



The PARI Journal

A quarterly publication of the Pre-Columbian Art Research Institute
Volume VI, No. 1, Summer 2005

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Electronic version
available at:
www.mesoweb.com/
pari/journal/0601

ISSN 1531-5398

Caracol Altar 21 Revisited: More Data on Double Bird and Tikal's Wars of the Mid-Sixth Century

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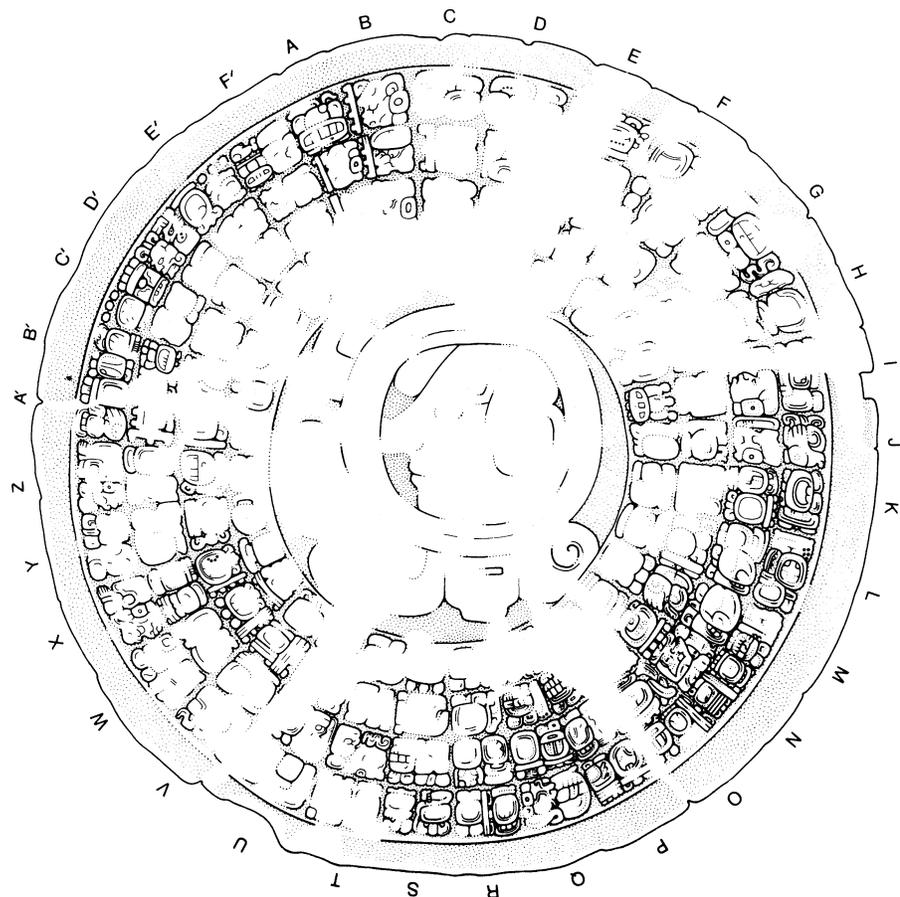


Figure 1. Caracol Altar 21 (drawing by Stephen Houston).

Altar 21 from Caracol, Belize, is one of the more important historical documents we have for the Classic Maya (Figure 1). It was excavated in 1985 by Keith Sullivan and Arlen Chase in the central playing alley of the Group A Ballcourt, where it seems to have served as a marker in the

game (Chase and Chase 1987:33). Bearing 128 glyph blocks, many of them divided into two compounds, it is the longest inscription yet found in Belize. Its sorry condition today—cracked, scarred, and abraded—means that no more than half of the text is legible. Nevertheless, close

study by Stephen Houston (1991) retrieved a surprising amount of information. Dedicated by K'an II in AD 633, its narrative reaches back some eighty years to recall events from the reign of his father Yajaw Te' K'inich II. Among these, the most notable are a sequence of three events concluding with a military defeat suffered by the kingdom of Tikal in AD 562. Since this coincides with the start of the "Tikal Hiatus"—a 130-year lacuna in monument dedications at the site—it has widely been seen as a decisive episode in Maya political history.

Yet none of the passages concerned are free of damage, and losses in important areas continue to pose interpretative problems. Given Altar 21's great significance, it is worth revisiting it to see if any additional data remains. With the kind permission of Jaime Awe, the Archaeological Commissioner for Belize, I was one of a party that recently re-studied the monument at night.¹ The examination was restricted to three sections of special interest that were photographed by Jorge Pérez de Lara, his close-up images forming the basis for a set of new drawings. This paper, perhaps better described as a collection of notes, reviews the results in each case and some implications arising from them.

1. The Accession

The retrospective section of Caracol Altar 21 begins with Yajaw Te' K'inich II's elevation to kingship in AD 553 (Figure 2). The phrase is rather effaced today, so we are fortunate that we can compare it with an almost identical one on the better-preserved Caracol Stela 6—produced by K'an II's half-brother and predecessor (Figure 3). In both cases we are told that he *chumljaj ta ajaw(lel)* "is seated in rulership," followed by his name and the Caracol royal title *k'uhul k'antumaak*. The latter is an unconventional emblem glyph that is hard to analyze and read with any confidence. After this we get a secondary phrase, headed by the damaged but recognizable verb *ukabjiij* "he supervised it." This serves to identify the agent or overseer of the foregoing event, and here we are told that the ceremony took place under the aegis of the ruler of Tikal (Grube 1994:106). At this point in its history Tikal was governed by its twenty-first king, a character long known to scholars as Double Bird. His only surviving monument, Tikal Stela 17, is believed to place his installation in AD 537 (Coggins 1975).²

In an earlier PARI Journal (Martin 2001), I described the two main names by which Double Bird was known to his contemporaries: Wak Chan K'awiil and Yax Ehb Xook K'inich. On Caracol Stela 6 we see the **YAX** "first" and the lashed ladder pictogram David Stuart reads as **EHB** "step," prefixed to a deity portrait whose (now empty) cheek cartouche strongly suggests the solar

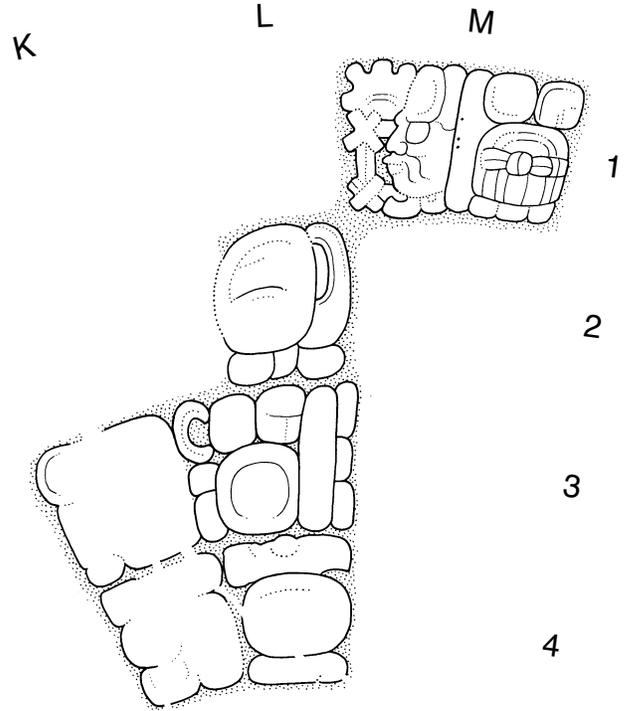


Figure 2. Accession of Yajaw Te' K'inich II on Caracol Altar 21 (L2b-M1) (this and all subsequent drawings by the author): *chumljaj ta ajawlel yajaw te' k'inich k'uhul k'antumaak ukabjiij yax ehb xook k'inich k'uhul mutal ajaw.*

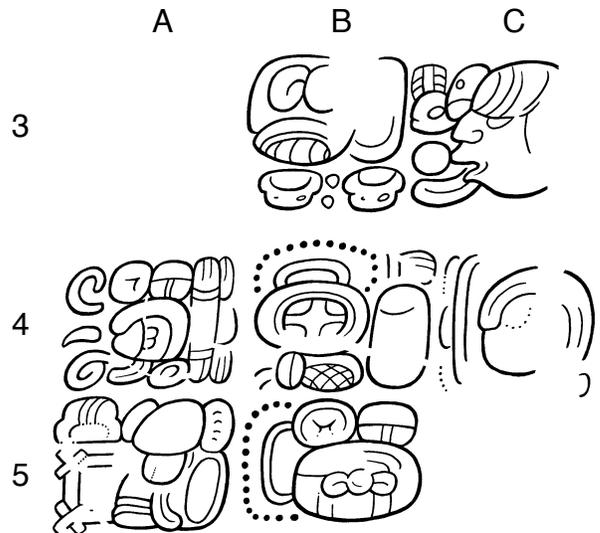


Figure 3. Accession of Yajaw Te' K'inich II on Caracol Stela 6 (B3-B5): *chumljaj ta ajawlel yajaw te' k'inich k'uhul k'antumaak ukabjiij yax ehb xook k'inich k'uhul mutal ajaw.*

¹ The group consisted of Alfonso Escobedo, Jorge Pérez de Lara, Joel Skidmore, and myself.

² Stela 17 was erected on the 1-K'atun anniversary of 9.5.3.9.15 AD 537, which fell on 9.6.3.9.15 AD 557. This is demonstrated by the partially erased verb *tz'ahpaj* "it is planted" (A8), and the following, barely visible, *tzuh tzaj* "it is completed" (A9).

deity **K'INICH** (A5). While we see little if any sign of it today, there is good reason to think that the shark-based monster **XOOK** was either conjoined or simply meant to be read (see below).³ The new drawing of Altar 21 shows M1a filled by this same name. In this case the portrait head is suffixed by a **wa** sign, indicating that the Sun God's name is the fuller form **K'INICH[AJAW]** *k'inich ajaw*.

The patron-client relationship between Tikal and Caracol is clearly of significance to the narrative at hand—Yajaw Te' K'inich makes no mention of it on his own monuments. Forthcoming conflicts on Altar 21 are in some way framed by this context, although the reason for mentioning it on Stela 6 is much less clear (perhaps due to the great deal of lost text there).

2. The Axe Attack

In AD 556, three years after Yajaw Te' K'inich's accession, Altar 21 describes an "axe" event (O2a, Figure 4) (Houston 1991:40). The verb concerned, widely read as **CH'AK-ka** *ch'ak* "to chop" (Orejel 1990), appears in two distinct contexts in the inscriptions. As *ch'ak ubaah* "his head was chopped," it refers to human decapitation (Houston and Stuart 1998:77-78), but when applied directly to place names as *ch'ahkaj*, it can be translated as "it was damaged" and describes the sacking or desecration of such locations (Looper and Schele 1991:2). Where a defeated lord was the intended focus, the formula *ch'ak uch'een* "his *ch'een* was damaged" was employed (where *ch'een* "cave" is a contraction from *kab ch'een* "earth-cave," a metaphorical term for "place" or "settlement"), followed by the defeated

lord's names and titles (Martin 2004:107-108).

Many epigraphers, including myself, have thought that the damaged subject, stretching from O2b into the next block at P2a, resembles the Caracol royal title *k'uhul k'antumaak*.⁴ If so, the *ch'ak* verb would be applied to an individual and necessarily refer to a beheading. Yet it is hard to find other instances of decapitation in the corpus where *ubaah* "his head" is omitted. The new drawing suggests other difficulties. The putative **K'UH** sign at the top right of O2 has internal details more typical of an **U** glyph, while the main sign below it shows no trace of the circular inline necessary for **K'AN**. In consequence, the remains are more consistent with ***U-CH'EEEN-na** *uch'een*. If so, the victim must be named in the badly destroyed block of P2a, where only a faint **ma** sign is visible. This could still be part of the Caracol title (similar spellings appear at X1b and Z1b in Figure 1)—although what remains in the rest of the compound is not especially encouraging.

The attacker carries a Tikal emblem (P3), but only traces of his preceding name now survive (O3). Even so, in the new drawing these are sufficient to recognize the scalloped edge of **YAX** and the cross-tied strut of **EHB**—the anticipated Yax Ehb Xook K'inich Ajaw is here once again.

To summarize, while Tikal is clearly the aggressor, we must exercise caution in identifying the victim. It is still possible that the axing phrase originally ran *ch'ak uch'een k'uhul k'antumaak*—indicating an attack against the Caracol king's home city, but in light of the damage to P2a we may never know for sure. If Caracol were not named here, it would have a dramatic impact on the historical narrative as we currently understand it. To date we have seen this episode as a *casus belli* and instigation for the next conflict.

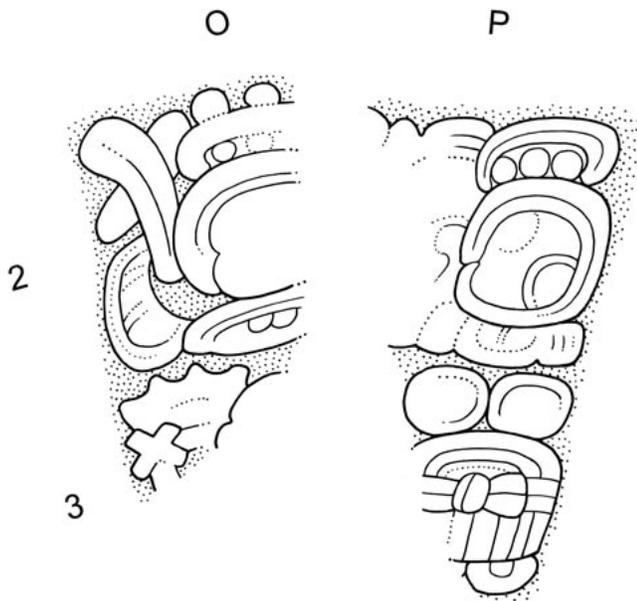


Figure 4. The Axe Event. Caracol Altar 21 (O2-P3): *ch'ahkaj uch'een ? ukabji yax ehb *xook *k'inich *k'uhul mutal ajaw*.

3. The "Star War"

The pivotal event in this section of Altar 21 is the defeat of Tikal that took place in AD 562 (Houston 1987:93, 1991:40). The verb is the famed, but still undeciphered, "star war" (R2b) (Figure 5). The subject is called simply the *k'uhul mutal ajaw* "Holy Lord of Tikal" (Q3), avoiding further repetition of Yax Ehb Xook K'inich Ajaw's name. Again, a damaged *ukabji* phrase (R3) introduces the agent (Q4-R4). This character's identifying glyphs are almost obliterated by a major crack through the stone, but some important details remain. In the first block,

³ Some questions remain about the **XOOK** value (see Jones 1996). It is believed to be the same word elsewhere spelled syllabically **xo-ki**, but no direct substitutions have been found as yet.

⁴ In this scenario the compound at O2-P2a would read: **CH'AK-ka-*****K'UH-*****K'AN-na-*****tu-ma-*****ki** *ch'ak k'uhul k'antumaak* "the Holy 'Person of Caracol' was chopped."

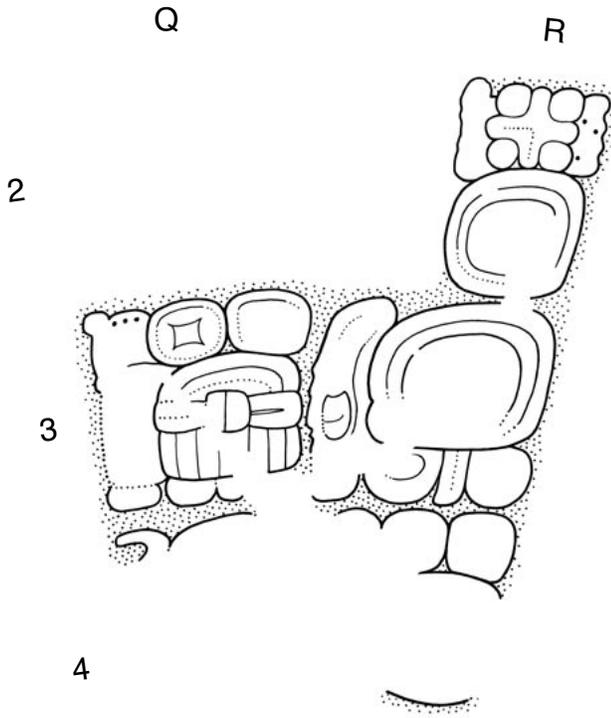


Figure 5. The Star War. Caracol Altar 21 (R2b-R4): ? *k'uhul mutal ajaw ukabiyy* ? ? **ajaw*.

where the personal name should be, we see an outward curl or tendril (equally visible in Houston’s original drawing). This is not something we find in Yajaw Te’ K’inich’s name (compare with Figure 3, A4)—a decisive argument against his presence here. The sign in question resembles the flame of **K’AHK’** “fire,” a common component in royal names. The next glyph group should represent the perpetrator’s royal epithet. Here the visible outlines are not consistent with the Caracol emblem (compare with Figure 3, B4) and look more like a conventional emblem glyph. As a result, there is no epigraphic reason to believe that Yajaw Te’ K’inich was the protagonist of this war—despite the firm place this idea has in the literature.⁵

So, who was the victor? We do have another candidate. A few phrases beyond the “star war” on Altar 21, but still set on the day of the battle, we see the emblem glyph of “Site Q” (U2a) (Houston 1991:41). Today we recognize this as the royal title of the *kan* or “Snake” polity, whose

seat lay at the great city of Calakmul from at least the seventh-century onwards. Altar 21’s creator, K’an II, makes a number of other references to this influential state and appears to have been its ally in an extended war against Naranjo (Martin and Grube 2000:91-92). The climax of this campaign came in AD 631 with a “star war” victory for which K’an II gives sole credit to his counterpart the Snake ruler.⁶

Another such mention comes on Caracol Stela 3, in a phrase dated to AD 572. The verb is now lost, but the subject is a Snake ruler whom I have nicknamed Sky Witness from the prominent “eye” and “sky” signs used in his nominal (Martin 1997:861) (Figure 6a-c).⁷ Given our interest in Q4 of Altar 21, it is notable that the “eye” glyph is another to offer a tendril motif in the top left position. The curvature of this element varies from one rendering to another, but the one at Q4 is within its stylistic range (Figure 7a-d). Moreover, we know that Sky Witness was in power at the time of the battle since he is mentioned at the site of Los Alacranes in 561 (Grube 2004:35). It should also be noted that the Snake emblem would comfortably fit the outlines left in R4.

In sum, while we do not know who defeated Tikal in 562, on current evidence we must discount Yajaw Te’ K’inich and look for other suspects. If the curl in Q4 was once part of the “fire” sign, then we are searching for a hitherto unknown adversary.⁸ If instead it originally formed part of the “eye” glyph, we have a contender

⁵ E.g., A. F. Chase and D. Z. Chase 1987:60, 1998:22; D. Z. Chase and A. F. Chase 2003:176; Schele and Freidel 1990:173.

⁶ This record appears on Step VI of the Naranjo Hieroglyphic Stairway. This monument was plainly made under the direction of K’an II, and I have suggested elsewhere that it once had its home at Caracol before its removal to Naranjo as a war trophy (Martin 2000b:57-58).

⁷ The Sky Witness name is poorly understood. It includes signs for **CHAN** “sky” and a human eye that may be bivalent: in some contexts reading **ILA** “to see, witness” (Stuart in Houston 1992:66) and in others perhaps **UT** “eye” (Nikolai Grube, pers. comm. 1996—see **(h)ut* in Kaufman and Norman 1984:120). The Sky Witness name includes other elements: the pronoun **U** and the sign numbered T650 in Thompson’s catalog (1962), as well as T134—possibly an abbreviated **no** syllable here (Martin 1997:861).

⁸ Interestingly, a mysterious character with a **K’AHK’**-prefixed name may be named as the overlord of a Tikal ruler on a “Naranjo-style” Tepeu 1 vase excavated at Uaxactun (Smith 1955: Fig. 80d).

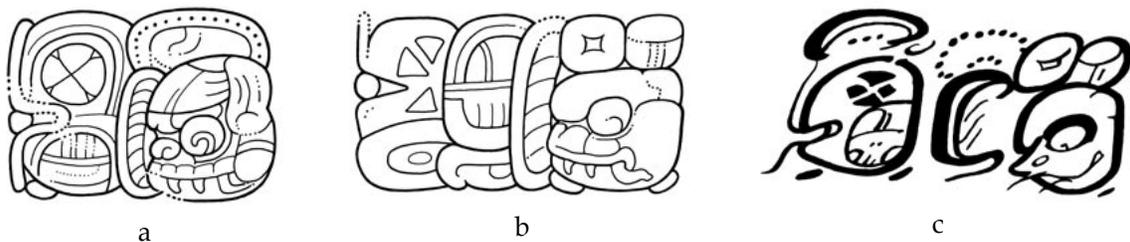


Figure 6. The name of Sky Witness: a) Caracol Stela 3 (A13), b) Palenque House C Step (D1c-d), c) Codex-style vessel (K6751) (K2b-L2).

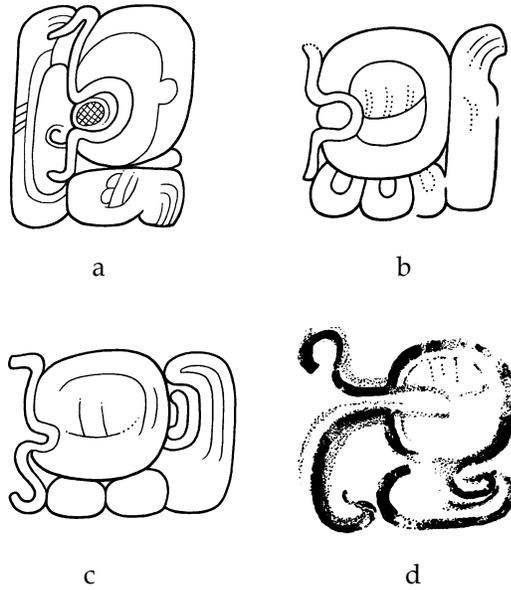


Figure 7. Variation in the “eye” glyph: a) Site Q Glyphic Panel 7 (pB4); b) Calakmul Stela 33 (G5); c) Aguas Calientes Stela 1 (C2); d) Naj Tunich Drawing 25 (A3) (after a photo by Chip and Jennifer Clark in Stone 1995:Fig. 8-27).

in the person of Sky Witness (Martin 2000a:41). It was certainly the Snake polity and Calakmul that benefited most during Tikal’s long era of silence, extending its power throughout the central lowlands—while Caracol, by contrast, is never mentioned outside its immediate region.

The Names of Double Bird

As we have seen, all three direct references to Double Bird at Caracol use the Yax Ehb Xook K’inich Ajaw moniker (Figure 8). With this as our spur, we might make a fresh assessment of the relative importance of his appellatives. Like all his contemporaries, Double Bird had a lengthy nominal sequence, consisting largely of deity-names in a standard, though not entirely fixed, order (Martin 2001:Fig. 7).⁹ Maya lords may have accrued names at various points in their childhood, but it was on their accession to kingship that they gained a particular regnal name, often taken from a grandfather or some other ruling predecessor.¹⁰ Name-taking was described in the texts with the expression *k’ahlaj uhuun k’aba’*, probably “his headband-name was tied.” Moral-Reforma Stela 4 tells of a lord who received three separate investitures of this kind—on the second and third occasions under different foreign patrons (Martin 2003a). Appropriately enough, on each he appears to have acquired a new regnal name.¹¹

The Yax Ehb Xook K’inich Ajaw sequence is an expanded form of the Tikal dynastic founder’s name (Schele 1986:6-8; Stuart 1999; Martin 2003b:4-6) (Figure

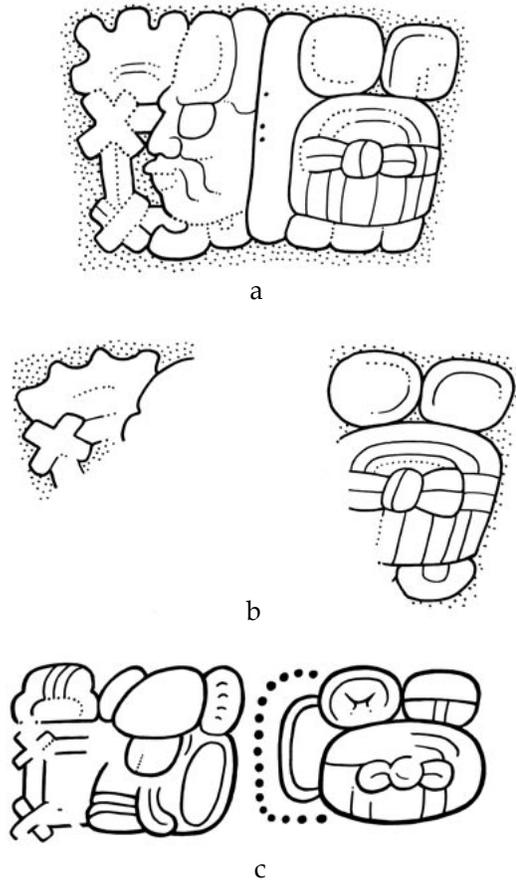


Figure 8. Yax Ehb Xook K’inich at Caracol: a) Caracol Altar 21 (M1); b) Caracol Altar 21 (O3-P3); c) Caracol Stela 6 (A5-B5).

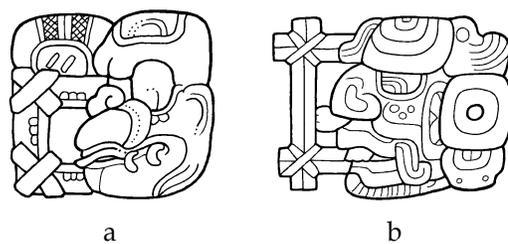


Figure 9. “Founder” names at Tikal: a) Tikal Stela 5 (A6); b) Stela 26 (zA9).

⁹ See Colas 2004 (as yet only available in German) for the most detailed treatment to date of Maya naming practices.

¹⁰ Although this became their primary appellative in public inscriptions, it could still be combined with a child-name where confusion with past namesakes was likely.

¹¹ The names carried by the thrice-invested king on Moral-Reforma Stela 4 are: U?-ki?-K’INICH (B9), as an infant, then MUWAAN[JOL]-pa?-ka?-la (C8, E5), and finally PIK-? (E12-F-12).

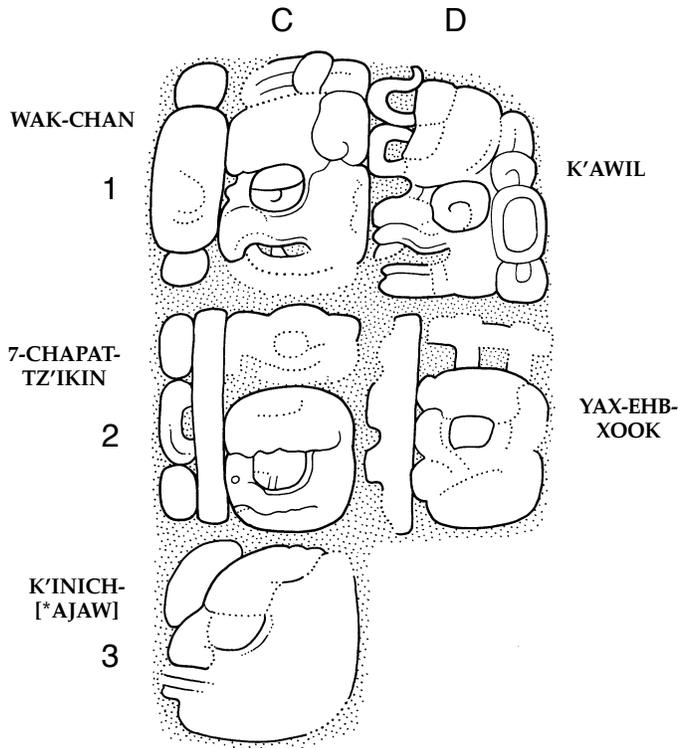


Figure 10. Tikal Stela 17 (C1-C3): *wak chanal k'awiil wuk chapaat tz'ikin yax ehb xook k'inich *ajaw*.

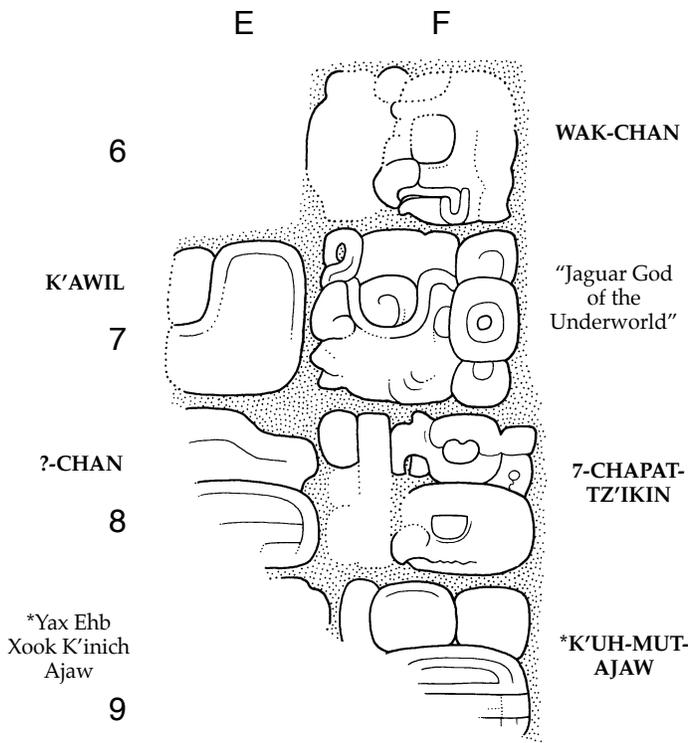


Figure 11. Tikal Stela 17 (F6-F9): *wak chanal k'awiil “JGU” k'ahk' ? chan (yopaat) wuk chapaat tz'ikin *yax *ehb *xook *k'inich *ajaw *k'uhul mutal *ajaw*.

9a). At least five Tikal rulers carried this form at the end of their own nominal strings. Double Bird’s version combines it with the name of the Sun God **K’INICH[AJAW]**, which we can compare with a patron deity named on Tikal Stela 26 (Figure 9b). This addition has some further implications. To appreciate these we must look to the left side of Tikal Stela 17 where, sandwiched between Wak Chanal K’awiil¹² and Yax Ehb Xook K’inich Ajaw, we see the compound **7-CHAPAT-TZ’IKIN** *wuk chapaat tz’ikiin* “Seven Centipede Eagle”—a key part of certain Sun God names (Boot 2002) (Figure 10).¹³ It is invariably joined to *k’inich ajaw* (or its abbreviation), implying that the whole sequence Wuk Chapaat Tz’ikiin Yax Ehb Xook K’inich Ajaw was a single unit. This would be the name of a particular solar god, very likely a deified form of the Tikal founder, and the versions we see at Caracol would amount to abbreviations of the full form.

We can now turn to another important name sequence for Double Bird, this time on the back of Stela 17, and reconstruct the compound just before the Tikal emblem glyph (Figure 11). Since Wuk Chapaat Tz’ikiin precedes it (F8) we can surmise that Yax Ehb Xook K’inich Ajaw once filled the chipped off block (E9). Occupying the final, privileged position in two instances on Stela 17—and being the sole form in mentions at Caracol—we can be confident that this was his main regnal designation and not an appended epithet in the way plain Yax Ehb Xook functioned for other Tikal rulers.

This leaves the question of why an earlier member of the nominal series, Wak Chanal K’awiil, predominates in other contexts, such as ceramic vessels (Figure 12a). This is true even on a plate, K8121, where the king celebrates the K’atun ending ceremony of 9.6.0.0.0 in AD 554 (Figure 13). The use of alternate regnal names is not unique among Maya kings but does deserve closer examination in this case. The answer could lie in the unusual circumstances of Double Bird’s rise to power.

Double Bird was the son of Tikal’s eighteenth king Chak Tok Ich’aak II. However, he did not succeed his father on his death in AD 508, and instead three years later the six-year-old Lady of Tikal was inaugurated as *ajaw*—apparently in

¹² On the painted plate K8121 there is a clear T78 NAL suffix to **CHAN**. This is enough to indicate that the proper reading was *chanal* “sky-place,” a value that was simply underspelled elsewhere.

¹³ The last nominal element here serves elsewhere as the fifteenth day in the Sacred Round (“Tzolk’in”) calendar, for which Eric Thompson first proposed the value **TZ’IKIN** “eagle,” recently revived by both Erik Boot and David Stuart. As with **XOOK** (see Note 3) we currently lack a syllabic substitution with which to confirm the value.

association with an older male, Kaloomte' Bahlam, said to be Tikal's nineteenth king (Martin 1999, 2003b:18-21). Double Bird appears only in 537, the date of the damaged passage on Tikal Stela 17 presumed to record his accession. Significantly, this is preceded by another event on an unknown date that apparently consists of *ihuli* "then he arrived (here)" (Martin 2003b:23, 43).¹⁴ If Double Bird did indeed return to Tikal we might reasonably ask where he came from.

We have no hard information on this, but one potential clue warrants discussion. This comes from a previously unseen vase, K8763 (Figure 14), whose owner uses the Wak Chanal K'awiil name. Stanley Guenter has identified the title he bears as a rare variant of the Naranjo emblem glyph—making him, if so, a one-time ruler of that polity (personal communication 2004) (Figure 12b).¹⁵ We would normally take this to be a simple namesake, were it not for a series of links between Tikal and Naranjo at this time, most concentrated in the reign of Chak Tok Ich'aak II. These suggest political, and perhaps even

¹⁴ I have examined Tikal Stela 17 with the idea that this glyph could be a damaged version of *itzutzuy* "then it is completed." However, I can see no trace of the "jewel" from T218 TZUTZ having sheared away and must therefore connect it with examples of T713b on Naranjo Stela 8 and 13, where a plain pointing hand has the value HUL (Martin 2003b:43). The Calendar Round date for this event can be reconstructed as 11/12/13 Manik' 10 ?. One of the better options available is 13 Manik' 10 Xul 9.5.3.1.7 (AD 537), some eight months before the main "inaugural" event.

¹⁵ The Tepeu 1 style of the vessel puts certain limits on where this character could fit in the Naranjo dynastic sequence, if we consider his a discrete reign. The inception of Tepeu 1 is judged to fall around AD 550, although polychrome painting with historical texts was certainly in place earlier than this (see Martin and Grube 2000:70). The sophistication of K8763 (which comes from the same school that produced K530) rather resembles works from the late sixth-century. Yet Tepeu 1 pieces such as K8121, carrying the date AD 554, are also very fine and make a stylistic chronology uncertain.

Aj Wosaaj Chan K'inich (Double Comb), described as Naranjo's thirty-fifth king, acceded in 546 and did not relinquish power until at least 615. We do not have names for either the preceding thirty-fourth or succeeding thirty-sixth kings. From the thirty-seventh incumbent onwards we have a rather complete list, leaving these two as the best candidates. According to Naranjo Stela 25, Aj Wosaaj Chan K'inich was a client of the Snake kingdom, but this does not preclude a complex, shifting relationship between Naranjo and the two great powers of the time, poorly reflected in monumental inscriptions.

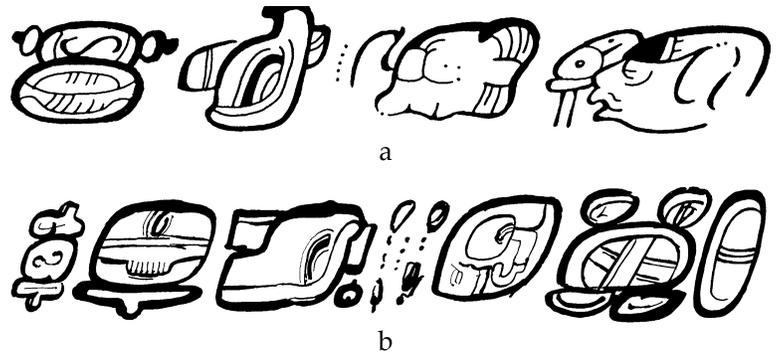


Figure 12. The Wak Chanal K'awiil name on painted ceramics: a) unprovenienced vessel, b) unprovenienced vessel (K8763) (9-12).



Figure 13. Unprovenienced plate (K8121) (after a photograph by Justin Kerr). Double Bird's name of Wak Chanal K'awiil "Jaguar God of the Underworld" appears in three glyphs beginning with the one arrowed.

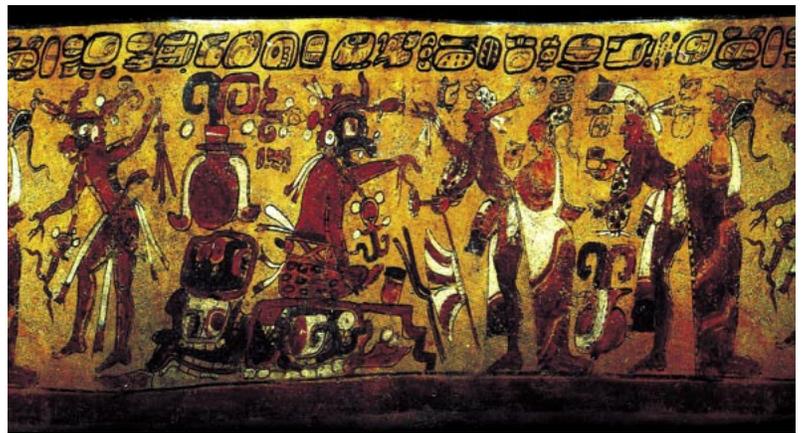


Figure 14. Unprovenienced vessel, K8763 in Justin Kerr's MayaVase Database.

familial ties, although they remain very sketchy.¹⁶ If Double Bird were involved at Naranjo it might help to explain the unusual pattern of succession at Tikal.¹⁷ His continued use of the Wak Chanal K'awiil name could even suggest that it was well-established prior to 537, with Wuk Chapaat Tz'ikiin Yax Ehb Xook K'inich Ajaw a form he adopted only on his installation at Tikal. Even if K8763 itself turns out to be a red herring—which is to say that the emblem is not what it seems, or identifies an unconnected ruler—Tikal-Naranjo relations in the Early Classic deserve further study in the years ahead.

Acknowledgments

My thanks go to Jaime Awe, Pierre Robert Colas, T. Patrick Culbert, Alfonso Escobedo, Stephen Houston, Sharon Misdea, Jorge Pérez de Lara, Joel Skidmore, and David Stuart.

¹⁶ There are four items of interest here. Firstly, an effigy of the Principal Bird Deity, now in the Museum für Völkerkunde in Berlin, has a detachable ceramic tail inscribed with a cursively incised hieroglyphic text. It records the 9.3.0.0.0 Period Ending of AD 495 with the name and titles of Chak Tok Ich'aak II. The text concludes by calling him *umam sak chuwen*. *Umam* can mean "his grandson," "his grandfather," or "his ancestor;" while *sak chuwen* can be translated as "white artisan"—a title restricted to the kings of Naranjo (Closs 1984:80).

Next, Guenter (pers. comm. 2004) suggests that Chak Tok Ich'aak carries the head variant form of the *sak chuwen* title on Tikal Stela 3 (D4), an identification he also posits for a compound on Double Bird's Stela 17 (H3) (see Jones and Satterthwaite 1982: Figs. 4, 25). The glyphs G3-G5 in this section originally seemed to constitute names and titles belonging to the Tikal founder, but it might be better to view them as a continuation of Double Bird's own title sequence. If so, a royal name and emblem glyph of Xultun should be included in it, along with *sak chuwen* and a possible "lineage count" title of *uxlajuum te'* "13 Tree."

Fourth and finally, on a portion of Naranjo Stela 43, whose whereabouts is currently unknown, we see the Naranjo king Aj Wosaaj Chan K'inich (Double Comb) below an array of floating gods and ancestors. As noted by David Stuart (pers. comm. 2003), the head of one carries glyphs spelling the name Chak Tok Ich'aak, while the figure's face takes the form of the glyph *ch'ok* "youth/sprout." Chak Tok Ich'aak II's relatively young age at his accession is implied by the date of his *yax ch'ahbaj* "first sacrifice" in 486—a rite that is normally performed in childhood—just two years before he appears as king on Tikal Stela 3 from 488. Interestingly, Stela 1 from El Temblor, near Tikal, describes the accession of a Chak Tok Ich'aak (Stuart 2000:507, n. 4). The date is damaged and unclear, but this monument might yet prove to be one from Chak Tok Ich'aak II's reign.

¹⁷ While it is tempting to read a dynastic schism into the years c.508-537, the monuments of the Lady of Tikal and Kaloomte' Bahlam continued to be honored in the Great Plaza after 537, suggesting their legitimacy and an orderly transfer of power. Two monuments, Stela 23 and 25, were ultimately moved outside the Great Plaza (probably in late times), but others from this era, Stelae 6, 10, 12, and 14, remained there.

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Tikal Stela 17. Photograph by Sylvanus G. Morley.

A Selection of Rubbings, Part One

MERLE GREENE ROBERTSON

Making Rubbings

Making rubbings on rice paper was an ancient Chinese way of sending news across the country before printing was invented. A "newspaper" was made of clay, left to harden, and then the ink impression was taken from it. Runners would travel all over the country with this rice paper copy, changing runners at special places, spaced closely enough so that a man could run at top speed to the next post. In this way news was carried very quickly across vast areas.

I have my own technique for doing rubbings that enables me to record monuments in quite different conditions and of different kinds of stone and their varied surfaces, depth of the carving and fineness of the lines. Working on a moss-covered stone in deep tropical jungle is quite different than working in a museum where the stone is clean and dry. I have developed ways of dealing with these differences.

Tools needed for sumi ink rubbings:

- Rice paper, kind depending upon stone being recorded.
- Tube of thick sumi ink.
- Fine china silk.
- Cotton (drugstore kind, not cotton balls).
- Uninked ink pad of sponge, not felt (3" x 4").
- 1/4" white masking tape to tie the balls with.
- Badger brush 2 1/2" wide (the very best you can afford; a cheap one leaves hairs on the rubbing).
- Quart-size bucket to hold water while putting it on the paper.
- Large bucket for water.
- Lots of soft rags about 15" square.
- Palette knife.
- Duct tape 2" wide if you are working outdoors.
- 1" masking tape if you are working indoors.
- Scissors, about an 8" kind that will cut paper evenly.
- Permanent felt-tip pen to mark rubbings.
- Something waterproof to carry the paper in.
- An art box to carry all of your paraphernalia except paper. (This is necessary; otherwise your equipment will be scattered all over when you need something instantly.)
- Ziplock bags to put ink pad and ink in.

First you must determine the kind of paper you need. Whatever kind, it must not have a sizing in it or the water will just roll off. If you are recording a stone that is very fine and has very fine carving or incising, you will need a fairly fine paper. If the stone is large and has deep carving you will need a heavier paper.

1. Have everything ready before you start. Squeeze about 2" of the sumi ink onto the uninked pad. Work it in gently with a palette knife. Close the lid and keep ready. Have a lot of tamping balls ready. Tear the China silk into 6" wide strips and then cut into 6" squares. Take a wad of cotton and make a ball, wrapping a square of China silk around it. Twist it and secure it with the 1/4" tape. The ball should be firm and about 1 1/4" in diameter.
2. Working indoors: First tape the paper in several places onto the stone, allowing it to lap around the edge.
3. Working from the top down, wet the rice paper with the wide brush. If the stone is large you will probably have to start the rubbing process a small section at a time, always keeping the wet area considerably below where the ink is being put on.
4. Determine when the paper is almost dry, but not quite. (You will just have to practice on something unimportant until you get the knack. Once you have it, you will be able to test the paper with the back of your hand and know when it is ready.) Now tap the dauber lightly against the inked pad and then test it on another piece of paper so you don't have too much ink. An inked dauber will last quite a while before you have to put more ink on it. Eventually it will get too packed and flat. Now you need a new dauber. Do not try to clean the used daubers or you will be sorry. Throw them away. If you are working on a stone that is so large that it cannot be completely wet first, be sure that each area is the proper dryness before proceeding. Patience is the secret of making rubbings. Sometimes you will have to wait an hour, and other times you have to work at breakneck speed.
5. When finished, do not be in a hurry to take the paper off the stone: wait for it to be completely dry and then carefully peel it off. If there is any ink on the back, then you have worked on it before it was dry enough and so it is a very bad rubbing.

Working in the jungle or other bad-weather place, do the same as above except you will have to clean the stone with a soft rag and the end of a green stick that you have feathered on the end so as not to harm the stone. If it is covered with moss, this must be removed the same way, then washed and let dry, which may take several days. Instead of using masking tape to hold the paper, you will need to use a lot of duct tape to secure the paper from the wind.

When the stone will not dry out completely: This is where you may need to use oil paint instead of sumi ink. In a case such as this, secure the paper very well all along the edges with duct tape. The paper must then be allowed to dry completely. The best way to use the paint is to mix some black and some India red and make a pile on the edge of an aluminum cake pan bottom that has a rolled edge (this keeps the sheet of metal flat). With the palette knife, smooth a very little of the mixture over a large portion of the metal. Then the paint can be put on one of two ways. One is to use your bare thumb and build the coats up until the desired tint pleases you, which will take a lot of time and patience. This is the way the Sarcophagus Cover from Palenque was done. The other way is to do the rubbing on cloth, such as a sheet. The cloth must be secured very tight so that it does not move. Then with a soft brayer 1 1/2" in diameter by 4", roll it very lightly over the cloth so that there is barely an impression on the cloth. This can be done one or two more times. The finishing is done by using your thumb, the same way as described above. When packing, be sure there is a paper between folds, or the paint, not being dry, will smudge.

One last note, and this is the most important of all. It is forbidden to do rubbings in both Mexico and Guatemala. You must have permission from INAH in Mexico and IDEAH of Guatemala before you even try to do this. I have had permission from every government where I have made rubbings. I sincerely thank INAH of Mexico for all of their help, cooperation and permissions in doing the rubbings that you see here.

Palenque Sarcophagus Cover

On this monolithic limestone sarcophagus lid in the crypt of the Temple of the Inscriptions (Figure 1), sculptors carved for posterity the Maya belief that when a king dies, a god is born. In this case K'inich Janahb Pakal will become two gods, K'awiil and the maize god. This best known king in all the Maya realm, justly renowned as "Pakal the Great," came into his royal role at the tender age of twelve. In AD 615 he ascended the throne when Palenque, anciently called Lakam Ha', or "Big Water," and all of the kingdom of Baakal was in great turmoil. K'inich Janahb Pakal ruled until he died at the age of eighty in AD 683.

The king is shown falling into the otherworld of Xibalba seated on the head of the Earth Monster, whose headdress is composed of the quadripartite badge: a spondylus shell, a stingray spine, a kimi "death" sign, and a floral spray. His entrance to the Otherworld is through the open jaws of a dead serpent or centipede.

His awkward pose is the result of the position of his right club foot, of which only the sole can be seen here. His pectoral is a turtle carapace, a sign of royalty, with

a reptilian head. On his belt he wears a spider monkey. His skirt is that worn by the maize god, while the torch of K'awiil (God K) protrudes from his forehead.

The sacred ceiba tree rises above him through the world of the living to the heavens above, where the divine celestial bird is perched. Undulating across the tree and its crossbar is a double-headed serpent with K'awiil in its open jaws on the left and the Jester God on the right. Celestial symbols form the border of this magnificent cover of the sarcophagus of K'inich Janahb Pakal.

Palenque Sarcophagus Figures on East Side

The stone coffin beneath the famous Palenque Sarcophagus Cover is the final resting place of K'inich Janahb Pakal. On its sides, the ancestors of this illustrious king are carved (Figure 2). Twin portraits of his mother Lady Sak K'uk' and his father K'an Mo' Hix appear on both the north and south ends. Among the depictions of previous rulers is the Palenque queen Lady Yohl Ik'nal. This line of generations does not extend back to the founder of the dynasty but starts with a king known to us as Ahkal Mo' Nahb.

The figure on the far left here is this early sixth-century king, previously referred to as Chaacal I. His name was taken by the subsequent ruler Ahkal Mo' Nahb III, who ascended the throne of Palenque in AD 722. It is this latter lord who is portrayed on the pier and the now famous sculptured platform recently discovered in Temple XIX just south of the Cross Group. Clearly the first Ahkal Mo' Nahb was venerated by following generations at Palenque, and that is why he is depicted here.

As on all of the other sarcophagus figures, he emerges from a crack in the earth with a guayaba tree behind him. His headdress consists of a toothed frog and a macaw beak, with a jaguar tail at the top. He wears a large bead necklace supporting an Ik' pectoral. To his immediate right is K'inich Kan Bahlam I, and to his far right Lady Yohl Ik'nal.

Palenque Tablet of the Slaves

At first the central figure on this tablet (Figure 3) was thought to be a ruler called Lord Chaacal by Linda Schele and Peter Mathews. Then later investigation seemed to reveal that he was not a king but an important subordinate to Lord Chaacal, possibly a war captain by the name of Chak Zut'. A new interpretation now tells us that this figure is indeed the king K'inich Ahkal Mo' Nahb III, as Lord Chaacal is currently known. He is shown here flanked by his father and mother in the same tri-figure arrangement as on the Palace Tablet.

The king holds his right arm across his chest in a gesture like that of the kings on the Palace Tablet and the Oval Palace Tablet. In each scene the ruler is about



Figure 1. Palenque Sarcophagus Cover (rubbing by Merle Greene Robertson).

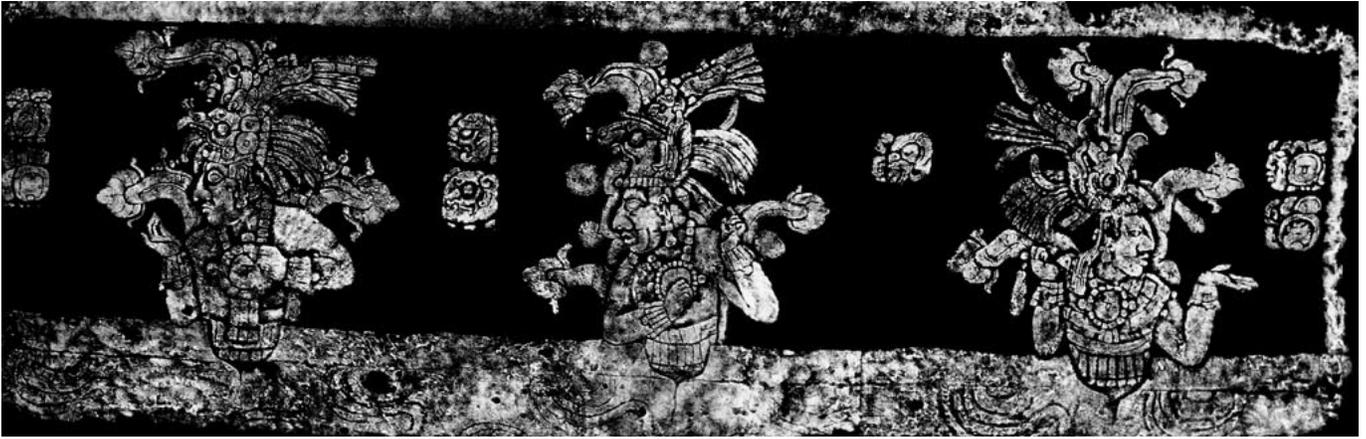


Figure 2. Palenque Sarcophagus, Figures on East Side (rubbing by Merle Greene Robertson).

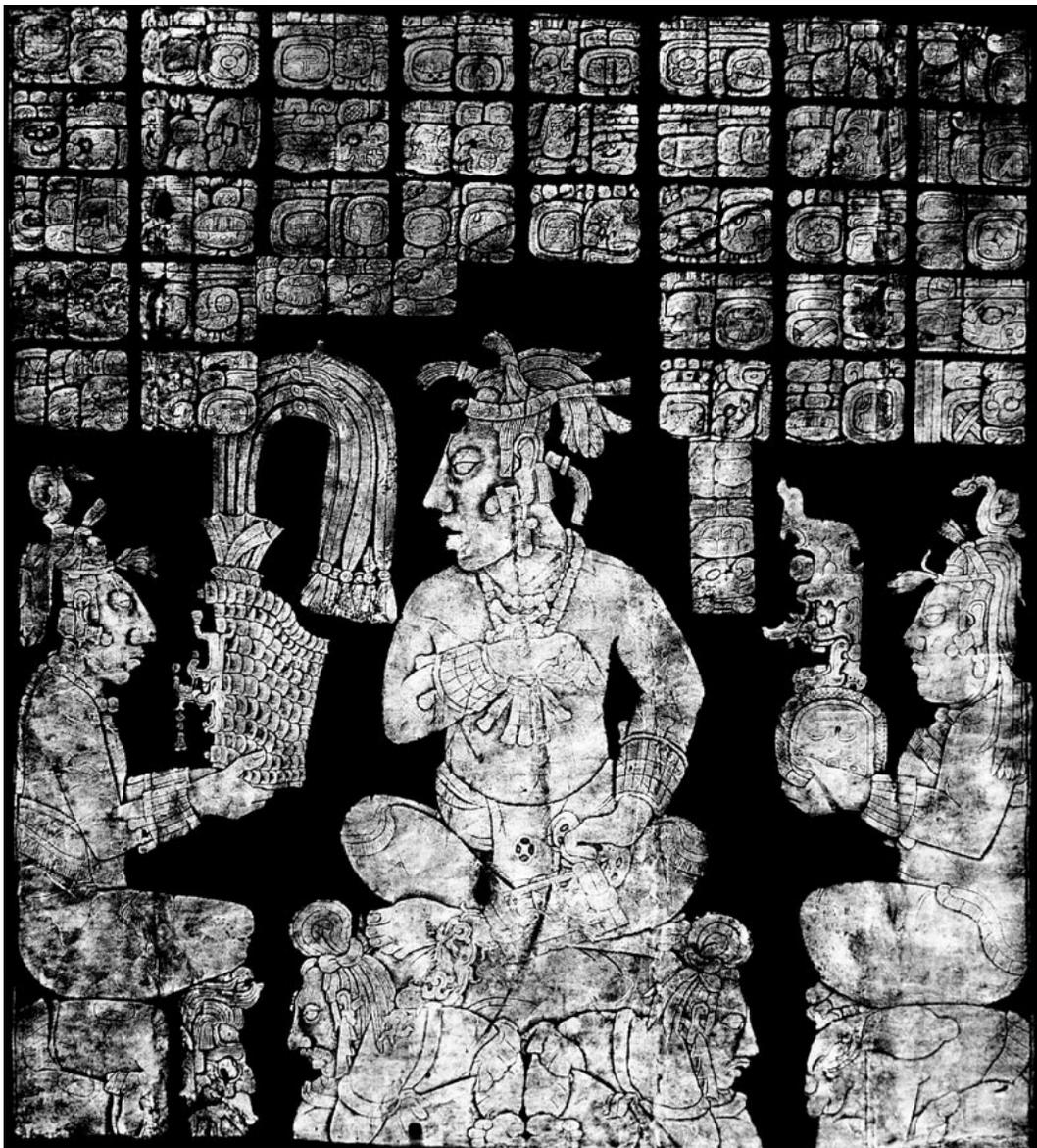


Figure 3. Palenque Tablet of the Slaves (rubbing by Merle Greene Robertson).

to receive the royal drummajor headdress from his father, except that on the Oval Palace Tablet the mother of K'inich Janahb Pakal takes on the role of the male in this presentation scene.

The king is scantily dressed in a simple bead necklace and wristlets, an unadorned loincloth and short kilt. He wears no sandals and has his hair pulled back with tufts of hair being drawn through bead tubes in front and back. He holds a bag with an owl on it in his left hand. His father presents the royal headdress while his mother presents a personified flint and flayed-face shield.

Chak Suutz', featured in the text, was a high military lord under Ahkal Mo' Nahb III and is credited here with numerous war victories.

Palenque Temple of the Sun Tablet

The Temple of the Sun (Figure 4) is one of three temples of the Cross Group, the other two being the Temple of the Cross and the Temple of the Foliated Cross. These temples were all built by K'inich Kan Bahlam II, eldest son of

Pakal the Great. The Temple of the Sun, the second of the three temples built, had GIII as its patron god.

Both of the figures are Kan Bahlam, the right figure when he was a mature man and king of Palenque and the shorter figure when he was a child of six. It was at this age, on the date 9 Akbal 6 Xul, that Kan Bahlam was designated the rightful heir to the throne of Baakal.

Upon measuring the figures, it was found that the short figure comes to mid-chest of the tall figure. They are dressed quite differently, the short figure being bundled up in a long scarf but no boots, whereas the tall figure is scantily clad in a pointed knee-length apron and high-top boots.

The main icon on this tablet is the shield representing the Jaguar God of the Underworld. The serpent bar under the shield, its open-mouthed jaguar topped by smoke scrolls, is supported by God L and God M.

The inscription starts with the Initial Series Introductory Glyph, then gives the birth date of the patron god GIII. The text goes into the dedication of the Temple of the Sun itself and the heir designation event for the six-year-old Kan Bahlam.

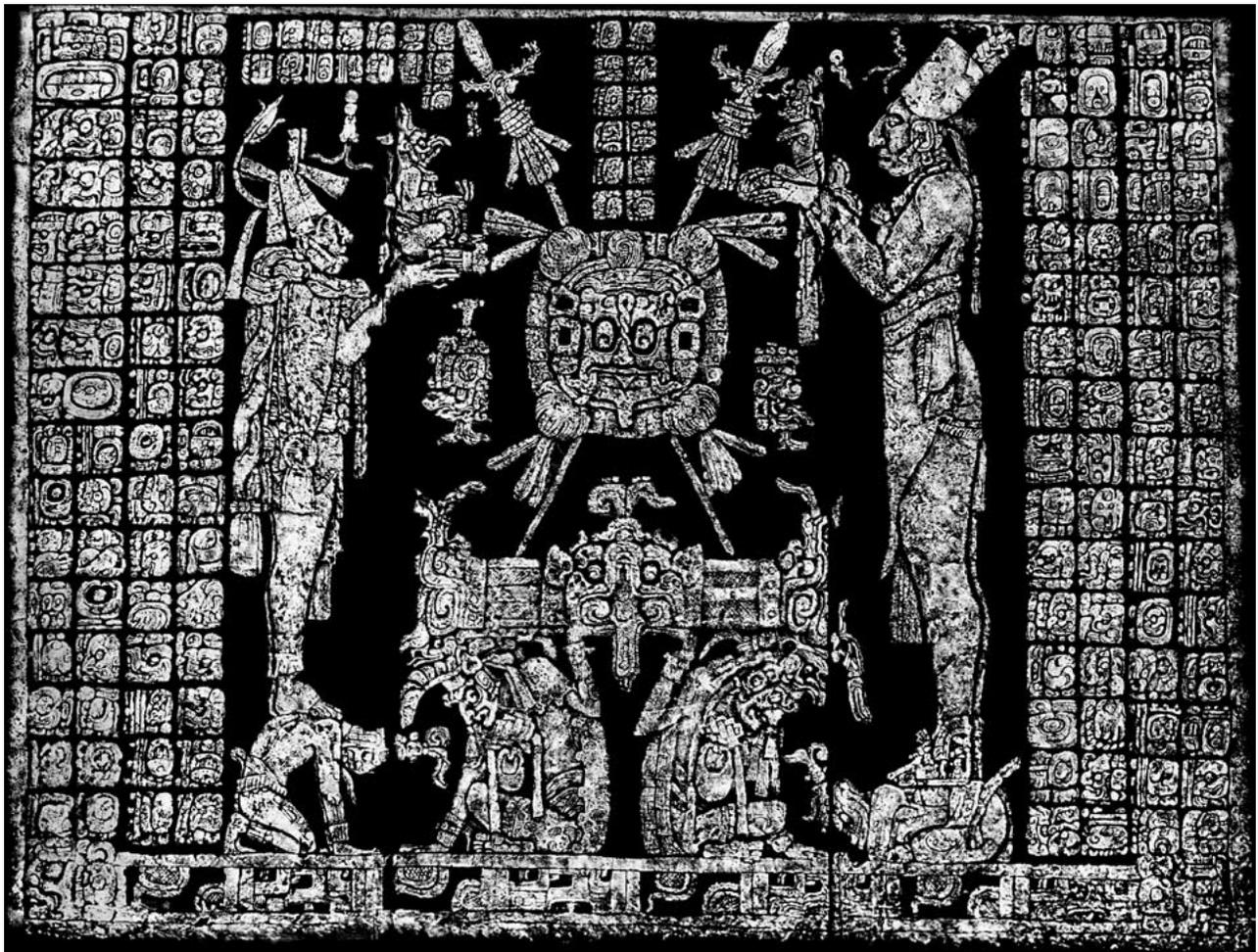


Figure 4. Palenque Temple of the Sun Sanctuary Tablet (rubbing by Merle Greene Robertson).



Neg. No. 10313, Courtesy of the Museum of New Mexico.

Morley's Diary, 1932

Editor's note

A leading archaeologist of his time, Sylvanus Griswold Morley was an Associate of the Carnegie Institution of Washington, the foremost organization excavating archaeological sites in Mexico, Guatemala and Honduras in the early part of the twentieth century. This diary continues his account of the Carnegie Institution's expedition to Calakmul begun on April 3, 1932. Morley's professional companions were his wife Frances, Karl Rupert, John Bolles and Gustav Stromsvic. Reference is made to biologist Cyrus L. Lundell, who conducted the first scientific investigations at Calakmul and brought the site to the attention of the Carnegie Institution.

April 22 - Friday

The sapping up process continues. Gus took three digging gangs of two men each and set to work on three different places around Structure B.

I took Isidro and Rafael over to the west end and set them to work felling trees in several different places, Stela 88, Stela 91, and Stelae 57 and 58.

I then returned to camp and went with Frances and Gustav to see the quarry that John found. This is north of Stela 1 perhaps 200 yards and is a quarry without doubt. The ancients seem to have been trying to quarry a lintel, at least the stone looked small to me for a stela. It is perhaps a third freed from the ledge of limestone of which it forms a part. It is the best example I have ever seen of a stone only partially quarried out. At Xultun I remember a broken stela, abandoned in a quarry, but this had obviously been abandoned because the shaft had broken there, but this Calakmul quarry shows the shaft only partially freed from the ledge of native limestone.

Returning to camp, Gustav went on to his digging at Structure B, while Frances and I started photographing with Genaro to carry the impedimenta. Already early in the morning it promised to be another scorching day, and scorching it was.

She could only get a picture at Stela 28, as Stela 29 was still in the shade, and while waiting for it, the sun not the stela, to move, we went over to Stela 43.

The light was only fair here but we took the picture so that Gustav's men could continue digging *below* the upper floor level, since the carving on this monument continues below the upper plastered floor level.

As soon as these pictures were taken Frances went back to Stela 29 with Genaro and also with young Jose Carmen, who had shown up in the meantime.

I stayed on to take notes on Stela 43 which does not work out satisfactorily. The Initial Series very clearly records 9.4.0.0.0 13 Ahau 18 Yax, but the style of carving seems to me to indicate a considerably later date than this, possibly as late as Katun 13 or Katun 14, two centuries later. At least two nearby stelae, Nos. 40 and 41 date from 9.13.10.0.0 and Stela 46 from some time in Katun 14.

The earliest sure date with this possible exception is 9.9.10.0.0 on Stelae 28 and 29. But I doubt the contemporaneous date of Stela 43 being 9.4.0.0.0.

The inscription on the right side shows a number of Calendar Round dates but no Secondary Series bringing the Initial Series down to later times. I do not think Katun 4 can be the contemporaneous date of Stela 43.

Gustav's boys, Alberto and Onesimo, found the lower floor level at 1 foot below the upper one and equally well plastered. Gustav segregated the sherds which came from between these two floor levels.

I joined Frances at Stela 29 and from there we went to Stela 86, which we photographed next. I lost my way

getting to this, as I did the last time I went to this monument. We got a good picture here — I hope — and then struck through the bush to find Stela 80, the one that has the big hornets nest behind it.

I am continually amazed at the way these boys of ours strike out through the bush without map or compass and come out exactly at the place they are heading for. This happened in the present case and Genaro, who was ahead with the camera case, came out at Stela 80 which was in pretty fair light so Frances photographed its left side.

From here we next moved to Stela 74 and 73, the front of Stela 72 and the side (left) of Stela 71.

It was 11:15 and after knocking off time, so we called to Rafael and Isidro who had been felling trees in the vicinity to come with us, but they had already returned to camp.

Here a change of plan was getting under way. John's work is over and Karl's practically so, and we decided this morning that tomorrow they would go into Central Buenfils a day early and go on to this ruin 6 leagues beyond there, which Laborio knows and says there are two or three sculptured stelae there.

To this end I sent Jesus into Central Buenfils to bring back an aria of mules. He and Laborio will leave here tomorrow morning with Karl and John.

This plan gave rise to certain sex complications. Laborio could not leave his woman — a not unlikely looking Maya wench — alone the night he would be alone, and so he is going to have to take her into Central Buenfils with him tomorrow. This gives rise to other complications since this woman of his is the cook of the Central Buenfils cuadrilla.

I finally solved this matter by making arrangements with Francisco Quijano, the head of the Tuxpeña cuadrilla, to have his cook give the Central Buenfils, lunch and supper tomorrow night and breakfast Sunday morning.

Jesus was dispatched immediately after lunch to fetch the aria of mules (5 mules) from Central Buenfils today, and the boys will leave in the morning probably stopping for lunch at Central Buenfils and continuing on to this new group of ruins on Sunday morning meeting us at Central Buenfils Sunday night again.

Immediately after Jesus left I went over to Stela 35 and think I read the I. S. on its left side, the second on the monument, as 9.11.8.10.8. The introducing glyph irregularly for this site, occupies the space of one glyph-block. The light was so good that I sent Genaro back for Frances and the camera.

While F. was photographing Stela 35 and later Stela 36 (the left sides) I took notes on the latter. This dates surely from Katun 11, and probably Tun 10 of that katun. The variable central element of the Initial Series introducing glyph is the moon sign quite clearly which if my memory does not play me false corresponds with the month of Chen. I think this I. S. reads 9.11.10.0.0 11 Ahau 18 Chen.

From here in the white heat of about 1:30 we pushed

on up to Structure A. The sun had already left Stela 48 so we went up to the terrace of the beautiful monuments.

Hot — everything that went before this was cold in comparison. For the past 3 days I have been covered with prickly heat and today fed the case right.

Frances took the beautiful Stela 51 and the standing Stela 52 and I tried to take them with Proc's Verascope, but the damn thing has so many gadgets I thought I had better try to break it on a cooler day.

I was afraid we would lose the light on Stela 89 above on the summit if we delayed too long, so we climbed there next. On a hot blistering day like today this is cork pulling business, and we were wet through with perspiration when we finally struggled up to the summit.

The light was beautiful on this fine example of Old Empire art and Frances exposed a number of negatives.

I had not finished my note taking on the front. The front opens with the date 7 Cib 10 Zac a curious repetition of the error seen on the right side of this monument. Cib can only occupy the month positions 4, 9, 14, or 19 and this 10 Zac is clearly an error on the part of the ancient sculptor for 9 Zac. It is doubly curious in that exactly this same error should occur twice on the same monument.

There is a panel of 8 incised glyphs in the left upper part, the first and fifth glyphs of which are the familiar Zotz head with the knotted prefix, seen so *very* frequently in these incised glyphs on Old Empire monuments.



After finishing with our photographing and note-taking we descended Structure A or more properly speaking the steep and lofty pyramid which supports it, and Frances took the last pictures of Structure A, Stela 52 again, also Stelae 53, 54, and 55.

We left there about 4:10 and were back in camp by 4:20 and Frances took her bath first and I later. While we were at this most delightful pastime, refreshing our aching sweating bodies with cool water and hot, Gustav's boys passed bearing heavy sacks of potsherds from his various diggings, on their shoulders. They must have been heavy judging from the way his boys shoulders were bending under them.

After bathing I took a few last notes on Stela 13, the upper left corner of which records the I. S. 9.12.0.0.0 10 Ahau 8 Yaxkin. The God of the Sun, who presided over the month of Yaxkin, appears as the variable central element of the introducing glyph.

To celebrate the last evening we will all be together here at Calakmul, we opened our bottle of snake medicine, some 6 letter cognac, with which we toasted our most amazing luck here. In going over my notes I find one extra Initial Series so that we have a total of 51 instead of 50, and a total of 103 stelae of which 62 were discovered by Lundell and 41 by the C. I. W. Expedition.

After supper the auction quartette got into action again. Tarsisio operated the phonograph and I wrote the entry for the day. To bed a little after eight.