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In This Issue:

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Reading the Regnal Names of Rulers III and V of Caracol, Belize

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Ever since the pioneering work of Tatiana Proskouriakoff (1960) in which she was able to identify the biological lifespans of historical actors in the inscriptions of the ancient Maya, scholars of epigraphy have been grappling with the names of ancient Maya kings, queens, and courtiers. This is especially so as these breakthroughs and the historical interpretations of Maya glyphic texts took place at a time before the phonetic decipherment of ancient Maya hieroglyphs, something that would take place in the decades that followed. As such, it was necessary to develop a system of by-names that would serve to designate these historical actors.¹ These were always intended to be provisional, and yet to this day some of these by-names remain, as some of the ancient names continue to defy even the most stubborn efforts at decipherment. Sometimes the by-names were applied by the whim of a particular researcher, some with a penchant for the comical, whereas others resorted to more neutral numerical or alphabetic designations, such as Ruler X or Ruler B. It was, however, from the 1970s onwards with the first Mesa Redonda de Palenque, that researchers began devising by-names at an almost frenetic pace. Some of these drew on the glyphs that served to record the names of ancient rulers, using descriptions of the signs in question, such as Moon Skull (since the name was thought to include signs representing these elements; the name can now be read as Jatz'om Jo'l 'skull-crusher'). Other times the names were purely descriptive, such as Bird Jaguar of the site of Yaxchilan, which

involves the name of a particular bird and a jaguar, creating a type of zoophoric binomial (see Proskouriakoff 1964). This name can now be fully read as Yaxuun Bahlam, for 'cotinga jaguar', involving a type of passerine bird with bright blue plumage, with the apex predator of the rainforest, to create a zoophoric name, common in the Maya area and Mesoamerica generally. Other times, even the earliest efforts managed to elucidate parts of the name and succeeded in providing some part of what were otherwise lengthy nominal strings. This was the case of the celebrated decipherment of the renowned Maya ruler Pakal 'shield', which was first read by Peter Mathews and Linda Schele in 1973 (Mathews and Schele 1974).² Nowadays, we can appreciate the more complete regnal name that he adopted upon his accession to the throne, namely K'inich Janaab Pakal I ('radiant is the raptorial bird shield'), replete with the anachronistic ordinal Roman numeral of European scholarship (known as a regnal number), which marks him as the first in the dynasty of Palenque to bear this regnal name.

From 2000 onwards, epigraphy and the reading of Maya hieroglyphs had

¹ In this paper, we use the terminology of the American Name Society, including terms such as by-names, first names, anthroponyms, regnal names, and theonyms. In addition to these, we introduce the terms theophoric names and zoophoric names as well as necronyms.

² Although this ruler was provisionally also called Lord Chimal (using a Nahuatlism for 'shield').

Qualifier	Possessive	Theonym	Translation
<i>K'ahk'</i>	<i>Ujo'l</i>	<i>K'inich</i>	'fire is the skull of the radiant one (K'inich)'
<i>K'ahk'</i>	<i>Upakal</i>	<i>K'awiil</i>	'fire is the shield of K'awiil'
<i>Waxaklajuun</i>	<i>Ubaah</i>	<i>K'awiil</i>	'eighteen are the heads/selves of K'awiil'
Verb	Sky	Theonym	Translation
<i>Bajlaj</i>	<i>Chan</i>	<i>K'awiil</i>	'K'awiil (who) batters/hammers in the sky'
<i>Yax Mayuy</i>	<i>Chan</i>	<i>Chaahk</i>	'Chaahk (is) the first haze/fog in the heavens'
<i>K'ahk' Tiliw</i>	<i>Chan</i>	<i>Chaahk</i>	'Chaahk (who) stokes the fire in the sky'

Table 1. Name phrases of deities that serve as regnal names.

advanced to such a degree that it was no longer necessary to rely wholly on the earlier by-names, and earnest attempts were made to properly read the names of ancient Maya kings. Nikolai Grube in large measure paved the way with his article "La onomástica de los gobernantes mayas" which was published in 2002. From then on, epigraphers increasingly began transliterating and understanding the meaning of ancient Maya royal names, and it became clear also that royals used youth names until they came to the throne, at which point they would adopt a regnal name, often one that had already been used by a prominent forebear (requiring the use of the Roman regnal numerals to distinguish monarchs ruling under the same throne name). Some rulers, maintained their youth names, which they paired with their regnal names upon accession, which was the key to understanding the naming practices at play among ancient Maya royalty.

From there, one of Grube's students, Pierre Robert Colas, picked up the mantle and focused his research on onomastic practices of the ancient Maya, completing his doctoral thesis on the subject in 2004, and then following it up with a series of articles published successively in 2006 and 2009, with his last chapter appearing posthumously in 2014. In addition to fine-tuning our understanding of ancient Maya names, Colas also identified regional naming practices and found that the regnal names of rulers in the western Maya lowlands were predominantly zoophoric names combining the names of different animals (as in *Yaxuun Bahlam*, 'cotinga-jaguar' above), or with names referring to a particular body part of an animal, such as *Yich'aak Bahlam* 'the paw/claw of the jaguar' (Colas 2006:90, 94). In contrast, in the eastern Maya lowlands, regnal names were typically theophoric and formed complete grammatical sentences, with rulers named after a particular aspect of a given deity, such as *K'inich* (the supreme solar deity), *K'awiil* (the personification of lightning and royal power), *Chaahk* (the deity of thunder and rain), or even *Yopaaht* (an alternate embodiment of destructive storms). In the east, names of Maya rulers take different forms, either referring to a particular divine body part or an object tied to a deity. Alternatively, these name phrases refer to the deities as

conducting different tempestuous and fiery actions in the heavens. Examples include the names phrases in Table 1.

In addition to accessions which served as propitious times to mark name changes from youth names to regnal names, Colas (2004:288-296, 2014:28) also found that death constitutes another significant rite of passage, prompting some Maya dynasties to use necronyms to refer to their dead monarchs (Colas 2004:277-288, 2009). Below we explore the regnal names of the ancient monarchs of Caracol and provide a series of readings for more extensive nominal phrases.

The Kings of Caracol

Our understanding of the regnal names of the kings of the archaeological site of Caracol, in present-day Belize, has evolved steadily over the past five decades. The first efforts were made by Heinrich Berlin (1973) who coined such by-names as Lord Water and Lord Storm-water Moon for some of the more prominent historical actors (see Appendix 1). These were maintained by later scholarship, notably in the publications of Carl Beetz (1980), who further identified the youth name of Lord Storm-water Moon, coining the by-name Yellow Storm for his pre-accession name, as well as the name of his mother whom he called God C Star. By 1981, the hieroglyphic corpus of Caracol appeared in the co-authored volume by Beetz and Satterthwaite (1981), wherein they also proposed the first historical outline of royal successions, using the by-names devised by Beetz. Research by John Sosa and Dorie Reents (1980) would see the introduction of additional by-names. These included the amusing Antenna Top II (for Lord Storm-water Moon) and Starhead (for God C Star). Even more by-names were introduced by Andrea Stone, Dorie Reents, and Robert Coffman (1985), when they coined K'an I (in an attempt to partially read the name of the earlier Antenna Top I), K'an II (for Antenna Top II), Lord Muluc (for the earlier Lord Water), and Batz' Ek' (for Starhead).

Huge strides in our understanding of the Caracol dynasty were made in the seminal study by Stephen Houston (1987), who cautiously preferred to use

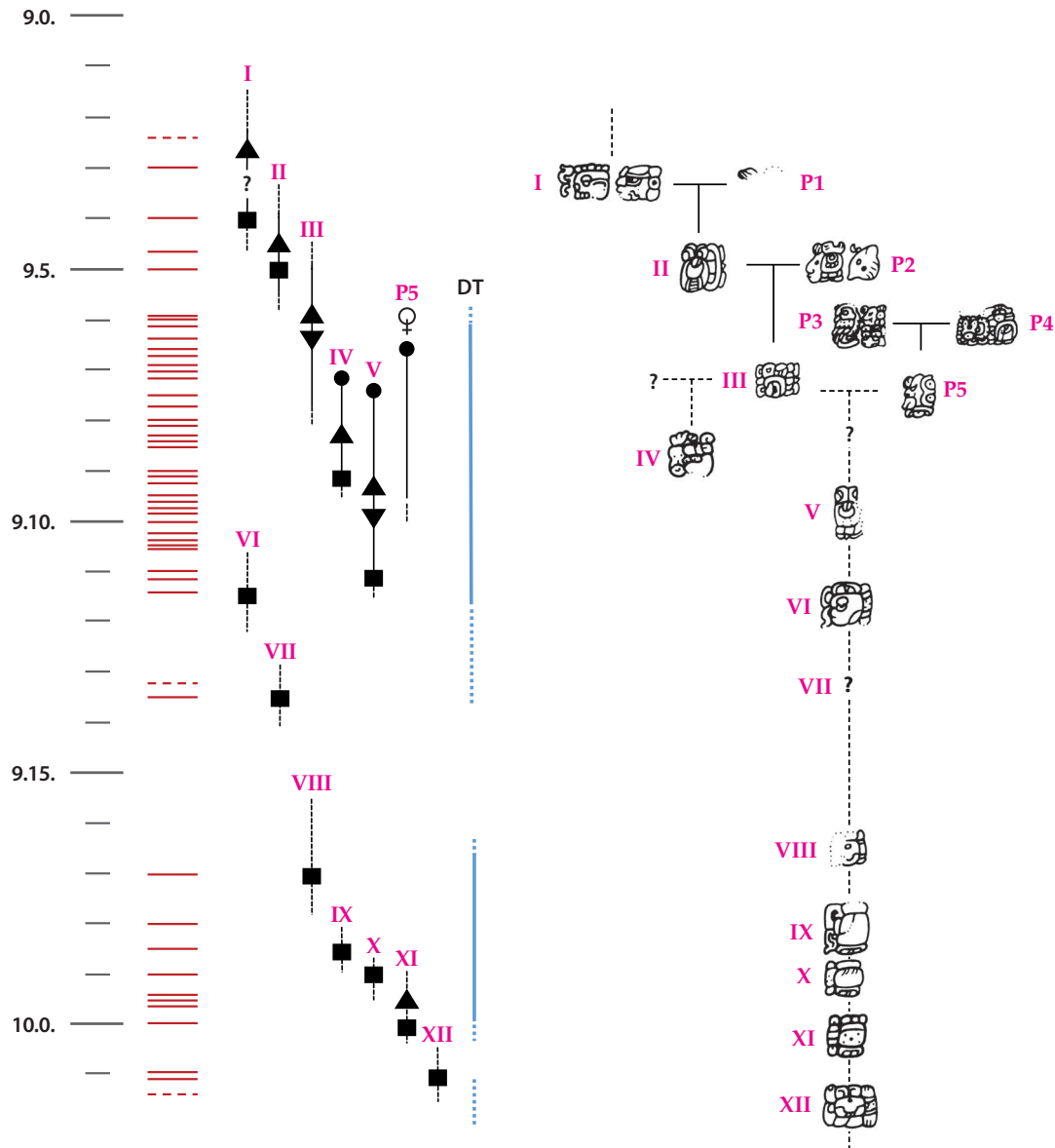


Figure 1. Graphic overview of the Caracol dynasty. Note the name glyphs of rulers and their designations with Roman numerals at the right. The timeline is expressed in Baktun and K’atun dates (starting with 9.0.0.0.0 or AD 435 and ending with 10.1.0.0.0 or 849). The DT line represents the use of the Caracol dynastic title (chart by Stephen Houston, after Houston 1987:Fig. 68).

numerical ruler designations (using Roman numerals) (Figure 1). Since then, additional work by Simon Martin and Nikolai Grube (2000) has provided complete readings of the regnal names of 8 of the 14 known rulers of the site. Despite the great progress made, some regnal names continue to resist complete reading, and as a result we are forced to use the monikers devised by earlier epigraphers. As such, we still speak of K’an I and K’an II as well as Ruler VII. This has been particularly frustrating since the other names are now well understood and the most prolific king of Caracol, K’an II, is the monarch whose name appears most often on the texts of the site. It is in an effort to build on these onomastic foundations

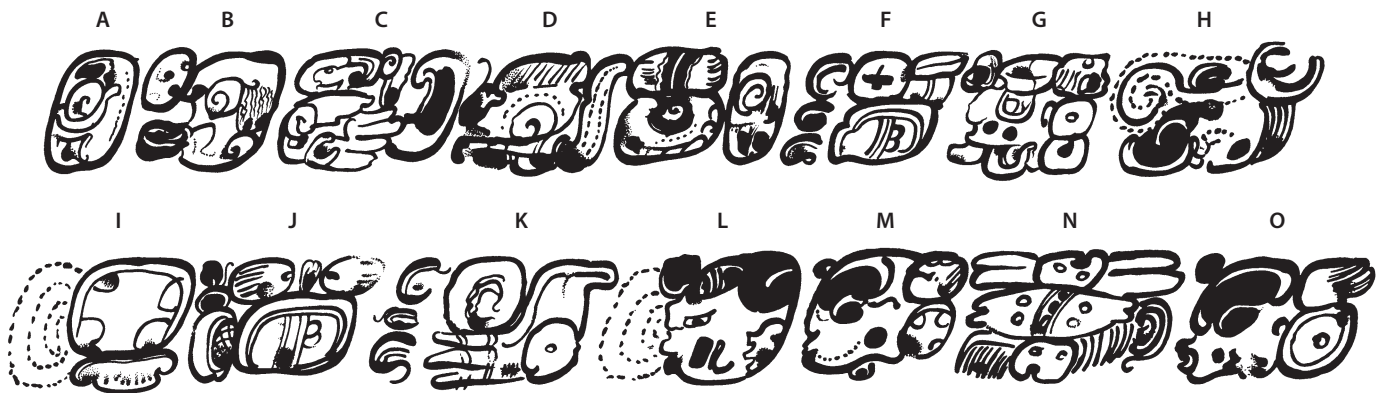
and to finally provide a complete reading of the regnal name of Ruler V (formerly K’an II, Antenna Top II, and Lord Storm-water Moon), and to make additional observations on the regnal name of his father Ruler III (Yajaw Te’ K’inich, Lord Muluc, or Lord Water) that we have prepared this study.

Ruler III

Some ancient Maya dynasties avidly sponsored elite craft production, and in particular patronized workshops where some of the finest polychromatic ceramics were produced (see Reents-Budet 1994). The royal court of



a



b

Figure 2. Unprovenanced vase (K8342) showing a mythological scene and naming Ruler III and his mother in the text along the rim: (a) photograph of vessel by Justin Kerr; (b) drawing of text by Christophe Helmke.

Naranjo for instance is well known for the ceramics that it produced, most of which prominently bear the names of the exalted kings who owned these and who used such tableware as part of lavish feasts and diplomatic encounters (e.g. Helmke 2017:107-108). Such was the value of these ceramics that they were often bestowed upon visiting guests to cement alliances and also donated as part of royal progresses to neighboring city-states. Despite its importance, the royal court of Caracol was never really invested in the production of polychromatic vessels (Helmke et al. 2018a:107-112; Houston 1987:97). The existence therefore of a polychromatic vase (K8342), in a private collection, that prominently mentions the name of its original owner as a king of Caracol is thereby all the more noteworthy (Figure 2a). The imagery of the vase represents a unique and playful mythological scene wherein a pocket gopher (known as a *k'an baah* 'yellow gopher' in Classic Mayan), holds a jagged stone, while seated within a red frame, all the while gazing upon the great celestial bird deity, apparently oblivious

to the danger, as it sips the nectar of a flower (Helmke et al. 2018a:108). Such royal ceramics typically include not only a statement of ownership, expressing to whom the vessel originally belonged, but also a dedicatory phrase at the onset to bless the manufacture of the object. The same is true for this vase, as in the dedicatory segment we read the self-referential *alay k'ahlaj utz'ihbil*, 'here is held above/raised the writing.' Interestingly, the manner in which the dedicatory segment is phrased suggests that the glyphs were painted in the king's own hand, as *u-tz'ihb-il* is 'it is his writing,' before going on to name the original owner as the sixth century monarch, known as Ruler III (who ruled from AD 553 and survived the succession of his son in 599) (Helmke et al. 2018a:109). Following the regnal name, we also see an abbreviated parentage statement, which is initiated by the name of his mother. That of his father, Ruler II, which should have followed was omitted due to lack of space.

On the vase, the reference to its owner, Ruler III or Yajawte' K'inich II, is written in such a way that an



Figure 3. Examples of *tz'uutz'* 'coati' in Maya iconography: (a) K0998; (b) K1181 (drawings by Sergei Vepretskii); (c) K4116 (drawing by Christophe Helmke). Note the distinctive dog-like facial features, the disheveled hair and the trilobate ear.

unusual animal head is added between his exalted dynastic title (*k'uhul k'antumaak*) and his regnal name (Figure 2b).³ Syntactically, the occurrence of this animal head before the title suggests that it forms part of an extended name phrase. The identity of this animal head has been a matter of discussion among epigraphers and has not been satisfactorily resolved to date. We might describe it, in the broadest of terms, as a visibly prognathic entity, with a pointed snout, dark spots on its muzzle and cheek, long scrolling hair atop its head, further delineated by a series of dots, and a distinctive cloven or trilobate ear. A close review of the corpus of Maya vase painting reveals another half-dozen examples of this animal, especially on the so-called codex-style vases of the Late Classic (K0998, K1181, K1231, K4116, and K7993). In these scenes, the animal is depicted with dog-like traits, including pronounced and pointed snout, dark nose, pointed canine teeth, extensive wrinkling of the face, and in keeping with the glyph on the Caracol vase, long scrolls of hair that are further delineated by small dots, and the distinctive cloven and trilobate ears.

Although these depictions render supernatural forms of these animals (as spirit familiars known as *wahy*; see Grube and Nahm 1994; Helmke and Nielsen 2009; Houston and Stuart 1989; Stuart 2021), three of these depictions are accompanied by glyphic captions that inform us that these animals were known as *tz'uutz'* (written with syllabic signs as *tz'u-tz'i*) (Figure 3).⁴ The precise animal that this term designates has likewise been a matter of debate, although epigraphers have generally inferred that this must refer to the animals known as *coati* or *pizote* (*Nasua narica*) (see Stone and Zender 2011:180-181). These animals are part of the greater raccoon family (Procyonidae) that is endemic to the western hemisphere and in Mesoamerica includes raccoons,

coatis, *cacomistles*, and *kinkajous*. The lexeme *coati* itself stems from a South American Tupian language, which was introduced to Spanish via Portuguese.⁵ In highland Mayan languages the lexeme *tz'uutz'* is relatively

³ The rulers of Caracol had the distinction of using a variant of the Emblem Glyph as a royal title. Elsewhere we have referred to this as a dynastic title, which like EGs, is prefixed by *k'uhul* 'godly, divine', but surprisingly the titular *ajaw* is omitted (Helmke et al. 2018a: 109-110). The intervening segment that is qualified by *k'uhul* is written *K'AN-tu-ma[ki]* and may be read as *k'antumaak*. The parsing of this polymorphic term remains problematic as its morphology and meaning remain unclear. We can, however, note that in two instances (Altar 17 and Step 2 of the Hieroglyphic Stair) the initial logogram *K'AN* is replaced by the head of a deer. As such, the use of the logogram may be a type of rebus, cueing a homophonous word for a particular type of deer, perhaps forming part of a toponym or ethnonym. From distributional patterns in the texts of Caracol it appears that this dynastic title was first used during the reign of Yajawte' K'inich II, with earlier kings preferring the title *Uxwitza' Ajaw*, based on the main toponym of Caracol: *ux-witz-a'*, 'three-mountain-place' (Helmke 2018:35; Stuart and Houston 1994:52, Fig. 63).

⁴ In one example (K8076) we see a supernatural scene wherein a *coati* is seated before a ruler in a palatial setting, and the glyphic caption between them can be transliterated as *mi / o-na / pa-ta / AL-ji-ya / tz'u-tz'i-hi*, and transcribed as *mih o'n patan yalajiiy tz'uutz'ih*, for 'not much tribute, said the coati'. The variant form *tz'uutz'ih*, has been taken as canonical (Helmke and Nielsen 2009: 65-66, n. 14, Table 1), regarding the other forms written *tz'u-tz'i* essentially as underspellings. Yet, given that all other examples are written in this manner it may be that the lexeme was originally *tz'uutz'*, with the *-ih* suffix in this one instance serving as a type of agentive marker.

⁵ The original term is *kua'-tim*, which can be translated as 'belt-nose', in reference to the pointed and elongated snout, presumably on the basis of a folk etymology explaining the origin of the animal's distinctive appearance.

commonplace for 'coati'. As such, one might conclude that *tz'utz'* in the Classic period likewise designated 'coati,' although some prominent linguists have voiced their skepticism, since the lowland Mayan languages (i.e., Yucatecan and Ch'olan) do not generally preserve reflexes of this lexeme (Kaufman 2003:581); these instead use other terms—such as *chi'ik* (in Yucatec, itself a loanword from *chikɪ*, in a Mixe-Zoquean language) and the descriptive neologism *kohtom* (in western Ch'olan). That being said, the term does survive in Ch'olan languages, such as Ch'ol where it is *tz'utz'ub* (Aulie and Aulie 1978:133) and Ch'orti', the most direct descendant of the Classic Maya language recorded in the hieroglyphs, as *paj-tz'utz'* (Hull 2016:320).⁶ Interestingly, this term *tz'uutz'* may be cognate with the verb 'to kiss, suck', which in lowland Mayan languages appears as *tz'uhtz'* (see Kaufman 2003:1182), perhaps referring to the animal's behavior, voraciously eating fruits and sucking the nectar of flowers. In this regard, the Tzeltalan form *tz'uhtz'um chab* 'chupamiel' is rather notable (Slocum et al. 1999:134). This may also explain the depictions of these animals, with the small dots rendered in the scrolling hair, as if pollen from nectar-giving flowers. The idea of coatis as 'suckers' finds close equivalence in another Mesoamerican language, notably in Nahuatl, where these are known as *pēsōh-tli* (Karttunen 1992:193) the origin of the Hispanism *pizote*, which in turn derives from *pitzōā* 'to kiss' (Karttunen 1992:198). The close equivalence between the name of the animal and the verb, in two unrelated Mesoamerican languages, suggests that these lexemes are based on shared cultural perceptions of these animals and likewise confirms that the term *tz'uutz'* in Classic Maya refers to 'coati, pizote'.

With the identity of the animal now established we can provide a fuller and more complete reading of the regnal name of Ruler III as Yajawte' K'inich Tz'uutz', or 'warrior/captain' of the radiant one [the sun], coati'. Even with the addition of *Tz'uutz'* at the end, we should not immediately reverse years of common knowledge and conclude that the coati is the syntactical head of the regnal name. The regnal name remains a theophoric helionym that refers to an aspect of the sun deity K'inich (literally 'the radiant one'), but one wherein the reference to the coati is couched within another regnal name. We will tease apart the syntax of these regnal names further on in the paper.

As we will see, this onomastic practice is one that was commonplace at Caracol and several rulers used names involving the lexeme *tz'uutz'*. In the case of Yajawte' K'inich Tz'uutz', a renewed scrutiny of the historical texts at Caracol shows that his regnal name was often written to include the final *tz'uutz'* segment, although at times, it involves graphic simplification, sign juxtaposition, or conflation. Thus whereas his name on the polychromatic vase is written in three distinct glyph blocks, with each word as a separate

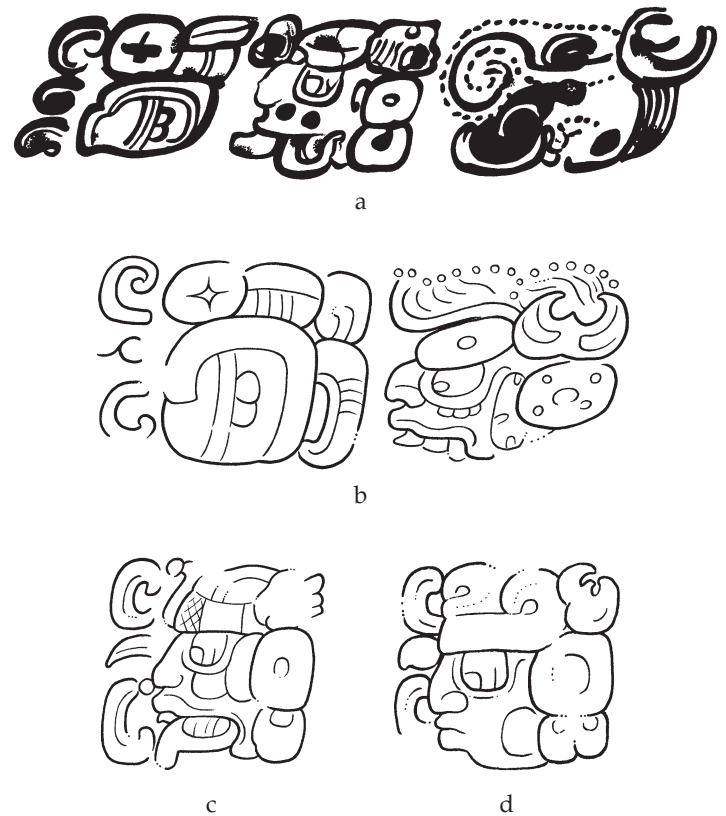


Figure 4. Examples of the name of Ruler III, written progressively with three glyph blocks, two, and just one: (a) K8342; (b) Stela 6; (c) Stela 1; (d) Stela 26 (drawings by Christophe Helmke).

block, in other instances his name is compacted to just two, as for instance in the text of Stela 6, raised by his son and successor, known under the by-name Knot Ajaw (r. AD 599-613+). On this monument, he provides a record of retrospective events and makes ample reference to his father. It is in this context that we see the regnal name written as **ya-AJAW-wa-TE' K'INICH[TZ'UTZ']** wherein the elements of *tz'uutz'* are partly conflated with the head of the solar deity K'inich, by rendering the scrolling and dotted hair, as well as the distinctive trilobate ear (Figure 4b). In examples of heightened conflation, the name was compressed into a single glyph block, on both Stelae 1 and 26, which were raised during the reign of Yajawte' K'inich Tz'uutz'. In the case of Stela 1 it is written with the main sign representing the head of the solar deity

⁶ In Ch'orti' the segment *paj* is used as part of onomatopoeic expressions referring to the sound that a slap makes (Kerry Hull, personal communication 2022). The use here is unclear, but may function as a type of augmentative referring to the animal as an emphatic or noisy 'sucker'.

⁷ This is assuming that *y-ajaw-te'* should be understood as 'lord of the spear/staff' and used as a type of military title.

K'INICH, wearing a royal headband and diadem, for **AJAW**, with the **ya-** sign presented as a prefix, the **TE'** logogram embedded in the mouth, and **TZ'UTZ'** cued by the trilobate ear that is visible above the large earflare (Figure 4c).

Ruler V

We will essentially skip the reign of Ruler IV, the elder son of Yajawte' K'inich Tz'uutz' II, who came to the throne in AD 599, after receiving the crown from his father. This situation created a type of co-rulership wherein the son had already been elevated to the throne while the father was still alive (Grube 1994:106; Martin and Grube 2000:90). At least, this is what the texts raised by Ruler IV would have us believe; the realities may have been significantly more nuanced. This is true given that Ruler IV was not succeeded by his offspring, as might have been expected. Instead, it was a younger half-brother who succeeded him, of the same father (Yajawte' K'inich Tz'uutz' II) but of another mother, who hailed from a foreign dynasty (this was Ixtiwool Chan Ek' Lem, formerly Lady Batz' Ek', Starhead, and God C Star) (see Grube 1994:107; Helmke and Awe 2016a:8-9). It is this figure, who would come to the throne as Ruler V and is known by a variety of by-names, especially K'an II (but also Lord Storm-water Moon and Antenna Top II). Given that this was the most prolific ruler of Caracol, raising the largest number of monuments, with the lengthiest texts (including his grand hieroglyphic stair and Stela 22) we have as many as 25 definite references to him and a few additional probable references in the written corpus (Appendix 2). This provides us with a unique opportunity to properly examine his name and the variations recorded on the various monuments.

His youth name, which he carried prior to his accession, is recorded clearly on Stela 3, as Sak Witzil Baah, or 'white montane gopher', a pleasant zoophoric name, referring to an uncommon animal and its environment (Figure 5a-b). In ethnozootaxonomies, these types of animals were typically thought of as yellow, suggesting that the zoonym refers to an animal with albinism, which given its use as an anthroponymic first name, can be qualified as a zoophoric name. The same name was used by namesakes at the site of Los Alacranes in Campeche, Mexico (in the sixth century) as well as by a ruler of the site of Komkom in the eastern central lowlands (in the eighth to ninth centuries) (Helmke et al. 2018b:39-40) (Figure 5c-d). In the lengthy text of Stela 3, the youth name is used in reference to his birth in AD 588, as well as his first blood offering, aged 5, in AD 593, while his father was still alive (although he was already of advanced age by this point, nearing the end of his life—his last known mention in AD 603 refers to him witnessing another ritual event). The reference to this bloodletting ritual appears to serve as a type of tacit endorsement by

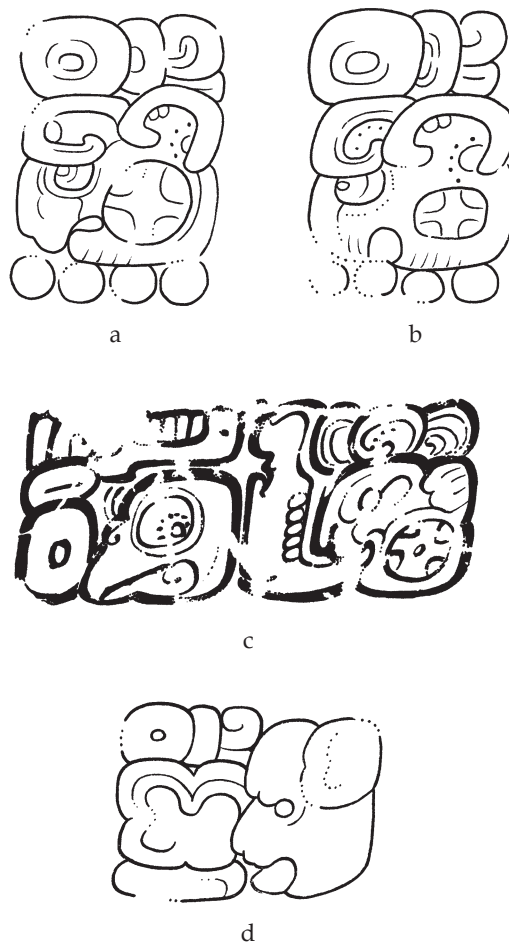


Figure 5. Examples of the youth name of Ruler V, and other namesakes: (a-b) youth name of Ruler V on Stela 3 (B17b and A20a); (c) namesake on the Komkom Vase found at Baking Pot, Belize; (d) namesake on Stela 2 at Los Alacranes, Campeche, Mexico (drawings by Christophe Helmke).

his father as a legitimate successor (even though he was bypassed by his elder half-brother, who came to throne when Sak Witzil Baah was aged 11; with the younger brother perhaps looking enviously upon the elevation of his sibling). Precisely what transpired and how Ruler IV met his end or stepped down from the throne, the historical records are startlingly mute. What we do know is that Sak Witzil Baah underwent a series of three coronation rituals, the first one in AD 618, which was said to be ordained and taking place under the auspices of the tutelary deities of Caracol. The second one was in 619 and the third one the same year, under the auspices of the influential king of the Kanu'l dynasty (Helmke and Awe 2018; Helmke et al. in press:8). It is at that juncture that he acquired his regnal name (which is the source of the nickname K'an II), adopting the same regnal name as his paternal grandfather (K'an I / Ruler II), who had come to the throne 87 years prior (r. AD 531-534+).

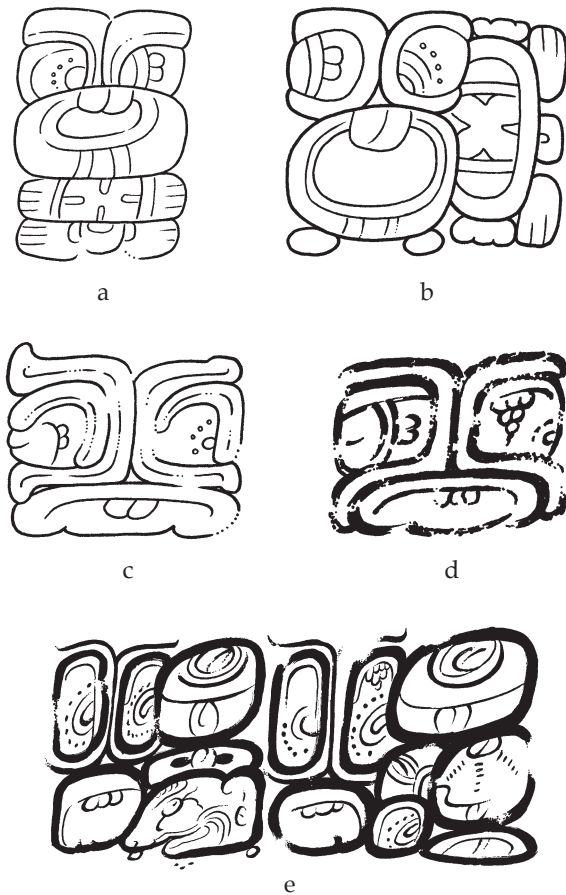


Figure 6. The regnal name of Ruler V and examples of the T351 logogram in titular expressions. The name of Ruler V on (a) Stela 3 (C16a) and (b) Naranjo Panel 1 (G4). The complete form of the logogram T351 including the **na**-like element in titular expressions: (c) Naranjo Stela 23; (d) Komkom Vase, note in particular how the tendril-like elements drape around the **na**-like element. (e) A titular pairing T351-**OL-ta-ji-la** T351-**OL-pi-tzi-li** in the murals of Ek Balam, both involving the medial segment *ohl* ‘heart’ and the titles *tajil* ‘obsidian’ and *pitzil* ‘ballplayer’ (drawings by Christophe Helmke).

The regnal name is usually written with three logograms, of which the latter two can be read without difficulty. These are the logogram **OL**, read *ohl* and in other contexts at times rendered as **OL-la** or in the possessive form as **yo-OL** for *yohl* ‘heart’ and **K’INICH**, *k’inich* ‘radiant’ in reference to the solar deity (see Appendix 2) (Figure 6a-b). The regnal name is thus one that specifies that something was thought of as the heart of the solar deity, but precisely what that is—that which is recorded in the initial logogram—is unclear. The logogram itself (T351) consists of two small circular glyphs, one with the diagnostic elements of the sign for ‘stone’ the other with the elements of

the sign for ‘wood’. Sprouting up between these are two slender elements that separate the two circular glyphs. It is these tendril-like elements that were the “antennae” of the by-name Antenna Top. When presented as a prefix, juxtaposed with another logogram, T351 is rendered solely in this abbreviated form. When, however, T351 stands as its own glyph block, then it is rendered with a clear **na**-shaped sign (T23) below, suggesting that this is the full graphic form (Figure 6c-e). Whereas one might be tempted to view this as a phonetic complement, we point to the examples found on the Komkom Vase where the tendril-like elements in fact wrap around the **na**-shaped sign, as if these formed a single complex sign (Figure 6d).

The interpretation and reading of the logogram has been debated for several decades now and earlier suggestions have not met with resounding approbation by later scholarship. These included the observation by Nikolai Grube that one of the later monarchs of Caracol, specifically Ruler VIII, was a namesake who had his name spelled as **tu-mu-OL K’INICH** on both Altar 23 and Stela 11 (Grube 1994:84-85) (Figure 7a-b). This spelling provides the reading of the name as *tum ohl k’inich* and appears to constitute a substitution set wherein the later namesake had his name spelled in a more phonetically transparent manner, thereby clarifying the reading of the initial logogram (Grube 1994:85). Furthermore, what is undoubtedly the same person finds mention in a painted text within the cave of Naj Tunich (see MacLeod and Stone 1995), some 58 km to the southwest of Caracol (Figure 7c). In that text, his name is spelled out more fully as ²**tu-mu-yo-OL K’IN-chi**. That these are references to one and the same individual is borne out by the fact that they both bear the dynastic title of the monarchs of Caracol, and also based on the contemporaneity of the texts, which all date to between AD 796 and 800.⁸ Based on this evidence, the name was probably read as Tutum Yohl K’inich, with the diacritical doubler used with the phonetic sign **tu**, to prompt its reduplicative reading (see Stuart and Houston 1994; Zender

⁸ Altar 23—although raised by the successor to Ruler VIII (K’inich Joy K’awil, who reigned between AD 799 and 803+)—proudly displays two prominent war captives but credits their capture to Tum Yohl K’inich. On Stela 11 (dated to AD 800), the name of Tum Yohl K’inich appears towards the end of the text in a context where we might expect a parentage statement, a reference that includes the exalted royal titles of monarchs, including 3-k’atun king, the Caracol dynastic title, and the title of *Bakab* ‘first of the land’. The dating of the text of Naj Tunich is more problematic since it includes a non-standard Calendar Round date, 13 Hix 4 Sak. Earlier scholarship has suggested that this may refer to a date in AD 744 (MacLeod and Stone 1995:163; Carter and MacLeod 2021:13). Nonetheless, if this type of calendrical notation is intended to express events over a range of days, with the initial Tzolkin date referring to the onset of the event and the final Haab date to the end of the timespan, then the most plausible anchor for this date (for the entirety of the Late Classic) would be the Long Count date of 9.18.5.16.14 13 Hix 2 Sak, corresponding to the 14th of August, 796 (and with the date thereby recording events that spanned over three days).

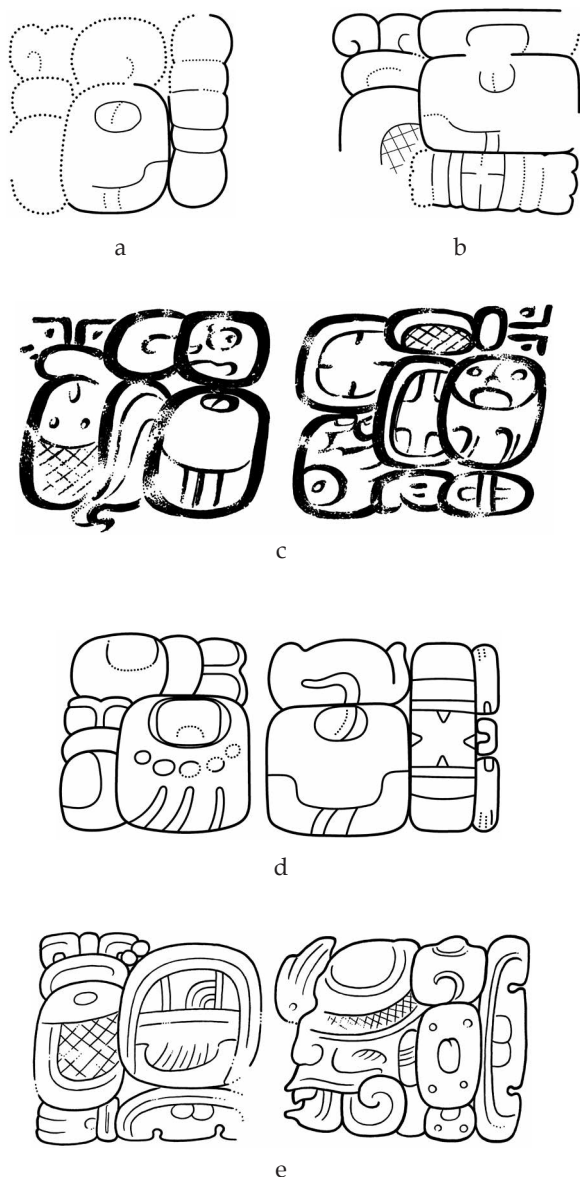


Figure 7. Related namesakes at Caracol and other sites in the lowlands. (a) **tu-mu-OL-K'INICH** on Caracol St. 11; (b) the same spelling on Caracol Alt. 23; (c) **2tu-mu-yo-OL K'IN-chi** in Naj Tunich Drawing 82; (d) **tu-tu-ma yo-OL-K'INICH** on Quirigua St. C; (e) **tu²-ma-CHAN-na** [ya]AKAN?-na on Naranjo Hieroglyphic Stair, Step 11 (drawings *a, b,* and *d* by Sergei Vepretskii; *c* and *e* by Christophe Helmke).

1999:104-130).⁹ Supporting this conclusion is a fifth-century namesake at the site of Quirigua, in present-day Guatemala, whose name was none other than Tutum Yohl K'inich, there written as **tu-tu-ma yo-OL-K'INICH** (see Martin and Grube 2000:216) (Figure 7d). Another comparable name is found in the texts of Caracol, providing a secondary name of Ruler I, which is cited on Step 11 of the hieroglyphic stair dedicated by Ruler V in AD 642 (see

Helmke and Vepretskii, in press). In this text, the name is written **2tu-ma-CHAN** [ya]AKAN?-na, for Tutuum Chan Ya[h]kan?, demonstrating continuity in these onomastic patterns (Figure 7e).¹⁰ In the texts of Caracol, we can note that the vast majority of these regnal names are written in more abbreviated form, without the possessive prefix *y-*, in front of the term *ohl* 'heart', which is otherwise obligatory in the grammar of Classic Mayan (Appendix 2). Furthermore, the initial verbal logogram probably recorded the root *tum*, although it could also be read in a more complete manner in the reduplicative form as *tutum*. Based on these observations we can propose that the initial logogram of the regnal name is in fact the logogram **TUM**, which in certain contexts was written more clearly, by means of substitutions, with the phonetic signs **tu-mu** and also **2tu-mu**. These types of substitutions are a well-known feature of Classic Maya writing and helped ancient readers to disambiguate the reading of arcane logograms, which likewise greatly assist in modern decipherment efforts.

This then brings us to the question as to what the verbal root *tum* and its derived form *tutum* may mean in Classic Mayan. To this end, we can search for reflexes of this verb that have survived in closely related Mayan languages, especially in the Ch'olan and Yucatecan

⁹ The medial segment of the name deserves some added commentary. In all the examples of Ruler V's name recorded at Caracol the medial segment is only ever written as **OL**, not as **yo-OL**. Given that *ohl* 'heart' is a reference to a body part, Mayan grammar dictates that it needs to be rendered in the possessive, such as *y-ohl* with a possessive pronoun, or in unpossessed instances as *ohl-is* with an absolutive suffix, to conform to the markers of inalienable possession (Zender 2004:200-204). As a result, we lean towards the interpretation of these constitute underspellings (see Zender 1999:135-144) of the possessive pronoun, something also typically seen in other regnal names, such as Waxaklajuun Ubaah K'awiil or Nu'n Ujo'l Chaahk where both are frequently written with the possessive pronoun *u-* omitted (Grube 2002:328-329, Fig. 4). Nonetheless, the compound *tum ol* appears as a fixed idiomatic expression in Yucatec, for 'thinker' and 'prophet' (Barrera Vásquez 1980:821), something already noted by Werner Nahm in the 1990s (cited in Grube 1994:85, 110 n. 1). We would add, however, the variant form *tumtum ol* that is glossed as 'to make an understanding' and 'to divine' (Barrera Vásquez 1980:821). We surmise that the theonym Tutum Yohl K'inich is at the root of this expression, originally referring quite literally to the beating heart, and thereafter acquiring a secondary sense, referring to meditative states, wherein all one is left with is hearing one's own heartbeat. At some juncture, the regnal name may in fact have become *Tum Ol K'inich*, naming a meditative aspect of the solar deity, but we surmise that this was later in Maya history, after the rulers that we are considering in this paper, given that the name of Ruler VIII is written *Tutum Yohl K'inich* at Naj Tunich.

¹⁰ The same sequence is found on Stela 16 of Caracol, where we can make out {**tu**}-**ma-CHAN**-{**na**} (C10) [ya]AKAN? (D10) **K'AK'-u-JOL** (C11) **K'INICH** (D11), showing that these are two names of the same monarch, naming Ruler I. Based on this evidence we can conclude that the hieroglyphic stair of Ruler V also made mention of Ruler I, although at present the precise nature of this reference remains obscure.

Ch'orti'	<i>tum-tum</i>	'tambor, tambre, drum'	(Hull 2016:417)
	<i>tun tun</i>	'the sound of a drum'	(Hull 2016:417)
Chontal	<i>tum tum</i>	'sonido del tambor'	(Keller and Luciano 1997:247)
	<i>tumtumna</i>	'hace tum tum (el sonido del tambor)'	(Keller and Luciano 1997:247)
Ch'ol	<i>tumtumña</i>	'palpitando [del corazón]'	(Aulie and Aulie 1978:115)
Tzeltal	< <i>tumlegh</i> >	'ruido de cosas que caen en el suelo'	(Ara 1986:390)
	< <i>tumtonet</i> >	'hacer ruido pateando'	(Ara 1986:390)
Tzotzil	<i>tum</i>	'pluck /harp/'	(Laughlin 1975:350)
	<i>tumton</i>	'sounding (harp)'	(Laughlin 1975:350)
Yucatec	<i>tunk'ul</i>	'horizontal split drum'	(Barrera Vásquez 1980:823)

Table 2. Cognates of Classic *tum* and *tutum* in lowland Mayan languages.

languages of the lowlands, as well as the closely related Tzeltalan languages. Precisely such a dictionary search has turned up the cognates seen in Table 2.

Together these entries demonstrate that *tum* and especially *tum tum* are sound symbolic verbs that refer to the sound that a drum makes upon being struck. We surmise that the reduplicative form *tutum* seen at Naj Tunich, Naranjo, and Quirigua functioned as the modern onomatopoeic form *tum tum*. Since the introduction of European instruments, we can also see that the meaning has shifted to describe the sound that is made by plucking a harp (Tzotzil), although the verbs preferentially refer to the sound emitted by drums (Ch'orti', Chontal) and to the horizontal split drum itself (Yucatec). More generally, the verb also describes sounds and noises (Tzeltal) and in Ch'ol it is used specifically to refer to the palpitations of a beating heart. This is a fine rejoinder to the onomastic case at hand, since *tum tum* thereby not only refers to the beating of drums, but also to beating hearts. The regnal name can thereby be read in full as Tutum Yohl K'inich, and we can now translate it as 'K'inich whose heart beats' or 'beating is the heart of K'inich'. This reading of the logogram **TUM** and our understanding of the lexeme *tum* allow us to suggest that the tendrils of the logogram serve to represent the sound that is emitted from a drum. Especially so, as precisely these types of tendrils are conventionally used

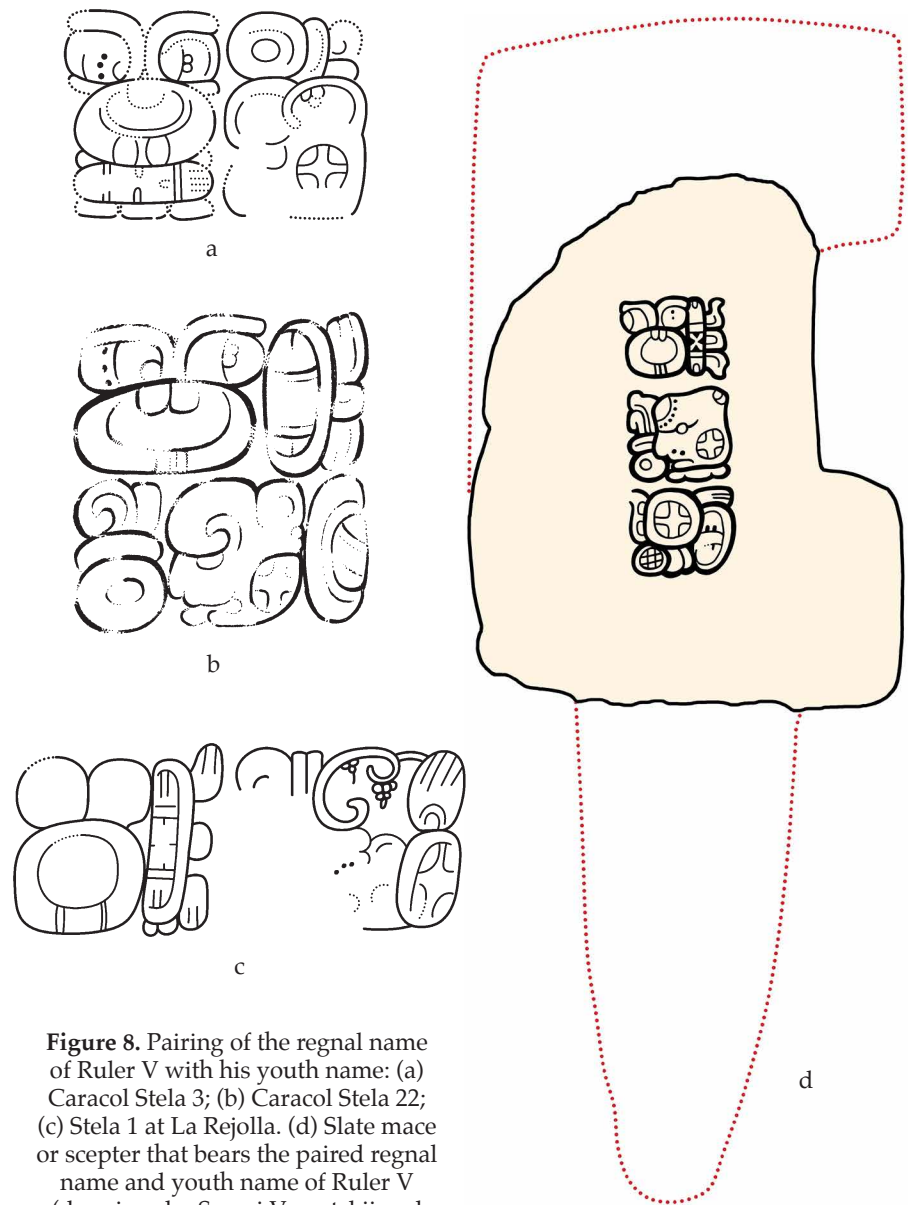


Figure 8. Pairing of the regnal name of Ruler V with his youth name: (a) Caracol Stela 3; (b) Caracol Stela 22; (c) Stela 1 at La Rejolla. (d) Slate mace or scepter that bears the paired regnal name and youth name of Ruler V (drawings by Sergei Vepretskii and Christophe Helmke).

in Maya iconography to denote emotive senses, especially sound and even sight (Houston and Taube 2000:273-281) and the **na**-shaped sign is graphically connected with drums generally and with the logogram **IK'**, 'air' in particular (see Stuart et al. 1999:44). The graphic origin of the **TUM** logogram thereby undoubtedly represents two objects hitting each other and emitting the characteristic sound—perhaps specially as the sound that is emitted from a drum.

Even after his elevation to the throne, we have five instances wherein the monarch paired his regnal name with his youth name, perhaps to better distinguish himself from his paternal grandfather who also used the same regnal name (Appendix 2). These paired names are seen in the latter part of Stela 3, but especially in the lengthy text of Stela 22 and also on the stela erected at the provincial capital of La Rejolla in AD 640 (Figure 8a–c). The same pairing is even found on a slate mace that was wielded as an instrument of power¹¹ (perhaps for his first or second accession), which was found broken in one the corridors of the Caana palatial complex of the site (see Grube 1994:104, Fig. 9.12; Martin and Grube 2000:91) (Figure 8d). Taken together, these paired names together yielded the nominal string Tutum Yohl K'inich Sak Witzil Baah.

In an account of his birth and exalted pedigree, as recorded on Panel 1, we see another variation

¹¹ Quite literally in fact, these were instruments of power. These types of scepters are typically made of slate and due to their distinctive form are known as “monkey wrenches”. One inscribed example, originally from Naranjo (K7966), labels the object as a **mu-K'UH-ti** or *muk'uuht*, a 'strengthened', based on the adjective *muk'* 'strong' with a nominalizing agentive suffix. This means that to wield this type of scepter was thought to impart greater strength in those who wielded the object, and were used as part of ceremonies that reiterated the power of those wielding the scepter.

of his name phrase (Figure 9). This panel, now on exhibit at the Natural History Museum in New York, has the distinction of having been found, not at Caracol, but 44 km away at the site of Naranjo, an antagonistic capital. The panel was presumably dragged to Naranjo as war booty, following the martial engagements that pitted the sites against each other in AD 680 (see Helmke and Awe 2016a, 2016b). This text provides an account of his birth in AD 588, which is promptly followed by an extensively and poetically

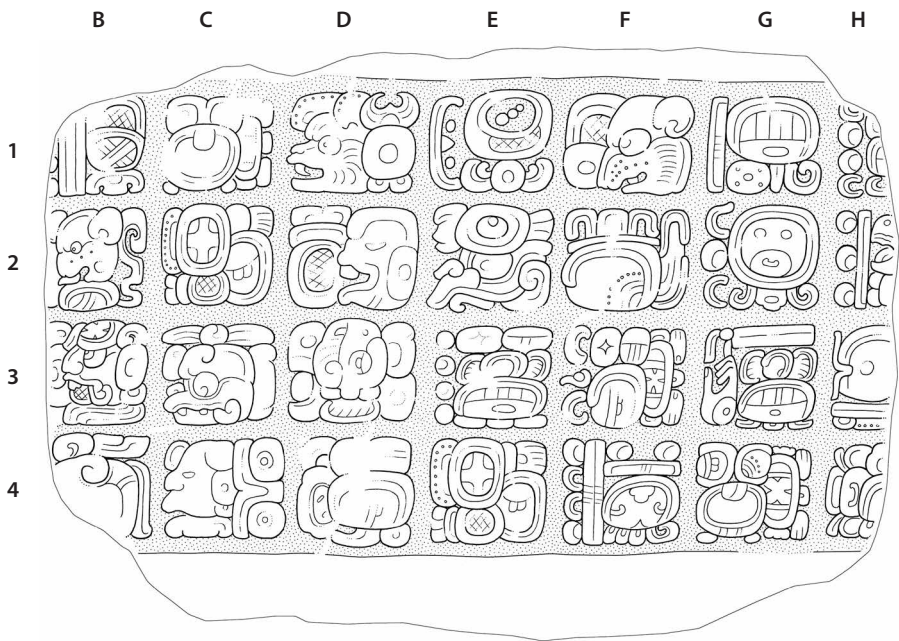


Figure 9. Panel 1 found at Naranjo naming Ruler V and providing an extensive parentage statement (photograph and drawing by Christophe Helmke). Note: drawing based on current state of the panel as exhibited at the Natural History Museum in New York.

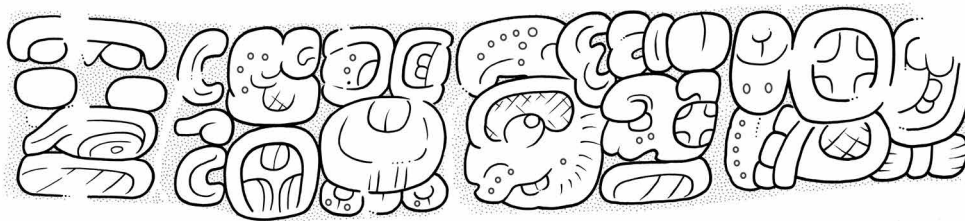


Figure 10. Detail of the stucco text on the eastern side of Structure B19-2nd at the summit of the Caana (photograph by Marco Vernaschi; drawing by Christophe Helmke).

TUM-OL-la TZ'UTZ' {SAK}-[WITZ]BAH-li, and read as Tutum Yohl Tz'uutz' Sak Witzil Baah. Oddly, the *k'inich* segment of the name appears to be omitted in this case. Whereas we cannot as yet properly explain this absence, that this is the regnal name of the seventh century monarch is made clear by the youth name that is appended to the regnal name at the end of the nominal phrase.

Two additional examples provide clear corroboration of the regnal name of Ruler V. These are represented on hieroglyphic risers, designated as Steps 2 and 9, which once formed part of an extensive hieroglyphic stairway. Just as with Panel 1, these were found at Naranjo and not at Caracol, and once more it is presumed that these were secondarily displaced there, in the wake of the AD 680 wars. This is also supported by additional fragments of the hieroglyphic stair that have been found at other archaeological sites of the region, including Ucanal and Xunantunich (Helmke and Awe 2016a, 2016b; Helmke and Vepretskii in press). On Step 2 (Figure 11a), we have the final portion of a clause, which may record the first accession of Ruler V in AD 618, under the auspices of Caracol's tutelary deities (Helmke and Vepretskii in press). Here the regnal name is written as **TUM-OL-la K'INICH[TZ'UTZ']** with the head of the solar deity K'inich exhibiting some of the traits of the *tz'uutz'*, namely the long and dotted hair and the distinctive cloven ear. This provides good corroboration of the complete form of the regnal name, especially as this is a reference to the name adopted on his first accession.

On Step 9 (Figure 11b), the regnal name is written in

phrased parentage statement, corroborating his royal pedigree (see Appendix 3). Interestingly, the retrospective text (dated to around AD 633 or later) anachronistically uses the regnal name to refer to the historical figure at his birth. The regnal name is written in a clear variation as two glyph blocks, with the first as **TUM-OL-la-K'INICH** (C1), whereas the second represents the head of an animal (D1), with prominent wrinkles, long hair, and a trilobate ear. Previous scholars have not satisfactorily accounted for this sign in this nominal context. That this is an integral part of the name phrase is made clear by the following glyph block (C2), which records the dynastic title and thereby initiates the titular section. Given the distinctive traits of this animal head, we can be sure that this is the same *coati* or *tz'uutz'* that we have already seen as part of the regnal name of his father, Yajawte' K'inich Tz'uutz'. As such, on Panel 1 we can see that the regnal name of the son was not merely Tutum Yohl K'inich, but rather Tutum Yohl K'inich Tz'uutz', thereby merging parts of the regnal names of his paternal grandfather and father.

Armed with this observation we have reviewed the entire corpus of Caracol and found that this is not an isolated instance. In fact, the stucco text that adorns the eastern flank of the pyramidal Structure B19 at the summit of the imposing Caana palatial compound records another close variant of the regnal name. The text starts with an event in AD 640, which may refer to the second founding of the Caracol dynasty, and it is here that we see the regnal name, once more clearly written with the head of the *coati* (Figure 10). In all, the name can be transliterated as

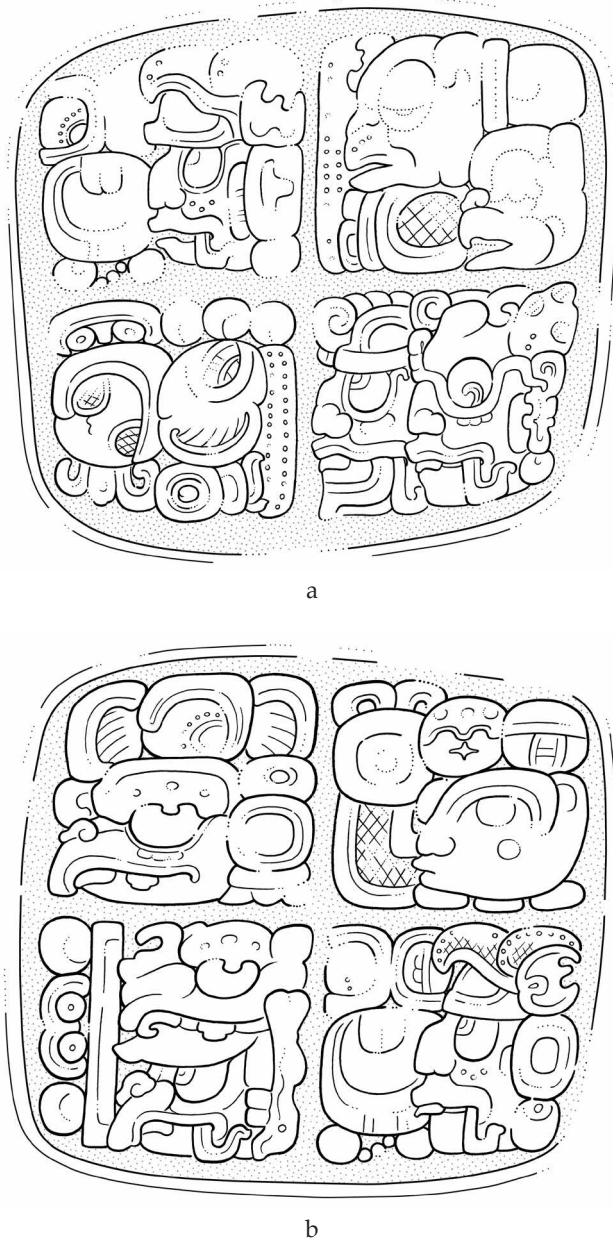


Figure 11. The regnal name of Ruler V as recorded on the hieroglyphic stair dedicated in AD 642: (a) Step 2; (b) Step 9 (drawings by Christophe Helmke).

precisely the same manner, with the head of the solar deity exhibiting the same traits of the coati, but in addition, we are also given an extensive honorific form of address that precedes the name proper. These are particular types of titles that are generally optional, but are used at times to introduce a particularly exalted subject. We surmise that these forms of address were used as part of courtly speech patterns even though these are only sporadically recorded in the hieroglyphic texts. Here on Step 9, the form of address involves first



Figure 12. The solar deity Uhuk Tz'ikiin Chapaht K'inich Ajaw (detail of an unprovenanced vase, drawing by Christophe Helmke).

a title and then a type of theophoric name, which is here used to designate the historical actor. The title is written **WINAK-HAB ch'a-jo-ma-AJAW**, or *winakhaab ch'ajo'm ajaw*, wherein the latter two words together convey a sense of a priestly royal (with *ch'ajo'm* as something along the lines of 'incense-scatterer' and *ajaw* as the royal title). The title is, however, also qualified by *winakhaab*, literally 'twenty-year' to convey that the bearer of this title is within the first double-decade of his tenure (in keeping with the vigesimal system of the Maya).¹² Other titles can be similarly qualified by temporal intervals and are common in titular forms of address (Mathews 2011). The theonym that is used to further designate Ruler V is written [u]7-CHAPAT[TZ'IKIN] or Uhuk Chapaht Tz'ikiin and refers to a formidable martial manifestation of the solar deity, usually named in full as Uhuk Chapaht Tz'ikiin K'inich Ajaw (see Boot 1999) (Figure 12). When this theonym appears in the honorific forms of address it usually follows an impersonation ritual, wherein the human agent undergoes a ceremony in which the person is progressively possessed by the supernatural entity, taking on attributes, traits, and

¹² All things being equal, this suggests that Ruler V acquired this title of regal pontifex sometime after AD 622 (or perhaps in connection with his third accession), as the hieroglyphic stair that records this titular form of address was dedicated in AD 642.

Honorific form of address		Regnal Name	Dynastic Title
Titular segment	Theonym		
Winakhaab Ch'ajo'm Ajaw	Uhuk Chapaah Tz'ikiin	Tutum Yohl K'inich Tz'uutz'	K'uhul K'antumaak

Table 3. Complete royal style of Ruler V.

demeanors of this deity (Houston and Stuart 1996; Nehammer Knub et al. 2009:187-189). Following this ritual, the human actor could use the theonym as part of their form of address. Based on the totality of this evidence, we can now finally present the complete royal style of Ruler V in Table 3.

A Peek into the Past and a Glance Farther Afield

Noting the onomastic continuities across the generations and the preference to use regnal names of illustrious forebears, we can see that the monarchs of Caracol preferentially involved the theonym K'inich, in reference to the solar deity in their regnal names. Now that we have been able to establish that the regnal names of Rulers III and V actually involved the more complete sequence K'inich Tz'uutz', it stands to reason that this may have been the onomastic referent in most of the other nominal sequences at the site. Although we have not been able to conclusively verify this for earlier namesakes of the fifth and sixth centuries (see Martin and Grube 2000:86-87), we suspect that this may have named one of the earliest historical figures and, subsequently, as a deified ancestor this nominal sequence was preferentially integrated into the regnal names of later kings.

In fact, on Stela 20, the earliest dated monument known at Caracol, we see a lavishly dressed royal figure, wielding a large ceremonial bar in the company of the tutelary deities of the site (Figure 13). A small glyphic text serves as a caption to this figure and due to extensive weathering has not attracted the attention it deserves. In an attempt to highlight the textual details we have secured raking light photography with artificial light as well as producing 3D models with Agisoft Metashape to study the details of the text. In so doing, we have been able to produce a textured model that highlights some of the details that have previously escaped attention. Using this model, we have produced a new drawing of the glyphic caption to the standing royal figure, which can be analyzed as follows (pB2-pB4):

**u-BAH u-CH'AB[AK'AB] K'INICH[TZ'UTZ']
WINAK-HAB-ch'a-jo 3-WITZ-AJAW-wa**

*ubaah uch'ahb [y]ahk'ab k'inich tz'uutz' winakhaab ch'ajo[m]
uxwitz[a'] ajaw*

'here is portrayed the powerful K'inich Tz'uutz', k'atun priest, Uxwitz'a' king'

This caption provides an earlier version of the royal title, using the ancient toponym of Caracol *Uxwitz-a'*, 'three-mountain-place',¹³ and much as with Ruler V some twenty-two decades later, uses the titular *winakhaab ch'ajo'm* by stating that the king was in his first k'atun, or double-decade, as incumbent. The titular form of address is here initiated by the poetic couplet *ch'ahb ahk'ab* 'creation and darkness', which serves to convey the concept of one that is powerful and mighty (see Helmke et al. 2018b:36-39; Zender 1999:125-127, Fig. 47). What is left is the name or personal referent proper, which is recorded simply as K'inich Tz'uutz'. As this is the earliest monument known to date, it may well be that the onomastic precedent was set by this monarch, and that the regnal names adopted by later rulers, upon their ascent to the throne, included this nominal segment, in honor of this celebrated forebear.

Support for the identification of K'inich Tz'uutz' as one of the earliest rulers of Caracol comes from the iconography of Stela 5 (Figure 14a). On this monument, we see an elaborate depiction of Ruler IV, richly attired in regalia and surrounded by a dizzying array of small entities and dwarves. The ruler holds a large bicephalic bar, from the maws of which emerge two small anthropomorphic entities, which can be identified as his parents, based on the small glyphic elements that are embedded into their headdresses. Thus on the left side we see the profile of his mother with an elaborate offering bowl in her headdress and on the right we see the profile of a ruler with the glyphic sequence Yajawte' K'inich in his headdress, undoubtedly naming his father. Remarkably, six additional profiles can be seen along the border of the scene, two of which emerge from solar disks, as deified ancestors, the remainder emerging from the maws of crocodilian figures. At the very base of the scene, two of the serpentine entities slither out of a primordial mountain, and that at the right has the distinctive scrolled and dotted hair as well as the trilobate ear (Figure 14b). This then must be a portrayal of the original K'inich Tz'uutz', perhaps even the same

¹³ This was the preferred royal title of early Caracol kings. We likewise see Uxwitz'a' Ajaw in the titular segment of K'inich Yax K'uk' Mo', the dynastic founder of Copan (see Stuart 2007). As a result, we surmise that the K'antumaak dynastic title was only acquired by later kings, apparently during the reign of Yajawte' K'inich II (Helmke 2018:35).

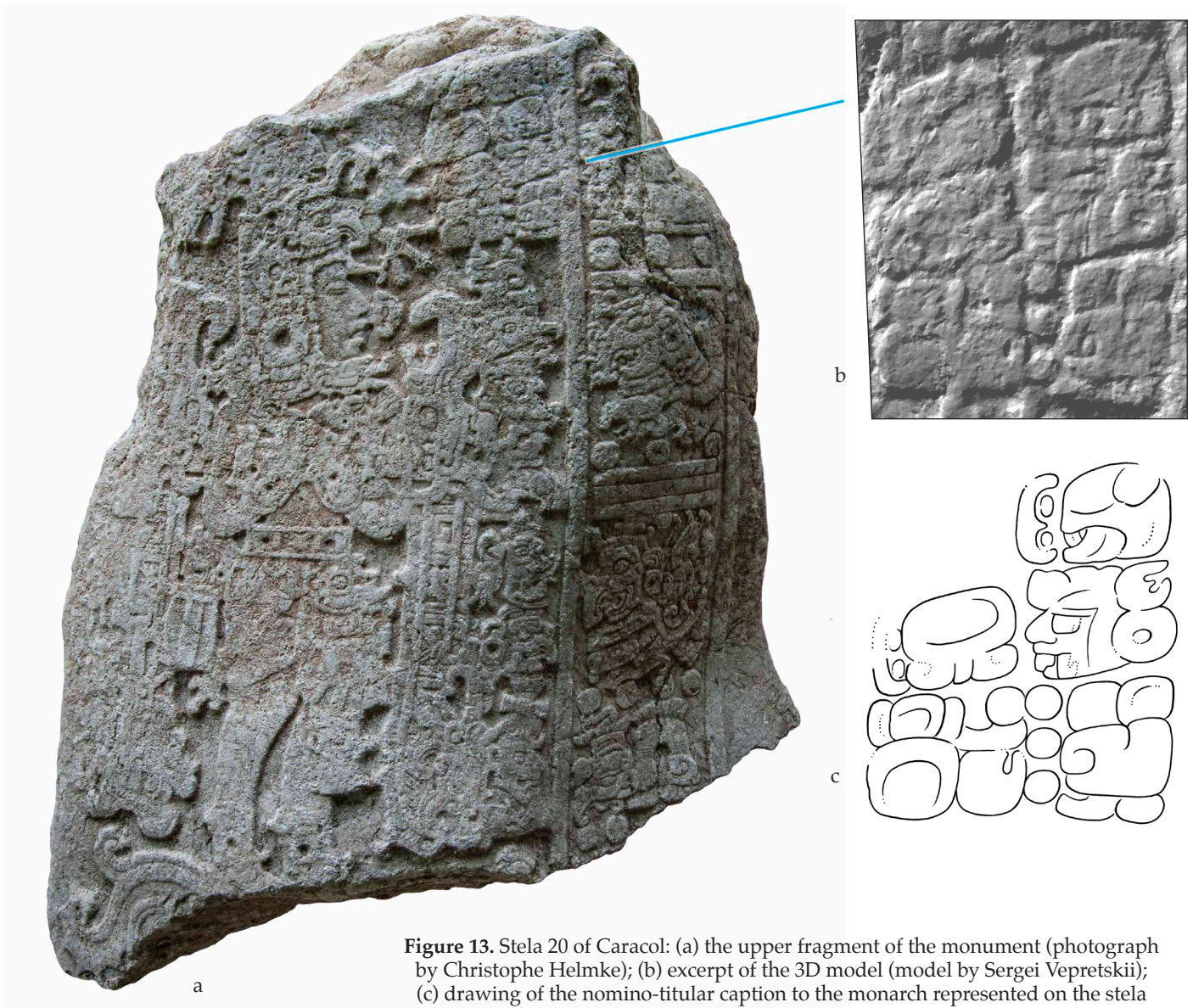


Figure 13. Stela 20 of Caracol: (a) the upper fragment of the monument (photograph by Christophe Helmke); (b) excerpt of the 3D model (model by Sergei Vepretskii); (c) drawing of the nomino-titular caption to the monarch represented on the stela (drawing by Christophe Helmke).

ruler as that depicted on Stela 20, and if not the founder per se, he was one of the most significant figures of early Caracol. Assuming that the figures depicted on Stela 5 represent the celebrated ancestors of Ruler IV, this would provide a type of dynastic chart or king list, spanning at least two centuries.

In recognizing that the regnal name of the early king is K'inich Tz'uutz' we can also begin to parse the syntax of the regnal names of later Caracol monarchs. Thus, whereas we see the segment *Tz'uutz'* in the regnal name of Yajawte' K'inich II as well as within the regnal name of Tutum Yohl K'inich II, we surmise that we are observing a syntactic superimposition around the node *K'inich*. The same pattern has already been observed at Palenque (Stuart 2005:121-122, Fig. 91) where the name

of K'inich Janaab Pakal could also be written in full as Yajawte' K'inich Janaab Pakal, thereby effectively merging Yajawte' K'inich with K'inich Janaab Pakal, and suppressing or merging the repeated element. Precisely the same pattern is also seen in the extended name phrases Yajawte' K'inich Ahku'l Mo' Naahb and Yajawte' K'inich K'uk' Bahlam. Based on this syntactical parsing, we can better appreciate that the regnal name Yajawte' K'inich Tz'uutz' is in fact a merging of two regnal names, with Yajawte' K'inich on the one hand and K'inich Tz'uutz' on the other. This then extends likewise to the regnal name of Ruler V, with Tutum Yohl K'inich and K'inich Tz'uutz' (see the tabulation below). These extended regnal name phrases thereby use the *K'inich* segment as a type of syntactical node or pivot that connects two

different types of names, those ending with *K'inich* (1) and those initiated by *K'inich* (2).

Palenque			
1.	Yajawte'	K'inich	
2.		K'inich	Janaab Pakal
1.	Yajawte'	K'inich	
2.		K'inich	Ahku'l Mo' Naahb
1.	Yajawte'	K'inich	
2.		K'inich	K'uk' Bahlam

Caracol			
1.	Yajawte'	K'inich	
2.		K'inich	Tz'uutz'
1.	Tutum Yohl	K'inich	
2.		K'inich	Tz'uutz'

As such, we can thereby also better explain the presence or absence of the segment *Tz'uutz'* in the regnal names of Caracol monarchs: When present the regnal name is providing the compound form of two regnal names, when absent only the first of the two regnal names is present. Since the regnal name *K'inich Tz'uutz'* is only present in certain instances (for example it occurs in fewer than 15% of the examples of Ruler V's name), the onomastic pattern is one of optionality. As we have seen, the regnal name *K'inich Tz'uutz'* is that of an early monarch of Caracol and its inclusion in the regnal names of his Late Classic successors serves to mark these as direct descendants of this earlier forebear, basically labelling them as belonging to the same dynasty. The same pattern is observed in other royal lineages, as for instance at Tikal, where the name of the dynastic founder Yax

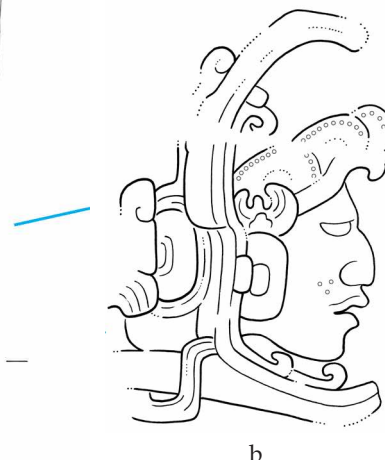
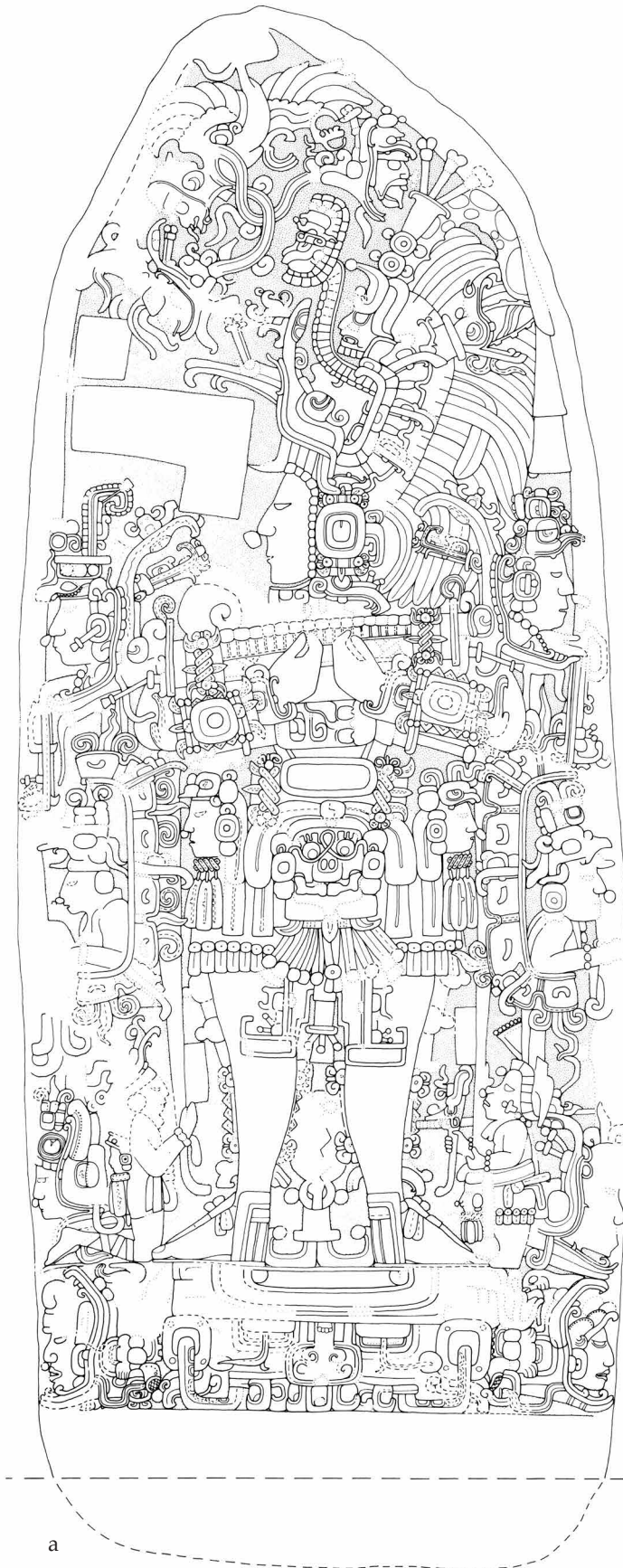


Figure 14. Stela 5 of Caracol: (a) front of the stela (drawing by Carl Beetz); (b) detail of one of the ancestral figures, here representing *K'inich Tz'uutz'* (drawing by Christophe Helmke).

Ehb Xook, is at times included in the names of his successors (Martin 2001:2, 2003:5-6), including monarchs of the sixth and seventh centuries. Likewise, the onomastic pattern is discretionary since the inclusion of the name of the founder is wholly optional and represents a secondary naming practice.

Reviewing the corpus of monuments at Caracol to see the extent of these onomastic practices we have also inspected the text of Stela 16 in greater detail. In the finely incised text on its reverse we see references to Ruler II (K'an II) and can make out the distinctive profile of the solar deity K'inich (A11) as well as the compound **TUM-OL** before it (B10) (Figure 15a). As such, the regnal name can be read as Tutum Yohl K'inich, which, as we have observed, serves as the origin of the regnal name of Ruler V. Closer inspection of the K'inich glyph reveals that it too was written with the trilobate ear of the coati. Thus already in the early sixth century the monarchs of Caracol used the more complete regnal name of Tutum Yohl K'inich Tz'uutz' (see Appendix 1). What is more, at the end of the text of Stela 16 we also have a mention of a ruler of Copan (probably Ruler 7), as has already identified by Grube many years ago (Grube 1990). The lengthy name is closed with the Emblem Glyph of Copan (C18) and the style is headed by the honorific *k'uhul tz'aat winik* (C15), for 'godly wise man'. The nominal string then combines a series of different epithets, two of which include jaguars (C16-D17), but it is the first of these that is most interesting to us here (D15), since it presents the profile of the solar deity K'inich with the clear and distinctive trilobate ear of the coati. Thus once more we have the regnal name K'inich Tz'uutz', which was borne by a monarch, but this time by a ruler of Copan (Figure 15b).

The connection between the two sites has attracted considerable scholarly discussion, but as has now been demonstrated epigraphically, the dynastic founder of Copan, Yax K'uk' Mo' was a royal figure that hailed from Caracol, thereby making the Copan dynasty essentially an offshoot dynasty of Caracol (see Helmke et al. 2019; Martin and Grube 2000:193; Stuart 2007). It is undoubtedly because of this dynastic connection that we see a mention of the ruler of Copan on Stela 16, in much the same way that the style and format of Stela 2 (dated to the reign of Ruler V) is comparable to that of contemporaneous monuments at Copan (Helmke et al. 2019). This connection thereby also explains the onomastic continuities that we observe between the two dynasties, including the use of the name of the exalted forebear K'inich Tz'uutz'. A close inspection of the monuments of Copan in fact reveals that the ruler cited on Stela 16 was not the only Copanec monarch to use this regnal name. Already during the reign of Copan's second ruler, we see the regnal name rendered as the head of the solar deity K'inich, with extravagant matted, scrolling hair and most noteworthy of all, the trilobate ear of the coati. This is made most evident in the rendering of his name on Stela 63,

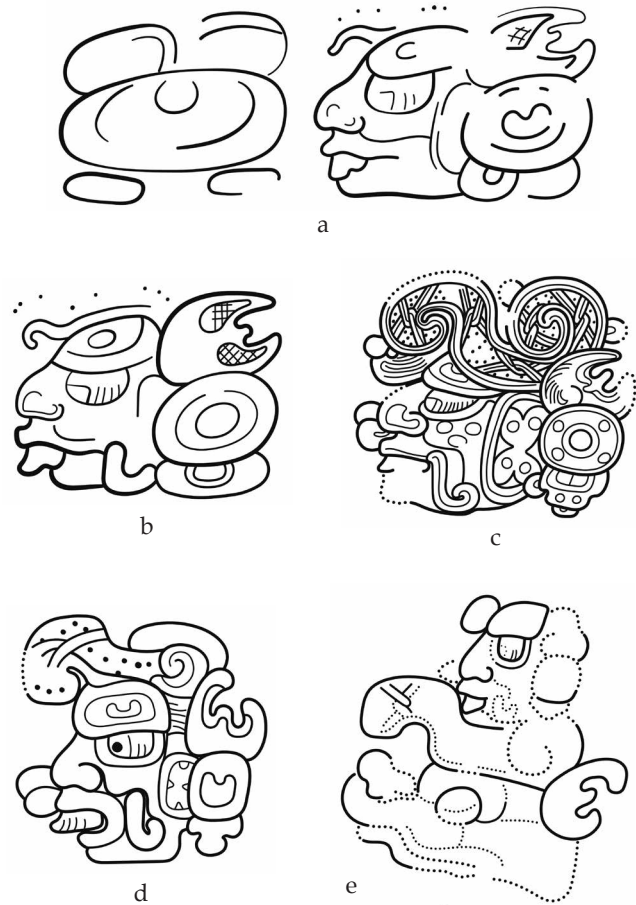


Figure 15. Additional namesakes at Caracol and Copan: (a) the regnal name of Ruler II on Caracol Stela 16; (b) Ruler 7 of Copan, named on Caracol Stela 16; (c) Ruler 2 of Copan on Stela 63; (d) the same ruler on the Xukpi stone; (e) the headdress of Ruler 2 on the Motmot stone (drawings by Sergei Vepretskii; c-e after 3D models in Tokovinine 2013:14)

but is also seen on other early monuments such as the Xukpi stone and the CPN3301 step of Str. 10L-11-sub (see Prager and Wagner 2017:Figs. 1, 6) (Figure 15c-d). What is more, the headdress worn by the son and successor to Yax K'uk' Mo' on the Motmot stone, shows the profile of the solar deity K'inich, perched atop the head of a coati, with the distinctive scrolling and matted hair, and the trilobate ear (Figure 15e). This example is significant because it clearly separates two of the main constituent parts of the regnal name, the head of the solar deity from that of the coati, demonstrating this continuity at Copan. The regnal name of Ruler 2 of Copan was thereby none other than K'inich Tz'uutz', using precisely the name of the illustrious forebear of Caracol. Thus, the onomastic pattern is also observed at Copan for rulers of the fifth to the sixth centuries, continuing the naming traditions of their Caracoleño ancestors.

With the present study, we have been able to fill some of the remaining gaps in the onomastic practices used at Caracol during the Classic period, and we have been able to revise many of the regnal names of the local dynasty and to make suggestions pertaining to some of the regnal names used at Copan (see Appendix 1). We hope that this study will stimulate further research into the regnal names of ancient Maya monarchs and that with our readings of these names some of the by-names that had been coined in the last few decades can now be considered obsolete.

Acknowledgments

This paper has benefitted from the help and insights of many. Thank you to Jaime Awe and Sherry Gibbs for inviting the senior author to conduct epigraphic documentation at Caracol during the Tourism Development Project (2000–2004) and for assisting with further documentation in 2010. Likewise our appreciation to Arlen and Diane Chase for inviting the senior author to serve in the capacity of epigrapher for the 2018 and 2019 seasons. Many sincere thanks to Jago Cooper and Kate Jarvis for facilitating access to the collections of the British Museum to document the steps of the hieroglyphic stair. Thanks to Marco Vernaschi for sharing with us his photographs of the stucco text at the summit of the Caana and to Justin Kerr for his high-resolution photograph of K8342. Likewise, to Bruce Love for sharing with us his raking light photographs of the monuments. A thanks to Barbara MacLeod for suggesting that we find alternate Long Count anchors of the Calendar Round dates at Naj Tunich; and to Kerry Hull for commenting on the lexeme for ‘coati’ in Ch’orti’. To Dmitri Beliaev, Albert Davletshin, Stephen Houston, Simon Martin, and Alexandre Tokovinine our thanks for insightful discussions pertaining to the regnal names of Caracol monarchs, and more generally to Pierre Robert Colas, Nikolai Grube, Harri Kettunen, and Marc Zender our appreciation for productive discussions pertaining to the epigraphy of Caracol over the years.

Credits

Research design, conceptualization, and formal analyses: CH & SV. Identification of **tz’u-tz’i** and **tz’u-tz’i-hi** as ‘coati’: CH (see Helmke and Nielsen 2009:65) following earlier identifications (e.g. Grube and Nahm 1994:699). Identification of animal head with trilobate ear in the regnal name of K’an II: CH; results presented during 2005 EMC workshops. Identification of animal with trilobate ear as *tz’uutz’* and ligature with *k’inich*: SV; results presented during 2019 EMC workshops. Reading of T351 as **TUM** and *tutum*: CH (see Helmke and Awe 2008:85–86), following earlier identifications by Grube (1994, 2002). Identification of regnal *K’inich Tz’uutz’* for

K’an I and at Copan: SV; results presented during 2019 EMC workshops. Photography of Caracol Stela 20: CH; 3D modelling of Caracol Stela 20: SV. Onomastic syntax of complex name strings: SV & CH. Writing of original text and editing: CH. Illustrations: CH & SV. Tabulations and appendices: CH.

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Appendix 1. List of the regnal names of, and scholarly by-names for, the rulers of Caracol.

Ruler	Reign	By-Names	References	New Readings
—	331-349+	? <i>K'ab Chak</i> <i>Te' K'ab' Chaak</i>	Chase et al. 1991:6 Martin & Grube 2000:86	<i>Te' K'ab Chaahk</i>
—	>400>	—		<i>K'inich Tz'uutz'</i>
Ruler I	c. 470	Smoking Skull I <i>K'ahk' Ujol K'inich I</i>	Houston 1987:88 Martin & Grube 2000:86	<i>Tutuun Chan Yahkan?</i> <i>K'ahk' Ujo'l K'inich I</i>
—	484-514+	<i>Yajaw Te' K'inich I</i>	Martin & Grube 2000:86	<i>Yajawte' K'inich I</i>
Ruler II	531-534+	Antenna Top I K'an I	Sosa & Reents 1980:3-4, 8 Martin & Grube 2000:87	<i>Tutum Yohl K'inich Tz'uutz' I</i>
Ruler III	553-593+	Lord Water Lord Muluc <i>Yajaw Te' K'inich II</i>	Beetz 1980:8-11 Stone et al. 1985:268-271 Martin & Grube 2000:88-90	<i>Yajawte' K'inich Tz'uutz' II</i>
Ruler IV	599-613+	Ahau Serpent Flaming Ahau Knot Ajaw	Beetz & Satterthwaite 1981:120 Stone et al. 1985:270-271 Martin & Grube 2000:90-91	<i>Saak? Ti' Huun</i>
Ruler V	618-658	Lord Storm-water Moon Antenna Top II K'an II K'an II	Beetz 1980:8-9 Sosa & Reents 1980:2-6, 8 Stone et al. 1985:267, 271-274 Martin & Grube 2000:91-93	<i>Tutum Yohl K'inich Tz'uutz' II</i>
Ruler VI	658-680+	Smoking Skull II <i>K'ahk' Ujo'l K'inich II</i>	Houston 1987:92 Martin & Grube 2000:94-95	<i>K'ahk' Ujol K'inich II</i>
Ruler VII	>702>	—	Martin & Grube 2000:95	<i>Tz'ayaj K'ahk'?</i>
Ruler VIII	>796-799>	<i>tu-mu?-wa k'inich</i> <i>Tum Yohl K'inich</i>	Chase et al. 1991:10 Martin & Grube 2000:96	<i>Tutum Yohl K'inich</i>
Ruler IX	799-803+	Mahk'ina God K K'inich Hok' K'awiil <i>K'inich Joy K'awiil</i>	Houston 1987:92 Chase et al. 1991:5-6 Martin & Grube 2000:96-97	<i>K'inich Joy K'awil</i>
Ruler X	>810-830>	<i>K'inich Toob'il Yoaat</i> <i>K'inich Yuhk'bil Yopaat</i> <i>K'ahk' Hop'aj Chan Lem</i>	Martin & Grube 2000:98-99 Helmke et al. 2020:12 Beliaev et al. 2018:362-363	<i>K'ahk' Hop'aj Chan Lem</i> <i>K'inich Yuhk'bil Yopaat</i>
Ruler XII	>835-849>	K'an III	Martin & Grube 2000:99	<i>Tum Yohl K'inich</i>
Ruler XIII	>859>	—	Martin & Grube 2000:99	<i>K'inich ...</i>

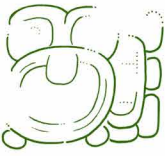





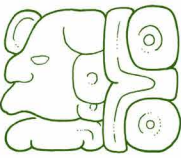
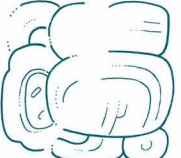



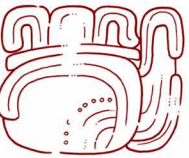
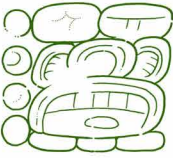


Notes: The “Ruler” designations in the first column are those of Houston (1987) and additional rows have been added to accommodate historical monarchs that have since come to light. Items in Roman typeface are nicknames and by-names used by epigraphers. Items in italics are readings, or attempted readings of the regnal names, which are meant to render how these names were enunciated in the Classic period.

Appendix 2: Tabulation of all the references to Ruler V in the written corpus.

Text	Long Count	Julian	GlyphBlock	Honorific	RegnalName(s)	Youth Name	DT	
Slate mace	9.9.4.16.2	618	A1-A3	—	TUM-OL-K'INICH	—	SAK-WITZ[BAH]-li? DT	
NAR Pan. 1	9.10.0.0.0	633	C1-C2	—	TUM-OL-la-K'INICH	TZ'UTZ'	—	DT
			G4	—	TUM-OL-la-K'INICH	—	—	—
CRC St. 22	9.10.0.0.0	633	F3	—	TUM-OL-K'INICH	—	—	#
			D13-E1	—	TUM-OL-K'INICH	—	SAK-WITZ[BAH]-li	{DT}
			G13	—	TUM-OL-K'INICH	—	—	DT
			J12	—	TUM-OL-K'INICH	—	—	DT
			K12	—	TUM-OL-K'INICH	—	SAK-WITZ[BAH]-li	—
CRC Alt. 21	9.10.0.0.0	633	E3-F4?	—	#	—	#	#
CRC St. 3	9.10.4.7.0	633	B17b-A18	—	—	—	SAK-WITZ[BAH]-la?	DT
			A20a	—	—	—	SAK-WITZ[BAH]-la?	—
			C4-D4	—	TUM-OL-K'INICH	—	SAK-WITZ[BAH]-#	DT
			D8	—	TUM-OL-K'INICH	—	—	#
			C13b-D13a	—	TUM-OL-K'INICH	—	—	DT
			C16	—	TUM-OL-K'INICH	—	—	DT
			C18b-D18a	—	TUM-OL-K'INICH	—	—	DT
C20b	—	TUM-OL-K'INICH	—	—	—			
CRC B19-2nd	9.10.7.14.0	640	pC1-pE1	—	TUM-OL-la	TZ'UTZ'	SAK-WITZ[BAH]-li	DT
REJ St. 1	9.10.7.5.1	640	E10-E13	—	TUM-OL-K'INICH	—	{SAK}-WITZ[BAH]	—
NAR HS 1	9.10.10.0.0	642	C1-D1	#	TUM-OL-la-K'INICH	TZ'UTZ'	—	DT
			V2a	—	TUM-OL-K'INICH	—	—	—
			S1-T2	Yes	TUM-OL-la-K'INICH	TZ'UTZ'	#	
CRC Alt. 17	9.11.0.0.0	652	10-12	Yes (eroded)	TUM-OL-la-K'INICH	—	—	DT
CRC St. 27	9.11.0.0.0	652	pD1-pC2	Yes	TUM-OL-#	#		
CRC B16-2nd	9.12.7.14.1	680	pD1a	—	TUM-OL-K'INICH	—	—	—
			pR1b-pS1	—	TUM-OL-K'INICH	—	—	DT

Note: All instances are presented in ascending chronological order according to the dedicatory date or the latest recorded clause of the text, on a given the monument or object. The pound/hashtag (#) sign represents eroded glyphs. Wavy brackets are used to reconstruct segments that are eroded but were undoubtedly present. Note that DT stands for Dynastic Title and refers to what otherwise is the so-called partial or problematic Emblem Glyph of Caracol.

Appendix 3: A Structural Analysis of the Text of Panel 1.

names / forms of address			titles						parentage expression (♀)				
													
TUM-OL-la-K'INICH	TZ'UTZ'	K'UH-K'AN-tu-ma-ki				tu-TI'	HUN-na	a-SIH?-ka-ji-ya?					
									parentage expression (♂)				
	IX[TIWIL]na-EK'	K'UH-YAX-AJAW-wa											
						u-ja-yu	IK?-TIL?	WITZ'/HA'	tz'a?-TUN-ni				
													
4-WINAK-HAB-AJAW	ya-AJAW-TE'-K'INICH	K'UH-K'AN-tu-ma-ki											

What is most noteworthy about the text of Panel 1 are the lengthy parentage expressions that record the names of the mother and father of Ruler V. As is typical, and following standard syntax, the name of the mother is provided first (i.e. Ixtiwool Chan Ek' Lem), followed by that of the father, here clearly providing the name of Ruler III (with an initial honorific form of address *chan winakhaab ajaw* 'four k'atun lord'). The maternal parentage expression can be read as *tuti' huun ...*, 'by the edge of the paper/crown ...', with the final, apparently verbal segment of the last glyph block remaining unclear. The paternal parentage expression can be read as *u-ja'y ~ ujayuC ik' tihl? witz' tz'a[p] tuun*, but the translation is most unclear. These resemble the poetic parentage expressions found elsewhere in the Maya lowlands, such as on Stela 8 at Naranjo and on the Panel of 96 Glyphs at Palenque. At Naranjo, the paternal parentage expression is something like **u-BAH-li** / **u-CHIT-ta-BLOODLETTER**, *ubaah uchiit ...*, for 'it is the self of the master of the bloodletter'. Similarly at Palenque, the paternal parentage expression can be transliterated as **u-SAK?-li** / **ye-u-KOKAN?-na** (I5-J5), for *usakil yeh ukokan*, or 'the seed of the sharp implement, of the stingray spine', which is evidently another metaphorical expression, involving bloodletting implements. That of the mother is the more typical **u-[BAH]hi** / **u-1-TAN-na** (I7-J8), *ubaah ujuuntahn*, 'the self of the cherished one'.