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## The YUK Logogram in Maya Hieroglyphic Writing

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Recent epigraphic work with several inscriptions, particularly texts coming from two sites in southern Quintana Roo, reveals the existence of interesting substitutional patterns in the structure of a well-known glyphic collocation. Particularly relevant are a pair of nominal clauses from Resbalón Hieroglyphic Stairway III (blocks CX14, CX15, and CX16) and Pol Box Stela 3 (G7 and H7). Both clauses likely reference the king known as 'Sky Witness,' ruler of the Snake dynasty between ca. AD 561-572, to whom an important victory over Tikal is ascribed in AD 562 (Martin 2005; Martin and Grube 2000, 2008). Both also demonstrate a very similar structure (Figure 1), being composed of a variant of the T217 'hand' sign, followed by the familiar sequence T134 **no** and T255 **ma**, then the undeciphered T650 'black cross,' and finally T561 **CHAN** and T23 **na**.<sup>1</sup> Several of these elements are of course well known from the name of Sky Witness.

The critical sign in these collocations is the rare T217 variant, apparently an extended hand, whose use is also rather restricted within Maya writing, appearing most often in the name of Sky Witness, but perhaps also in the names of other Snake kings. Although the rarity of this sign in the corpus of Mayan inscriptions presents a stumbling block to a secure phonetic

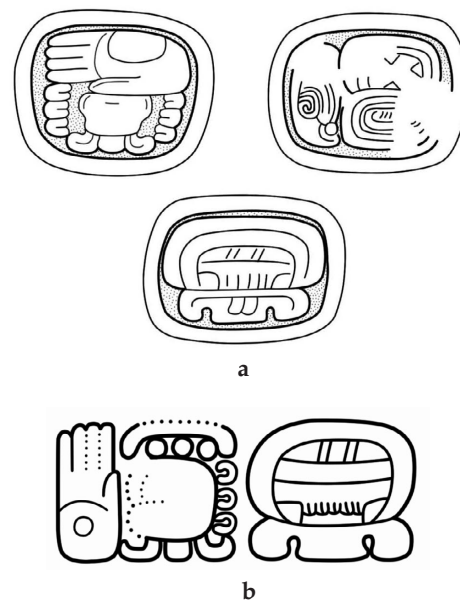
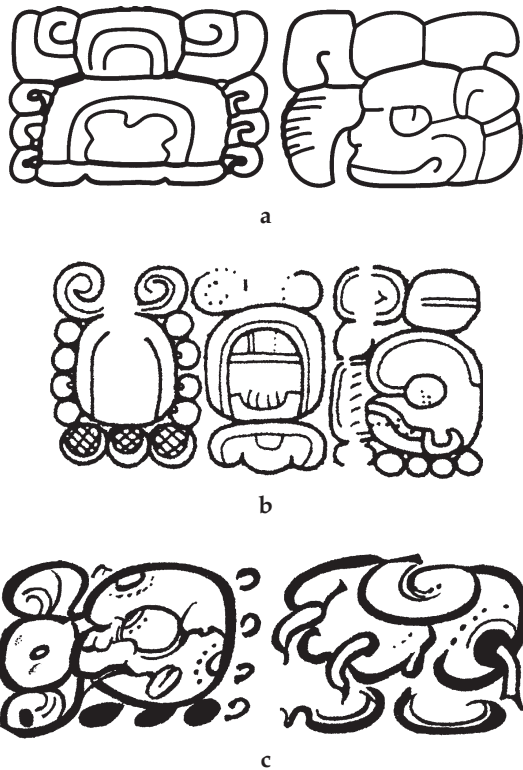


Figure 1. Nominal clauses of Sky Witness in the texts of Southern Quintana Roo: (a) Resbalón Hieroglyphic Stairway III, CX14, CX15 y CX16; (b) Pol Box Stela 3 (drawing by Octavio Esparza and Vania Pérez). Drawings by the authors unless otherwise noted.

decipherment, there are nonetheless some indications that allow us to propose a tentative reading.

In this case, we propose that the sign sequence T217var-**no-ma** must correspond to some nominal element with which the name of Snake rulers begin, since in the texts of Resbalón and Pol Box this sequence of signs initiates nominal

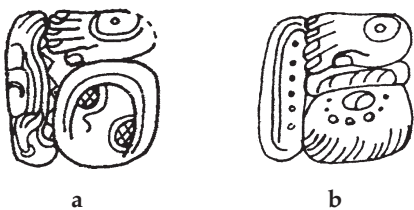
<sup>1</sup> Catalog numbers for hieroglyphs (e.g., T23) are in reference to Thompson (1962).



**Figure 2.** Names of three Snake rulers with the Yuhkno'm appellation: (a) Yuhkno'm Ch'e'n I, Dzibanche Monument 5; (b) Yuhkno'm Ti' Chan, Caracol Stela 3 (after Beetz and Satterthwaite); (c) Yuhkno'm Yichaak K'ahk', Calakmul Tomb 4 of Structure 2 (drawing by Simon Martin).



**Figure 3.** Nominal clauses of Ruler 11 of the Dynastic vases: (a) K6751 (drawing by Simon Martin); (b) K1372.



**Figure 4.** Birth expressions in the texts of Palenque: (a) u-YUK?-KAB, *uyuhk kab*, "his union with the earth," Palenque, Temple of the Foliated Cross alfarda; (b) u-YUK?-ka-ba, *uyuhk kab*, "his union with the earth," Palenque, Tablet of the Temple of the Cross (drawings by Linda Schele).

clauses. Now obviously the sequence ...-no-ma is very similar to the title Yuhkno'm, carried by many rulers of the Snake dynasty (Figure 2). Seen in this way, we might consider that the 'extended hand' sign corresponds to a logogram with the phonetic value YUK. That is, in such cases, YUK-no-ma would replace what is otherwise written *yu-ku-no-ma*, both cueing the term *yuhkno'm*, probably built on the well-attested root *yuhk* "shake"<sup>2</sup> or even "earthquake"<sup>3</sup> (Esparza and Pérez 2009; Velásquez and Esparza n.d.). See Table 1 for attestations of this root in various Mayan languages (see also Zender 2010:Table 3).

By way of example, consider the lengthy snake dynasty king lists on vessels K6751 and K1372 (see Martin 1997; see also Guenter 2001). Several of these names are preceded by the common Snake king title Yuhkno'm, written in abbreviated fashion as *yu[ku]*. In the case of the eleventh ruler in this sequence, however, these components appear to have been substituted by the 'extended hand' (Figure 3). If this is a true substitution, then the 'extended hand' should have the value YUK.

Nonetheless, these arguments remain insufficient to support this decipherment, and we must look for other examples of the 'extended hand' sign in order to test the suggestive YUK value. As it

turns out, one interesting context appears in the texts of the Cross Group and Temple XIX at Palenque (Figures 4 and 5). In these texts a verbal phrase (or similar predicate construction) referencing the birth or creation of several Palenque patron gods is spelled either u-T217-ka-ba or u-T217-KAB. This phrase has been the subject of investigation by several other epigraphers, and there is an earlier proposal for the reading of the T217 variant 'extended hand' sign. As David Stuart (2005:78-79) notes with respect to the example from the bench of Temple XIX (Figure 5):



**Figure 5.** The YUK logogram in a collocation from the platform of Temple XIX, Palenque (u-YUK?-ka-ba, *uyuhk kab*, "his union with the earth"). Drawing by David Stuart.

<sup>2</sup> David Stuart (2001) was the first to note the *yuhk* root in Mayan inscriptions, in the context of the expression *yu[h]klaj kab[an]* "the earth shook," in the stucco text of Temple XVIII of Palenque. More recently, Marc Zender (2010) demonstrated that *yuhk* was an affective verb appearing in several different contexts in Mayan writing, though most commonly in the Yuhkno'm title of Snake kings.

<sup>3</sup> Erik Velásquez first proposed the meaning of the Yuhkno'm title as "mover" or "shaker," taking into account the attested meanings of the root *yuhk* "move, shake," as well as the -(V)n antipassive and -o'm agentive suffixes (Velásquez and Pallán 2006:342; Velásquez n.d.:Note 2). Shortly afterwards, Marc Zender (2010:13) arrived at a similar conclusion.

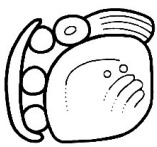
Proto-Mayan	* <i>yuk</i>	intransitive verb	“shake, move” (Kaufman and Norman 1984:137)	
Proto-Ch’olan	* <i>yuhk</i>	intransitive verb	“shake, move” (Kaufman and Norman 1984:137)	
Colonial Ch’ol	<i>nigquel</i>	intransitive verb (incomplete aspect)	“temblar” (Hopkins et al. 2008:105)	
Ch’ol	<i>yujk-el</i>	noun	“temblor” (Schumann Gálvez 1973:101)	
	<i>yujquel</i>	noun	“temblor” (Aulie and Aulie 1978:144)	
	<i>yujkelum</i>	noun	“temblor”	
	<i>yujkel</i>	noun	“terremoto” (López et al. 2005:247, 248)	
Chontal	<i>yucän</i>	transitive verb	“mecer”	
	<i>yucum</i>	adjective	“movible”	
	<i>yucume</i>	verbal noun	“mecer, mecida”	
	<i>yuc’än</i>	transitive verb	“agitar” (Keller and Luciano 1997:300, 301)	
Ch’olti’	<i>yuclu</i>	verb	“mezclar” (Robertson et al. 2010:334)	
Ch’orti’	<i>yuhk</i>	noun	“shaking or trembling, spasm, convulsion” (Wisdom 1950:770)	
	<i>yuhku</i>	verb	“shake a thing” (Wisdom 1950:770)	
	<i>yujkb’ar</i>	noun	“temblor”	
	<i>yujkreme’n</i>	intransitive verb	“menear”	
	<i>yujkun</i>	transitive verb	“columpiar, mecer, colear la vaca, etc., menear” (Pérez Martínez et al. 1996:267-278)	
	<i>yujkb’ar</i>	noun	“terremoto” (Boot 1997:34)	
	<i>yukb’ar</i>	noun	“terremoto” (Hull 2005: 177)	
	<i>yujku uba / yujku’ix uba</i>	affective verb	“mecerse”	
	<i>yujku / yujku’ix yujk’bar</i>	transitive verb noun	“mecerlo” “temblor” (Schumann n.d.:57, 116)	
	Colonial Tzeltal	<i>yuclaghan</i>	affective verb	“turbarse el agua con viento” (Ara 1986:F.55v)
	Tzotzil	<i>yuq’uel</i>	verb	“agitar(se), sacudir” (Delgaty 1964:60)
<i>yuk’ilanel</i>		verb	“agitar” (López et al. 2005:584)	
<i>yuk-ba</i>		noun	“temblor de tierra” (Swadesh et al. 1991:94)	
Colonial Yucatec	<i>yukba</i>	intransitive verb	“temblar la tierra y temblor o terremoto” (Arzápalo Marín 1995:376)	
	<i>yuk ba</i>	verb	“menearse o temblar la tie[rra] y agua” / “temblar la tierra, moverse haciendo ruido, y temblor o terremoto” (Acuña Sandoval 1993:469, 606)	
Yucatec	<i>yúuk</i>	transitive verb	“menear, revolver algún líquido” (Bastarrachea et al. 1998:93)	

Table 1. The root *yuhk* and its meaning in Mayan languages.



The next two blocks are also familiar from parallel statements in the Cross Group. The first of these, at I2, is a possessed noun **U**-“hand”-**ka-ba** that likely derives from a transitive verb construction where the palm-down hand is a verb root and the direct object **ka-ba**, for *kab* “earth.” Lounsbury made note of the very same glyph in the Cross Group temples (often with the single logogram **KAB** replacing the **ka-ba**) and saw it was always in association with a divine birth date or event. He brilliantly surmised that it was a metaphor for “birth” and related to a series of Ch’ol expressions such as *ilan panimil*, “to see the world,” and perhaps most relevant to the glyph in question, *täl lum*, “touch earth.” Building on Lounsbury’s discovery, there is the possibility that the downturned hand sign of the glyph is a logogram read **TAL**, a transitive root in both Ch’ol and Ch’orti’ for “to touch something,” giving a fuller reading **U-TAL-KAB**, or *u-tal-kab*, “it is his earth-touching.”

As can be seen, the **TAL** reading tentatively proposed by Stuart proceeds from an observation by Floyd Lounsbury, and was in turn based on a Ch’ol Mayan metaphor for birth. There are neither phonetic substitutions nor complementation to support a specific



**Figure 6.** The possessed compound noun *upattuun*, “his stone-fashioning,” Pol Box Stela 2 (drawing by Octavio Esparza and Vania Pérez).

reading of **TAL** for the ‘extended hand.’ For this reason, we might reasonably continue to entertain a **YUK** value if it could be shown to generate a sensible meaning in this context. As it turns out, there are several Ch’orti’ expressions linking the root *yuk* (and the stem *yuhk*) to the idea of birth, such as *yuk k’ux*, defined as a “convulsion suffered during labor or until the placenta is expelled” (Wisdom 1950:770-771). The Ch’orti’ expression perhaps reveals some

connection, either natural or metaphorical, between birth labors and earthquakes.

On the other hand, the Ch’orti’ word *yuhk* also means “thing joined, joint, union” (Wisdom 1950:770). This, too, might make a reasonable metaphor for birth in combination with the other elements of the glyph block: **u-YUK?-ka-ba**, *uyuhk kab*, “his union with the earth.” Such a meaning would come quite close to another considered by Stuart (2000:30), namely “his encounter with the earth.”

Still another possibility, though more speculative, is that **u-YUK?-ka-ba** might instead be rendered *uyuhkkab* “his earth-union,” a possessed compound noun formed from the combination of a verbal root and a noun and well attested in other contexts (see Lacadena 2003). Examples of such constructions appear



**Figure 7.** The name of K’altuun Hix, Snake ruler, Naranjo Stela 25 (drawing by Ian Graham).

in other texts from southern Quintana Roo, such as *upattuun* “his stone-forming” on Pol Box Stela 2 (Figure 6). And the same structure can be seen in the name of another ruler of the Snake dynasty: K’altuun Hix (Figure 7). Here, the transitive verb *k’al* “tie, bind” is combined with the noun *tuun* “stone,” just as they are in the well-known period-ending expression *k’altuun* “a stone-tying.”

To come full circle, one final piece of evidence that the T217 variant ‘extended hand’ might register the value **YUK** can be found in the nominal clause of Sky Witness appearing on a bloodletting bone discovered by the archaeologists Enrique Nalda and Sandra Balanzario in 2005 (Nalda and Balanzario n.d.; Velásquez n.d.; Velásquez and Nalda 2005:31). This bloodletter (Figure 8) was discovered above the pelvis of the primary occupant of a tomb located within Dzibanche Temple II (also known as the Temple of the Cormorants).

Distinct from the examples of the name of Sky Witness already discussed on the monuments of Pol Box and Resbalón, and from the namesake Ruler 11 of the Dynastic vases, here it is the syllables **yu-ku-no-ma** (rather than the T217 variant ‘extended hand’) which precede the characteristic ‘eye and black cross’ (T650 variant) and “sky” (**CHAN-na**). All of these other elements are shared by the disparate spellings of the name of Sky Witness, making a strong case for the possibility that the syllables **yu-ku(-no-ma)** and the ‘extended hand’ (**YUK?**) substitute for one another in this context.

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**Figure 8.** The nominal portion of the bone bloodletter from Dzibanche Temple II (**yu-ku-no-ma UT?-tu-T650var-CHAN-na K’UH-ka-KAN-AJAW**, *Yu[h]kno’ m Ut(?) Tu[...] Chan, k’uh[ul] Kaan[u’l] ajaw*).

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