COLORS AND ASSOCIATED CARDINAL DIRECTIONS ON AN UNPROVENANCED LATE CLASSIC MAYA CERAMIC BOWL

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The subject of this essay is a medium size ceramic bowl painted with orange and black slip (Figure 1). Currently it resides in a European private collection, a collection to be identified as the Collection Zigas. The bowl has a height of circa 18 cm., a width of 19,9 cm., and a circumference (rim) of 63,7 cm. The vessel shape and surface treatment, which is typical of Tepeu phase ceramics, the quality of the line drawings, as well as the paleographic character of the hieroglyphic signs used all direct to the Late Classic period (circa A.D. 550-750). Around the rim of the bowl a long primary hieroglyphic text can be found. This text, while written in the Late Classic, presents most hieroglyphic collocations in an earlier paleographic style. Below the rim text originally four seated figures could be found, each identified by an individual name caption. The hieroglyphic signs used in these four captions clearly conform to the paleographic style of the Late Clasic period. About a third to half of the surface of the ceramic bowl is (severely) eroded. Only about two-thirds of the primary text has survived. Only two of the four figures survived in full and also only two of the four associated name captions survived. Small but important details remained of the other two secondary texts and figures. This report mainly is concerned with the hieroglyphic texts on this particular Maya ceramic bowl (note 1).

Figure 1: Five Views of the Ceramic Vessel (continued on next page)

Figure 1 (continued)

The Primary Rim Text

As part of the primary rim text is eroded, it is nearly impossible to determine the beginning of the text as once intended by the scribe. As such I have chosen to start the analysis of the rim text with the first legible collocation after the one-third eroded part (Figures 2 & 3):

Rim Text	Transcription	Transliteration
[pA]	**HA'-'a**	*ha'*
[pB]	**xi**?	
[pC]	**ko-ha**	(?)
[pD]	**ka**	
[pE]	FIVE-**YATIK**?[**le**]	*ho(b)' yatik(?)*
[pF]	**ITZAMNAH**	*itzamnah*
[pG]	**'u**	
[pH]	SIX-**JOL**?	*u wak jol(?)*
[pI]	FIVE-**NAB'**	*ho(b)' nab'*
[pJ]	**TZ'AK-ka**	
[pK]	**b'u**	*tz'ak-b'u(j)*
[pL]	**yo-'OK**?[**K'IN**?]	*y-ok'in(?)*
...	**...**	...

Comments on the Rim Text

Between [pL] and [pA] about six or seven collocations have been lost (as such the rim text originally would have consisted of some 18 or 19 collocations of which 12 collocations have survived). The collocation in [pA] provides a large T501 "Imix" sign with a full black dot, for

Figure 2: The Rim Text of the Ceramic Vessel

Figure 3: Preliminary Drawing of the Rim Text

the logographic value **HA'**. It is followed by a phonetic complement **'a**, so the transcription **HA'-'a** leads to a transliteration *ha'* "water." In many Maya inscriptions this would end a toponymic collocation, note for instance the Dos Pilas main toponym written as "DRAGON"-**HA'** or "Dragon Water." An alternative may be sought in the fact that part of the preceding eroded collocations actually provided a short Primary Standard Sequence (henceforth PSS), which ended in *-ha'* "water." Note for example a PSS which includes *y-uk'-ib'(-al) sakha'* "(it is) the drinking-instrument (for) *sakha'*, atole or corn gruel" (Hellmuth 1987: Fig. 411; also note Kerr No. 4995, cf. Kerr 1994: 639) (note 2).

The hieroglyphic signs in the following collocations may all have syllabic values: [pB] **xi**?, [pC] **ko-ha**, and [pD] **ka** (note 3). The skull-like sign with descending lines of dots used for the putative syllabic sign **xi**? can be compared to a skull-sign (at position C5) as used in the inscription on a new altar as recently found at the archaeological site of Naranjo (drawing of this altar received through Nikolai Grube during the 27th Texas Maya Meetings, Austin, in March 2003; part of Early Classic Naranjo ruler name K'ak' "skull" Chan Chak). The sequence **xi**? **ko-ha ka** is unique in Maya writing and at present it is not possible to offer any kind of transliteration. Sequences of multiple syllabic signs are quite common in Maya writing to spell personal names, note **ja-na-b'i-pa-ka-la** at Palenque, **pa-pa-ma-li-li** at Ucanal, **wa-[t'u]lu-k'a-te-le** at Seibal, and **k'a-k'u-pa-ka-la** at Chichén Itzá. Tentatively, the sequence at [pB]-[pD] may be a personal name. The collocation at [pE] can be transcribed as

FIVE-**YATIK**?. The collocation opens with the regular "bar" for the numeral *ho(b)'* "five," followed by some kind of flower sign infixed with the syllabic sign **le**, a configuration cataloged as T831 by Thompson (1962: 389; at Palenque, Cross Tablet: E5 prefixed by the numeral *hux* "three"). The logographic value **YATIK**? for the flower sign is based on a recent observation by Christian Prager (personal communication, December 11-12, 2000), who noted a similar collocation on the Topoxté' Mirror written as FIVE-**ya**-FLOWER.SIGN[**ki**] (Fialko 2000: 144-149, Figs. 102-103) as well as a collocation FIVE-**ya-ti-ki** as written in the text on an unprovenanced vessel. Although there is no direct substitution between the flower sign and the phonetic spelling **ya-ti-ki**, the occasional phonetic complements **ya-** and **-ki** do provide epigraphic support to the provisional **YATIK**? reading. The syllabic sign **le** in the present case remains to be explained. It may lead to *yatik-le'* "*yatik* leaf" or, and more likely, it is simply an integral part of the logograph **YATIK**?. The collocation at [pF] provides the nominal glyph for **ITZAMNAH**, the name of the most important deity among the ancient Maya (in the Palenque Temple XIX platform texts, discovered in March 1999, his name appears as Yax Nah Itzamnah). Frequently this supreme god's name is taken as an additional name or epithet by Maya rulers (e.g. Itzamnah B'alam, a name taken by rulers at Dos Pilas, Ucanal, and Yaxchilán). On the Topoxte' Mirror the *ho(b)' yatik* collocation is followed by a name glyph for GIII or the Bearded Jaguar God (written on the Topoxte' mirror as GIII.HEAD-**ji-ni-b'i** for GIII*j-nib'* "GIII-place" or GIII*j-n-ib'* "GIII instrument," one of the names of the GIII shields; also note Naranjo Stela 13: F16 & Stela 21: B13). This may provide evidence that *ho(b)' yatik* is some kind of epithet. The collocations for *ho(b)' yatik itzamnah* may thus provide additional parts of a personal name. The possible name of **xi**? **ko-ha ka** Ho(b)' Yatik Itzamnah is followed at [pG] by **'u**, which combined with the collocation at [pH] SIX-**JOL**? (note the "death-eye" attached to the forehead, "u"-shaped darkened eye, and missing lower jaw; this sign operates as **b'a** in specific PSS texts, but never as **B'AK**) may transliterate *u wak jol* "(he/it is) the sixth head (of) ... ."

At [pI] FIVE-**NAB'** can be found written for *ho(b)' nab'* "five water lily or pool," which again may be a personal name. The collocations for *u wak jol* may thus provide a relationship statement. The fact that Ho(b)' Nab' may indeed be a personal name is substantiated by the titles that follow. At [pJ-pL] **TZ'AK-ka b'u yo-'OK**?[**K'IN**?] is written for *tz'akb'u(j) yok'in(?)*. *Tz'akb'u(j)* is generally associated with the succession of rulers and can be found in collocations as *tz'akb'u(j) ajaw* "succession lord" or *u-cha' winik-tz'akb'u(j)-*

il "(he is) the twenty-second successor of ..." (Tikal MT 217; although *tz'ak* is specifically used in "succession" clauses, the verb root *tz'ak-* means "to add, to accumulate", cf. Boot 2000, Stuart 2003, Zender 1999). The fact that *tz'akb'u(j)* is written may mean that Ho(b)' Nab' was the first in a line of rulers, thus the founder, of which **xi**? **ko-ha ka** Ho(b)' Yatik Itzamnah was the sixth successor or "head." If correctly deduced, *u wak jol* "(he is) the sixth head ..." may be an alternative for the more regular reference to succession. Also *yok'in(?)* (if correctly transcribed and transliterated, it may mean "the entrance, pillar, pedestal, or foot [*y-ok*] of the sun [*k'in*]") is a common title of Maya rulers, which here seems to replace the more common *ajaw* "lord" after *tz'akb'u(j)*. Further titles may have been present, but are now lost due to erosion.

In sum, the rim text may once have opened with an abbreviated PSS text of which the collocation at [pA] *-ha'* "... water" may have been the last collocation (although tentative, possibly the only surviving element of *sakha'* "atole or corn gruel"). The following collocations at [pB-pF] probably spelled a personal name: **xi**? **ko-ha ka** Ho(b)' Yatik Itzamnah. At [pG-pH] a relationship statement may have been recorded, namely *u wak jol* "(he is) the sixth head(?) of ...," followed at [pI-pL] by the name and titles of a possible dynasty founder referred to as Ho(b)' Nab' Tz'akb'u(j) Yok'in. Additional titles may have been recorded after [pL].

The Secondary Texts: A Fourfold Manifestation of a Local God

Originally four secondary texts were written. Only two of these texts have survived in full (Figures 4 & 5), while of the third text enough detail survived of the first two collocations. Of the fourth secondary text detail of only one collocation survived. However, based on the regularity of the other two texts it is possible to reconstruct the missing collocations. Here follow the transcription and transliteration:

SecondaryText	Transcription	Transliteration
1. [pM1]	**'IK'**	
[pN1]	**JOL**?	*ik'jol*
[pO1]	**'OCH-K'IN**	*ochk'in*
[pP1]	**YOTZ-tzi**	
[pP2]	FOUR-**PET**?	*yotz kanpet*

Figure 4: The Surviving Secondary Texts

2. [pQ1]   **[sa-ka]SAK**
   [pR1]   **JOL**?   *sakjol*
   [pS1]   **NAL**   *nal*
   [pT1]   **YOTZ-tzi**
   [pT2]   FOUR-**PET**?   *yotz kanpet*

3. [pU1]   **CHAK**
   [pV1]   **JOL**?   *chakjol*
   [pW1]   [eroded]
   [pX1]   [eroded]
   [pX2]   [eroded]

4. [pY1]   [eroded]
   [pZ1]   [eroded]
   [pAA1]   [eroded]
   [pBB1]   **YOTZ-tzi**
   [pBB2]   [eroded]   *yotz*

Comments on the Secondary Texts

The first secondary text opens at [pM1] with **'IK'** for *ik'* "black." It is followed at [pN1] by the depiction of a skull, possibly for **JOL**? "head." This "skull" is different from the "skull" at [pH] as it does not have a "death-eye" attached to the forehead and instead of the "u"-shaped eye there is a small curl around the eye. The transcription of this "skull" as **JOL**? is still tentative and this "skull" may actually have a different value.

In the headdress of the seated figures, associated with each secondary text, a similar depiction of the skull can be found integrated into the headdress. There are several examples known of nominal glyphs being integrated into the headdress (e.g. Naranjo Stela 22 for K'ak' Tiliw Chan Chak & Tikal Stela 31 for Siyaj Chan K'awil). The scroll emerging from below the skull and curling in front of it may simply be an integral part of the logographic sign (note the T77 "wing" substitution set; some detached "wing"-signs do not have an attached muscle or vein, some "wing"-signs do). The "skull" or "head" sign is followed at [pO1] by the
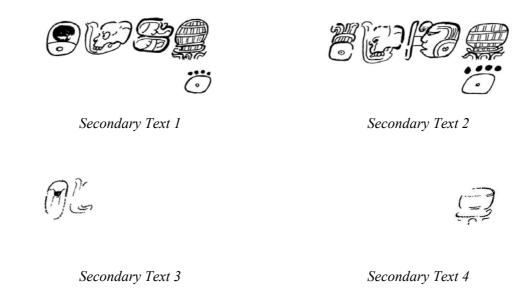
7

Secondary Text 1   Secondary Text 2

Secondary Text 3   Secondary Text 4

Figure 5: Preliminary Drawings of the Four Secondary Texts (not to scale)

collocation **'OCH-K'IN** for *ochk'in* "west." The sign for **'OCH** can easily be recognized, the sign for **K'IN** possibly is a variant sign as it seems to contain rudimentary traits of the "flower variant" for *k'in* as found in many examples of the so-called Sky Band. This directional glyph is followed at [pP1] by **YOTZ-tzi**. The main sign seems to be the inverted vessel with some kind of weaving or wrinkling pattern which recently was deciphered as **YOTZ** (as «YO:TS» in Boot 1999). This particular main sign was until recently only known from the inscriptions of Stela 2 (at D17?) and Stela 21 (A5 & E2) at Naranjo and one (possibly two) ceramics from the greater Naranjo area (cf. Boot 1999, 2003). Also Kerr No. 8728 (posted July 11, 2003 at http://famsi.famsi.org:9500/dataSpark/MayaVase) contains the main sign **YOTZ** in a possible title of origin (**'a-YOTZ-'o**?-**tzi**?). The painting style of Kerr No. 8728 directs to an eastern Peten or even Greater Naranjo area origin (possibly the same painter or a painter from the same work shop as Kerr No. 4909). In the present example the main sign **YOTZ** is suffixed with a phonetic complement **tzi**. Unfortunately, at this moment *yotz* still remains without a satisfactory translation (note 4). It is followed at [pP2] by FOUR-**PET**?, probably for *kanpet*, although *chanpet* is a good alternative (only a difference in language affiliation, Yucatecan vs. Cholan language groups) (for the distribution of several possible Maya language groups in the Classic period, cf. Lacadena and Wichmann 1999). *Pet* means "round" or "round object" (the glyph sign itself depicts a round disk with a circular center hole). *Kan* (*chan*) not only means "four," it is actually a homophone to *kan* (*chan*) "serpent" and *kan* (*chan*) "sky" in several

Maya languages (cf. Dienhart 1989). In the Classic Maya writing system signs for all three frequently substitute for each other (cf. Houston 1984). *Kanpet* (or *chanpet*, written **FOUR-PET**?**-te**, cf. Martin and Grube 2000: 112, 115) occurs as a nominal of a Calakmul or "Serpent Site" lord, as mentioned on Seibal Stela 10 (A9-B9). The same collocation also occurs on Edzna Stela 1 (as FOUR-**PET**?) and Stela 11 (as **ya**-FOUR-**PET**?). The collocation FOUR-**PET**? also occurs in the name phrase of the mother of ruler Jasaw Chan K'awiil I of Tikal (Temple I, Lintel 3: E4) (Luís Lopes, personal communication, 2002). This restricted geographic distribution of the lexical item *kanpet* (or *chanpet*) may provide a clue to the possible provenience of this vessel, namely the present-day state of Campeche in which the archaeological sites of Calakmul and Edzna are located, an area relatively close to Tikal. To this I will return below. The five collocations of the first secondary text transliterate *ik'jol ochk'in yotz kanpet* or "black head, west *yotz kanpet*." Yotz Kanpet seems to be a personal name, preceded by a cardinal direction and corresponding prefixed color designation. Among the Postclassic Maya the west (*ochk'in*, perhaps derived from *(o)chik'in*, as suggested by Kathryn Josserand [pers. comm. 2002]) was associated with the color black (*ik'* or *ek'*).

A comparable transcription and transliteration can be offered for the second secondary text. It opens at [pQ1] with **SAK** (actually a phonetic spelling **sa-ka** seems to be incorporated into the logograph for **SAK**), followed at [pR1] by **JOL**? for *sakjol* "white head." At [pS1] the collocation **NAL** (or: **NAH/na-NAL**) can be discerned for *nal* "north." At [pT1-pT2] follows **YOTZ-tzi** FOUR-**PET**? for *yotz kanpet*. These five collocations transliterate *sakjol nal yotz kanpet* or "white head, north *yotz kanpet*." Among the Postclassic Maya the north (*nal* or *xaman*) was associated with the color white (*sak*). The regularity of these first two complete secondary texts makes it possible to reconstruct the contents of the other two secondary texts of which only small details have survived. The third secondary text opens at [pU1-V1] with *chakjol*. Although the other three collocations are eroded the whole sequence may have read *chakjol (elk'in yotz kanpet)* or "red head, east *yotz kanpet*." Among the Postclassic Maya the east (*elk'in* or *(e)la(j)k'in*, after suggestion by Kathryn Josserand [pers. comm. 2002]) was associated with the color red (*chak*). Only one collocation of the fourth secondary text has survived, at [pBB1] still the vestiges of **YOTZ-tzi** can be recognized. As such this fourth sequence, following the previous three, may once have read *(k'anjol nohol) yotz (kanpet)* or

"yellow head, south *yotz kanpet*." Among the Postclassic Maya the south (*nohol*) was associated with the color yellow (*k'an*).

In sum, the four secondary texts may once have read:

Secondary Text	Transliteration		
1. [pM1-pP2]	*ik'jol*	*ochk'in*	*yotz kanpet*
2. [pQ1-pT2]	*sakjol*	*nal*	*yotz kanpet*
3. [pU1-pX2]	*chakjol*	*(elk'in*	*yotz kanpet)*
4. [pY1-pBB2]	*(k'anjol*	*nohol)*	*yotz (kanpet)*

These four secondary texts thus provided the individual name captions of the four figures, each identified with a "skull" in the headdress, each elaborately dressed, and each seated on a jaguar pelt covered cushion or pillow indicative of elevated status (cf. Boot 2000).

The four name captions provide an extremely rare insight into the Middle to Late Classic Maya glyphs for the cardinal directions (although only *nal* and *ochk'in* survived) and the colors associated with these directions (although only *ik'*, *sak*, and *chak* survived). While examples of the mentioning of all four directional glyph collocations are rare (e.g. Río Azul, Structure A-4, Tomb 12 & Copán Stela A), there is to my knowledge no Preclassic, Middle Classic or Late Classic example that also specifically provides the corresponding colors, as found on this ceramic bowl. Until now only the surviving Maya codices from the Late Postclassic period (circa A.D. 1250-1550) provide the glyphic association between cardinal directions and respective colors (e.g. Codex Dresden 30B-31B, cf. Lee 1985: 55). The actual association between colors and the cardinal directions is known from Late Classic Maya inscriptions, as it can be found in certain references to the 819-day count (e.g. Yaxchilan, Lintel 30; the cardinal direction *elk'in* "east" is associated with the color *chak* "red"). The 819-day count, when present, only provides one cardinal direction and color at a time.

The nominal phrase Yotz Kanpet may even provide us with the name of a hitherto unknown local Classic Maya deity associated with the four cardinal directions and corresponding colors. This particular fourfold manifestation can be compared with the description of the fourfold manifestations of certain deities invoked in the New Year's ceremonies as described by Landa (1986: 60-70 & ca. 1566: fol. 29r-32r, original spelling retained):

Year	*Associated Gods*				
Kan	Hobnil	Kanuuayayab	Kanalbacab	Kanpauahtun	Kanxibchac
Muluc	Canzienal	Chacvuayayab	Chacalbacab	Chacpauahtun	Chacxibchac
Ix	Zaccini	Zacuuayayab	Zacalbacab	Zacpauahtun	Zacxibchac
Cauac	Hozanek	Ekuuayayab	Ekelbacab	Ekpauahtun	Ekxibchac

The fact that Yotz Kanpet was the name of a deity may be substantiated through the following entry in the "Relaciones Geográficas de Yucatán" on the name of the city of Campeche:

> Campech es nombre de vn ydolo q traya en la cabeça por ynsignia vna culebra enroscada y en la cabeça dela culebra vna garrapata. [...]
> (De la Garza et al. 1983: 155 & 163, original spelling retained; cf. Barrera Vásquez et al. 1980: 291; Roys 1957: 168)

The phrase Kampech («Campech»), or Kanpech(e) («Canpech[e]») in most early Colonial sources, provides the name of an idol ("nombre de vn ydolo") venerated at the time of the conquest.

Here I suggest that the nominal phrase Yotz Kanpet indeed was the name of an important local deity. With Yotz still evading a straightforward translation, the part Kanpet in Classic Maya may even have meant "Serpent (*kan*) Tick (*pet*)," based on the homophonic quality of the lexical items involved (*kan/chan* "four/sky vs. serpent" and *pet/pech* "round [disk] vs. tick") (note 5). If correctly deduced, the four painted figures thus were manifestations of the same deity named Yotz Kanpet (note 6), while each manifestation was modified through a color designation and associated cardinal direction.

The fact that the lexical item *kanpet* only has a restricted geographical distribution in the Classic period (currently only found at Edzna, Calakmul, and Tikal), may indicate that the present-day Mexican state of Campeche was the probable place of origin of this ceramic bowl. However, the specific use of the hieroglyphic signs for **xi**? and **YOTZ** may direct to an eastern origin, an area close to or incorporating the archaeological site of Naranjo. More importantly, in the name of Yotz Kanpet we actually may find the origin of the name of the state of Campeche, derived as it is from the name of a once important idol. Kampech and Kanpech (in the new orthography), the name of an idol, are but variants of Kanpet in the Yucatecan Maya language group (regular *-n* > *-m* shift in *kan* & regular *-t* > *-ch* shift in *pet*).

Final Remarks

This medium size Late Classic Maya ceramic bowl provides a wealth of epigraphic data, containing unique references to the names of two possible rulers (**xi**? **ko-ha ka** Ho[b]' Yatik Itzamnah and Ho[b]' Nab' Tz'akb'u(j) Yok'in) of an unnamed and thus unknown site in the Maya area. More importantly, this bowl provides unique references to a fourfold manifestation (through color designations and associated cardinal directions) of a previously unknown (and here tentatively identified) local Maya deity named Yotz Kanpet (or, alternatively, Yotz Kanpech). The four figures on the bowl either represent this fourfold deity manifestation or represent a human being in the act of a fourfold deity impersonation. In the deity name Yotz Kanpet one actually may recognize the origin of the name of the present-day Mexican state of Campeche, as described above. Based on the importance of the fourfold manifestation of the possible deity Yotz Kanpet, this ceramic bowl may be dubbed "the Yotz Kanpet ceramic bowl."

Acknowledgments

Notes

1)   In this essay the following phonemic orthography is employed in representing lexical items in Maya languages: *', a, b', ch, ch', e, h, i, j, k, k', l, m, n, o, p, p', s, t, t', tz, tz', u, w, x*, and *y*. In this orthography /h/ represents a "soft <h>" while /j/ represents a "hard <h>." In this essay no reconstruction of vowel complexity or quality is included; at present I follow a proposal by Kaufman and Justeson in which disharmonic spellings are identified as a reflex of their most common -V*l* suffix (communicated by Barbara MacLeod, September 2003). All transliterations are only reconstructions of Classic Maya items, not "true" linguistic items. In the transcription of Maya hieroglyphic signs uppercase bold type letters refer to logographic values (i.e. **'OCH-K'IN**), while lowercase bold type letters refer to syllabic values (i.e. **ka**). Transliterations thereof will be placed in italics (i.e. *ochk'in*). Original spellings from source material (i.e. dictionaries, grammars, or previous publications) will be retained and placed between double triangular brackets (i.e. «**YO:TS**»). T-numbers, if applicable, refer to the hieroglyphic signs as cataloged by Thompson (1962). An earlier version of this essay, dated January 1, 2001, was distributed among fellow epigraphers in January and March of 2001 as "Miscellaneous Maya Ceramics Report No. 1: The Yootz Kanpet Bowl." All photographs were made and supplied by the private collector; all preliminary drawings were made by the author.

2)   The collocation for the vessel type here referred to can be transcribed **yu-**T77-**b'i**. Until recently I did not accept Mora-Marín's proposal that T77 and variant signs operate as **k'i** (Mora-Marín 2000: 34-38; also note Stuart 2002). My reason, his proposal does not satisfactorily explain the substitution of T77 with T669b at Copán nor does it explain the possible substitution of T77-**b'i**? for **K'AB'-b'i** in the Dresden Codex (36C2 & 38C1, cf. Lee 1985: 58-59). Also note the vessel type collocation **yu-**T77-**HAB'** as found in the PSS text on Kerr No. 4549. Based on earlier research I transcribed T77 as **K'A'**? (added query expresses doubt on the assigned value). Recent research by the present author may have identified an example in which a sign of the T77 substitution set may function as **k'i**. It can be found in a spelling **ya-'AK'-**T77var at Xcalumkin (Msc. 5: M); this collocation at other places can be found as **ya-'AK'-li** for *y-ak'-il*. T77var can not be **-li**; if the recent proposal by Kaufman and Justeson is correct (see note 1 above), T77var in this case should be disharmonic and provide a reflex of the most common -V*l* suffix, in this case thus -*il*. Only a value **k'i** would serve well in this case. As such the signs of the T77 substitution set may represent the syllabic sign for **k'i**. However, rare spellings still indicate that T77 and variant signs may also have a different value (perhaps a logographic **K'A'**? versus a syllabic value **ki**; note for instance T528 **TUN** vs. **ku**).

3)   The sign at [pB] represents a skull with its lower jaw clearly visible, a darkened eye, while small spots are painted in descending straight lines. This is a different calligraphic configuration than the normal "skull" sign for **xi** (Stuart 1987: 31-33) and as such the identification here is only tentative. It may be a different sign with a different syllabic or even a logographic value, to which the use in the Naranjo ruler name on the new altar may attest (Luís Lopes, e-mail to the author, September 24, 2003).

4)   The sign for **YOTZ** depicts an inverted vessel with a narrow neck marked by a pattern possibly referring to the fact that it has a woven exterior. Recently Kerry Hull informed me that in present day Ch'ortí' "Yo'tz is also used for describing the external appearance of things. When *carrizo tierno* is left to dry the water inside evaporates and it becomes 'wrinkled' or 'shriveled up'. The[y] say "Yotzran e jarar," or "The reed shriveled up." [...] It is possible that [the] weaving pattern on the upended vase that is the main sign of the *yootz* site is showing instead this shriveled up or wrinkled exterior [...]" (personal communication via e-mail, August 2, 2002; spelling in original & italics added for clarity).

5)   The text on this Classic Maya ceramic bowl provides a spelling *kanpet* in which *kan* may mean "four; sky; serpent," while *pet* can be found glossed as "round; to make round; round object." However, with a Late Postclassic Maya deity named *kanpech* as "serpent (*kan*) tick (*pech*)," based on the definition from the "Relaciones Geográficas," it might be possible to reconstruct a Classic Maya lexical item *pet* "tick." *Pech* as "tick" can be found in all Yucatecan Maya languages (Yucatec, Lacandon, Itzaj, Mopan), some Ch'olan langages have *sip* "tick" (Ch'ortí', Ch'ol), while other Ch'olan languages also have *pech* (Ch'ol, Chontal; a loan?). *Sip* "tick" can be found among all Chiapanec (Tzotzil, Tzeltal, Tojolab'al) and Highland Guatemala Maya langauges (Chuj, Jacatec, Kanjob'al, Motozintlec, Teco, Mam, Aguatec, Kaqchikel, Tzutujil, K'iché', Uspantec, Pocomam, Pokomchi, Q'eqchi') (cf. Dienhart 1989: 652-653). Examples of this particular shift -*t* > -*ch* in Maya hieroglyphic writing may be:

chit (**CHIT**?, **CHIT**?-**ti**, **chi-ti**)	*chich* (**CHICH**?-**che**) "rabbit"
y-otot(-il) (**yo-'OTOT-ti**, **yo-to-ti**)	*y-otoch(-el)* (**yo-to-che**) "his/her/its house ..."
pet (**PET**?, **PET**?-**te**)	*pech* (**PECH**???) "tick"

Although very tentatively, T511 **PET** may also have a logographic value **PECH** if not postfixed with **-te**. More research in the area of phonological reconstruction for these three particular items (and there may be more) is in need.

6)   The Calakmul or "Serpent Site" lord named Kanpet (Chanpet?, Kanpech?) may thus have obtained a name derived from a deity, like many of his predecessors as well as his few contemporaries. Note for example names as Itzamnah B'alam (Dos Pilas, Ucanal, Yaxchilán) which includes the deity name Itzamnah, or Jasaw Chan K'awil (Tikal), Siyaj Chan K'awil (Tikal), and B'ajlaj Chan K'awil (Dos Pilas) which include specific manifestations of the deity name K'awil, or Uk'uw Chan Chak (Dzibilchaltún) and K'ak' Tiliw Chan Chak (Naranjo) which include specific manifestations of the deity name Chak.

References

Barrera Vásquez, Alfredo (et al.) (editors)
1980   *Diccionario Maya Cordemex: maya-español, español-maya*. Mérida, Yuc.: Ediciones Cordemex.

Boot, Erik
1999   A New Naranjo Area Toponym: *Yo:ts*. In *Mexicon*, **21** (**2**): 39-43.

2000   *The Mat and Throne in the Maya Area*. Paper presented at the international symposium entitled "Mat and Throne: Cosmovision and Society in Mesoamerica," May 10-12, 2000, Leiden University, Leiden, Holland. Distributed among attendants and fellow epigraphers.

2003   The Hieroglyphic Texts of Kerr No. 7786 and 4669: Performance and Competence of a Late Classic Maya Master Scribe. *Mesoweb Features*. URL: http://www.mesoweb.com/features/boot/4669-7786.pdf

De la Garza, Mercedes (et al.) (editors)
1983   Relaciones Histórico-Geográficas de la Gobernación de Yucatán. Dos tomos. *Fuentes para el estudio de la cultura maya*, **1**. México, D.F.: IIF/CEM, Universidad Autónoma de México.

Dienhart, John M.
1989   *The Mayan Languages. A Comparative Vocabulary*. Three Volumes. Odense, Denmark: Odense University Press. Online version available at URL: http://maya.hum.sdu.dk

Fialko, Vilma
2000   El espejo del Entierro 49; morfología y texto jeroglífico. In *El sitio maya de Topoxté. Investigaciones en una isla del lago Yaxhá, Petén, Guatemala*, edited by Wolfgang W. Wurster, pp. 144-49. AVA-Materialien Band 57. Mainz am Rhein, Germany: Verlag Phillip von Zabern.

Hellmuth, Nicholas
1987   *Monster und Menschen in der Maya-Kunst*. Graz, Austria: Akademische Druck- und Verlagsanstalt.

Houston, Stephen D.
1984　An example of homophony in Maya script. In *American Antiquity* 49 (4): 790-805.

Kaufman, Terrence S. and William M. Norman
1984　An outline of proto-Cholan phonology, morphology and vocabulary. In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 77-166. IMS Publication No. 9. Albany, NY: Institute for Mesoamerican Studies, State University of New York at Albany.

Kerr, Justin
1994　*The Maya Vase Book, Volume 4*. New York, NY: Kerr Associates.

2000　*The Maya Vase Book, Volume 6*. New York, NY: Kerr Associates.

n.d.　*The Maya Vase Database: An Archive of Rollout Photographs*. FAMSI Research Materials. URL: http://famsi.famsi.org:9500/dataSpark/MayaVase

Lacadena, Alfonso, and Søren Wichmann
1999　*The Distribution of Lowland Maya Languages in the Classic Period*. Paper presented at the "III Mesa Redonda de Palenque," June 27-July 4, 1999, Palenque, Chiapas, México. Copy in possession of the author.

Landa, fray Diego de
ca. 1566　*Relacion de las cosas de Yucatan*. Biblioteca de la Real Academia, B-68. Microfilm version, xerox copy provided by Christian Prager (December 2000).

1986　Relación de las cosas de Yucatán. *Biblioteca Porrúa* **13**. México, D.F.: Editorial Porrúa, S.A.

Lee, Thomas A.
1985　*Los códices mayas*. Tuxtla Gutiérrez, Chis.: Universidad Autónoma de Chiapas.

Martin, Simon, and Nikolai Grube
2000　*Chronicle of the Maya Kings and Queens. Deciphering the Dynasties of the Ancient Maya*. London & New York: Thames and Hudson, Inc.

Mora-Marín, David F.
2000　The Syllabic Value of Sign T77 as **k'i**. *Research Reports on Ancient Maya Writing* **46**. Washington, D.C.: Center for Maya Research.

Roys, Ralph L.
1957　The Political Geography of the Yucatan Maya. *CIW Publication* **613**. Washington, D.C.: Carnegie Institution of Washington.

Stuart, David
1987　Ten Phonetic Syllables. *Research Reports on Ancient Maya Writing* **14**. Washington, D.C.: Center for Maya Research.

2002   Spreading Wings: A Possible Origin of the **k'i** Syllable. *David Stuart's Notes at Mesoweb*. URL: http://www.mesoweb.com/stuart/notes/Wings.pdf

2003   On the Paired Variants of **TZ'AK**. *David Stuart's Notes at Mesoweb*. URL: http://www.mesoweb.com/stuart/notes/tz'ak.pdf

Thompson, J. Eric S.
1962   *A Catalog of Maya Hieroglyphs*. Norman, OK: University Press of Oklahoma.

Zender, Marc Uwe
1999   *Diacritical Marks and Underspelling in the Classic Maya Script: Implications for Decipherment*. Unpublished MA thesis. Calgary, Canada: Department of Archaeology, University of Calgary.

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