam?, ...
D23c	B23c	K'AHK'.<TIL{iw}:CHAN>	... K'ahk' Tiliw Chan ...
D23d	B23d	YOPAAT	... Yopaat, ...
C24a	A24a	ch'a.<ho:ma>	... (the) Ch'ahoom, ...
C24b	A24b	K'UH{ul}.<"TOL":AJAW:wa>	... (the) Holy Lord of QRG, ...
C24c	A24c	ba{ah}.<ka:ba>	... (the) Baah Kab; ...
C24d	A24d	yi.<ta:ji>	... he was accompanied by ...
D24a	B24a	<WINAL?/ WINIK?/ja?>:<k'i?:ta>	... <name/title of another protagonist>, ...
D24b	B24b	<K'AHK'?.<K'IN?/4?>>:<TE'.xi?> ¹⁹	... <another name/title of the protagonist>. (perhaps from either QRG or CPN)
		East Side	
A1-B2	C1-D2	tzi.<ka[BAHLAM ²⁰]:HAAB	ISIG
A3-B4	C3-D4	9.PIK	LC = 9.16.15.0.0 ²¹ , ...
B5-B6	D5-D6	16.WINIKHAAB	

A7-B8	C7-D8	15.HAAB	
A9-B10	C9-D10	0.WINIK	
A11-B12	C11-D12	0.K'IN	
A13-B14	C13-D14	7.AJAW ²²	... (on) 7-Ajaw ...
A15	C15	YIHK'IN:NAL	[← SS starts here ... Glyph-G ₉
B15	D15	TI'.HUUN ²³	Glyph-F
A16a	C16a	<TAHN:na>:CHAPAAT ²⁴	Glyph-DE = the number of days into the current lunation is expected here.
A16b	C16b	NAAH:<KIMI.ja>:K'AL	Glyph-C = it is the 1 st of the 6 lunations governed by the DG
B16a	D16a	<yu[ku]>:<1:<K'UH+WITZ>>	Glyph-X = the one corresponding to Glyph-C=1+DG
B16b	D16b	u:<<ch'o:ko>+K'ABA'>	Glyph-B = (that is) his youth(ful) name
A17a	C17a	20:10	Glyph-A = there are 30 days in the current lunation SS ends here →]
A17b	C17b	18:<[K'AN]JAL>:wa	... 18-Pop ²⁵ , ... (LC = 9.16.15.0.0; 15 February 766 AD)
B17a	D17a	<tz'a[pa]>:ja	... it was raised, ...
B17b	D17b	K'AN:NAAH:CHAN	... K'an Naah Chan ...
A18a	C18a	YOPAAT	... Yopaat ²⁶ , ... (= "Yellow/Precious House Sky Yopaat")
A18b	C18b	<u.K'UH{ul}>:K'ABA'	... (it was the) holy name of ...
B18a	D18a	<7.AJAW>:<TUUN:ni>	... (the) 7-Ajaw Stone; ... ²⁷
B18b	D18b	<u.<CHOK:wa>>:<ch'a:ji>	... he scattered incense, ...
A19a	C19a	K'AHK':TIL{iw}:CHAN:na	... K'ahk' Tiliw Chan ...
A19b	C19b	YOPAAT:AAT:ti:CH'AHOOM	... Yopaat, (the) Ch'ahoom, ...
B19a	D19a	IHK'.<<xu[ku]>:pi>	... Ihk' Xukuup ...
B19b	D19b	AJAW	... Ajaw, ... (= "The Lord of Black Xukuup")
B19c	D19c	K'UH{ul}.<"TOL":AJAW:wa>	... (the) Holy Lord of QRG, ...
B19d	D19d	ba.<ka:ba>	... (the) Baah Kab, ...
A20a	C20a	<13.<nu:TZUTZ>>:<PIK:ya>	(it is) DN? / LC? = 13(.0.0.0.0.0.0) ... (= 13 k'inchiltuns)
A20b	C20b	<7.AJAW>:<3.<<[K'AN]JAL>:wa>>	... (since) 7-Ajaw 3-Pop ²⁸ , ...
B20a	D20a	yi:li:ji:ya ²⁹	... (when) he witnessed it, ...
B20b	D20b	<a{h}.<ku:li>>:<K'AN:"CH'AJAN">	... Ahkul K'an "Ch'ajan", ... (= "Turtle-ish Yellow/Precious Rope")
A21a	C21a	SIBIK:NAAH	... Sibik Naah ...
A21b	C21b	AJAW:<<u{h}:ya>.ti> ³⁰	... Ajaw; it happened ... (= "The Ink/Soot House Lord")
B21a	D21a	<YAX.<xi{w}{IK'}>>:AJAN ³¹	... (at) Yax Ik' Xiw Ajan ...
B21b	D21b	<CH'EEN:na>:<i.<u{h}:ti>>	... Ch'een; (= "First Wind <something> Ajan City" = name of a city) (and) then it happened, ...

A22a	C22a	<7.AJAW>.<18.<<[K'AN]JAL>:wa>>	... 7-Ajaw 18-Pop ³² , ... (LC = 9.16.15.0.0; 15 February 766 AD)
A22b	C22b	<WI'.<5:TUUN:ni>>:<<IL.?:>:ji> ³³	... (it was the) last <i>hotun</i> ; he witnessed it, ...
B22a	D22a	K'AHK'.<TIL{iw}:CHAN>	... K'ahk' Tiliw Chan ...
B22b	D22b	yo:<YOPAAT:AAT:ti>	... Yopaat, ...
B22c	D22c	<4:IHK'>.<TE':XIB> ³⁴	... Chan Te' Ihk' Xib, ... (="Four Black Men")
B22d	D22d	ba.<ka:ba>	... (the) Baah Kab.

End Notes

¹ A1-B2. The LC HAAB-month is *Yaxk'in*, whose patron **K'IN(ICH)** is not totally incompatible with the full-figure patron infixed in the ISIG. This could be the Sun God, but there are no distinct **K'IN** markings on his head or body. The figure appears to have a "spondylus ear", which is not a known feature of **K'IN(ICH)**. However, the infixed full figure has a large square eye with the square "pupil" in the top left corner, and the cruller on both sides and under the eye are known features of **K'IN(ICH)**. From the Looper drawing, the element above the figure's left arm (on the right, from the point of view of the viewer) does not strongly resemble a **YAX**, but TMHW.pdfp408.YAXKIN.fig22.36 is from a drawing of this monument and glyph-block, and there the element looks more like a **YAX**. However, this is not relevant, because it's not **YAXK'IN** that's being infixed, only **K'IN** or **K'INICH**. So that the element above the arm doesn't really matter.

	
Looper A1-B2	TMHW.pdfp408.YAXKIN.fig22.36 (Thompson?) A1-B2

² A3-B12. The west side ISIG's LC = 9.16.13.4.17.

The LC is given in full-figure glyphs – both the coefficients and the units are full-figure glyphs:

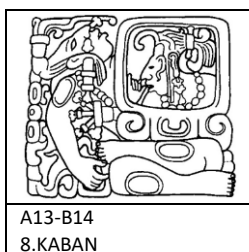
- Coefficients: It's difficult to get even tentative values as a "working hypothesis" for the coefficients of the *Winikhaab*, *Haab*, and *Winal*, and for Tzolk'in value of the CR (see next end note).
- Units: The units don't really need to be read based on their characteristics as context/position alone tells us that they're *Pik*, *Winikhaab*, *Haab*, *Winal*, *K'in*. It is nevertheless an instructive and interesting exercise to see how many of them can actually be read "out of context", based only on their distinctive characteristics.

	Coefficient + Unit	Comment on the Coefficient	Comment on the Unit
A3-B4	9-PIK	<p>The full figure of the coefficient lies on its back and occupies 3/4 of the glyph-block: the entire left half and the bottom half of the right half (A3, A4, B4). There are spots on the (upper) cheek of the head on the left (slightly above the middle, facing upwards) indicating "9". However, the other diagnostic of "9" – a YAX forehead ornament – is not present.</p> <p>The "back of the head" has a very distinctive four-component element: a jaguar paw, then an oval-ish element with three of the sides bold, a grip, and two</p>	<p>The full figure of the unit occupies the top right quarter of the glyph-block (B3). It has a bird-like head (facing left and downwards at an angle of 45 degrees) in the middle of the top of the glyph-block, with a hand-jaw. There are one or two feathers on the top right. These are the identifying characteristics of the head variant of PIK.</p> <p>The heads of the coefficient and the unit are very close together.</p>

		scrolls (one with a spine). The “9” of the PIK coefficient of the LC of the <i>east</i> side (C3, C4, D4) has an identical four-component element at the back of the head (C3) though there both scrolls have a spine.	
A5-B6	16-WINIKHAAB	The full figure of the coefficient is in a crouched position facing left. It occupies almost the entire glyph-block: all of the left half and some of the bottom right (A5, A6, B6). Its head, in the top left, has a bone-jaw, indicating a coefficient of 10 or higher. The characteristic “axe-in-eye” of “6” is however not visible (possibly due to erosion).	<p>The unit glyph is a large bird-head facing right and upwards at an angle of about 45 degrees, with the tip of the beak on the right side, in the top right quarter of the glyph-block (B5). It’s a bird-head with no body. It looks as if the bird-head is being carried in a bundle on the back or strapped into the small of the back of the full-figure glyph of the coefficient.</p> <p>The absence of a body shouldn’t be seen as making it just a head-glyph. Head-glyphs would normally be oriented completely horizontally and vertically (and face directly left). This bird-head’s skewed orientation and its (admittedly limited) interaction with the full figure of the coefficient are sufficient to make it a full-figure glyph. (A similar remark applies even more strongly to the full-figure glyph for the K’IN unit at D11, D12 on the east side.)</p> <p>There is neither a bone-jaw nor a hand-jaw present. The <i>absence</i> of both on a bird-head being identifying characteristics for the head variant of WINIKHAAB.</p>
A7-B8	13-HAAB	<p>There appears to be the head of the Waterlily Monster in the top left quarter of the glyph-block (A7), facing almost straight upwards, with the tip of the snout in the middle of the top of the glyph-block, touching the middle of the ceiling (i.e., the top right corner of A7). The Waterlily Monster is an animated variant of “13”.</p> <p>Additional supporting diagnostics are:</p> <ul style="list-style-type: none"> • A waterlily in the bottom left corner. • A “waterband” in the shape of a U, in the lower left quarter of the glyph-block (A8, and even into the left half of B8). Perhaps this could be considered the body of the full-figure glyph of the Waterlily Monster. <p>Even if the latter isn’t the body and only the head is present, this can still be considered a full-figure glyph, for the</p>	<p>There’s a skeletal bird-figure in the right half of the glyph-block (B7, B8), seated on the ground and facing left, looking downwards at an angle of 45 degrees. The large claw in the bottom right of the glyph-block is perhaps the most distinctively bird-like characteristic of this figure. It has a bone-jaw (very wide open “mouth”, with the bone-jaw almost vertical). There’s also a feather sticking upwards from the left “ear” of the figure, going upwards and to the left, towards the top of the glyph-block and touching the ceiling (top left corner of B7). A bird with a bone-jaw is the identifying characteristic of the bird-head variant of HAAB.</p>

		reasons given for the WINIKHAAB unit at B5, B6 and (on the east side) for the K'IN unit at D11, D12.	
A9-B10	4-WINAL	<p>The full figure of the coefficient occupies the left half of the glyph-block, top and bottom and some of the bottom of the right half (A9, A10, B10). <i>This might be the Sun God K'inich, though there are no obvious K'IN's on the head or body. It does at least have a large square eye with a "cruller" underneath and on both sides of the eye, as well as a filed tooth. Both are characteristics of "4", but just not completely determining characteristics, as a few head variants of other numbers can have them too.</i></p> <p>It's possible that the figure's left hand is visible on the far right of the glyph-block, with the left arm hidden behind the full figure of the unit glyph. If so, then the full figure of the coefficient is struggling with the full figure of the unit (his right hand is grasping the lower leg of the unit's full figure glyph), with the latter trying to get away from the former. (On the other hand, this single hand might also just be the left hand of the full-figure glyph of the unit.)</p> <p>Note that the headdress of this full-figure is similar the headdress of the figure of the patron infixed in the ISIG.</p>	<p>In the top right quarter of the glyph-block (B9) there's an iguana- or turtle-like head looking to the right, with its right arm in the middle of the glyph-block. It's unclear to me if the leg and foot in the bottom right (B10) belongs to the coefficient or the unit. The full-figure unit's head has three non-touching dots in a triangular formation pointing (roughly) downwards in the ear. These are identifying characteristics for the head variant of WINAL.</p>
A11-B12	17-K'IN	<p>The full figure of the coefficient occupies 1/3 of the glyph-block, top and bottom of the left side (A11-A12). Its left hand perhaps emerges on the right of the glyph-block (B12), making it "embrace" the full-figure glyph of the unit. The head in the top left (looking to the left and slightly upwards) has a "left-feeler" in the eye ("7") and a bone-jaw ("10"): 7 + 10 = 17.</p>	<p>The full figure of the unit occupies 2/3 of the glyph-block, top and bottom of the right side (B11, B12). Its head looks straight upwards.</p> <p><i>I can't see any distinctive characteristics which point to the sun or Sun God, but this could be lack of knowledge on my part.</i></p>

³ A13-B14. A full-figure Tzolk'in date: 8-Kaban.






- Coefficient: The full-figure glyph for the coefficient of the Tzolk'in date occupies more than its conventional space of just the left half of the glyph-block – the two legs and feet extend under the

day-name of right half to occupy a quarter of the right half of the glyph-block. The head has long parallel strands of hair around the ear, representing the corn husk characteristic of “8”/IXIIM.

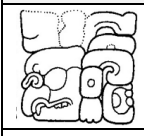
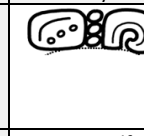
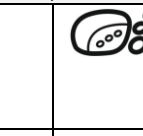
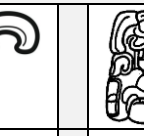
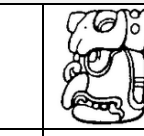
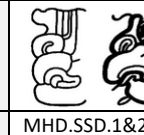
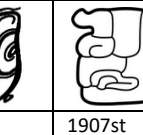
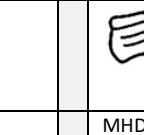
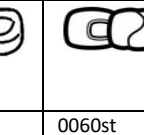
- Day-name: The head and shoulders are enclosed in the blood cartouche. There’s a downward scroll at the top of the head (immediately to the right of the eye). This scroll is the equivalent of the “protector” of the cross-hatched circle at the top of the more abstract **KAB**/Kaban.

There is also a *completely independent* line of reasoning which leads to reading 8-Kaban here – indeed, a line of reasoning which gives the full LC, despite this (west side’s) ISIG’s LC having even fewer clues for reading the coefficients than is the case for the east side’s ISIG’s LC. See end note under A21d-A22.

⁴ A15. This is known to be one of the variants of Glyph-G₇, given as such in Gronemeyer-GGF.p9.pdfp9.fig8.e and K&L.p65.pdfp65.G7.2 = MC.p50.pdfp51.G7.2.

		
Looper QRG Stela D A15 Glyph-G ₇	Gronemeyer-GGF.p9.pdfp9.fig8.e QRG Stela D A8 Glyph-G ₇	K&L.p65.pdfp65.G7.2 = MC.p50.pdfp51.G7.2 Glyph-G ₇

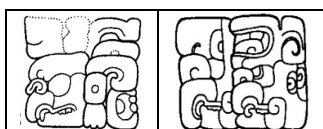
⁵ B15. It’s clear from context that this is Glyph-F. But there’s some uncertainty as to which glyph is **TI’** and which glyph is **HUUN**.

	Possibility #1: TI’ above, HUUN below			
				
B15 TI’:HUUN	TOK.p10.pdfp10.r2.c4 TI’	0128st TI’	MHD.SM1.1 HU’N	T1030o HUUN
	Possibility #2: HUUN above, TI’ below			
				
	MHD.SSD.1&2 TI’	1907st TI’	MHD.1B5a.1 HU’N	0060st HUUN

- Possibility #1: **TI’** above, **HUUN** below:
 - The **TI’** might be the “abstract” (horizontally rectangular, tripartite) variant (e.g., TOK.p10.pdfp10.r2.c4/0128st).
 - The **HUUN** might be the head variant (e.g., MHD.SM1.1/T1030o).
- Possibility #2: **HUUN** above, **TI’** below:
 - The **TI’** might be the (bird?-)head variant (e.g., MHD.SSD/1907st).
 - The **HUUN** might be the “knot” variant (e.g., MHD.1B5a.1/0060st).

I think the former is more probable than the latter because the upper beak in B15 goes all the way to the ground, as does MHD.SM1/T1030o, whereas MHD.SSD/1907st has a distinct lower beak or chin under the upper beak. **Dorota Bojkowska agrees: TI’ on top, HUUN on the bottom left.**

Note that there is quite a lot of glyphic information in the bottom right which seems to be in addition to the head. So whichever reading is taken, this additional glyphic information is not being taken into account and read. On the other hand, it’s interesting to compare the two Glyph-F’s of this inscription – at B15 and D15:



B15 Tl':HUUN	D15 Tl'.HUUN
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It seems that a lot of the extra glyphic information to the right of the **HUUN** in B15b can be found on the right of D15b too: the **JUUN**/"jewel"-like element present in the middle of B15b (part of the ear?) is absent in D15b but the scroll in the upper right of B15b and the oval-ish element in the bottom right of B15b seems to be present in the top and middle right of D15b. This means that the latter two elements are probably just decorative parts of the **HUUN** glyph (perhaps symbolically/iconographically significant, but nevertheless decorative, i.e., not contributing to the sound), rather than being unexplained additional glyphs. Indeed, they can be seen in quite a number of examples in the CMGG entry for the bird-head variant of **HUUN**.

The **JUUN**/"jewel"-like element present in the middle of B15b however remains unexplained. Perhaps it's just a decorative "fancy ear".

⁶ A3-A17. Calendrical calculations.

We know from QRG Stela E (A3-B8a) and QRG Stela F (A3-A6) that K'ahk' Tiliw Chan Yopaat's accession was on 9.14.13.4.17; (12-Kaban 5-K'ayab). We know from B17a-A18 that this ISIG's LC is the 2nd *katun* anniversary of his accession, making it 9.16.13.4.17.

For another way to get the values of the coefficients of the LC, see also end note under A21d-A22. At this point, we can just take those values as a given, and check the LC against the SS.

The screenshot shows a software interface for calendrical calculations. It includes fields for 'Cuenta Larga' (9.16.13.4.17), 'Correlación' (584,285), 'Nº Dist' (0 0 1 13 3), 'Día Juliano' (2,000,262), 'Nº días maya' (1,415,977), 'Tzolkin' (8 Ka'ban), 'Ha'ab' (5 Yaxk'in), 'Glifo G' (G7), 'Año Juliano' (2 Jun 764 dC), 'Año Gregoriano' (6 Jun 764 dC), 'Tamaño Luna' (8 ED), 'Nº de lunación' (4 C), 'Tamaño lunación' (A 10), and 'Edad astronómica aproximada de la Luna' (27.5 días). There are also buttons for 'Sumar' and 'Restar'.

LC = 9.16.13.4.17; 2 June 764 AD.

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	G7	G7	✓
Glyph-DE	8	4	✗
Glyph-C	4	4	✓
Glyph-X	n/a	For Glyph-C=4+JGU	Actual Glyph-C=4+JGU
Glyph-A	30	29	✗

Unfortunately, only two of the four calculated values match those of the inscription. The two which *do* match nevertheless form a very slight confirmation of the correctness of the reading of the ISIG LC as 9.16.13.4.17. This in turn supports the idea that the DN = 1.13.3 at B21a *is indeed* a DN which links the two ISIG's LC's in this monument. It remains a mystery to me why these SS cross-checks so often reveal a number of discrepancies.

[Sim's *very speculative musings*: A mismatch in Glyph-A might be more due to epigraphers not fully understanding the correct method of calculating the theoretical value than to "mistakes" made on the part of the calendrical experts, designers or carvers of the time of the creation of the monument. For example, the modern algorithm might take the number of days in each of the 6 lunations as 29, 30, 29, 30, 29, 30 (or 30, 29, 30, 29, 30, 29) – which might have been true in general over the whole Maya region – whereas the "local standard" might have been 29, 29, 29, 30, 30, 30 (or 30, 30, 30, 29, 29, 29).]

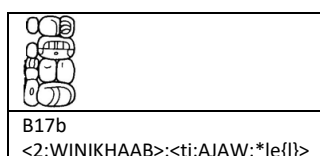
⁷ B17a. From the point of view of a “mathematical” approach to grammar, this *u-* seems to be fulfilling a double function:

- *u-ch’a* as the ordinal number derived from “2”, i.e., “the second (*katun*)”
- *u-<the whole long phrase>* = “the second *katun* in the rulership of (K’ahk’ Tiliw Chan Yopaat)”.

In a vaguely similar situation, Maya grammar requires two possessives. This is when a *Yajawte’* (“Lord of the Spear”) serves the ruler of a polity. In such situations, the grammar requires *u-yajawte’* – the *y-* possessive for the Spear being possessed by the Lord, and the additional *u-* possessive for the Lord of the Spear being possessed by the ruler of the polity.

The situation in the current inscription is such that one might expect a “double possessive” here too – (say) an *u-* for the ordinal “second” and an additional *y-* for the “second *katun* anniversary of”. However, there is no need to worry about this: this can just be translated as “his two *katuns* in rulership”. This removes any need for the 2 to be “second”, as it’s just plain “two”. Instead, the single **u** present can just fulfill the role of being the possessive marker for the two *katuns* of K’ahk’ Tiliw Chan Yopaat.

⁸ B17b.

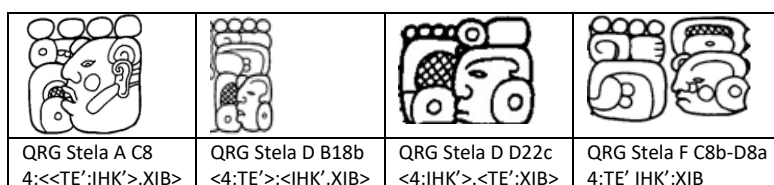


From context, there’s no doubt that this is *cha’ winikhaab ti ajawlel*. There is only one small issue in the transliteration – the very last element, in the bottom right of B17b:

- GutiérrezGonzález-PhD.p138.pdfp151 reads/reconstructs it as **le**.
- MHD (2024-10-13) reads/reconstructs it as the main / boulder part of **AJAW** (with the “BEN-po” above it)

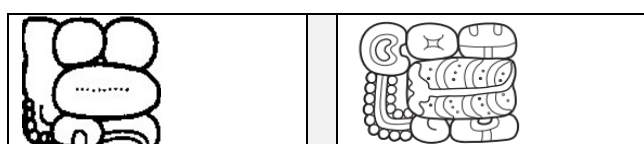
The advantage of the GutiérrezGonzález-PhD transliteration is that there’s only an undespelled *-l* for *lel*, whereas the MHD reading requires an undespelled *-lel*. However, it’s hard to know if the former’s transliteration *is* indeed correct: it’s a partially eroded glyph at this point, and it’s difficult to say whether it is in fact a rather squarish / boulder-shaped form of **le** or if the middle of the element has two (lost) touching dots in the middle of the curved pillar (which would make it part of **AJAW**).

⁹ B18b. 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 D22c, and QRG Stela F C8b-D8a, all in connection with Káhk’ Tiliw Chan Yopaat.



Along with the *Chan Te’ <something> Lakam* (B23), these seem to have a rather unusual syntax: why is a single individual given a title meaning “Four Men”? See end note under QRG Stela J G8-H8 for a partial explanation, offered by GutiérrezGonzález-PhD.

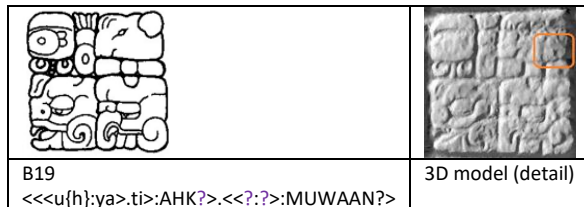
¹⁰ A19c.



A19c <K'UH{ul},<*"TOL":AJAW:wa>>	Martin-AMP.p397.pdfp421.r2.c1 K'UH{ul}.<?:AJAW:wa>
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The reconstructed reading of *"TOL" for the main sign of this part of the glyph-block is not obvious (based on the eroded glyphs), but is quite reasonable from the context. The main sign is perhaps a bit "flatter" (more horizontally rectangular) or more oval-ish than one might expect for "TOL", but the "dotted spine" could well be the remnants of the (horizontal) "central stem" of the vine of "TOL".

¹¹ B19.



MHD has:

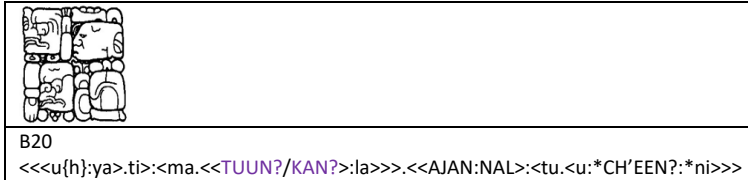
- B19a: <u:ya>.ti (little doubt here: MHD & Tokovinine-TPoPDB agree).
 - B19b:
 - MHD speculates **e?** (with question mark), but the animal-head variant of **e** usually has three non-touching dots in a triangle in the ear, not present in B19b (at least, not shown in the drawing).
 - Tokovinine-TPoPDB: *ahk*.
 - Dorota Bojkowska: **AHK** seems quite plausible.
 - B19c:
 - MHD has **ji?** – probably viewing it as being the rodent-head variant of **ji**.
 - Tokovinine-TPoPDB: *ch'ooj* (presumably from **ch'o-ji**, with **hi** perhaps being merged with **ji**).
 - Sim & Dorota Bojkowska:
 - We weren't able to find a candidate in Kaufman-APMED for *ch'ooj*.
 - <**BAAH:hi**> seems like a possibility. There's no **K'AN** infixed in the bottom right of the animal head *in the drawing*, but zooming in on the 3D model for that part of the inscription shows what *might* be the outlines of a **K'AN**.
 - B19d:
 - MHD: **MUWAAN?**
 - Tokovinine-TPoPDB: *witz'*.
 - Dorota Bojkowska: the correctness of **WITZ'** is hard to judge.
 - The "feathers" in the mouth suggest **MUWAAN**, but they could also correspond to "teeth"-like elements found in **WITZ'**.
 - **WITZ'** has a scroll in the bottom right, which **MUWAAN** doesn't have. B19d also has such a scroll, increasing the chances that it's **WITZ'** rather than **MUWAAN**.
 - **WITZ'** almost always has a "left feeler" in the eye. From spot checks of MHD, **MUWAAN** generally doesn't have a "left feeler" in the eye, even though there are a few in the examples from the CMGG. B19d *doesn't* have a "left feeler" in the eye → this argues for a reading of **MUWAAN** rather than **WITZ'**.
 - MHD searches:
 - Could it be Baah Witz'? The following searches all return no hits:
 - "bllogosyll contains bah" and "bllogosyll contains witz'".
 - "bllogosyll contains ba" and "bllogosyll contains witz'".
 - "blmaya1 contains baah" and "blmaya1 contains witz'".
 - Similarly, these searches also return no hits (SSn are variants of **WITZ'**):
 - "blcodes contains XE1" (**ba**) and "blcodes contains SSn" (n=1,2,3,4).
 - "blcodes contains AP9" (**BAAH**) and "blcodes contains SSn" (n=1,2,3,4).
- The above argues against a reading of *baah witz'*.
- Could it be Baah Muwaan? [MHD distinguishes the month name *muwahn* vs. the predatory bird *muwan* in the blengl field, see **MUWAAN** in the CMGG.]

- “blcodes contains BT2” (**MUWAAN**) and “bllogosyll contains ba” (the latter to get both logogram and syllabogram spellings) yields 2 hits, both of which are from Bahlam – i.e., the *ba* is from *bahlam*, not *baah*.

The above argues against a reading of *baah muwaan*.

Neither *Witz’* nor *Muwaan* fit well in connection with *Baah* = “chief, head” in a title anyway. These were considered as possibilities more for the sake of being able to explicitly exclude them. **My conclusion out of all this is that B19c is probably not *baah*.**

¹² B20.

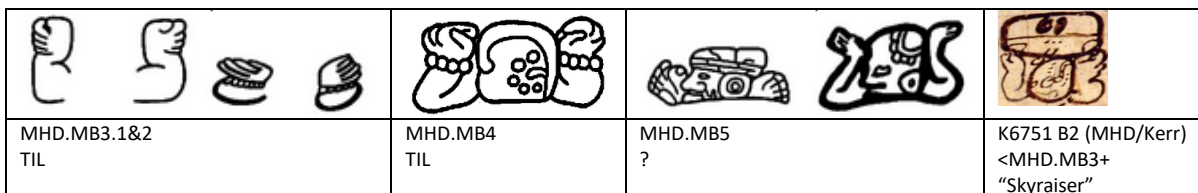
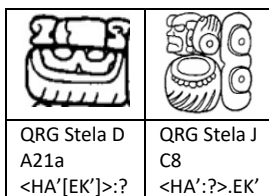


- B20a: <u{h}:ya>.ti
- B20b: ma.<<TUUN?/KAN?>:la>:
 - MHD has **TUUN?** (with question mark).
 - Tokovinine-TPoPDB has **KAN** (no question mark, but Tokovinine doesn’t use a question mark convention anyway).

It seems more likely to be **KAN** than **TUUN** because **TUUN** either has **ni** phonetic complement (to emphasize **TUUN**) or **li** following (to write *tuunil*), not **la** following.
- B20c:
 - MHD has **AJAN:NAL** (read with confidence – no question marks).
 - Tokovinine-TPoPDB has **wi-tzi**.

It seems more likely to be **wi-tzi** than **AJAN-NAL** because the **wi** is explicitly present as a separate glyph here (the **tzi** vs. **AJAN** is harder to decide, as they both share many characteristics).
- B20d: tu.<*u:CH'EEN?:*ni> - seems quite safe to read this from context.

¹³ A21a.



MHD has **HA'-?-EK'** → *ha' ? ek'*, so:

- It considers the glyph at the top as a (variant of a) single, undeciphered glyph (MHD.MB5) rather than as an undeciphered glyph placed in the centre of two bent arms (MHD.MB3 plus an undeciphered glyph in between).
- It doesn't read the glyph at the top (MHD.MB5) as the first glyph, and sees an **EK'** infixed in a **HA'**.
- It views the glyph at the top (MHD.MB5) as coming *between* **HA'** and **EK'**.

In the CMGG, MHD.MB5 is referred to as “ADWH” (“Aged Deity With Hand(s)”).

The reasoning behind this reading is speculated on below.

- QRG Stela D A21a is possibly the same phrase as on QRG Stela J C8. The context is different, and they refer to different objects/persons, but they're both from inscriptions on QRG stelae.
- They possibly have in common **HA'**, **EK'**, and an anthropomorphic head (eroded in the case of QRG Stela D A21a, not eroded in the case of QRG Stela J C8), and perhaps the two flanking elements at the top of QRG Stela D A21a are bent arms, corresponding to the single hand of QRG Stela J C8.
- There's (perhaps) infixing of the **EK'** in the **HA'** in one and not in the other, but for the moment, we could consider QRG Stela D A21a and QRG Stela J C8 to share enough characteristics to be the same phrase.
- We can argue that in QRG Stela J C8 the glyph at the top left is *not* **TIL**/MHD.MB4 (the variant with **KAWAK** flanked by two arms). That's because it looks nothing like **TIL**/MHD.MB4, but is instead an anthropomorphic head with a hand.
- This in turn makes it equivalent to an anthropomorphic head with two arms (MHD.MB5), as in the top of QRG Stela D A21a, mentioned earlier.
- We can see from QRG Stela J C8 (and many other examples from CPN and a few from QRG) that the three elements *don't* form a single logogram, because they are written as three separate logograms, and even that having **EK'** coming last is reasonable.
- Lastly, we can be reasonably sure that this anthropomorphic head *plus bent arms* is a single logogram and not a conflation of the anthropomorphic head (as an independent logogram) between another glyph, the two arms (MHD.MB3) – as it is in “sky raiser”. This is because, when it really is part of “sky raiser”, there's a lot of variation in the middle element (skull, jaguar head, snake-like head, anthropomorphic head) whereas, in this context, it's always an anthropomorphic head. Furthermore, QRG Stela J C8 even has a single hand (as a variant of the two arms).

There is a small possibility that the arms of MHD.MB5 are actually **SIH**, with the anthropomorphic head being what is born. But this is unlikely, and nobody has transliterated it that way. So, it's best to leave the top of QRG Stela D A21a as a single logogram, with anthropomorphic head and arm(s) as an undeciphered glyph, i.e., as an example of MHD.MB5.

Summary of contrasts and similarities:

- The top of QRG Stela D A21a is distinguished from MHD.MB4:
 - The former is considered a version of MHD.MB5 (=“ADWH”) – it has an anthropomorphic head between bent arms.
 - The latter is **TIL** – it has a **KAWAK** between bent arms.
- The top of QRG Stela D A21a is distinguished from the bottom K6751 B2:
 - The former is considered a version of MHD.MB5 (=“ADWH”) – it has an anthropomorphic head between bent arms *and is a single logogram*.
 - K6751 B2 is the name of an early ruler of the Snake Kingdom – “Skyraiser”. The bottom of B2 is interpreted as being the two bent arms of MHD.MB3 with “EB” (the skull-glyph normally found in the day name Eb) in between.
 - Another important distinction between the two is that the anthropomorphic head between two arms of the former (MHD.MB5/“ADWH”) is found *above* other glyphs whereas the “EB” skull-glyph between two arms of the latter (MHD.MB3+“EB”) is found *below* other glyphs (specifically **CHAN** = “sky”).
- Despite the dissimilarities in arrangement (composition) and actual appearance, QRG Stela D A21a and QRG Stela J C8 are considered to write the same phrase **HA'** MHD.MB5/“ADWH” **EK'** = “Water <something> Star”.

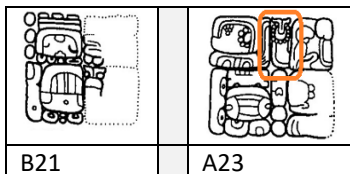
Other occurrences of this phrase:

- A search in MHD on “blengl contains ha' ?? eek” (2024-09-18) yields 17 hits.
- Of the 17 hits, 10 actually have MHD.MB5/“ADWH” as the middle glyph (some or all of the others might have the * “ADWH” read from context).
- These are multiple stelae in CPN, QRG, and TIK, as well as on one CPN altar, and one (incised?) vessel – i.e., almost exclusively on monuments and spread over quite a large area of the Classic Maya world.
- It occurs as a deity name and as part of the extended name/title of rulers (deity names were often used in this way).

- It occurs either by itself or as a longer name/title preceding the Waterlily Serpent, both in its shorter *Juun Witz'* or longer *Juun Witz' Naah Kan* form.

In the context of QRG Stela D, it appears to be part of the extended name/title of K'ahk' Tiliw Chan Yopaat as these extended names often incorporated the names of deities. Here it occurs in the phrase *uhti ... tu' che'en (Ha' <something> Ek', Juun Witz' Naah Kan)* = "it happened ... in the city of ...", which happens to be QRG, the city of K'ahk' Tiliw Chan Yopaat. That's the reason I'm reading it as part of his extended name/title.

¹⁴ B21c-B21d. Very eroded right half of a glyph-block B21.

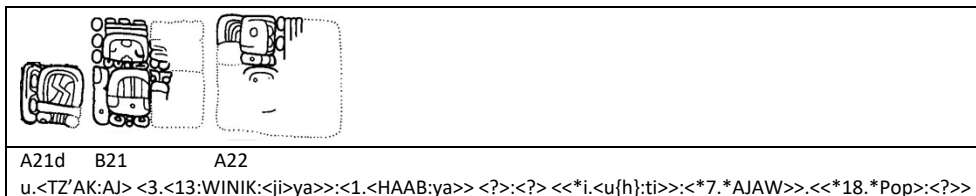


Dorota Bojkowska: This fits very well into the DN <verb₁>-*jiiy* <verb₂> syntax, where verb₂ happens <time=DN> after verb₁ (the so-called *-jiiy* clitic). So it is entirely possible that there is a whole verb phrase at B21c-B21d. Examples of this can be found in MHD by "blsem contains distance number" and "blengl contains since".

It's unlikely that B21d (left) is an eroded *ch'a*. In A23c (left) we have a *ch'a* which we can read with confidence. It has a circle of touching dots under the "feelers" and so is quite different from B21d (left), where there is just a single dot under each feeler (and a semicircular element under the two feelers and dots). For this reason, the eroded phrase here (B21c-B21d) is probably not *chok ch'aj*. B21d (left) could be a *si*, but that doesn't lead to any obvious reconstructions. It could be *tu*, which would then be *ti-u* or *ta-u* = "at (the) <something> of".

The implicit date that this verb₂ occurs on happens to be the ISIG LC of the west side. So the verb is probably related to the 40th anniversary of K'ahk' Tiliw Chan Yopaat's accession.

¹⁵ A21d-A22.

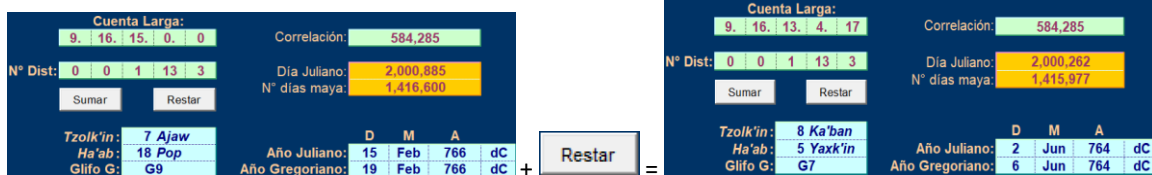


After a DNIG (A21d) and a DN = 1.13.3 (B21a-B21b) which can be read with reasonable confidence, there's half a glyph-block which is almost totally eroded (B21c-B21d). After that, there appears to be *i-uhti* followed by an almost totally eroded CR at A22b and A22c. The CR *could* be ?-*Ajaw *18-?: the *la*-face of Ajaw at A22b can be reconstructed, and there are probably 3 dots and 3 bars at A22c, i.e.:

- The coefficient of the Tzok'in is totally eroded, but the day-name *might* be reconstructed as *Ajaw*.
- The coefficient of the Haab *might* be reconstructed as *18*, but the month-name is totally eroded.

At this point, it's worth noting that the *east* side ISIG's LC has a CR of 7-Ajaw 18-Pop (which can be read with confidence). So, as a "working hypothesis", we can try to read (i.e., reconstruct) exactly that date – 7-Ajaw 18-Pop here, after the DN. As this CR matches that of the CR of the *east* side ISIG's LC = 9.16.15.0.0, we can (also tentatively) assign this CR the same LC.

If we do that, then we can make the following (tentative) calendrical calculation – *subtracting* 1.13.3 from LC = 9.16.15.0.0, we get:



LC = 9.16.13.4.17; 2 June 764 AD.

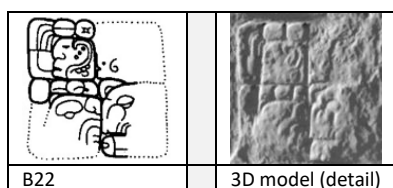
The resultant CR is 8-Kaban 5-Yaxk'in.

The next thing to observe is that this 5-Yaxk'in matches the 5-Yaxk'in which can be read with considerable confidence in the CR of the west side's ISIG LC (A17b). It could hence be argued that this is "too much of a coincidence", and that the DN = 1.13.3 which can be read with confidence at B21a indeed links the west side's ISIG LC with the east side's ISIG LC.

If that line of argument is accepted, then this determines the Tzolk'in date of 8-Kaban at A13-B14, as well as all the coefficients of the LC from A3-B12. The fact that LC = 9.16.13.4.17 does not contradict the possible values for the PIK, WINIKHAAB, and K'IN coefficients (as carved on the inscription) lends further support to accepting this "linking role" for the DN = 1.13.3, between the two ISIG LC's.

The above is reasoning based on "internal" factors (i.e., using only information available in this inscription itself). For a different argument based on "external" factors (i.e., using information available in other inscriptions), see end note under A17.

¹⁶ B22.



MHD has <<i.<AJAW[ja]>>:<u.<BAAH:hi>>.<?>:<ch'o:ko>>:

- B22a: i.<AJAW:ja> → *ajawaj* = "then he became lord"
- B22b: u.<BAAH:hi> → *ubaahil* = "the image of"
- B22c: <eroded> → ?
- B22d: ch'o:ko → *ch'ok* = "youth"

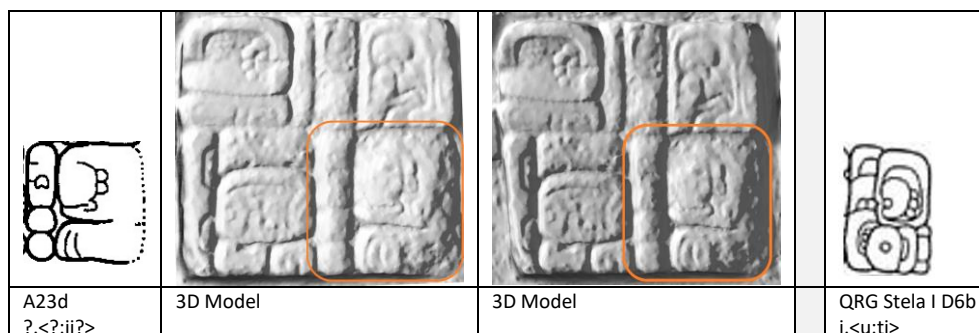
Notes:

- Looper-LW.p27.pdfp40.c1.l+6: A second reference to an active, living monument may appear in a partially eroded passage on the west face of Stela D (Fig. I.27b). Here the text records an event associated with the dedication date of the monument as *ajawaj*, or "it is made ajaw," a phrase related to expressions for royal accession. [Looper-LW.p232.pdfp245.endnote30: The verb *ajawaj* is a passive form derived from the noun *ajaw* "lord." In Maya inscriptions, this verb is usually given the positional suffix *-yan* rather than the passive. See Palenque Temple of the Inscriptions, west panel, H2.] Next may be the glyph for "his image" (*ub'ahil*), followed by a series of illegible signs. The final glyph of the clause is *tunil* "stone object." This passage, then, may suggest that for the period-ending ceremony a stone monument (presumably Stela D) was itself made *ajaw*.
- Sim: Looper-LW was published in 2003. MHD went live in 2022. Given the large gap in time and the increased insights and changing ideas in the intervening years, it's difficult to know if MHD still supports this idea of the personification of the stela and its being made *ajaw*. As Classic Maya doesn't distinguish third person singular pronouns – in the ergative case, *u-* could be he, she, or it; and in the absolutive case, the subject pronoun doesn't manifest at all – it's difficult to tell if the stone or the

human ruler is the intended referent. The fact that Looper-LW translates an “it” while MHD translates a “he” suggests that MHD no longer supports the Looper-LW interpretation.

Examination of the 3D model and unpublished photos also does not yield any additional information.

¹⁷ A23d.



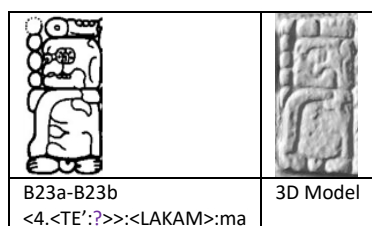
It's difficult to know what to read here. Both MHD and GutiérrezGonzález-PhD read u-?-? → u-? = “?” but it's unclear to me whether it's the element on the left or the top right which is considered to be the u. Syntactically, I would expect the former, but visually, it might be the latter.

Semantically *and* syntactically, either *uhti* or *i-uhti* would fit, but it's hard to force such a reading. In particular, the element on the bottom right definitely doesn't look like the eroded outline of *ti*.

QRG Stela I D6b is an uneroded glyph-block which can be quite confidently read i.<u:ti> → *iuhti*, because it comes directly between an (indisputable) DNIG+DN and a CR. It has an outline and subcomponents which are *somewhat* similar to A23d. This shows that it's possible to have a very vertically rectangular (i.e., very much taller than wide) tripartite syllabogram *i* and a (muluk-)u with *three* dots on the right of the larger internal arc. It's therefore useful to compare it to A23d. *But the unlikelihood of the last glyph of A23d being a ti still means that we can probably exclude a reading of iuhti.*

Examination of the 3D model (with two different angles of incident light) and unpublished photos also does not yield any additional information.

¹⁸ B23a-B23b (excluding B23c-B23d).



- B23a:
 - MHD reads **CHAN-?-ku?-NAL** but I don't know why **ku** is being proposed. There seems to be the eroded outline of a bone-jaw, but this doesn't help me to arrive at a possible **ku**.
 - Because *te'* is occasionally present in a Tzolk'in date between the coefficient and the day-name) I'm tempted to read B23a as 4.<TE':<day-name>>.
 - When an unpublished photo of QRG Stela D is subjected to adjustments in the light in Photoshop, it can be seen that the top of this is actually very eroded or broken off. This means that the three dots along the top are not necessarily so clearly on the “outside” of the glyph. In fact, it could even be two dots on the inside, making this possibly **TE'**. *If that is the case, then we have 4.<TE':?>.* And if so, then the question arises if this might be *Chan Te' Ihk' Xib* (as recorded on B18 and D22). Indeed the skull (bone-jaw present) below the possible **TE'** could be **xi**. There is no explicit **IHK'**, so this might have to be inferred from context. Or

perhaps the name is just *Chan Te' Xib*, without the *lhk'*. Unfortunately, I'm not aware of any known instances of just *Chan Te' Xib* at QRG or at any other site. Also, it isn't **HE'EW**, because there are no crossbones in or above the eye.

- Examination of a detail from the 3D model doesn't really throw much additional light on the situation (if you'll pardon the pun). There appear to be three dots on the outside of the glyph, once again lessening the chances that it's **TE'**.
- B23b: only **LAKAM**, no **BAHLAM**:
 - The **ma** could be equally an end phonetic complement for either **LAKAM** or **BAHLAM**.
 - The element in the top right of B23b, at the end of the long curved "trunk" of **LAKAM**, is more likely to just be the "leaf" at the tip (very common in **LAKAM**) than the ear of **BAHLAM**. Similarly, the elements in the bottom left (to the right of the long curved "trunk" could just as well be (eroded) "leaves" coming off the "trunk" (also very common in **LAKAM**) rather than an eye, nose, and mouth of **BAHLAM**. Dorota Bojkowska: there is no **BAHLAM** here.
 - On the other hand, **LAKAM** = "tax collector" seems like too minor a title to include in the extended name/title of any ruler of a polity, even less so in the case of as important a ruler as K'ahk' Tiliw Chan Yopaat, especially after 40 years of rule. Another meaning of *lakam* is "great", but Dorota Bojkowska agrees that it's slightly odd to have the meaning "great" at the end.
 - Examination of a detail from the 3D shows that it's **LAKAM** and not **BAHLAM**.
- Dorota Bojkowska:
 - This is part of the extended name/title of K'ahk' Tiliw Chan Yopaat.
 - The top right is not **TE'**, because the dots are on the outside whereas the dots of **TE'** are always within the glyph. Also there are 3 dots, whereas **TE'** usually only has 2 dots.
 - A search in MHD with "bllgosyll contains WITZ" and "bllgosyll contains LAKAM" does not yield any hits, and even then, it would be more likely to be *lakam witz* than *witz lakam*.

¹⁹ B24.



- MHD transliterates <WINAK?:<k'i:ta>>:<<K'AHK'?.<K'IN?>>:<TE'.?>> (no question mark on **k'i** or **K'AHK'**). However, except for the **WINAK** → *winak* = "20", the rest of the glyph-block is not transcribed nor translated.
- A search in MHD on "blhyphen contains k'i-ta" yields 7 hits:
 - One of the seven has **K'AHK'** as part of the name, but there it's before **k'i-ta**, whereas here it's after (but instances of inversion of **K'AHK'** and the rest of the name are known).
 - Four of the others are from Structure 1B1 and are the same name: **20-k'i-ta**.
 - The "20" is quite confidently read, because **ja** has 3 dots in the bay, whereas "20" has a full (and larger) circle in the bay, and three of the four hits have a single circle (sometimes not very large) in the bay.
- I feel this is sufficient evidence to read <20:<k'i:ta>> here. [As of 2024-10-13, "objabbr contains QRGStD" produces a hit where D24b has bllgosyll has the value "k'i ta" and blhyphen has the value "k'i-ta" but the queries "bllgosyll contains k'i ta" and "blhyphen contains k'i-ta" returns no hits. For some period in 2023, the latter query returned 4 hits.]

²⁰ C1-D2. The LC HAAB-month is *K'anjalaw/Pop*, whose patron **BAHLAM** matches the patron infixed in the ISIG. I don't know why MHD reads this as **HIX**. With **HIX**, one expects three non-touching dots in a triangular formation (triangle pointing down). I've gone for **BAHLAM**, but the principle is that it's a jaguar and there's a match.

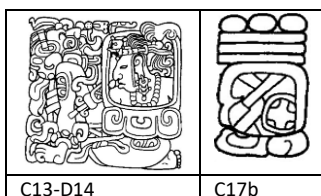
²¹ C3-D12. The east side ISIG's LC = 9.16.15.0.0.

- Both the coefficients and the units of this LC are given in full-figure glyphs. As with the west side’s ISIG’s LC, it’s important to read the coefficients, but it’s also an instructive and interesting exercise to see how many of the units can actually be read “out of context”, based only on their distinctive characteristics. In contrast to the west side, the coefficients here are *relatively* easy to read.
- In the entire LC, the full-figure glyph of the coefficient seems to be struggling with that of the unit – in some cases, extremely violent struggle, in other cases, slightly less.

	Coefficient + Unit	Comment on the Coefficient	Comment on the Unit
C3-D4	9-PIK	<p>The full-figure glyph of the coefficient occupies 3/4 of the glyph-block: the entire left half and half of the bottom right (C3, C4, D4). A YAX forehead ornament and (jaguar) spots on the cheek are the usual identifying characteristics of “9”.</p> <p>Unfortunately, however, neither of these is obviously present in the head in the top left (C3).</p> <p>Note the unusual four-component element at the back of the head, identical to the one in the full-figure glyph for “9” in the PIK coefficient of the LC of the west side (A3-B4).</p> <p>There is perhaps a <i>further</i> optional element, characteristic of “9”: a long protrusive “beard”, with a “LEM” near where the beard makes contact with the chin. This is not present in the “9” in A3-B4, but <i>is</i> present in QRG Altar O’ (objabbr = QRGAltOp).</p>	<p>There’s a bird- head in the top right of the glyph-block (in the top right of D3), facing right and upwards at an angle of 45 degrees. It has a hand-jaw (halfway down the right side of D3). Below the hand-jaw there are three feathers present (the top one just barely visible, emerging from behind the hand-jaw).</p> <p>The bird-head, feathers, and “hand-jaw” are identifying characteristics for the bird-head variant of PIK.</p> <p>This bird-head <i>might</i> be the headdress on the head of a figure in the middle of the glyph-block (i.e., in the lower left corner of D3). This latter head faces left and downwards at an angle of 45 degrees. If it isn’t that, then I have no other explanation for the presence of this human head/face here.</p>
C5-D6	16-WINIKHAAB	<p>The full-figure glyph of the coefficient occupies most of the lower half of the glyph-block (C6, D6). It’s lying on its back with its head facing upwards, looking directly into the face of the full figure of the bird representing the unit – their respective nose and beak practically touching.</p> <p>There’s an “axe-in-eye” for “6” slightly below halfway down the glyph-block, on the left, with a cruller on both sides of and under the eye (top of C6). The top of the head is in the bottom left corner. The head has a bone-jaw for “10” (top right of C6), so we have 6 + 10 = 16.</p>	<p>The full-figure glyph of the unit occupies most of the upper half and right of the glyph-block (C5, D5). It has a head with beak pointing to the left and downwards, at an angle of about 45 degrees, a little to the inside of the top left (middle of C5). The beak has neither a hand-jaw nor a bone-jaw. There’s a multitude of feathers (6) in the top right – along the ceiling, corner, and right wall – of the glyph-block. These are all the identifying characteristics of the bird-head variant of WINIKHAAB.</p> <p>The two full-figure glyphs appear to be wrestling / struggling against one another. The face of the bird is practically breathing into the face of the coefficient.</p> <p>Note the vertical “bundle of sticks” bound together by two horizontal bands, usually characteristic of CH’EEN. However, CH’EEN often has a “Casper outline” (slightly resembling the JUUN = “jewel”) over the</p>

			eye, which is absent in this case. It's unclear to me what this bundle represents.
C7-D8	15-HAAB	The full figure of the coefficient occupies almost the entire glyph-block (C7-C8, D8), from the bottom upwards, leaving just the top 1/3, towards the right (D7) for the unit. The head, facing left, is that of an old man. Such an old man's head, with a HAAB infixed in the top, is the distinctive characteristic of "5". In this case, we even have the "Waterlily Serpent" variant of HAAB : the head of the Waterlily Serpent with an infixed "abstract" HAAB in its head, as in TOK.p28.pdfp28.r4.c4 (#16)). The bone-jaw of the old man's head gives "10". So, 5 + 10 = 15.	In the top right of the glyph-block (D7) there's a bird-head with a very long, hooked beak pointing downwards and slightly to the right (it's so long that it even reaches into D8). There's a single feather in the top right corner (of D7 and hence of the entire glyph-block). However, the other characteristic of the bird-head variant of HAAB – the bone-jaw – is apparently not present.
C9-D10	0-WINAL	The full figure of the coefficient occupies the entire left half of the glyph-block (C9, C10). The head (unusually) faces the viewer. This head has a hand-jaw and there are %-signs all over its body, both identifying characteristics of the head variant of "0".	The full figure of the unit occupies the entire right half of the glyph-block (D9, D10). There are three non-touching dots in a triangular formation pointing (roughly) down (relative to the head, not to the glyph-block), infixed in the eye. This is characteristic of the head variant of WINAL . Curiously, the characteristic iguana/frog/reptile head is not obviously present. Instead, the head has a bone-jaw and a single fang, slightly reminiscent of a centipede.
C11-D12	0-K'IN	The full figure of the coefficient occupies 3/4 of the glyph-block: the entire left half and the bottom right (C11, C12, D12). The head faces left (C11). There are %-signs on one arm, one leg, the face, and left shoulder. These, and the skull-like face with a hand-jaw are all identifying characteristics of the head variant of "0".	The full-figure glyph of the unit occupies only the top right quarter of the glyph-block (D11). It doesn't have much of a body – it's mostly just a large head. However, it shouldn't be seen just as a head-glyph, as head-glyphs would normally be oriented completely horizontally and vertically (facing directly left). The skewed positioning of the head and its intense interaction with the full figure of the coefficient are sufficient to make it a full-figure glyph. (A similar remark applies to the full-figure glyph for WINIKHAAB at A5-B6 on the west side.) There's no obvious K'IN infixed in the head. It does at least have a large square eye with a "crueller" underneath and on both sides as well as a filed tooth. Both are identifying characteristics of the head variant of K'IN.

Using the ISIG's CR to help work out the LC (the ISIG CR is of course split in two by the SS):



Tzolk'in	Haab
----------	------

As a working hypothesis for the CR values, we posit:

- Tzolk'in of the ISIG's LC as being 7-Ajaw:
 - The "7" on account of the "right feeler" in the eye with "crueller" underneath, slightly inside from the top left.
 - The Ajaw on account of it being the head of a young man.
- The Haab of the ISIG's LC as being 18-K'anjalaw/Pop (very clear).

Restricting the search to 9.*.*.* and looking for 7-Ajaw 18-Pop:

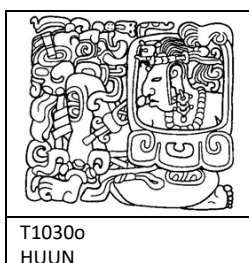
CORRELATION CONSTANT: 584285

▲ 7 Ahau 18 Pop					
Long Count	G	Y	Greg. Date	Julian Date	
▼ 9.0.18.12.0	G6	Y2	5.5.454	4.5.454	
▼ 9.3.11.7.0	G5	Y5	23.4.506	21.4.506	
▼ 9.6.4.2.0	G4	Y1	10.4.558	8.4.558	
▼ 9.8.16.15.0	G3	Y4	29.3.610	26.3.610	
▼ 9.11.9.10.0	G2	Y7	16.3.662	13.3.662	
▼ 9.14.2.5.0	G1	Y3	4.3.714	28.2.714	
▼ 9.16.15.0.0	G9	Y6	19.2.766	15.2.766	
▼ 9.19.7.13.0	G8	Y2	6.2.818	2.2.818	

The only LC which has 0 winals and 0 k'ins and 15 haabs (i.e., is a period ending) is LC = 9.16.15.0.0, enabling us to "read" the "9" and confirming the "16" (despite the absence of very distinct bone-jaw). This in turn helps to confirm our working hypothesis of the ISIG's CR as being 7-Ajaw 18-Pop. On the one hand, the "rough fit" of the resulting coefficients of the LC help to confirm the reading of the Tzolk'in, and on the other hand, that reading of the Tzolk'in helps to confirm the reading of the coefficients. This is not "circular reasoning", as the various parts of the calendar are redundant and so tightly interlocked that it "wouldn't work out" if the working hypothesis was incorrect.

In a similar way, we can have a working hypothesis that the extremely eroded and largely unreadable CR at A22b and A22c is in fact the same date (7-Ajaw 18-Pop), because the eroded outlines make that seem plausible. With such a hypothesis, if we then subtract the preceding (very clear and undoubted) DN = 1.13.3, we get to possible values for the preceding CR (and LC). These then fit reasonably well with what's found on the inscription itself, further helping to confirm the working hypothesis. Here too, the various parts of the calendar are redundant and so tightly interlocked that it "wouldn't work out" if the working hypothesis was incorrect. See end note under A22 for more information.

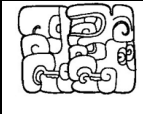


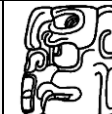

²² C13-D14. A full-figure Tzolk'in date: 7-Ajaw.



- Coefficient: The full-figure glyph for the coefficient of the Tzolk'in occupies more than its conventional space of just the left half of the glyph-block – the leg and foot extend under the day-name of right half to occupy about 1/8 of the right half of the glyph-block, with the sole and toes of one of the feet in the bottom right of D14. The "7" is the "left feeler" in the eye (towards the top, middle of C13), with a cruller. The full-figure has one hand in the top right of D13, and another hand in the bottom left of C14 (with an arm directly above it). These hands resemble the claw of a bird.

- Day-name: The **AJAW** is the head and shoulders enclosed in a blood cartouche.

²³ D15. It's clear from context that this is Glyph-F.

				
D15 TI'.HUUN	MHD.SSD.1&2 TI'	1907st TI'	MHD.SM1.1 HU'N	T1030o HUUN

- The **TI'** is probably the (bird?-)head variant (e.g., MHD.SSD/1907st), taking up slightly less than the left half of the glyph-block.
- The **HUUN** is probably the (god?-)head variant (e.g., MHD.SM1.1/T1030o), taking up slightly more than the right half of the glyph-block.

See also end note under B15 for a very different form of Glyph-F / *ti' huun*.

²⁴ C16a.



Glyph-DE is expected at this spot. The expected value (see next end note) is “1 day into the current lunation”. This is a circumlocution for that, or indeed, even the day before the new moon appears.

- Looper-LW.p221.pdfp234&p223.pdfp236 give: “center of the centipede”.
- Looper-LW.p236.pdfp249.fn21: The record of the dark moon appears at C16, citing the moon's location as *tan* “in the center of” the centipede which represents the maw of the underworld.
- MHD gives: *tan-na-chapat* → *tahn chapaat* = “dark of the moon ‘middle of the centipede’ ”.

If the imagery is such that from one full moon to the next is a centipede, then “the center of the centipede” would, indeed, be when the moon is as close to a new moon as possible. This matches quite well the value of 1 for Glyph-DE for the LC given directly after the ISIG (see next end note).

²⁵ C3-C17. Calendrical calculations:

Cuenta Larga:		Correlación:	584,285
9.	16.	15.	0. 0
N° Dist: 0 0 0 0 0		Día Juliano:	2,000,885
Sumar		N° días maya:	1,416,600
Restar			
Tzolk'in:	7 Ajaw	D	M A
Ha'ab:	18 Pop	15	Feb 766 dC
Glifo G:	G9	Año Gregoriano:	19 Feb 766 dC
Tamaño Luna:	1 D	Edad astronómica	
N° de lunación:	2 C	aproximada de la Luna:	1.4 días
Tamaño lunación:	A 10		

LC = 9.16.15.0.0; 15 February 766 AD.

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	1	<i>tahn chapaat</i>	?
Glyph-C	2	1	✗
Glyph-X	n/a	For Glyph-C=1+DG	Actual Glyph-C=1+DG
Glyph-A	30	30	✓

Unfortunately, only two of the four calculated values match those of the inscription. Not that much confirmation is needed in this case, because there was a raising of a stela and an incense scattering ritual recounted in connection with this date. These were very common rituals associated with period endings, which is a much stronger indication of the correctness of the LC = 9.16.15.0.0 reading.

²⁶ D17b-C18a. K'an Naah Chan Yopaat. It might seem unusual to have a stela actually named as a "manifestation" of a *god* (in this case Yopaat), but perhaps that ties in well with the fact that Glyph-B at C18b reads *k'uhul k'aba'* rather than the normal *ch'ok k'aba'*.

²⁷ D18a. The stela is called the "7-Ajaw Stone" because it was raised on 7-Ajaw.

²⁸ C20a-C20b. There's no explicit DNIG written, so it's hard to know if this is meant to be a DN = 13(.0.0.0.0.0.0), i.e., a time *difference* of 13 *kinchiltuns*, or LC = 13(.0.0.0.0.0.0), i.e., a *period ending* of that "extra high calendar unit". And if the latter, then it's also unclear to me whether the "13" is meant to be what we would nowadays represent with "0" (in the same way as 13.0.0.0.0 is meant to represent what we would nowadays represent with 0.0.0.0.0, for the "date of creation of the current universe" on 4-Ajaw 8-Kum'ku, in 3114 BC).

It's hence difficult to check if the CR of 7-Ajaw 3-Pop given in the inscription "matches" with the expected value based on calendrical calculations. Carl Callaway has a proposal which solves this (see Introductory Notes).

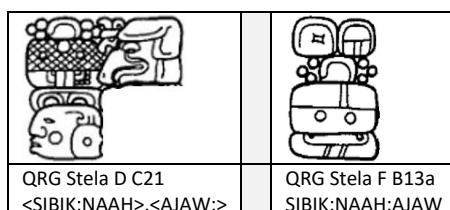
²⁹ D20a.



- Could this be dialectical variation for *yilajiiy*? Note that there is no **a** explicitly written in D20a.
- The verb form *yilajiiy* → *yiljiiy* can be written in many different ways:
 - **yi-li-a-ji-ya** → *yilajiiy* → *yiljiiy* (QRG Stela E C14a)
 - **yi-ILA-ji-ya / ILA-la-ji-ya / ILA-ya** → *yilajiiy* → *yiljiiy* (many examples, also from outside of QRG).

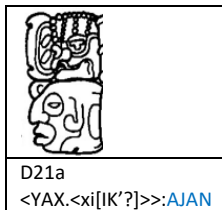
They can be found by doing an MHD search on "blmaya1 contains *yilajiiy*". All can be *yiljiiy* because of the rule for the suppression of the middle vowel in trisyllabic words resulting from inflectional endings. This means that there's no difference in the final form *yiljiiy*, irrespective of how they're spelled in glyphs.

³⁰ C21a.



- MHD reads **SIBIK?** = “ink”/“soot” with a question mark (and also gives an alternative of **SABAK**).
- The **NAAH** is the head variant, where the “axe-blade” has a full human-head attached.
- The same name/title occurs at QRG Stela F B13a with the same glyph for **SIBIK** but rather different variants of the glyphs for **NAAH** and **AJAW**.

³¹ D21a. Yax Ik' Xiw Ajan = “First Wind <something> Ajan” – Ajan being the name of the Foliated Maize God (FMG).



- This transliteration is from MHD – only the (infix) **IK'** has a question mark. The **xi** and the **AJAN** appear to be read with confidence.
- MHD gives: **YAX-IK'?-xi-AJAN** → *Yax Ik' Xiw Ajan*, with an underspelled -w in *Xiw*. **I haven't yet been able to track down a meaning for *xiw*.**

³² C22a. This is the same CR as that of the ISIG's LC and it's the same date: LC = 9.16.15.0.0; 15 February 766 AD.

³³ C22b (bottom).



I don't know what is intended to the right of the **IL/ILA**. MHD transliterates only **ILA/HE1 ji/1M1**.

³⁴ D22c. See also end note under B18b.



The “order of writing” (transliteration) here is **<4:IHK'>.<TE':XIB>**, but the “order of reading” (transcription) is *Chan Te' Ihk' Xib* = “Four Black Men”. We know this because **TE'** is a numeral classifier (which comes after the numeral and before the entire noun phrase) and furthermore because we have this order more explicitly at B18b and in the inscriptions of other QRG monuments.