# Kerr No. 4546 and a Reference to an Avian Manifestation of the Creator God Itzamnaj

by Erik Boot (e-mail: <a href="www.wukyabnal@hotmail.com">www.wukyabnal@hotmail.com</a>)
October 4, 2004. Rijswijk, the Netherlands

On April 16, 2004, Justin Kerr posted a color rollout photograph of Kerr No. 4546, a Codex Style ceramic vessel (Figure 1). Studying the color version made me realize that the hieroglyphic text that refers to the *way* character contains a nominal phrase also to be found as part of a nominal phrase in the primary rim text of a vessel currently in a private collection in Europe. This nominal phrase may refer to an avian manifestation of the creator god Itzamnaj. Both the iconography and the secondary hieroglyphic texts will be discussed (note 1).

# The Iconography of Kerr No. 4546

Kerr No. 4546 depicts three hunters, each armed with a blow gun; two of the hunters use and aim their blow gun, while a third holds the blow gun against his body. The body of the hunter on the left is marked by black spots; above his head there is a straw hat. These features identify him as one of the Classic Maya "Hero Twins" (cf. Coe 1989) and it is this particular hunter that is also depicted on Kerr Nos. 0555 (without straw hat), 1226, 1345, 3055, 4151, 7605 (multiple depictions), and The Blom Plate ([Kerr No. 3638] without straw hat). It should be noted that the blowgun of this first hunter is split at the end and the oval pebble used in shooting is visible (is the blow gun broken and does he perhaps misfire?).

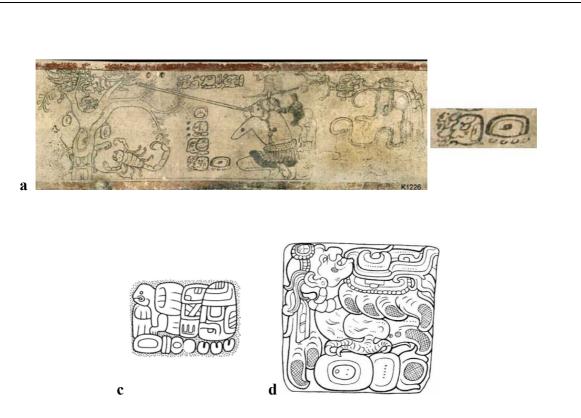




**Figure 1**: Rollout Photograph of Kerr No. 4546 and Detail of the Principal Bird Deity (photographs by Justin Kerr)

Two of the blow guns are aimed at the avian entity seated on a branch of the fruit bearing Pax Tree (as on Kerr No. 1226). The Pax Tree can be identified through the large anthropomorphic head at the base of the tree, marked by a large god eye, jaguar ear, and missing lower jaw, which are all characteristics of the so-called "Patron of the Month Pax" (cf. Thompson 1950: Fig. 23, 18-20). The long leafs, branching, and fruit bearing trunk may identify the tree as a gourd tree of the *Crescentia* species (cf. Lopes n.d.: Figures 5a & 5b).

Specific characteristics of the avian identify it as the Principal Bird Deity (cf. Bardawil 1976; Cortez 1986; Hellmuth 1987). These characteristics include the Itzamnaj headband, the small Yax sign on top of his head, and the (beaded) necklace with pectoral. This bird, based on recent epigraphic and iconographic research (cf. Freidel, Schele, and Parker 1993; Schele and Mathews 1998), has been identified as Itzamnaj Yej and Mut Itzamnaj (Figure 2) (note 2).



**Figure 2**: **a**) Kerr No. 1226 and Detail of Itzamnaj Yej Collocation (photographs by Justin Kerr, **b**) Mut Itzamnaj, Xcalumkin, Column 3: A5 (drawing by Eric Von Euw [Graham and Von Euw 1992: 175]), **c**) Mut Itzamnaj, Toniná, Fallen Sandstone Glyph Block (drawing by Simon Martin)

As some colonial sources from the Yucatán peninsula inform, the possible avian manifestation of the creator god Itzamnaj was known as Yax Kok Ahmut ("Bocabulario de Mayathan" 1972 [ca. 1670]: MS 129r, line 5, «hunytzamna . yaxcocahmut»; Landa 1986 [1566]: 66 [MS fol. 30v, e.g. line 26 «Yaxcocahmut»], Cogolludo 1688: 192 [Libro Quarto, Capítulo VI]), Ahkok Ahmut (Avedaño y Loyola 1996 [1696]: 35 [fol. 29v]), and Yax Ahkok A(h)mut (Chilam Balam of Tizimín, Mayer 1980: MS 20v [15v]: lines 32-33, «yax ah co cai mute») (note 3). The part *mut* in these two references means "bird" (cf. Kaufman 2003: 619); more importantly, in the present-day Tzeltalan language the item *kokmut* is conserved and it identifies the Harpy eagle (*Harpia harpyja*) (cf. Hunn 1977). The example from Toniná (Figure 2d) shows the large claws of a raptorial bird, while the patterning of the feathers (the dark tips, indicated by cross-hatching, and the rows of curving lines) are a characteristic of the Harpy Eagle, which are particularly well-visible when his wings are spread out (Figure 3). Albeit it tentative, the avian manifestation of Itzamnaj may thus be a Harpy Eagle, the largest raptorial bird in the area and one of the largests raptorial birds in the world (note 4).





**Figure 3**: **a**) Harpy Eagle Spreading Wings (photographer unknown, illustrated in Guynup 2002) **b**) Harpy Eagle Landing on Tree Branch (part of the Panama Harpy Eagle Poster, image copyright Hans J. Peeters, <a href="http://peeters.homestead.com">http://peeters.homestead.com</a>)

The creator god Itzamnaj (cf. Taube 1992: 31-41; Thompson 1970: 200-233) seems to be specifically associated with the most powerful animals of the various worldly domains. In his association with the earth surface he may be referred to as Itzam Kab' Ahin (cf. Taube 1989, Thompson 1970), in which *kab*' refers to "earth" and *ahin* refers to the "alligator" (cf. Kaufman 2003: 643). His association with the domain of the earth forest is more difficult to identify, but the nominal phrase of one of the rulers at Yaxchilán may provide a clue; his nominal phrase is Itzamnaj B'alam (written 'ITZAMNAJ-B'ALAM and 'ITZAMNAJ-B'ALAM-ma). If this indeed would refer to a manifestation of the creator god Itzamnaj (note 5), he would be associated with the most powerful predatory mammal on land, the jaguar. Finally, the sky domain would be associated with his avian manifestation, the Harpy Eagle, the most powerful raptorial bird. This specific avian manifestation of the creator god Itzamnaj seems to be referred to in several different ways, to which also one of the secondary texts on Kerr No. 4546 seems to attest.

# The Hieroglyphic Texts on Kerr No. 4546

A short Primary Standard Sequence (henceforth PSS, cf. Coe 1973) can be found between the first and second hunter. This text can be transcribed as:

kakaw

Between Hunter 1 & Hunter 2, top:

ka-wa

B1

A1 **yu-k'i?-b'i** *yuk'ib'*A2 **ta-'IX** *ta*A3 **TE'-le-la** *ix(im)te'el* 

Between Hunter 1 & Hunter 2, middle:

C1 K'IN.VASE-to-STONE.IN.HAND-la (name of

C2 HUMAN.FACE owner)

# D1 K'UH-cha-TAN-WINIK

*k'uh(ul) chatan winik* 

The PSS may be transliterated *y-uk'ib'* ta ix(im)te'-el kakaw "(it is) the drink-instrument for Maize God (?) Tree derived cacao" (compare to Miller and Martin 2004: 78). This kind of PSS is very common on Codex Style ceramic vessels (cf. Robiscek and Hales 1981). The name of the owner or patron remains without decipherment, as only two syllabic signs can be identified with certainty. The text ends with the supreme title of the owner or patron as K'uhul Chatan Winik "God-like Chatan Man," in which Chatan is a toponym referring to an area that encompasses sites as Nakbé, Pacaya, El Mirador, and El Mirador (cf. Boot n.d.).

More important is the long vertical secondary text that can be found in between the Pax Tree with Principal Bird Deity and the first hunter (Figure 4). This kind of text can be found on a large selection of Codex Style ceramics in which a specific painted *way* or co-essence is identified to belong to a certain person or site (cf. Grube and Nahm 1994; Houston and Stuart 1989).





**Figure 4**: The Black-and-White and Color Views of the Secondary Text that Spells the Name of the *Way* (photographs by Justin Kerr)

Only the first three collocations of this secondary text can be transcribed with some confidence, most of the signs of the other collocations remain without clear identification:

- E1 **5-**T831.FLOWER[**ki**]-**va**?
- E2 'ITZAMNAJ
- E3 'u-WAY-ya

The collocation at E3 spells 'u-WAY-ya for *u-way* "(is) the co-essence of"; this collocation identifies the first two collocations as providing the name of the *way*, while the remaining collocations at E4-F1 would provide the name of the person (or location) to which the *way* belongs. This part of the phrase remains without decipherment, due to the use of rare signs and erosion. A detailed image of the first two collocations can be found in Figure 5.





**Figure 5**: The Black-and-White and Color Views of the Collocation that Spell the Name of the *Way* (photographs by Justin Kerr)

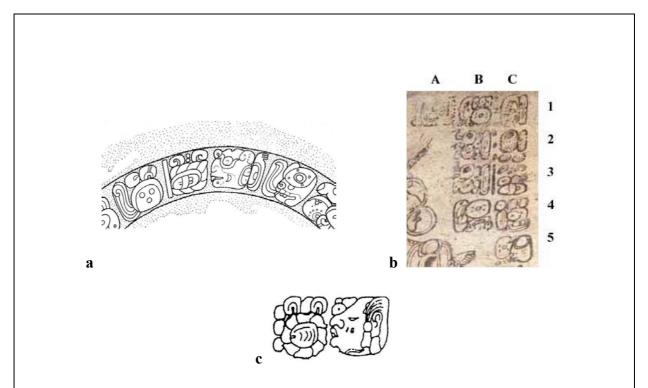
These two collocations spell FIVE-T831.FLOWER[ki?]-ya? 'ITZAMNAJ for "Five Flower Itzamnaj" (note 6). On many Codex style ceramics short texts can be found which refer to the characters illustrated in the accompanying narrative. Sometimes these narratives are single line rows of two to four *way* figures, each identified by a short hieroglyphic caption. Other narratives are more complex. Based on these identifications a large corpus of *way* names and their associated lords and sites has become known (cf. Grube and Nahm 1994).

It is my contention that this specific secondary text, mentioning a way character, refers to the Principal Bird Deity as seated in the tree. This suggestion is strengthened through the fact that the two collocation nominal phrase of this way contains a reference to Itzamnaj. The Principal Bird Deity is related to Itzamnaj specifically through the Itzamnaj headband, as well as the small Yax sign on the top of his head, and the (beaded) necklace with pectoral. If correct, the 5-T831.FLOWER[ki]-ya 'ITZAMNAJ spelling provides yet another name for the avian manifestation of Itzamnaj. As noted above, the individual person or site to which this way belongs remains without identification.

At present I have not been able to identify another *way* or co-essence that carries the name "Five Flower Itzamnaj." However, this particular phrase is not unique in Classic Maya writing. The primary rim text on a polychrome painted vessel in a European private collection contains a nominal phrase (cf. Boot 2003), part of which can be identified as "Five Flower Itzamnaj" (Figure 6).



**Figure 6**: Drawing of the Collocations showing "Five Flower Itzamnaj" (preliminary drawing by the author)



**Figure 7**: **a)** Part of the Text on the Topoxté Mirror Back Showing the "Five Flower" GIII (drawing by Stefanie Teufel [Fialko 2000: Fig. 103]), **b)** The Text Panel from Kerr No. 5855 (photograph by Justin Kerr), **c)** "Three Flower" Maize God Mentioned at Palenque, Temple of the Cross: E4-F4 (drawing by Linda Schele)

Based on certain phonetic complements and one possible syllabic substitution it is possible to posit a tentative decipherment of the T831 FLOWER sign (Figure 7). The example on the Topoxté Mirror Back spells 5-ya-T831.FLOWER[ki] G.III-ni-b'i, in which a different syllabic sign for ki is infixed to T831 FLOWER and the sign ya is superfixed. The text panel of Kerr No. 5855, an example first identified by Christian Parager (personal communication, December 11-12, 2000; cf. Boot 2003), provides a collocation at position C3 which spells 5-ya-ti-ki. While some of the collocations on this ceramic may be questionable (due to overpainting), this particular collocation seems original. Although the context is quite different, this particular spelling 5-va-ti-ki may provide a fully syllabic substitution of the 5-ya-T831.FLOWER[ki] collocations. At Palenque another example may be found, although it does not open with the numeral five. In the text of the Tablet of the Temple of the Cross one can find the spelling 3-ya-T831.FLOWER[le] MAIZE.GOD (it is part of the nominal phrase of Muwan Mat, the mother of the Palenque Triad); I identify the infixed le sign as an integral part of the logographic sign T831 FLOWER, not another phonetic complement (note 7). The collocation on Kerr No. 4546 is spelled 5-T831.FLOWER[ki]-ya?; based on the other examples the va syllabic sign may serve as a prefixed phonetic complement. If correct, based on the observation by Christian Prager, T831 may be logographic YATIK and the "Five Flower Itzamnaj" nominal may have been Ho'yatik Itzamnaj in Classic Maya.

Additionally it should be noted that in three examples the Ho'yatik and Huxyatik precede the name of a god (it remains undetermined on Kerr No. 5855). Ho'yatik can be found in front of the portrait glyph of Itzamnaj and GIII of the Palenque Triad (note 8), while Huxyatik can be found preceding the portrait glyph of the Maize God (note 9).

#### **Final Remarks**

Kerr No. 4546 depicts three hunters with blow guns, one of whom points his blow gun at the Principal Bird Deity seated in the crest of the tree. The blowgun is split at the end and the oval pebble shows; perhaps he "misfires." The Principal Bird Deity may the avian representation of the creator god Itzamnaj in the shape of a Harpy Eagle. The secondary text, referring to a way or co-essence, between the tree and the first hunter may contain a reference to the Principal Bird Deity. A tentative decipherment of the T831 main sign as **YATIK** may lead to a transliteration of the name of the Principal Bird Deity as Ho'yatik Itzamnaj.

Based on various colonial sources as well as epigraphic sources from the Classic period the avian manifestation of Itzamnaj may have been referred to with at least four different names:

1) Yax Kok Ahmut (Yax Ahkok Ahmut, Ahkok Ahmut), 2) Mut Itzamnaj (or Itzamnaj Mut),

3) Itzamnaj Yej, and 4) Ho'yatik Itzamnaj. While these four names may refer to one single avian manifestation of Itzamnaj (which at present I prefer), it is possible that these names refer to different avian manifestations of Itzamnaj. If these names refer to different avian manifestations of Itzamnaj, they are all based on the Harpy Eagle (although a conflation with other birds is possible).

Future research may identify additional examples of "Five Flower Itzamnaj" or Ho'yatik Itzamnaj and may provide further support to the tentative decipherment of T831 as **YATIK**. This research may also provide support to the suggestion that the name phrase Ho'yatik Itzamnaj on Kerr No. 4546 indeed is a reference to the Principal Bird Deity, the avian manifestation of the creator god Itzamnaj.

#### Acknowledgment

I thank Hans J. Peeters for his permission to reproduce part of his painting of the Harpy Eagle in this essay.

#### **Notes**

In this essay the following phonemic orthography is employed in representing lexical items in Classic Maya: ', 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 the /h/ represents a glottal aspirate or glottal voiced fricative (/h/ as in English "house"), while /j/ represents a velar aspirate or velar voiced fricative (/j/ as in Spanish "joya") (cf. Grube n.d.). In this essay no reconstruction of vowel complexity or quality is provided, as originally suggested by Houston, Stuart, and Robertson, and amended and extended by Lacadena and Wichmann. Absence or presence of vowel complexity would have been indicated by specific harmonic and disharmonic spellings. At present in some detail I follow a proposal by Kaufman and Justeson in which disharmonic spellings are identified as spelling a reflection of their most common -Vl («-V:l») suffix (cf. Kaufman 2003: 29-34). My own research suggests that certain spellings may be identified as reflections of yet other (common) suffixes (e.g. -aj, -ih). As a caveat, all transliterations are only reconstructions of Classic Maya items, not "true" linguistic items (cf. Boot 2002: 6-7). In the transcription of Maya hieroglyphic signs uppercase bold type letters refer to logographic values (i.e. 'ITZAMNAJ), while lowercase bold type letters refer to syllabic values (i.e. ya). Transliterations thereof will be placed in italics (i.e. yukib'). Transcriptions of infixed signs are placed between square brackets (i.e. FLOWER[ki]). Queries added to transcribed values or transliterated items express a certain doubt on its correctness (e.g. FLOWER[ki?]). Original spellings from source material (i.e. dictionaries, grammars, or previous publications) will be retained and placed between double pointed or angular brackets (i.e. «-V:l»). T-numbers, if applicable, refer to the hieroglyphic signs as numerated and cataloged by Thompson (1962).

In their original research Freidel, Schele, and Parker (1993: 69-71, Fig. 2:7) transliterated the nominal phrase on Kerr No. 1226 as «Itzam-Yeh» and identified it as the "Classic prototype of Wucub-Kaqix, Seven Macaw, of Popol Vuh fame." At present I feel less confident with such an identification and hesitate to equate the Principal Bird Deity with Wuqub' Kaqix, the majestic bird vanquished by the "Hero Twins." Specifically the broken blow gun (split at the end and oval pebble showing) on Kerr No. 4546 may indicate that the Principal Bird Deity actually does not suffer any harm. Perhaps the other narratives show the Principal Bird Deity as victor and survivor of the blow gun attack; specifically note the prominent (and victorious?) position of the Principal Bird Deity on The Blom Plate (Kerr No. 3638) while being shot at. I transcribe this nominal phrase on Kerr No. 1226 as 'ITZAMNAJ-ye-ji and prefer to transliterate it as Itzamnaj Yej; while the first part of this nominal phrase refers to the creator god Itzamnaj, the second part is still of undetermined meaning (*yej* "point, tip"?). It does refer to the avian entity and may thus identify Itzamnaj Yej as the avian manifestation of the creator god Itzamnaj.

There are some visual narratives that suggest that Itzamnaj and the Principal Bird Deity are directly associated with each other and may be each other's avatar. The Early Classic ceramic vessel Kerr No. 3863 provides a seated Itzamnaj (note the headband and the god-eye) on one side of the vessel and the Principal Bird Deity on the other side.





Kerr No. 7821 🛚

The Late Classic ceramic vessel Kerr No. 7821 has two panels. In the first large panel a manifestation of GIII is seated in front of a throne on which Itzamnaj is seated; in the second smaller panel a seated manifestation of GIII seems to hold up the Principal Bird Deity.

- 3) To my knowledge it was Thompson who first identified Yaxkok Ahmut as the avian manifestation of Itzamnaj (cf. Thompson 1970: 204-205). There is yet another important source. The Chilam Balam of Chumayel provides the nominal phrase Ek' Kok (A)hmut (Gordon 1913: MS 92, lines 6-7, «ek co coh mut»). Tentatively, this nominal phrase may be an indication that there once was a fourfold manifestation of the Ahkok Ahmut, each associated with a different color and world direction. The color ek' "black" would associate this particular manifestation with the east, as known from the Classic and Postclassic period (cf. Boot 2003). The manifestation Yax Kok Ahmut would be associated with the center, the place where the World Tree (Yaxche', Yaxche'il Kab') was erected and in the crest of which the bird would be seated.
- 4) The binomial name for the Harpy Eagle is *Harpia harpyja*. Its scientific classification can be summarized as follows:

Kingdom Anamalia Phylum Chordata Class Aves

Order Falconiformes
Family Accipitridae
Genus Harpia
Species harpyja

The Harpy Eagle can have a wingspan of some seven feet and can measure more than 39 inches in height. A male bird can weigh 10 to 16 pounds, a female bird can weigh 14 to 18 pounds. The female bird may produce a maximum of two eggs, but only one young will hatch; the pair will raise their young in a nest made of sticks, placed some 100 to 120 feet high on a branch in the crest of the highest emergent tree in their sustaining area. The Harpy Eagle is geographically restricted to the tropical lowland forests of Central and South America, from southeastern Mexico to northern Argentina and southern Brazil. Different mammals (e.g. coatis, sloths, monkeys), reptiles (e.g. green iguana), and various birds serve as its prey. The total population is unknown, but the Harpy Eagle is rare and is considered an endangered species (cf. Guynup 2002). As of 1992, only nine nests have been confirmed in Guyana, ten in Venezuela, and eight in Panama (of which it is the national bird). Information in this end note is derived from the webpages of The Peregrine Fund, Boise, Idaho (<a href="http://www.peregrinefund.org">http://www.peregrinefund.org</a>) and The Wikipedia Encyclopedia (<a href="http://en.wikipedia.org">http://en.wikipedia.org</a>). Kerr Nos. 0637, 2131, and 3863 (all of Early Classic origin) show the Principal Bird Deity with is wings spread out, much like in the images of the Harpy Eagle as illustrated in the main text of this essay.

- Various rulers during the Classic period adopted as their personal name the nominal phrases of specific manifestations of gods. As such rulers can be found named Siyah Chan K'awil "K'awil Born in the Sky" (Tikal), B'ajlaj Chan K'awil "K'awil Who Hammers the Sky" (Dos Pilas), Siyah K'in Chak "Chak Born in the Sun" (Piedras Negras), Pa' K'in Chak "Chak Who Splits the Sun" (Machaquilá), or Tut K'in Chak "Chak Who Passes the Sun" (Río Azul). The nominal phrases Itzamnaj K'awil (Dos Pilas) and Itzamnaj B'alam "Itzamnaj Jaguar" (Yaxchilán) may refer to specific manifestations of the creator god Itzamnaj, one related to the god K'awil and one describing his jaguar avatar.
- 6) My designation of T831 as FLOWER is only based on its tentative (and remote) resemblance to the inside of a flower (small leafs positioned around a center). The sign may not even represent a flower. I have not been able to identify the item *yatik*, the decipherment suggested in this essay, as a word for flower (or seed) in any Maya language. The item *yatik* (*ya[']-tik* or *yat-ik*) may end in the same suffix as *witik* (*wi[']-tik* or *wit-ik*) in the Copán toponyms Huxwitik and Chanwitik. This terminal suffix could be *-tik* (as in a plural suffix *-tik*, cf. Chuj, Jacatec, Tzotzil [*-etik*]) or *-ik* (a possible honorific suffix, as in *ix-ik*).
- On Kerr No. 0555, the caption between the white heron seated in the crown of the Pax Tree and the "Hero Twin" hunter aiming his blowgun at the reclined vulture contains as its second sign a possible example of T831 FLOWER or **YATIK**. Here the logographic sign has a **le** infixed into its center, as in the Palenque example (Tablet of the Temple of the Cross: E4). As noted in the main text, this **le** sign may be part of the logographic sign, not an independent phonetic complement.
- 8) The Ho'yatik GIII (with **-ji** phonetic complement) reference is followed by a collocation **ni-b'i**; this particular collocation may spell *-n-ib'* and derive an instrumental noun from Ho'yatik GIII (*-n-* to derive an intransitive verb from a noun, *-ib'* the instrumental suffix). This *-n-ib'* suffix is not uncommon in Classic Maya inscriptions, for instance at Naranjo one can find the reference Elk'in 28-(Sakchuwen)-GIII-*n-ib'* (Stela 13: E15-F16 & 21: B11-13).
- 9) At Palenque the Maize God may have been known as Nal "Corn Cob." This suggestion I base on another reference to the Maize God in the edge text on the Sarcophagus Lid at position 15. Here one can find the collocation MAIZE.GOD-la (employing the same head as at Tablet of the Temple of the Foliated Cross: F4), which may be transcribed as NAL-la for Nal. In many Mayan languages *nal* refers to the "corn cob" (cf. Dienhart 1989: 144-146; Kaufman 2003: 1063-1064). The head of the Maize God for instance can be found depicted as a corn cob at Palenque (Tablet of the Temple of the Foliated Cross, cf. Greene Robertson 1991: Fig. 153) and within the "Mayan" murals at the central Mexican site of Cacaxtla (Red Temple, East Mural; cf. Santana Sandoval et al. 1990: Fig. 5).

#### References

# Avedaño y Loyola, Fray Andrés de

1996 [1696] Relación de las dos entradas que hice a la conversión de gentiles ytzáex, y cehaches. Editado por Temis Vayhinger-Scheer. Möckmühl, Germany: Verlag Anton Sauerwein.

#### Bardawil, Lawrence W.

1976 The Principal Bird Deity in Maya Art - An Iconographic Study in Form and Meaning. In *The Art, Iconography, and Dynastic History of Palenque, Part III: Proceedings of the Segunda Mesa Redonda de Palenque*, edited by Merle Greene Robertson, pp. 195-210. Pebble Beach, CA: Robert Louis Stevenson School.

# Bocabulario de Mayathan

1972 [ca. 1670] Das Wörterbuch der Yukatekischen Mayasprache. Introduction by Ernst Mengin. *Bibliotheca Linguistica Americana* Vol 1. Graz, Austria: ADEVA.

# Boot, Erik

- 2002 A Preliminary Classic Maya-English, English-Maya Vocabulary of Hieroglyphic Readings. *Mesoweb Resources*. Dated January 2002. URL: http://www.mesoweb.com/resources/vocabulary/index.html
- 2003 Colors and Associated Cardinal Directions on an Unprovenanced Late Classic Maya Ceramic Bowl. *Mayavase Essays*. Dated November 13, 2003. URL: <a href="http://www.mayavase.com/essays/bootcolor.pdf">http://www.mayavase.com/essays/bootcolor.pdf</a>
- n.d. Appendix B: North of Lake Petén A Regional Perspective on the cha-TAN-na/cha-ta Collocation. In *Continuity and Change in Text and Image at Chichén Itzá, Yucatan, Mexico: A Study of the Inscriptions, Iconography, and Architecture at a Late Classic to Early Postclassic Maya Site*, Erik Boot. Ph.D., forthcoming (2205). Leiden, the Netherlands: Research School CNWS, Leiden University.

#### Coe, Michael D.

1973 The Maya Scribe and His World. New York, NY: The Grolier Club.

1989 The Hero Twins: Myth and Image. In *The Maya Vase Book, Volume 1*, Justin Kerr, pp. 161-184. New York, NY: Kerr Associates.

# Cogolludo, M. R. P. FR. Diego López de

1688 Historia (de la Provincia) de Yucathan. Madrid: Jvan García Infanzón.

## Cortez, Constance

1986 *The Principal Bird Deity in Preclassic and Early Classic Maya Art.* Unpublished M.A. thesis. Austin, TX: Department of Art History, University of Texas.

#### Dienhart, John M.

1989 *The Mayan Languages. A Comparative Vocabulary*. Three Volumes. Odense, Denmark: Odense University Press.

# Fialko, Vilma

2000 El espejo del Entierro 49: morfología y texto jeroglífico. In *El sitio maya de Topoxté: Investigaciones en una isla del Yaxhá, Petén, Guatemala*, edited by Wolfgang W. Wurster, pp. 144-149. AVA-Materialien Band 57. Mainz am Rhein, Germany: Verlag von Zabern.

# Freidel, David, Linda Schele, and Joy Parker

1993 *Maya Cosmos: Three Thousand Years on the Shaman's Path.* New York: William Morrow & Co.

#### Gordon, G. B.

1913 The Book of Chilam Balam of Chumayel. *The Museum Anthropological Publications* Vol. V. Philadelphia, PN: The University Museum, University of Pennsylvania.

# Graham, Ian, and Eric von Euw

1992 *Corpus of Maya Hieroglyphic Inscriptions, Volume 4, Part 3: Uxmal, Xcalumkin.* Cambridge, MA: Peabody Museum of Archaeology and Ethnology, Harvard University.

#### Greene Robertson, Merle

1991 *The Sculpture of Palenque. Volume IV: The Temple of the Inscriptions.* Princeton, NJ: Princeton University Press.

## Grube, Nikolai

n.d. The Orthographic Distinction between Velar and Glottal Spirants in Maya Hieroglyphic Writing. In *The Linguistics of Maya Writing*, edited by Soeren Wichmann. Salt Lake City, UT: University of Utah Press. In Press. Copy in possession of the author.

#### Grube, Nikolai, and Werner Nahm

1994 A Census of Xibalba: A Complete Inventory of *Way* Characters on Maya Ceramics. In *The Maya Vase Book, Volume 4*, Justin Kerr, pp. 686-715. New York, NY: Kerr Associates.

#### Guynup, Sharon

2002 Conservationists Fight to Save Harpy Eagles. *National Geographic News*, June 3, 2002. URL: <a href="http://news.nationalgeographic.com/news/2002/06/0603\_020603\_TV">http://news.nationalgeographic.com/news/2002/06/0603\_020603\_TV</a> <a href="http://news.nationalgeographic.com/news/2002/06/0603\_020603\_TV">harpyeagle.html</a>

#### Hellmuth, Nicholas M.

1987 Monster und Menschen in der Maya-Kunst. Graz, Austria: ADEVA.

# Houston, Stephen D., and David Stuart

1989 The *Way* Glyph: Evidence for "Co-essences" among the Classic Maya. *Research Reports on Ancient Maya Writing* 30. Washington, D.C.: Center for Maya Research.

# Hunn, Eugene S.

1977 Tzeltal Folk Zoology. The Classification of Discontinuities in Nature. New York, NY: Academic Press.

# Kaufman, Terrence

A Preliminary Mayan Etymological Dictionary (with the assistance of John Justeson). *FAMSI Grantee Report*.

URL: <a href="http://www.famsi.org/reports/01051/pmed.pdf">http://www.famsi.org/reports/01051/pmed.pdf</a>

# Landa, Fray Diego de

1986 [1566] Relación de las cosas de Yucatán. *Biblioteca Porrúa* **13**. México, D.F.: Editorial Porrúa, S.A.

#### Lopes, Luís

n.d. Is the Pax Tree a Ceiba Tree or a Gourd Tree? Manuscript, copy in possession of the author.

# Mayer, Karl Herbert

1980 El Libro de Chilam Balam de Tizimín. *Fontes Rerum Mexicanarum* Vol. **6**. Graz, Austria: ADEVA.

# Miller, Mary, and Simon Martin

2004 Courtly Art of the Ancient Maya. London, UK: Thames & Hudson, Ltd.

### Robiscek, Francis, and Donald M. Hales

1981 The Maya Book of the Dead: The Ceramic Codex. The Corpus of Codex Style Ceramics of the Late Classic Period. Charlottesville, VI: University of Virginia Art Museum.

# Santana Sandoval, Andrés, et al.

1990 Cacaxtla, su arquitectura y pintura mural: nuevos elementos para su análisis. In *La época clásica: nuevos hallazgos, nuevas ideas*, edited by Amalia Cardós de Méndez, pp. 329-350. México, D.F.: MNA, INAH.

# Schele, Linda, and Peter Mathews

1998 *The Code of Kings: The Language of Seven Sacred Maya Temples and Tombs.* New York, NY: Scribner.

#### Taube, Karl A.

- 1989 *Itzam Cab Ain*: Caimans, Cosmology, and Calendrics in Postclassic Yucatán. *Research Reports on Ancient Maya Writing* **26**. Washington, D.C.: Center for Maya Research.
- 1992 The Major Gods of Ancient Yucatan. *Studies in Pre-Columbian Art & Archaeology* Number **32**. Washington, D.C.: Dumbarton Oaks.

# Thompson, J. Eric S.

- 1950 Maya Hieroglyphic Writing: Introduction. *CIW Publication* **589**. Washington, D.C.: Carnegie Institution of Washington.
- 1962 A Catalog of Maya Hieroglyphs. Norman, OK: University of Oklahoma Press.
- 1970 Maya History and Religion. Norman, OK: University of Oklahoma Press.

File History
First version: September 21, 2004
Revised: October 2004
This version: October 4, 2004
17:30 hrs.