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
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” or even “earthquake” (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):

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2 David Stuart (2001) was the first to note the yuhk root in Mayan inscriptions, in the context of the expression yuhk kabal aj “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.

3 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)an antipassive and -om agentive suffixes (Velásquez and Pallán 2006:342; Velásquez n.d.:Note 2). Shortly afterwards, Marc Zender (2010:13) arrived at a similar conclusion.

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Figure 2. Names of three Snake rulers with the Yuhkno’m appellative: (a) Yuhkno’m Ch’ë’n I, Dzibanche Monument 5; (b) Yuhkno’m Il’ 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, yuhk kab, “his union with the earth,” Palenque, Temple of the Foliated Cross alfarda; (b) u-YUK?-ka-ba, yuhk kab, “his union with the earth,” Palenque, Tablet of the Temple of the Cross (drawings by Linda Schele).

Figure 5. The YUK logogram in a collocation from the platform of Temple XIX, Palenque (u-YUK?-ka-ba, yuhk kab, “his union with the earth”). Drawing by David Stuart.
<table>
<thead>
<tr>
<th>Proto-Mayan</th>
<th>*yuk</th>
<th>intransitive verb</th>
<th>“shake, move” (Kaufman and Norman 1984:137)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proto-Ch’olan</td>
<td>*yuhk</td>
<td>intransitive verb</td>
<td>“shake, move” (Kaufman and Norman 1984:137)</td>
</tr>
<tr>
<td>Colonial Ch’ol</td>
<td>nigquel</td>
<td>intransitive verb</td>
<td>“temblar” (Hopkins et al. 2008:105)</td>
</tr>
<tr>
<td>Ch’ol</td>
<td>yujk-el</td>
<td>noun</td>
<td>“temblor” (Schuman Gálvez 1973:101)</td>
</tr>
<tr>
<td></td>
<td>yujquel</td>
<td>noun</td>
<td>“temblor” (Aulie and Aulie 1978:144)</td>
</tr>
<tr>
<td></td>
<td>yujkelum</td>
<td>noun</td>
<td>“temblor”</td>
</tr>
<tr>
<td></td>
<td>yujkel</td>
<td>noun</td>
<td>“terremoto” (López et al. 2005:247, 248)</td>
</tr>
<tr>
<td>Chontal</td>
<td>yucán</td>
<td>adjective</td>
<td>“mecer”</td>
</tr>
<tr>
<td></td>
<td>yucum</td>
<td>verbal noun</td>
<td>“mecer, mecida”</td>
</tr>
<tr>
<td></td>
<td>yucume</td>
<td>transitive verb</td>
<td>“agitarse” (Keller and Luciano 1997:300, 301)</td>
</tr>
<tr>
<td></td>
<td>yuc’ťan</td>
<td>transitive verb</td>
<td></td>
</tr>
<tr>
<td>Ch’oltí’</td>
<td>yuclu</td>
<td>verb</td>
<td>“mezclar” (Robertson et al. 2010:334)</td>
</tr>
<tr>
<td>Ch’ortí’</td>
<td>yuhk</td>
<td>noun</td>
<td>“shaking or trembling, spasm, convulsion” (Wisdom 1950:770)</td>
</tr>
<tr>
<td></td>
<td>yuhku</td>
<td>verb</td>
<td>“shake a thing” (Wisdom 1950:770)</td>
</tr>
<tr>
<td></td>
<td>yujkb’ar</td>
<td>noun</td>
<td>“temblor”</td>
</tr>
<tr>
<td></td>
<td>yuikreme’n</td>
<td>intransitive verb</td>
<td>“menear”</td>
</tr>
<tr>
<td></td>
<td>yuikun</td>
<td>transitive verb</td>
<td>“columpiar, mecer, colear la vaca, etc., menear” (Pérez Martínez et al. 1996:267-278)</td>
</tr>
<tr>
<td></td>
<td>yujkb’ar</td>
<td>noun</td>
<td>“terremoto” (Booht 1997:34)</td>
</tr>
<tr>
<td></td>
<td>yukb’ar</td>
<td>noun</td>
<td>“terremoto” (Hull 2005: 177)</td>
</tr>
<tr>
<td></td>
<td>yujku uba / yujku’ix uba</td>
<td>affective verb</td>
<td>“mecerse”</td>
</tr>
<tr>
<td></td>
<td>yujku / yujku’ix uba</td>
<td>transitive verb</td>
<td>“mecerlo”</td>
</tr>
<tr>
<td></td>
<td>yuik’bol</td>
<td>noun</td>
<td>“mecer”</td>
</tr>
<tr>
<td></td>
<td>yujk’bar</td>
<td>noun</td>
<td>“temblor”</td>
</tr>
<tr>
<td>Colonial Tzeltal</td>
<td>yuclaghan</td>
<td>affective verb</td>
<td>“turbarse el agua con viento” (Ara 1986:F.55v)</td>
</tr>
<tr>
<td>Tzotzil</td>
<td>yuq’uel</td>
<td>verb</td>
<td>“agitar(se), sacudir” (Delgaty 1964:60)</td>
</tr>
<tr>
<td></td>
<td>yuk’ilanel</td>
<td>verb</td>
<td>“agitar” (López et al. 2005:584)</td>
</tr>
<tr>
<td></td>
<td>yuk-ba</td>
<td>noun</td>
<td>“temblor de tierra” (Swadesh et al. 1991:94)</td>
</tr>
<tr>
<td>Colonial Yucatec</td>
<td>yukba</td>
<td>intransitive verb</td>
<td>“temblar la tierra y temblor o terremoto”  (Arzápalo Marín 1995:376)</td>
</tr>
<tr>
<td></td>
<td>yuk ba</td>
<td>verb</td>
<td>“menearse o temblar la tierra y agua” / “temblar la tierra, moverse haciendo ruido, y temblor o terremoto” (Aucná Sandovál 1993:469, 606)</td>
</tr>
<tr>
<td>Yucatec</td>
<td>yuuk</td>
<td>transitive verb</td>
<td>“menear, revolver algú líquido” (Bastarrachea et al. 1998:93)</td>
</tr>
</tbody>
</table>

**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 ìlan pánimil, “to see the world,” and perhaps most relevant to the glyph in question, tāl 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 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 yuhk (and the stem yuhk) to the idea of birth, such as yuhk k’ax, 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, yuhhk 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 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’äl’tuun 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’äl’tuun “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.; Velázquez 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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