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by

Ángel A. Sánchez
Gamboa, Guido
Krempel, Dmitri Beliaev

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Marc Zender
Editor
marc@ancientcultures.org

Joel Skidmore
Associate Editor
joel@ancientcultures.org

The PARI Journal
202 Edgewood Avenue
San Francisco, CA 94117
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journal@ancientcultures.org

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New Evidence of K'inich Muhk, A Tonina Lord from the End of the Sixth Century

ÁNGEL A. SÁNCHEZ GAMBOA

*Coordinación Nacional de Conservación del Patrimonio Cultural
Instituto Nacional de Antropología e Historia*

GUIDO KREMPPEL

Text Database and Dictionary of Classic Mayan, University of Bonn, CNCPC-INAH

DMITRI BELIAEV

*Knorozov Center for Mesoamerican Studies, Russian State University for the Humanities
Institute of Anthropology and Ethnology, Moscow*

The dynastic history of Tonina during the sixth century remains little known. Nonetheless, a handful of early monuments allow us to outline the events of this period, including the succession of rulers, the dedication of monuments, armed conflicts with other cities (Figure 1), and a series of significant rituals such as the visiting of ancestral tombs.¹ In the present study we attempt to further elucidate this research gap by presenting a series of monuments related to K'inich Muhk, a previously overlooked king of Tonina. In former studies, only three Tonina rulers reigning during the sixth century have been identified (see, e.g., Mathews 2001:3; Martin and Grube 2008:177-189; Yadeun et al. 2009:13), namely: Kokaaj(?) Witz' (previously known as "Ruler 1," also nicknamed "Serpent Head"), the little known Chak Baluun Chahk (see Sánchez Gamboa and Krempel 2019), and K'inich Sanaw Bahlam Yaxuun Tihl (nicknamed "Sotz' Choj," e.g., Yadeun 1992, or more appropriately "Jaguar Bird Tapir," Martin and Grube 2008:179).² Formerly the chronological order relating to these three dignitaries seemed ambiguous; however, in recent times we have gained a better understanding of Tonina's Early Classic court. For instance, a study conducted by Nielsen et al. (2019) has presented new evidence for Kokaaj(?)

Witz', the earliest recorded king of Tonina, whose reign began around AD 501–514.³

Concerning the reign of Chak Baluun Chahk not much is known, despite the mention of a visit to his tomb in 592, as recorded on a sculptural fragment exhibited in the Museo

¹ The corpus of Early Classic sculptures from Tonina is relatively small. So far, the best-known published monuments are Monument 106 (Graham and Mathews 1999:135), Monument 160 (Graham et al. 2006:95-101), Monument 74 (Graham and Mathews 1996:107), Monument 168 (Graham et al. 2006:111-113) and Monument 150 (Graham et al. 2006:83-84). More recently, Nielsen et al. (2019) identified a heretofore unknown stela housed in the National Gallery of Victoria in Melbourne, and a preliminary drawing of Monument 186 has been published (Sánchez Gamboa and Krempel 2019).

² On Monument 181 (G7) K'inich Bahlam Chapaht is mentioned as the fourteenth (**u-14-TZ'AK-bu**) ruler of Tonina (Sánchez Gamboa et al. 2019). With this important reference we are able to discount Kokaaj(?) Witz' as the putative founder of the dynasty, and we may expect additional rulers from the fifth century.

³ The discussion concerning the name of "Ruler 1" or "Serpent Head" as Kokaaj(?) Witz' was put forward by Sánchez Gamboa and Beliaev at the XXXII Simposio de Investigaciones Arqueológicas en Guatemala, Museo Nacional de Arqueología y Etnología, Guatemala, July 27, 2018. But recently this issue was further developed by Nielsen et al. (2019). The first component of the name corresponds to the Principal Bird Deity, whose Classic epithet remains unclear and the tentative reading **KOKAAJ?** still requires additional support (see Boot 2008:17-19 and Martin 2015:209, n. 35, 52). The second part of this king's name consists of a serpentine head that has been convincingly deciphered by David Stuart as the logogram **WITZ'** (see Stuart 2007b; Houston and Taube 2011:31, n. 4; Coltman 2015:15-16).



Figure 1. Tonina and the western region of the southern Maya lowlands (map courtesy of Precolumbia Mesoweb Press).

Monument	Latest Date	Gregorian	Event Date	Gregorian	Event
Monument 160	9.4.0.0.0	514	9.3.6.1.15	501	Unknown
Monument 106	??	ca. 514?	5 Ajaw	501-513	Probable accession of Kokaaj(?) Witz'
Monument 160	9.4.0.0.0	514	9.4.0.0.0	514	Period ending celebrated by Kokaaj(?) Witz'
Monument 186	9.6.10.0.0	564	9.6.8.6.11	562	Piercing (<i>juhlay</i>) of Aj K'ahk'te'el conducted by Chak Baluun Chahk
Monument 186	9.6.10.0.0	564	9.6.10.0.0	564	Period ending of Chak Baluun Chahk
Emiliano Zapata Fragment	9.7.19.0.0	592	9.7.16.4.4	589	Offering ritual in the company of an unknown <i>ajk'uhuun</i>
Monument 185	9.8.0.0.0	593	9.7.18.0.0	591	Period ending celebrated by K'inich Muhk
Emiliano Zapata Fragment	9.7.19.0.0	592	9.7.19.0.0	592	Visit of Chak Baluun Chahk's tomb (supposedly by K'inich Muhk)
Monument 185	9.8.0.0.0	593	9.8.0.0.0	593	Stela dedication by K'inich Muhk
Monument 168	9.9.1.12.2	615	9.8.6.11.9	600	Accession of K'inich Sanaw Bahlam Yaxuun Tihl
Monument 74	9.8.9.1.13	602	9.8.9.1.13	602	Posthumous stela of K'inich Muhk
Pestac Stela	9.11.12.9.0	665	9.8.12.14.17	606	Birth of K'inich Bahlam Chapaht
Monument 173	9.9.0.0.0	613	9.8.19.8.17	612	Aj Mih K'inich gets installed as <i>ajk'uhuun</i>
Monument 173	9.9.0.0.0	613	9.9.0.0.0	613	Period ending and dedication of Monument 173 by Aj Mih K'inich
Monument 168	9.9.1.12.2	615	9.9.1.12.2	615	Death(?) of K'inich Sanaw Bahlam Yaxuun Tihl
Monument 175	9.9.1.13.11	615	9.9.1.13.11	615	Accession of K'inich Bahlam Chapaht

Table 1. Chronological chart of Tonina's Early Classic rulers.

Ventura Marín Azuaga in the town of Emiliano Zapata, Tabasco (Figures 5 and 6), hereafter referred to as the Emiliano Zapata Fragment (for earlier publications of this monument see Grube 1994 and Mayer 1995:72-73, Pl. 249, 250).⁴ Based on the study of Monument 186, a recently published limestone panel (see Sánchez Gamboa and Krempel 2019), today we know that Chak Baluun Chahk presided over Tonina around 562–564.

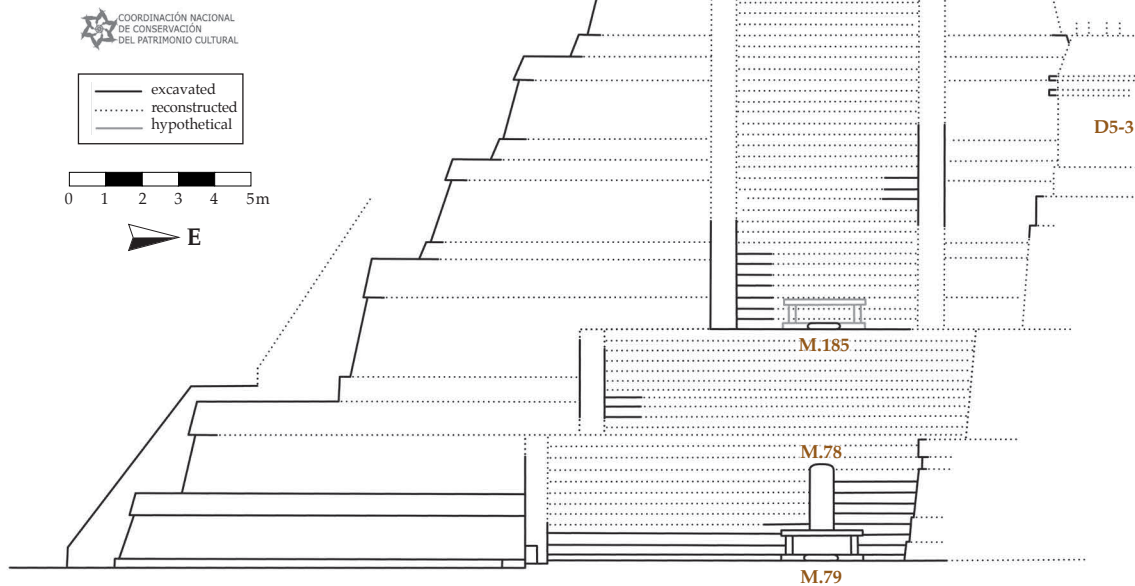
Concerning K'inich Sanaw Bahlam Yaxuun Tihl, the contribution by Nielsen et al. (2019) clarified that he was the successor of the newly identified ruler K'inich Muhk (Sánchez Gamboa and Beliaev 2018). In order to shed more light on K'inich Muhk, the present study focuses on the monuments associated with this king. Thanks to the latest evidence (see again Nielsen et al. 2019), we are aware that K'inich Sanaw Bahlam Yaxuun Tihl ruled between 600 and 615, and that he possibly died a few days before the accession of the young K'inich Bahlam Chapaht in 615 (see also Sánchez Gamboa et al. 2019) (Table 1).⁵

Based on a hitherto unpublished altar found during the 2014 season at the second level of the stairway of Structure D5-1—also known as Temple II according to the nomenclature of archaeologist Juan Yadeun (Figure 2)—together with a comparison with Monument

⁴ Due to a lack of official nomenclature for this sculpture, we have decided to refer to it by using the name of its current location. However, note that this sculpture should not be confused with yet another monument that is likewise exhibited in the same museum (Museo Ventura Marín Azuaga) and known in the literature as the "Emiliano Zapata Panel" (see, e.g., Mayer 1995:Pl. 135). The latter text relates to the history of Palenque, particularly a commemoration of the birth and death of the king K'inich Kaan Bahlam II. In order to distinguish the latter from the one of interest here, we henceforth refer to the monument relating to Chak Baluun Chahk's tomb as the "Emiliano Zapata Fragment."

⁵ Before Nielsen et al. (2019) it was supposed that K'inich Sanaw Bahlam Yaxuun Tihl ruled between the years 563 and 577 (see, e.g., Mathews 2001:4; Martin and Grube 2008:178-179), the chronology previously followed by Sánchez Gamboa and Beliaev (2018).

Figure 2. South façade of Structure D5-1 (Temple II), indicating where Monument 185 was found in 2014 (redrawn and modified by Guido Krempel, CNCPC-INAH, after Becquelin and Baudez 1979:Fig. 11).



74 (Figures 7 and 8, see also Graham and Mathews 1996:107) and the aforementioned Emiliano Zapata Fragment (Figures 5 and 6; Grube et al. 2002:24, Fig. 26), it was possible to identify the nominal phrase of *K'inich Muhk* for the first time (Sánchez Gamboa and Beliaev 2018). As part of the study initiated by Sánchez Gamboa and Beliaev, his reign was tentatively estimated from at least 589 until approximately 600. In accordance with the nomenclature of previously registered monuments (see Graham et al. 2006; Mayer 2007a, 2007b; Sánchez Gamboa et al. 2018; Sánchez Gamboa and Krempel 2019; Sánchez Gamboa, Sheseña, and Krempel 2019a; Sánchez Gamboa, Sheseña, Krempel, and Yadeun 2019), this new altar now bears the designation Monument 185, thereby applying the consecutive nomenclature established by the Tonina project of the Coordinación Nacional de Conservación del Patrimonio Cultural-Instituto Nacional de Antropología e Historia (CNCPC-INAH).

An Analysis of Monument 185

Monument 185 (Figures 3 and 4) is made from the typical sandstone found abundantly in the Ocosingo valley. Measuring 130 cm in diameter, this circular altar does not feature a figural scene sculpted on its central portion, in which respect it contrasts with other early limestone altars from Tonina, such as the elaborately carved Monument 160 (Graham et al. 2006:95-101) or the fragmentary altar designated Monument 75 (Graham and Mathews 1996:108). Yet another example that is

noteworthy in comparison is Monument 177 (Mayer 2007a), which is made from sandstone and can be estimated based on style and calligraphy to be roughly contemporaneous with Monument 185, if not slightly later.

The text of Monument 185 consists of two rows of hieroglyphic compounds that are arranged along the border of the altar. Its writing is still characteristically Early Classic, as it shows calculiform or “pebble-like” shapes (Stone and Zender 2011:10). Yet it contains other stylistic features associating it with a transitional phase. As such, we tentatively place it between the Early Classic and Late Classic traditions. This altar is an example of so-called “mirrored texts” that were meant to be read counterclockwise (see Matsumoto 2013), although in this case with an inconsistent mirroring of individual glyphs (i.e., many of the glyph-blocks are still read from left-to-right, even though the text as a whole is read from right-to-left). More than half of the text records calendrical information, starting with the Initial Series, the Lunar Series, and the 819-day count, while the rest of the text records the dedication of a stela and the making of an offering by the ruler *K'inich Muhk*. The counterclockwise reading order and arrangement of the hieroglyphic compounds is of particular interest. From A1 to L2 a format consisting of two columns is evident, while between M1 and P2, due to spatial considerations the text is reduced to one column and terminates in an unusual triangular reading order from positions Q1–R2 to S1–T2.

The Initial Series date is 9.7.18.0.0 13 Ahau 13 Chen (corresponding to September 2, 591), commemorating the period ending for the eighteenth year of the seventh k'atun:

(A1-B2) ?-HAAB[AHK'AB] (C1) 9-PIK (D1) 7-WINAAKHAAB (C2) 18-HAAB (D2) mi-WINAAK-ki (E1) mi-K'IN-ni (F1) 13-AJAW (E2) 5-K'AM-LEEM? / SAS? (F2) u-TI'-HUUN-li (G1) *13-*IHK'-'*SIJOOM-*ma (H1) ... (G2) ... (H2) 4-K'AL-...-UH (I1) 'X-vi'⁶ (J1) u-CH'OK-ko-K'ABA' (I2) WINAAK-9

...haab ahk'ab baluun pik wuk winaakhaab waxaklajuun haab mi[h] winaak mi[h] k'in uxlujuun ajaw ho' k'am leem/sas(?) uti'huunil ... [waxak(?) huliij] chan k'al ... uh ... uch'ok k'aba' winaak baluun

"The reckoning of time (under the patron) Akbal is 9 baktuns, 7 katuns, 18 years, zero uinals, and zero days, (on the day) 13 Ahau, when 'G5' was the *ti'huun*, (on) the 13th of Chen, (8? days since it arrived) the fourth lunation of the 'Skull-Head,' 'X-vi' is the young name of the twenty-nine day moon."

Although block G1 is badly damaged, three dots are still preserved on its right edge, suggesting that it contained the haab record of 13 Chen. Such a placement of the haab position after the reference to the Lord of the Night, but before the Lunar Series, is unusual for most Classic Maya texts, but was fairly common in Tonina inscriptions—see, e.g., Monument 85 (Graham and Mathews 1996:116), Monument 111 (Graham and Mathews 1999:144-145), Monument 136 (ibid.:162-163), Monument 139 (ibid.:168-169), and Monument 167 (Graham et al. 2006:110). It is also noteworthy that the form of Glyph F follows the Tonina pattern noted by Houston et al. (2001:30-31, Fig. 13) and is spelled u-TI'-HUUN-li, *uti'huunil* (or *uti'huunaal*).⁷ As they argue, the use of the relational suffix "suggests that Glyph F pertains to the month count and not to the 260-day calendar" (Houston et al. 2001:30). However, the concentration of these examples in Tonina could also indicate that this was a particular trait of a regional writing tradition. It seems that this tradition was still developing in the sixth century since the inscription on Monument 160 (ca. 514) shows a traditional Early Classic positioning of Glyphs G and F after the Calendar Round date and before the Lunar Series. So far the earliest known appearance of u-TI'-HUUN-li between the tzolkin and the haab is attested on Monument 186 dated to 564 (Sánchez Gamboa and Krempel 2019).

Monument 185 is of special significance as it features one of the earliest known examples of the 819-day count (see Berlin and Kelley 1961; Bernal 2015; Valencia 2019). By means of the distance number 1.17.14 it counts backwards from the Initial Series date in order to reach 9.7.16.0.6 1 Cimi 9 Yax (September 18, 589), when Sihm Naahal K'awiil ("the Embryonic Northern K'awiil"; for the arguments on the reading **SIHM**, proposed by

Albert Davletshin, see Beliaev 2012) stood up:

(J2) 14-he-wa (K1) 17-WINAAK-ji-ya (L1) 1-HAAB-ya (K2) WA'-la-ja (L2) si-SIHM[mi] (M1) NAAH (M2) K'AWIIL-la (N1) 1-*Cimi-9-*YAX-SIJOOM

chanlajuun heew wuklajuun winaakjiij yuun haabiij wa'laj sihm naah[al] k'awiil juun 'cimi' baluun yaxsijoom

"14 days, 17 twenty-day periods, and one year since Sihm (the) Northern K'awiil stood up (on the day) 1 Cimi, (on) the 9th of Yax."

The 819-day count on Monument 185 is written in an unusual format as there is no reference to the world color, and two usual elements of the appellative of K'awiil are divided by the reference to the world direction, thus creating a unique reference *Sihm Naahal K'awiil* "the Embryonic Northern K'awiil." This suggests that this calendric formula was not yet fully established.

Previously the earliest occurrences of this cycle were attested at Palenque, for which reason Guillermo Bernal suggested that it was a calendric innovation of the Palenque dynasty during the reign of K'inich Kaan Bahlam II. In this regard, it was first registered on the tablets of the Cross Group dedicated in 692, and in the course of the eighth century it was adopted by other Lowland Maya cities (Bernal 2015:58-59). The identification of the 819-day count on Monument 185, predating those of Palenque by almost a century, allows us to contemplate its earliest attestation at Tonina, followed by a considerably later adoption at Palenque.⁸ Yet it is also fascinating that this is the only known example of the 819-day count from Tonina's inscriptions. Is this just

⁶ We add another example to the corpus of Glyph X-vi which is usually associated with three lunations—with the numbers three, four, and five—of the Skull-Head sign from Glyph C. It may have some variations in its constituent parts (see Grube 2018), but in the form present on Monument 185, the main component—which never varies—is the lower part of a body with crossed legs (T701), and above or beneath, a *k'in* sign framed with foliage probably read as **NAAM** "hide, go out of sight" related to eclipses (Prager 2006), although this is a constituent which varies, being sometimes a lunar sign or a death's head (see again Grube 2018). On Stela 20 from Coba we see T701 or a cross-legged sign beneath the eclipse sign, and the lunation of Skull-Head from Glyph C appears with the coefficient four. Another example occurs with Stela 10 from Piedras Negras; in this case the cross-legged sign is above the **NAAM** logogram but with a coefficient three instead of four.

⁷ The possibility that this collocation should rather be transcribed as *uti'huunaal* is based on Tonina M. 139, where it seems to be spelled u-TI'-HUUN-la (Graham and Mathews 1999:168-169).

⁸ Rogelio Valencia (personal communication 2021) drew our attention to Guillermo Bernal's work on Xultun Str 10K-2, Text C, Column A (Bernal 2017; see also Saturno et al. 2012) in which is attested a distance number related to the earliest example of the 819-day count. As Bernal (2017:6, translated from the Spanish) stated: "The interval of 1,195,740 days is the minimum period that must elapse for a station of the 819-day cycle to repeat itself with the same combination of *tzolkin* and *haab'* dates, that is, with the same Calendar Round."



Figure 3. Tonina Monument 185 (photograph by Jorge Pérez de Lara, CNCPC-INAH)

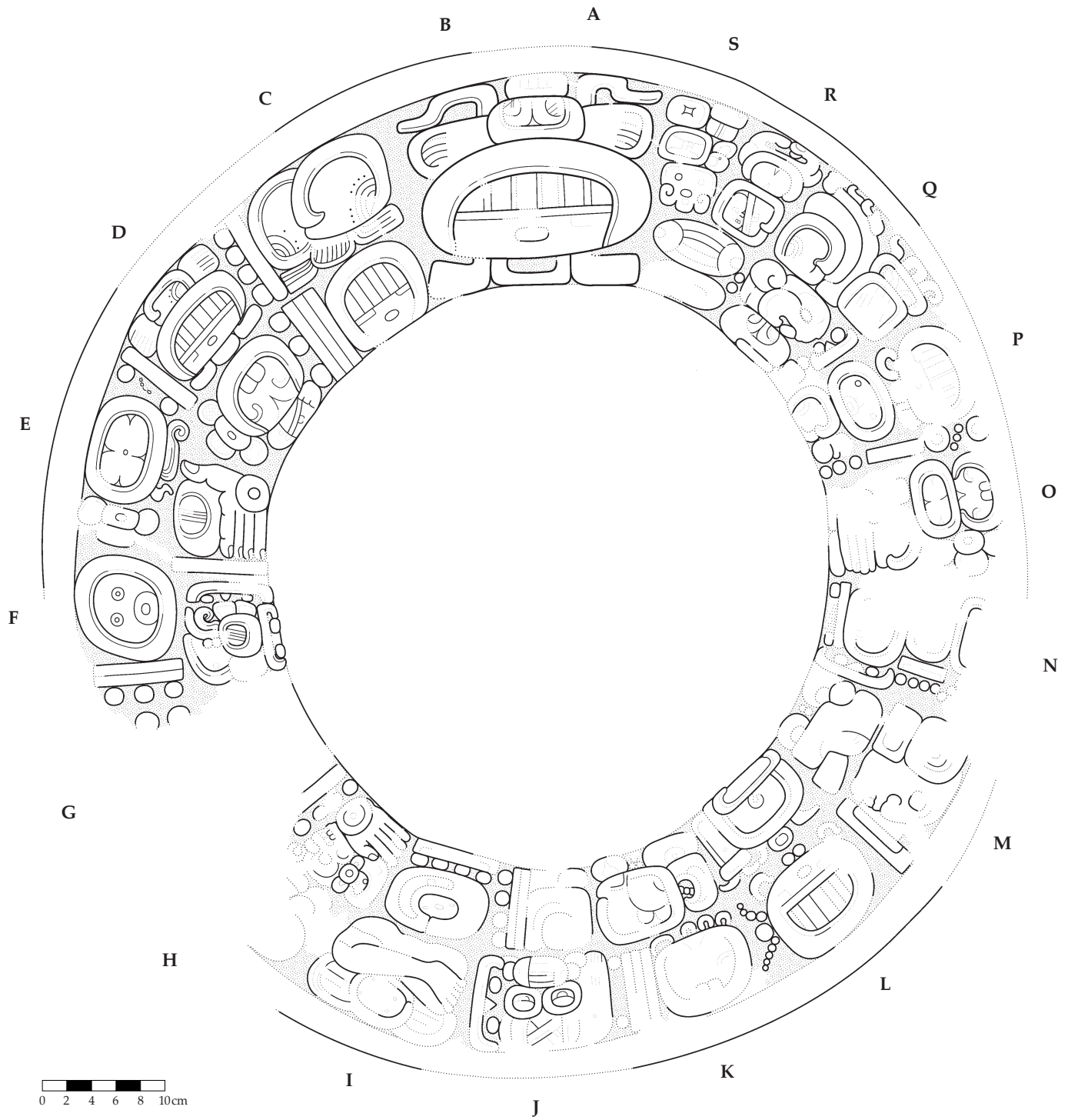


Figure 4. Tonina Monument 185 (drawing by Guido Krempel, CNCPC-INAH).

a fortuitous silence? Or was the 819-day count indeed discarded at Tonina for some unknown reason?

Following the 819-day count, a distance number of 2.0.0 counts forward from the Initial Series date, leading us to the end of the eighth k'atun on 9.8.0.0.0 5 Ahau 3 Chen (August 20, 593). To mark this period ending, a stela—one which has not yet been identified in the archaeological record—was dedicated and immediately following this verbal phrase mention is made of an offering (through the diphrasism *uch'ahb[il]* [*y]lahk'ab[aal]*, lit. "his creation, his night") conducted by K'inich Muhk:

(N2) **u-TZ'AK-AJ** (O1) **mi-K'IN-WINAAK** (P1) 2-**HAAB-ya** (O2) **K'AL-TUUN-ni** (P2) 5-**AJAW** 3-**IHK'-SIJOOM** (Q1) **tz'a[pa]-LAKAM[TUUN]** (Q2-R2) **u-BAAH-u?**/**ya?-CH'AHB[AHK'AB]** (R1) [**K'IN**]chi-**MUHK-po-o-AJAW-K'IK'?**/T543?⁹ (R2) **ko-lo**?²

utz'akaj mi[h] k'in [mih] winaak cha' haabiyy k'altuun ho' ajaw ux ihk'sijoom tz'ap lakamtuun ubaah [u]ch'ahb[il] [y]lahk'ab[aal] k'inich muhk [po]po' ajaw k'ik'/?... kolol?

"The ordering of (time is) zero days, zero score days, and two years since the stone-presentation (on the day) 5 Ahau, (the) 3rd of Chen, it was the stela-planting. It is his image in his creation, in his night, of K'inich Muhk, lord of Popo', ..., Kolol(?)"

This last passage is highly significant due to the historical content—a stela dedication and an offering conducted in the year 593—and because it provides additional evidence for the nominal phrase of the ruler K'inich Muhk. The presence of the **K'IK'/CH'ICH'** logogram or the so-called "Casper Glyph" (T543) that follows immediately after the Tonina emblem glyph is somewhat elusive, and we have not yet been able to clarify its function in this unique context. Judging from its position right after the emblem glyph, however, it would seem to relate some additional title of the king's. Undoubtedly also related are the following—likewise still obscure—glyphs that terminate the text: **ko-lo**?², perhaps for *kolol*.¹⁰

While we do not know the date of K'inich Muhk's accession, nor of his birth, he can be presumed to have reigned since at least the year 589, the date recorded by means of the 819-day count. The Emiliano Zapata Fragment (Figures 5 and 6) is of special interest here because the first event recorded on it states that on 1 Kan 7 Kankin (corresponding to the Long Count position 9.7.16.4.4, December 5, 589), someone conducted an offering or penance ceremony:

(pB2) **OCH-chi-ya tu-CH'AHB-ti-AHK'AB**

ochiiy tuch'ahb[il] ti [y]lahk'ab[aal]

"...since he entered in his creation, in his night."

The distance number 2.13.16 connects this event with the period ending date 9.7.19.0.0 9 Ahau 8 Chen (August 27, 592),¹¹ when the tomb of the ruler Chak Baluun

Chahk was visited (see also Mayer 1995:72-73; Martin and Grube 2008:179):

(pA3) **HUL-li-tu-MUHK** (pB3) **CHAK-9-CHAHK K'UH-po-o-AJAW**

huli tumuhk chak baluun chahk k'uh[ul] [po]po' ajaw

"He arrived at the tomb of Chak Baluun Chahk, holy lord of Popo'."

This fragment belongs to an originally larger panel, the rest of which remains unknown at this time. The surviving fragment forms the lower part of a text that is arranged in the typical double-column format and comprises six glyph blocks. From what remains, it can be surmised that some event had occurred in the company of the *ajk'uhuun* of an otherwise unattested person or entity named Aj Chuwaaj(?) Kohk(?) (see also Zender 2004:349, n. 140):

(pA1) **yi[ta]-ji-ya-ja-K'UH-na** (pB1) **AJ-CHUWAAJ?-ko**²

yitaaj yajk'uhuun aj churwaaj? kohk

"...in the company of the *ajk'uhuun* of Aj Chuwaaj(?) Kohk."

Given that one passage on Monument 185 mentions that on September 18th of 589 Sihm Naahal K'awiil (or "the Embryonic Northern K'awiil") was stood up and the Emiliano Zapata Fragment records that only a few months later, on December 5th of the same year, somebody "entered" some place in order to conduct an offering ceremony in the company of an *ajk'uhuun*, it becomes likely that K'inich Muhk was already ruling Tonina during this time. Furthermore, almost three years later, he would have visited the tomb of his predecessor Chak Baluun Chahk, making K'inich Muhk the most likely candidate for having commissioned the Emiliano Zapata Fragment. The verb *ochiiy* "he had entered"

⁹ Even though the sign in position S2 is severely abraded, the contours as well as three circles in the interior can clearly be made out, leading us to assume that it represents a version of the logogram T628a, **K'IK'** or **CH'ICH'** (see Stone and Zender 2011:53). Nonetheless, given that the surface appears to be eroded and the right side of the glyph heavily damaged, the possibility that it may have been a similar sign but with a different reading value is plausible, such as T543/T628b: the so-called "Casper Glyph" (ZZ1 in Macri andLooper 2003:256).

¹⁰ Further investigation of the sequence *k'ik'/ch'ich'* or 'casper' and *kolol(?)* will be needed to better understand its meaning in this context, though some connection of the latter to the Late Classic *Kololte'* toponym seems possible (Marc Zender, personal communication 2021; for an alternative proposal of *ajkololte'* as a title see Sheseña and Sánchez Gamboa 2019:4).

¹¹ This calculation seems most plausible to us, yet an alternative possibility cannot be discarded. If we consider the Calendar Round 1 Kan 7 Kankin to be the date of arrival at the tomb of Chak Baluun Chak, the previous event would have happened on 9.7.13.8.8 6 Lamat 1 Pop (March 17, 587).

probably refers to the visit to some temple or sanctuary where the burial of Chak Baluun Chahk was situated.

The paleography of the glyphs on both monuments reveals a close relationship between them, as they share a characteristic style that can be traced to the last decade of the sixth century. One main indicator for this assumption is the tzolkin day cartouches that are rendered by means of a round shape without the lower volutes, a formal development of the sign that appears to become common by the end of the sixth century (compare with Monument 185, F1 and P2, and the Emiliano Zapata Fragment, pA3). Yet when comparing the latter two an important difference is noted: the row of round slanted beads functioning as space fillers for the coefficients is one of the most conspicuous characteristic features of Monument 185 (see positions D1, L1, and P1) but was not used by the artist who sculpted the Emiliano Zapata Fragment. Another significant indicator concerns the syllable **ko**, which is characterized in both cases by its large size and its accompaniment by a “doubler,” two dots indicating the duplicated phonetic value of an associated syllable (see Stuart and Houston 1994:46; Zender 1999:102-106).

The **CH'AHB** logogram featuring an infixed **AHK'AB** element is depicted in a similar manner on both monuments (Emiliano Zapata Fragment, B2; Monument 185, R2), but there are nonetheless some differences: the lower arm of the obsidian blade on the sculpture fragment corresponds more to the standardized form seen for this sign during most of the Late Classic period, while the one on Monument 185 is more comparable to other Early Classic examples. Due to its graphic evolution, yet another important sign is the **HAAB** logogram, which can in both cases be associated with Alfonso Lacadena's Type 2 (Lacadena 1998:205), characterized by two vertical bands over the horizontal band displaced in the middle and a round motif in the inferior section of the sign. The cartouche surrounding this logogram's diagnostic elements does not enclose them completely; the outline begins and ends at the lower part of the sign. Nevertheless there are some differences, such as the absence of the three round elements at the base of the **HAAB** logogram on Monument 185 (C2) that are present on the Emiliano Zapata Fragment (A2).

Reconsidering Monument 74

Monument 74 (Graham and Mathews 1996:107), located by the French Archaeological Mission inside Structure D5-1 (or Temple II) (Becquelin and Baudez 1979-1982:3:1246, Fig. 59), is another monument that provides further information about K'inich Muhk, although as already mentioned, it appears to be a posthumous monument dedicated to him (Nielsen et al. 2019:9, n. 5). On one of its lateral sides, Monument 74 is carved with six cartouches, whereas the front side shows a male dignitary,

apparently K'inich Muhk himself, in profile view facing left (Figures 7 and 8).¹² This deceased ruler is depicted as a *ch'ahoom*, a title closely tied to kings and high-ranking members of the royal court in their role as religious specialists associated with fire-making, the casting and burning of incense, bloodletting, and child sacrifice, as well as the symbolism of the Jaguar God of the Underworld and *wahy* creatures (see Scherer and Houston 2018:117-119; Scherer 2020; Sánchez Gamboa et al. 2022:71-75). In his right hand he holds a fire-drilling staff whereas with his other hand he casts incense. Only a few elements of his attire can be made out, for example some remains of his cape and a necklace, with a snake head in front of the breast, and an elaborate headdress, the latter being composed of bands on the forehead with long paper or cloth strips—with stains of blood—hanging from the back. His long hair is tied up on the upper part of his head in three pigtailed accompanied by paper or cloth strips. From the headdress emerges a long tail-like element topped by what appears to be a “burning hearthstones” motif.¹³ Initially, Martin and Grube (2008:179) suggested that it may have been associated with the tomb of an unknown king identified only by the Tonina emblem glyph; with the new evidence from Monument 185 at hand we can now see that the logogram **MUHK** instead forms part of the name of the ruler K'inich Muhk.

The text indicates that on 9.8.4.0.13 2 Ben 11 Mol (August 11, 602), a stela (*ulakamtuunil*) of K'inich Muhk was erected, presumably referring to this very monument:

(A1) 2-Ben (A2) 11-TE'-mo[lo] (A3) WA'-la-ja (A4) u-LAKAM-TUUN-ni-li (A5) K'IN-MUHK (A6) [po]o[AJAW]

cha' biin buluchte' mol wa'laj ulakamtuunil k'in[ich] muhk [po]po' ajaw

“(On the day) 2 Ben, the 11th of Mol, the stela of K'inich Muhk, lord of Popo', stood up.”

¹² The format of Monument 74's cartouches, rendered as circular medallions, has its immediate antecedent on the Melbourne Stela (Nielsen et al. 2019:8) which must be placed chronologically before the reign of Chak Baluun Chahk. The use of these circular medallions continues on Monument 168, the posthumous monument of K'inich Sanaw Bahlam Yaxuun Tihl, and Monument 181 from K'inich Bahlam Chapaht's reign.

¹³ Interestingly, Stela 1 from the nearby site of Santoton features a *ch'ahoom* with an almost identical headdress, likewise in the act of casting incense (see, e.g., Blom and La Farge 1927:309). Unfortunately, however, there are at present no closeup views of the corresponding text caption available for study; as such, the identity of the represented male dignitary remains unclear. Yet in the photograph published by Blom and LaFarge (1927:309, Fig. 261) it is evident that the stela is carved in an early sculptural format (compare, for instance, Tonina Monument 173, see Figure 10; see also Graham et al. 2006:118) and features calculiform glyph shapes at the upper left side.



Figure 5. The Emiliano Zapata Fragment
(photograph by Jorge Pérez de Lara, CNCPC-INAH).

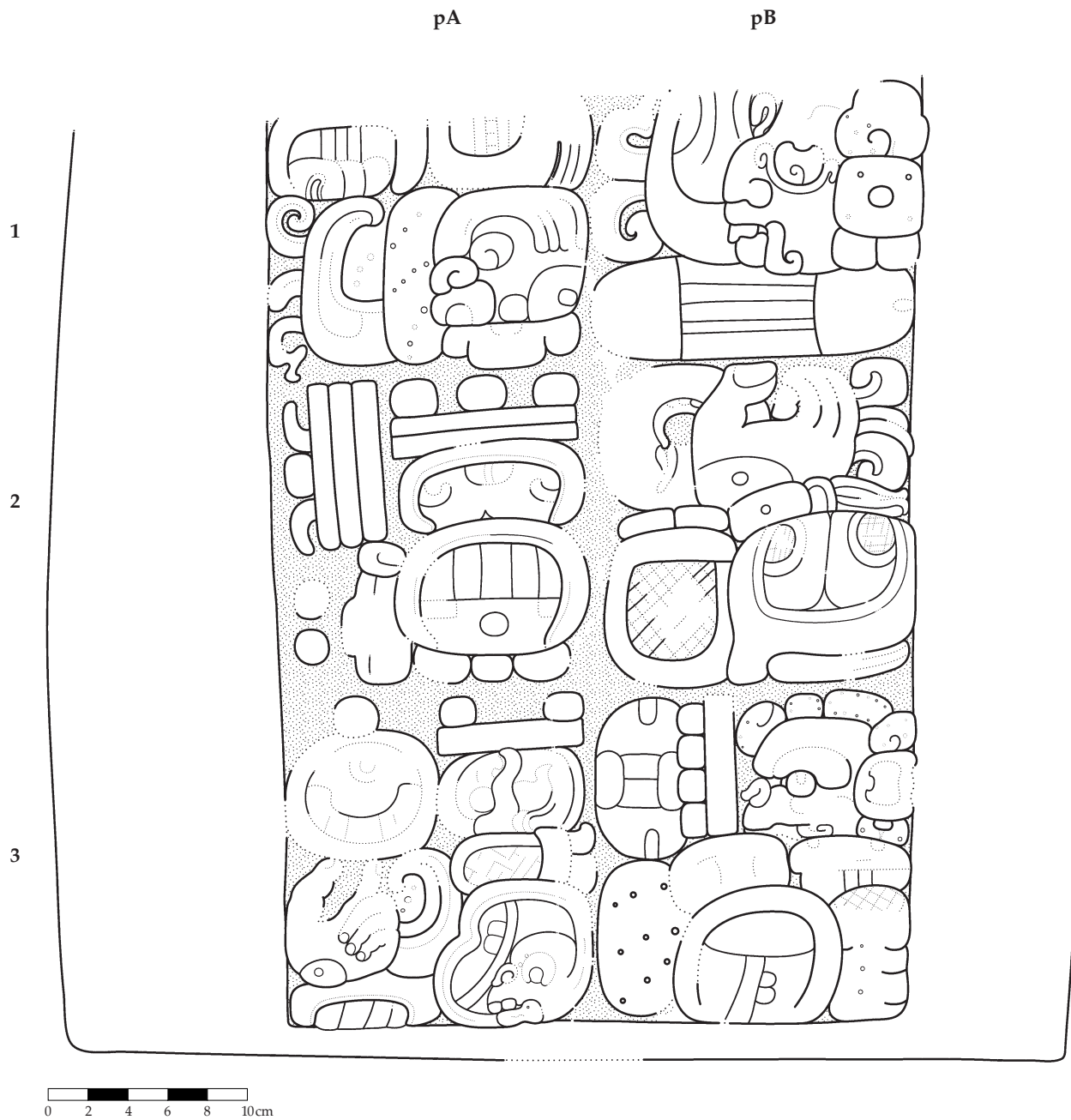


Figure 6. The Emiliano Zapata Fragment
(drawing by Guido Krempel, CNCPC-INAH).

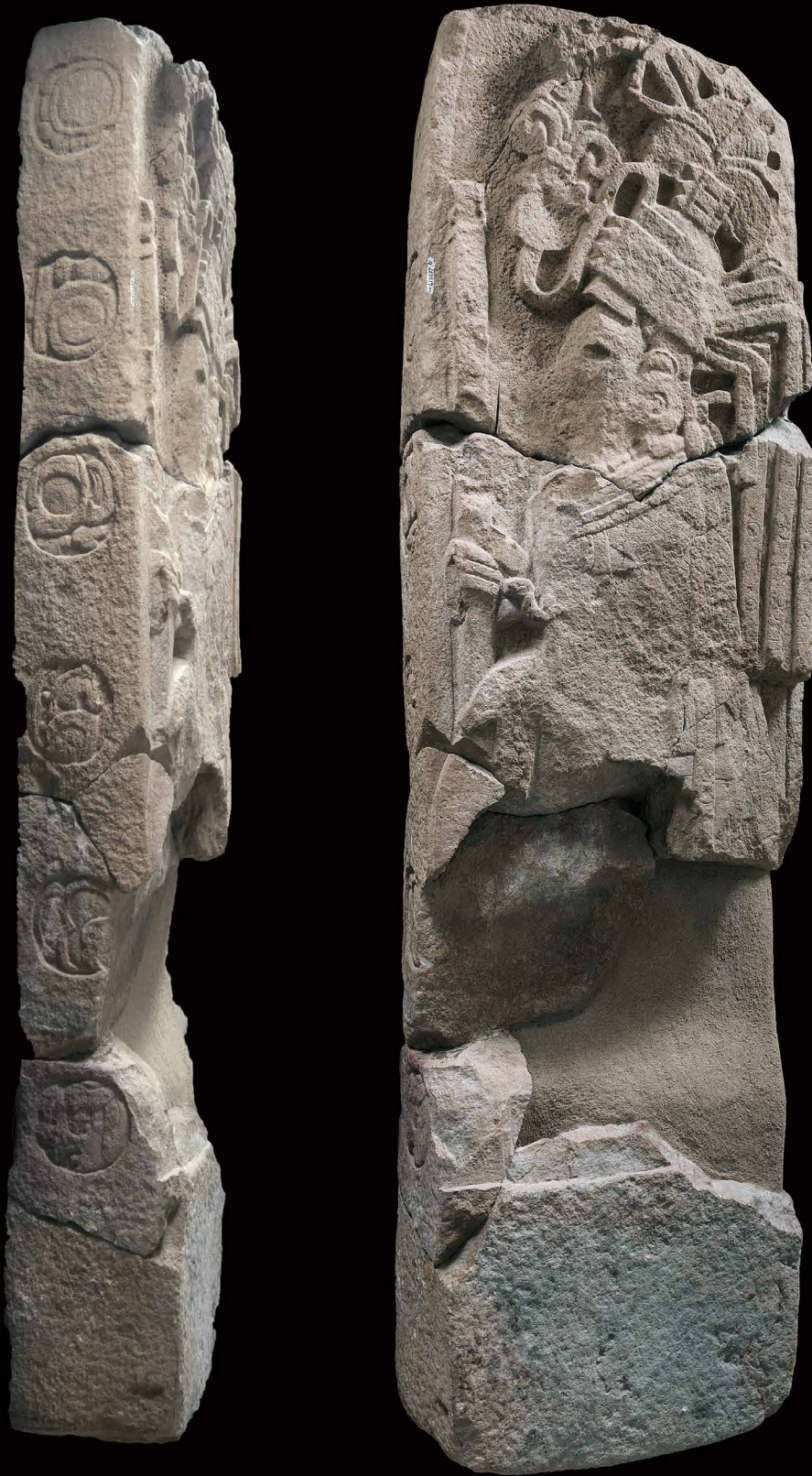


Figure 7. Tonina Monument 74, the posthumous stela of K'inich Muhk (photograph of the front side and lateral side with inscriptions by Jorge Pérez de Lara, CNCPC-INAH).

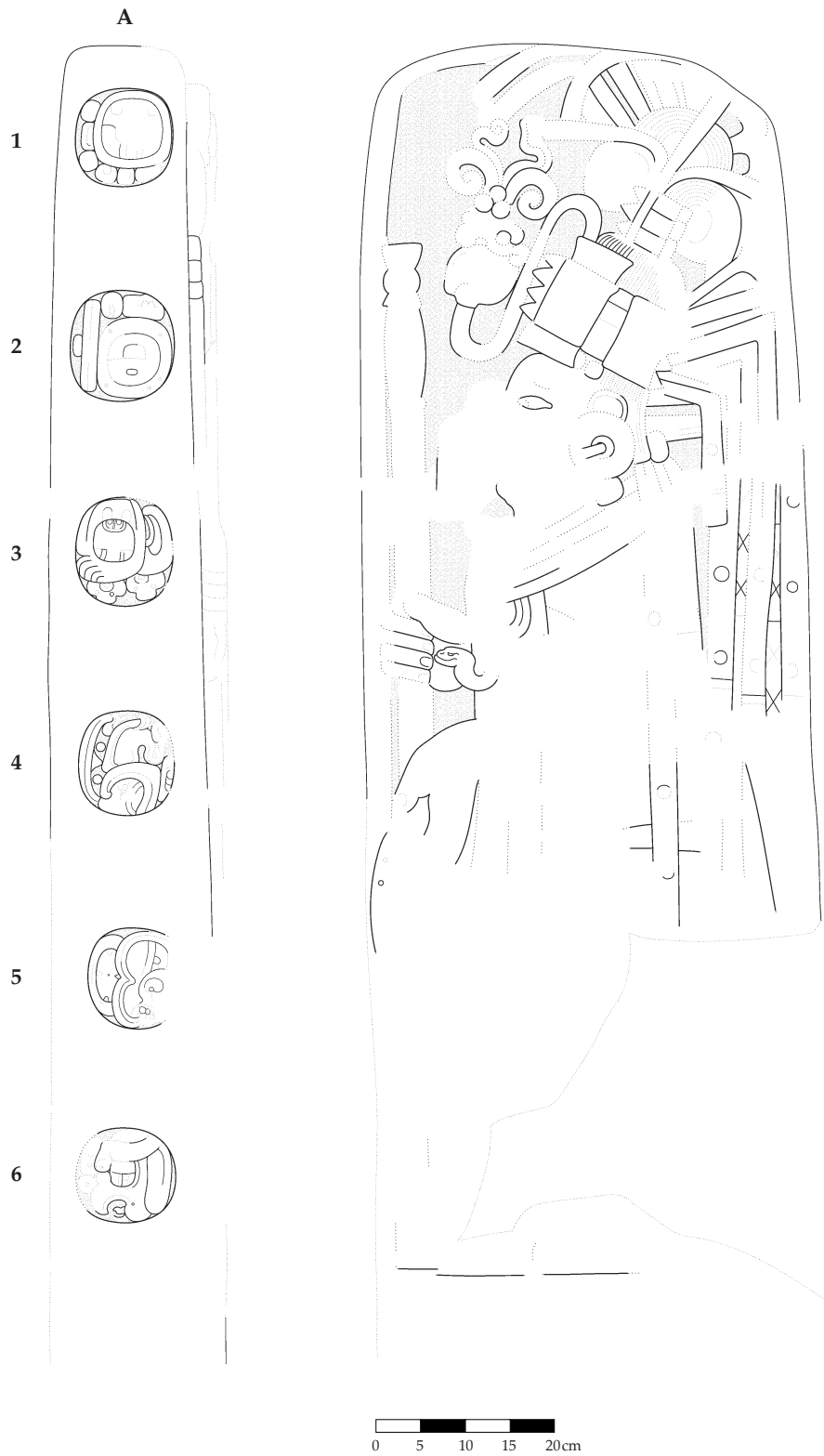


Figure 8. Tonina Monument 74, the posthumous stela of K'inich Muhk (preliminary drawing of front side and lateral side with inscriptions by Guido Krempel, CNCPC-INAH).



Figure 9. Monument 187 with extended name of K'inich Muhk
(photograph by Jorge Pérez de Lara, CNCPC-INAH).

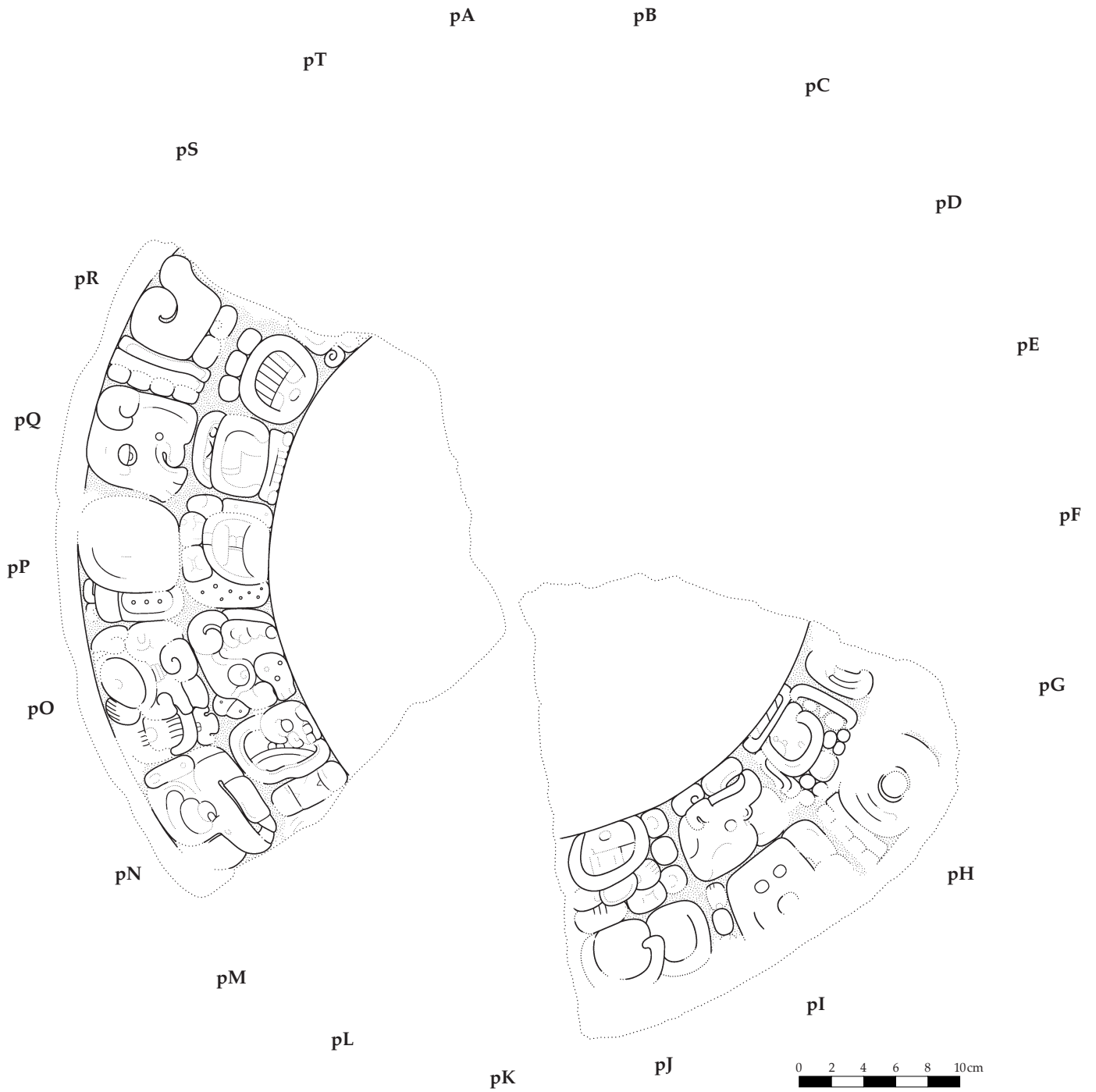


Figure 10. Monument 187 with extended name of K'inich Muhk (drawing by Guido Krempel, CNCPC-INAH).

Given that the reign of K'inich Sanaw Bahlam Yaxuun Tihl started on March 11, 600 (Nielsen et al. 2019:8), and considering the presence of the positional verb *wa'laj* ("stood up") in position A3, we can surmise that Monument 74 was a posthumous stela of K'inich Muhk commissioned two years after the accession of the aforementioned K'inich Sanaaw Bahlam Yaxuun Tihl.¹⁴

Yet Another Meaningful Altar: Monument 187

In 2019 we noticed yet another hitherto unpublished fragment of a sculpture sheltered inside the storerooms of the Tonina site museum (Figures 9 and 10). Originally this fragment belonged to a sandstone altar measuring approximately 38 cm in diameter. Just like Monument 185, it does not feature a figural scene in the center, and the text once consisted of two rows of hieroglyphic cartouches arranged along the outer border of the altar. In size and format of the hieroglyphic text, this new fragment matches another altar fragment, designated Fragment 31, that was found in 1972 by the French Archaeological Mission in the context of Structure D5-1 (Becquelin and Baudez 1979-1982:2:806, 3:1335, Fig. 148b), for which reason we are convinced that the two pieces belong to one and the same altar.¹⁵ Unlike Monument 185, this fragmented altar does not have a counterclockwise reading order, but the two share the selfsame calculiform glyphs.

Unfortunately the beginning of the inscription is lost, but it can be surmised that at least half of the text contained calendrical information, much in the same way as Monument 185, although here lacking an 819-day count. The attestation of Glyph A as **WINAAK-9** (pH1) before the verb ***PAT-*la-ja*** (pG2) indicates that the haab was located immediately after Glyphs G and F, and before the Lunar Series. The object of the positional verb *patlaj* "was formed" (pH2) corresponds to the construction **u-SIBIK-TUUN-ni-li** *usibiktuunil* "his soot stone" related to a particular type of sculpture, in this case an altar for burnt offerings.¹⁶ Next comes the possessor of the altar in position pI1: **ch'a-ho-ma** for the *ch'ahoom* title (see Zender 2017:30, note 51 for recent discussion of the reading of this title). Position pJ1 is severely eroded and we are not able to determine its reading value, while in pI2 appears a head variant of the logogram **AJAW** with the phonetic complement **-wa**.¹⁷ The last preserved glyph from Fragment 31 is in position pJ2: **3/1-WINAAKHAAB-AJAW**. In summary: we seem to have nothing more than a list of titles; strangely there is no nominal phrase attested in view of the fact that position pJ1 is heavily eroded and—for the time being—we do not find any explanation for the isolated **AJAW-wa** construction in pI2 (unless it originally featured a now completely-eroded **po** infix as a possible indicator of the Tonina emblem glyph).

Here we present a preliminary reconstruction of

this small altar, even though we are not sure how many positions are actually missing between Fragment 31 and the newly associated fragment. The importance of Monument 187 lies in the presence of a long glyph sequence which we interpret as an extended version of the personal name of K'inich Muhk. We tentatively assume, similar to the pattern attested for "Ruler 2" (Sánchez Gamboa, Sheseña, and Krempel 2019b), that the personal name could either be written in an abbreviated form or, alternatively, by means of a long nominal sequence, as evidenced further below.

As already demonstrated, the king's abbreviated personal name was K'inich Muhk, as attested on Monument 74 (**K'IN-MUHK**) and Monument 185 (**[K'IN]chi-MUHK**), respectively (see Figures 11a and 11b). Contrary to some previously expressed doubts regarding the reading value **MUHK** for this logogram in the context of this ruler's nominal phrase (Nielsen et al. 2019:8, n. 3), we are confident in transcribing this sign as **MUHK**. In this regard, a comparison of Early and Late Classic attestations of the **MUHK** logogram from Tonina with other early examples from different sites

¹⁴ Another, albeit less likely possibility is that the numerical coefficient of the haab position is written with an error (11 instead of 16). The Calendar Round 2 Ben 16 Mol would correspond to the Long Count 9.8.4.0.13 (August 16, 597), three years before the accession of K'inich Sanaw Bahlam Yaxuun Tihl, when K'inich Muhk should still have been alive.

¹⁵ Fragment 31 is housed in the Museo Regional de Chiapas in Tuxtla Gutiérrez.

¹⁶ The association of T174 with soot/ink was independently noted by several scholars. In the 1990s, Nikolai Grube (cited in Coe and Kerr 1997:150-151) suggested the reading *kuch abak* "inkpot" for the collocation T174:709. Later, based on the evidence from Copan Altar Z and other occasional **-ki** phonetic complements, Nikolai Grube suggested the reading **SIBIK**, and recognized that the generic term for "altar", there written **SIBIK-ki-TUUN-li**, was read *sibiktuunil* and provides a direct substitute for the sequences T174-TUUN-ni and T174-TUUN-li that are attested on various Late Classic stone altars (David Stuart, personal communication 2021; see also Stuart and Law 2021). To name a few examples: Tonina Monument 113 (N-O; Graham and Mathews 1999:146-147); Tonina Monument 182 (E-F; Sánchez Gamboa et al. 2019:Fig. 10); La Florida Altar G (Graham 1970:450-451). These more common T174-TUUN-ni-li collocations should be distinguished from yet another generic term involving T174 which is spelled **u-k'o-ba-li** on at least one occasion (Edzna Altar 1), probably read *uk'oljlobil* or even *uk'oljbaal* "his/her image"—in its full form *uk'ojobtuunil*, related to smaller and portable altars, and also to effigy-censers—based on a recent decipherment by David Stuart of the visually complex sign T174-**chu'** as **k'o** (see Stuart 2019, 2020; for *k'ohbail* 'imagen' and *k'ohbal* 'forma, o figura de rostro y retrato de alguna persona' see Barrera Vásquez 1980:409).

¹⁷ It's possible that pJ1 corresponds to a short form of the nominal phrase for K'inich Muhk not unlike that previously seen on Monument 74. Another possibility would be ***KAL-*ma*-[*TE']**, *kaloonte'*—a title used only with paramount kings—although this would be the earliest attestation of this title at Tonina. Both possibilities are, however, on very shaky ground due to the considerable erosion of these signs.

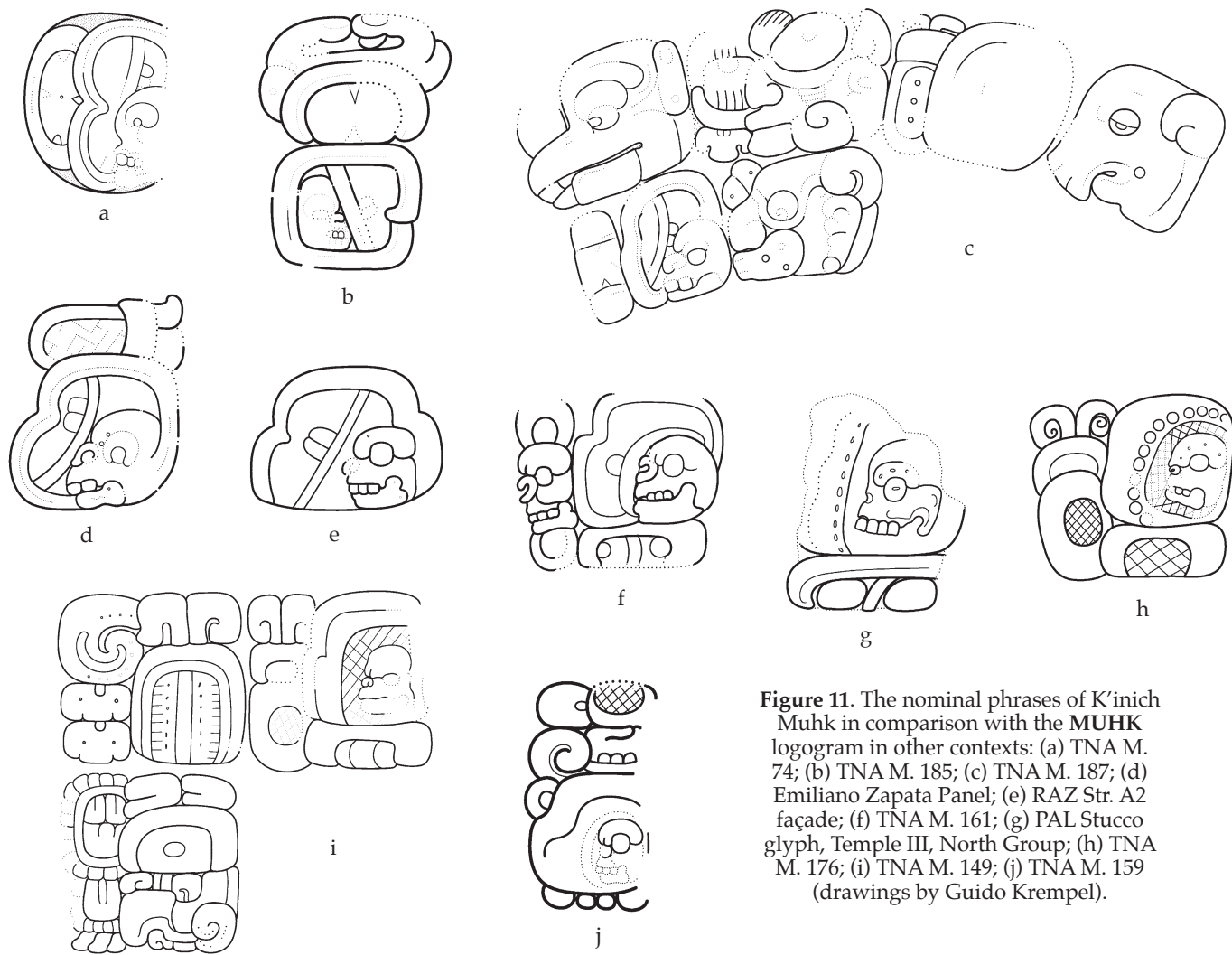


Figure 11. The nominal phrases of K'inich Muhk in comparison with the **MUHK** logogram in other contexts: (a) TNA M. 74; (b) TNA M. 185; (c) TNA M. 187; (d) Emiliano Zapata Panel; (e) RAZ Str. A2 façade; (f) TNA M. 161; (g) PAL Stucco glyph, Temple III, North Group; (h) TNA M. 176; (i) TNA M. 149; (j) TNA M. 159 (drawings by Guido Krempel).

provides sufficient evidence for the assumption that the very same variant was, on the one hand, used as part of the name K'inich Muhk and, on the other hand, as part of the well-known sequences **u-MUHK-li**, *umuhkil* 'his tomb, grave' and **u-MUHK-NAL**, *umuhknal* 'his gravesite' (see Figures 11a-j).¹⁸

Returning to the discussion of the different ways of writing the name of K'inich Muhk, the newly discovered altar fragment records a significantly longer sequence consisting of the following six sections:

(1) In position pN1 the nominal phrase begins with a sign depicting a bird with a rectangular element overlapping its lower beak. The sign resembles the **MAM** logogram, which likewise depicts the head of a vulture, but this seems to be a different sign, which leads us to suggest that it is not a relationship term but rather forms part of the beginning of the nominal phrase and would be inherently associated with the following two parts in pO1a and pO1b.

(2) In position pO1 we find **CHAN-na**, which is succeeded by a logogram that shows the head of a creature

with a feline ear, a "darkness" element, and a "blood" volute in place of the lower jaw (T1013abc and T1058a, and ST8 in Macri and Loooper 2003). This logogram is attested in many inscriptions from different sites but still awaits firm decipherment, even though several

¹⁸ The two variants of the logogram are mostly distinguished by featuring a "wood" element in lieu of a section with crosshatching, both of which were meant to depict a stylized tomb with a skull in one corner of a hollow space underneath a stepped platform. The variants featuring the "wood" element likely represent the hollow space of the tomb with wooden planks covering the remains of the deceased, whereas the other variant of the **MUHK** logogram lacks the wooden plank and instead simply shows a dark hollow space indicated by crosshatching, this last one being common during Late Classic (see Stone and Zender 2011:109 and 234, n. 40, for additional discussion of the sign and its reading). Note that in previous publications, including drawings of the Emiliano Zapata Fragment (e.g., Grube 1994; Mayer 1995:Cat. no. 129, Pl. 250), the **MUHK** logogram forming part of the sequence **HUL-li-tu-MUHK** was erroneously drawn with crosshatching instead of the actual **TE'** or "wood" element.

readings have been proposed.¹⁹ For now, we avoid applying any of these readings, waiting for additional evidence, and for the sake of simplicity refer to the sign by means of the Thompson number T1013. Importantly, the sequence **CHAN-na** T1013(-na/-ni) precedes the nominal phrase of several personal names at different sites (see, e.g., Yaxchilan Lintels 1, 21, 34, Coba Stela 11, and Palenque's Palace Tablet, to name just a few). With these comparisons at hand, we can thus assume that ... **CHAN-na** T1013 likewise precedes a personal name on Monument 187 from Tonina, for which reason it is not surprising that in the following section the name of the ruler who is the subject of the present study appears to be written.

(3) K'inich Muhk, here in position pN2, rendered in a distinct construction: the scribe used the truncated form of the early variant of the **K'INICH** logogram (T365) in lieu of **K'IN** as attested on Monument 74 or [**K'IN**]chi as on Monument 185.

Now, interestingly, immediately afterwards follow three more glyph compounds that precede the Tonina emblem glyph (pC2), leading us to assume that the three glyphs in positions pO2–pQ1 also form part of his longer nominal phrase.

(4) The first of the three glyphs in position pO2 can be identified as the head variant of the so-called "Casper Glyph" (see Skidmore 2008:16-17). Some Late Classic examples of this sign lack jaguar traits (see, e.g., Palenque Temple XXI Throne, G8 and P1). However, an Early Classic variant from Yaxchilan Lintel 18 (A5) (Thompson no. T1077; STC in Macri andLooper 2003) and a variant on Palenque's travertine bowl in the Dumbarton Oaks collection (PCB 553; Pillsbury et al. 2012:106) show both a jaguar ear and a twisted cord or cruller passing below the eye (Figures 12b and 12c). So far, no satisfactory reading has been suggested for this sign because the pattern of phonetic substitutions is not very consistent (the initial complement **ch'a** is limited to examples from Palenque, while on the Copan Hieroglyphic Stairway this sign is complemented with a bat sign that could either be **tz'i** or **xu**). The appearance of the "Casper Glyph" in the final part of the nominal sequence of K'inich Muhk also brings to mind the final passage of the before-mentioned Monument 185 where the **K'IK'/CH'ICH'** logogram or even the "Casper" (T543) sign follows after the emblem glyph.

(5) The next glyph compound (pP1) begins with the syllable **si** but unfortunately the following sign is too damaged to permit a secure identification.

(6) The last glyph of the sequence (pQ1) shows the head of a tapir, undoubtedly the logogram **TIL**.²⁰

To summarize, the extended nominal phrase of K'inich Muhk as attested on the re-encountered altar fragments can preliminarily be read as follows:

... **CHAN-na**-T1013 **K'INICH-MUHK** T1077 **si**?-? **TIL**
 ... *chan ...[n] k'inich muhk ... si...? ti[h]*

"...? Chan ...n? K'inich Muhk 'Casper' Si...? Tihl."

The last discernable part of the text is an incomplete distance number that sadly does not allow us to establish a time frame for this monument. In pQ2 appears the DNIG followed by the days elapsed (14-**he-wa**, *chanlajuun heew* "fourteen days"). Unfortunately, the *winaak* or twenty-day period is missing (in what would have been pS1), and for the year count we see 3-**HAAB ux haab** "three years" in pR2. The last preserved glyph is recorded in position pS2, which shows remains of a tzolkin cartouche and the curved protuberance of "blood" volutes at its underside. Despite this, insufficient details survive to discern the name of the corresponding day. Thus, the chronological setting of these altar fragments remains elusive for the time being, but this monument reveals the longest nominal phrase associated with K'inich Muhk known so far. Frustratingly, however, because of its fragmentary condition, it is still unclear whether the titles *ch'ahoom* and *ux?/juun? winaakhaab ajaw* from Monument 187 are related to K'inich Muhk or to some other individual. We must await further fragments or new parallel texts to resolve these interesting questions.

Final Remarks: Situating K'inich Muhk in Tonina's Early Classic History

Finally, it again becomes important to recall the discussion of Nielsen et al. (2019) about K'inich Sanaw Bahlam Yaxuun Tihl and Monument 168. Their analysis of this sculpture reveals that his reign cannot be placed between the years 562 and 577 as previously assumed (Mathews 2001:4). Instead, based on style and calligraphy, a more suitable possibility seems to be that he acceded into kingship on 9.8.6.11.9 2 Muluc 2 Uayeb (March 10, 600). The distance number 15.0.13 would connect the accession with the possible date of his death on 9.9.1.12.2 7

¹⁹ Proposed readings have included **PAN?** (as proposed by David Stuart, see Stuart et al. 2018:6-7), **AK'IIN?** (as tentatively suggested by Marc Zender, and previously also suggested independently by Nikolai Grube, personal communication 2020; see also Polyukhovych 2012) and **JAN?** (Barbara MacLeod, personal communication 2019). Occasional late phonetic complementation with **ni** (e.g., Yaxchilan Lintel 26, L1) indicates that the preceding vowel should be /i/ (Albert Davletshin, personal communication 2015). Note that in addition to Thompson's designation T1013, the sign T1058a likewise depicts the same logogram; furthermore, the sign is attested as a full-figure variant depicting a bird with the same head (listed as T1013c and ST8 in Macri andLooper 2003), and as an anthropomorphic full-figure variant (on Yaxchilan Throne 2). In some contexts, T1013 is substituted by a complex sign depicting one or two axes (T190v) over the earth sign (T526), classified as YS2 in Macri andLooper (2003:210).

²⁰ As the extended name of K'inich Muhk ends in **TIL** it should be mentioned that there are two other Tonina rulers whose extended names likewise incorporate *tihl*: K'inich Sanaw Bahlam Yaxuun Tihl and "Ruler 2."

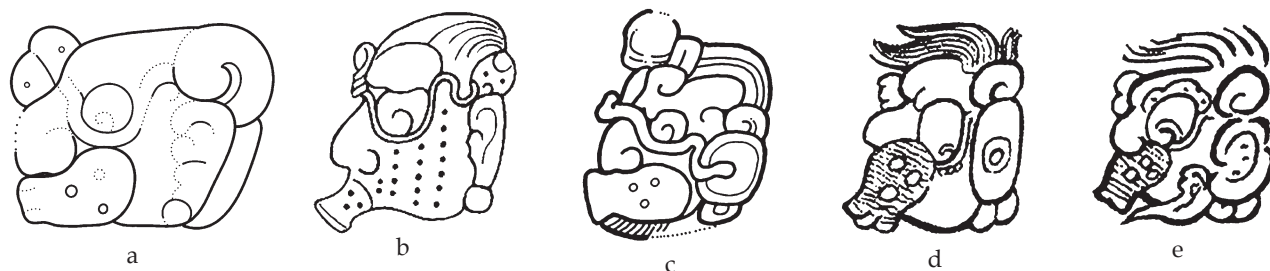


Figure 12. Examples of Casper Head Glyph: (a) TNA new sandstone altar (drawing by Guido Krempel); (b) YAX L. 18, A5 (drawing by Dmitri Beliaev); (c) COLL PCB 553, travertine bowl from Dumbarton Oaks (after drawing by Alexandre Tokovinine [Pillsbury et al. 2012:106, fig. 54]); (d–e) PAL T. XXI Throne, P1 & G8 (drawings by David Stuart).

Ik 0 Pax (January 4, 615), thus happening fifteen years later. This scenario fits very well, keeping in mind that K'inich Bahlam Chapaht became his successor shortly afterwards, on 9.9.1.13.11 10 Chuen 9 Kayab (January 31, 615).

One more outstanding sculpture is Monument 173 (Figures 13 and 14) which presumably was yet another monument associated with the last phase of K'inich Sanaw Bahlam Yaxuun Tihl's reign. It records that on the day 9.8.19.8.17 2 Caban 5 Mac (November 8, 612) a certain individual named Aj Mih K'inich was put into *ajk'uhuun*-ship. Less than a year later, the important period ending 9.9.0.0.0 3 Ahau 3 Zodz (May 10, 613) was celebrated by means of the dedication of Monument 173 (see also Zender 2004:156-157). Previously unknown fragments of the bottom of the monument usefully add the name of this early *ajk'uhuun* as one Aj Mih K'inich. Evidently he was a very important subsidiary court member during the reign of K'inich Sanaw Bahlam Yaxuun Tihl and possibly during the period in which the transition of power to the infant K'inich Bahlam Chapaht took place.

K'inich Muhk would thus have been the ruler of Tonina from at least 589 to somewhat before 9.8.6.11.9 2 Muluc 2 Uayeb (March 10, 600), the latter marking the accession date of his successor K'inich Sanaw Bahlam Yaxuun Tihl. If the titular sequence on Monument 187 refers to him, he might have been a "3 Katun Ahau" by the time of his death in 600. In this scenario, he would have been born between 540 and 560, making him a good candidate for the immediate successor of Chak Baluun Chahk. We still know little about his reign, but according to the Emiliano Zapata Fragment he made an offering accompanied by an enigmatic *ajk'uhuun* in 589, and almost three years later he visited the tomb of Chak Baluun Chahk. Thanks to the finding of Monument 185 we now know that K'inich Muhk celebrated the period ending 9.8.0.0.0 5 Ahau 3 Chen (August 22, 593) by means of an offering and the dedication of a stela (still undiscovered) that must have been the very monument associated with this altar. His reign was a time of great innovations in Tonina's calendrical tradition since he is the first known Classic Maya ruler who recorded the

819-day count and included his own ritual activities in a larger pattern of quadripartite organization of time and the universe. We are still facing a void of seven years between this last known date of K'inich Muhk and the accession of K'inich Sanaw Bahlam Yaxuun Tihl. As proposed above, the new altar fragment associated with Fragment 31 (now known as Monument 187) is of special significance as it records an extended version for his name.

Undoubtedly, Structure D5-1 (or Temple II) was a very important building and one of the earliest ones at Tonina, as was Structure E5-5 that is likewise located on the sixth terrace, the possible resting place of Tonina's earliest known ruler Kokaaj(?) Witz' (Sánchez Gamboa and Krempel, in prep.). This, together with Structure D5-2 (or Temple I)—spanning different reconstruction stages during the Late Classic period—crowned the Acropolis on the seventh terrace. The monuments of K'inich Muhk (Monuments 185 and Monument 74, as well as Fragment 31) were directly associated with Structure D5-1, as were yet other early sculptures such as Monuments 78, 150, 168, and 186.²¹ Thus, Structure D5-1 was a place that was intimately associated with the early rulers of Tonina, one that later kings maintained throughout the following centuries. Most likely, as new monuments are excavated and restored additional information about this formerly unknown ruler will come to light. We are still unaware of the dates corresponding to the birth and the accession of K'inich Muhk. In sum, the here-presented monuments enable us to add a new king to the list of Tonina's rulers. Conversely, further considering the insights resulting from the study by Nielsen et al. (2019), it has been clarified that K'inich Muhk was the antecessor of K'inich Sanaw Bahlam Yaxuun Tihl, who, in turn, was later succeeded by the infant K'inich Bahlam Chapaht.

²¹ Monument 78 was found by the French Archaeological Mission at the base of Structure D5-1 (Becquelin and Baudiez 1979:20, Figs. 11-13, 15), while Monuments 150 and 168 are said to have been discovered in 1989 in a corridor between Structure D5-1 (Temple II) and Structure D5-2 (Temple I) (Yadeun 1990).



Figure 13. Tonina Monument 173, with previously unpublished lower fragments (photograph by Jorge Pérez de Lara, CNCPC-INAH).

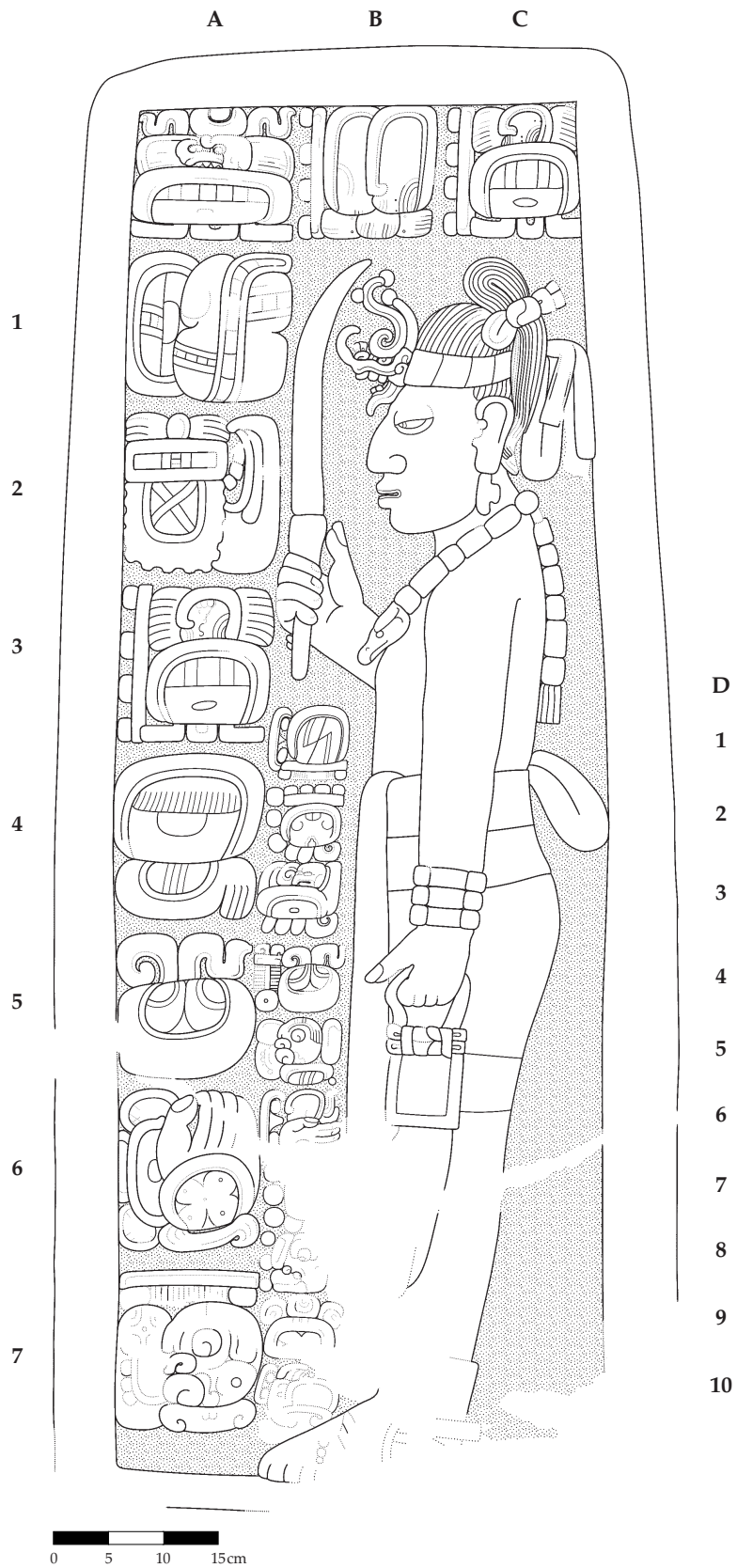


Figure 14. Tonina Monument 173, with previously unpublished lower fragments (drawing by Guido Krempel, CNCPC-INAH).

Acknowledgements

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