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On the Reading of Three Classic Maya Portrait Glyphs

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Maya hieroglyphic writing is justly renowned for its visual complexity. Signs appear in multiple shapes-head variants, full-figure variants and graphically abbreviated pars pro toto forms-and these forms are not static, but prone to shift with time and distance, and even idiosyncratically across the work of the same scribe or sculptor. Intimately and inextricably tied to iconography, shifting representational conventions in art had immediate repercussions for the shape of hieroglyphs, and vice versa (see Stone and Zender 2011:10-28). The epigrapher can feel almost defenseless against such profound mutability of form, particularly in cases where signs already share an uncomfortable degree of formal similarity. I have written previously about the particular challenges presented by semblant signs in light of such wanton formal variation (e.g., Zender 2005a, 2005b, 2006b), and this paper tackles three particularly extreme examples.

Eight years ago, in my review of Macri and Looper's *The New Catalog of Maya Hieroglyphs* (Zender 2006a:441, Note 1), I noted the separation of three frequently confused portrait glyphs. The review did not allow for the presentation of evidence bearing on that observation, and while the evidence has since been presented at several public meetings (Zender 2008; Kettunen and Zender 2013), and partially developed in print (Stone and Zender 2011:21-22, 35), I would now like to consider the matter at more length. It should be a worthwhile exercise. The signs in question are very common, and they also touch upon key themes of general interest to scholars, such as Classic Maya religion and gender identity. Moreover, although the greater part of the confusion has its roots in the earliest scholarship on these signs, it nonetheless continues in much of the literature today, and not least in the very sign catalogs and popular introductions to Maya writing whose aims are the alleviation of confusion for initiates. The goals of this paper are therefore not only to present the evidence for separating three similar signs-which naturally encompasses an investigation into their forms, functions and distribution in the writing system—but also to disentangle the many erroneous references to these signs in the literature, so that the reader may better perceive where recent epigraphic and iconographic work has been founded on misapprehensions regarding the nature and significance of one or more of these signs.

Given the complexity of the literature bearing on these signs, and the confused state of affairs with respect to their designations, it has been difficult to find sufficiently neutral labels with which to proceed. For this reason, I illustrate generic forms of these portrait glyphs here at the outset (Figure 1) and refer to them throughout this paper by: (1) a convenient label indicating the iconographic sources of the portraits; (2) their original Thompson designations (despite considerable overlap in these designations); and (3) their reading values and translations. As keyed to Figure 1, the three portrait glyphs forming the subject of this paper



Figure 1. The three portrait glyphs: (a) Tonsured Maize God (T1000a); (b) Foliated Maize God (T1000h and T1006); (c) Female (T1000b, T1002a-b) (drawings by the author).

will therefore be referred to as follows:

Figure 1a: Tonsured Maize God (T1000a) JUUN "one," IXIIM "grain corn; *maíz en grano*," and syllabic **na** (the latter may derive from *nal* "mature ear of corn; *mazorca*")

Figure 1b: Foliated Maize God (T1000h and T1006) WAXAK "eight" and AJAN "fresh ear of corn; *elote*"

Figure 1c: Female (T1000b, T1001 [in part] and T1002a-b) IX "female prefix"

Thompson designates all three of these signs (and others besides) as T1000. As I show below, this lumping of distinct signs has greatly influenced all subsequent discussion of these glyphs and their values. By contrast, I will argue that clear and consistent visual distinctions are maintained between all three of these signs and that they do not substitute for one another. The modern confusion of these signs is in large measure an artifact of their admittedly pronounced visual similarities. The erosion of ancient texts has also been a contributing factor, as has modern repainting of ceramics and, occasionally, incautious renderings of Maya texts.

I hasten to add that many of the readings and interpretations noted above represent the fruits of previous scholarship, duly cited below. In this paper, I claim no discoveries apart from the following: (a) that these three signs are consistently separated along the lines indicated above; (b) that the **na** syllabic value pertains only to the Tonsured Maize God, never to the Female Portrait, and that it consequently could not have derived from the frequently-suggested value *na'* "mother" (cf. Lounsbury 1984:182), although it may have derived from an earlier albeit presently unattested value *nal* "mature ear of corn"; (c) that one of the logographic values of the Foliated Maize God was AJAN (Zender 2008; Stone and Zender 2011:21-22); and, finally, (d) that the canonical logographic value of the Female glyph was IX, rendering the well-known female prefix ix-, even though it could also be employed, with or without an explicit ki suffix, to render the independent noun

ixik "woman." All of the other readings and identifications compiled above—inclusive of the iconographic identifications of these portrait glyphs as Maize Gods and a Female—have been demonstrated previously in the ample literature on these signs.

Because of its status as a singularly important reference work, I turn now to a brief discussion of the treatment of these portrait glyphs in J. Eric S. Thompson's *A Catalog of Maya Hieroglyphs* (1962).

A Catalog

Thompson (1962) is rightly considered a landmark publication in the field of Maya epigraphy. His *Catalog* was remarkably thorough for its time and usefully incorporated detailed contextual information for the greater part of its signs. For these reasons, most epigraphers continue to cite Thompson's catalog numbers whenever practical. Only where Thompson is in out-and-out error, or has simply missed a sign entirely, do epigraphers turn reluctantly to more recent sign catalogs. Unfortunately, as has frequently been noted (Macri and Looper 2003:14; Ringle and Smith-Stark 1996:2), Thompson neglected to include contextual information for what he termed 'portrait glyphs' (1962:14) instead merely illustrating and enumerating the greater part of them on two pages at the conclusion of his Catalog (1962:457-458). Although the sources for his illustrations can be identified, it remains difficult to discern Thompson's reasons for grouping these signs as he did, and it should be noted that he himself regarded the portrait glyphs as incompletely studied (1962:5) and with an "element of subjectivity" (1962:9).¹ He explains his "eclectic treatment" (1962:14) of them in part by arguing that they behave differently from other signs (which is not true) and then notes that a fuller treatment would have greatly delayed the publication of his *Catalog* (which was doubtless true).

¹ The full sentence is classic Thompson: "It is because of this element of subjectivity in the approach that I have used the indefinite article before *Catalog* in the title of this publication" (Thompson 1962:9).

On the Reading of Three Classic Maya Portrait Glyphs



Figure 2. Thompson's portrait glyphs, T1000-T1002, T1006 (drawings by Avis Tulloch, after Thompson 1962:457).

Whatever the reasons behind Thompson's treatment of the portrait glyphs, it is now abundantly clear that he erred in grouping at least four distinct signs in his T1000 series (Figure 2). I will consider their proper visual separation briefly here, before turning to some of these observations in more detail below. To begin with T1000a, note the 'IL' marking on the cheek, the prominent tassel on the brow, and the jade jewelry woven into the long, flowing lock of hair. As we will see below, these are all diagnostic characteristics of the Tonsured Maize God. By contrast, T1000b has none of these characteristics, and is immediately recognizable as the Female portrait, even despite the absent 'IL' marking which this sign frequently albeit not invariably carries. Of the two wellknown stylistic variants of the Female portrait-one depicting flowing hair, the other a tight bun at the back of the head and a tuft on the brow (black in painted texts, cross-hatched in sculpture)-Thompson illustrates the first in both T1000b and as part of a compound female title (in T1001), although the second receives its own designation (as T1002a-b). Once again we can observe that, although the Female portraits in T1001 and T1002a carry the 'IL' marking, those in T1000b and T1002b do not. Thompson's T1000c-g and T1000i all represent portraits of the Young Lord, long ago securely identified as AJAW signs (Mathews and Justeson 1984). Finally, T1000h represents still another maize deity, the Foliated Maize God. As we will discuss in more detail below, it exhibits that deity's characteristic maize foliation and maize cob, complete with infixed kernels, and should therefore have been grouped with T1006, which represents the same being. Note that both of the Classic forms of the Foliated Maize God (T1000h and T1006a) carry an infixed celt-like marking.

Several of Thompson's errors have been corrected in more recent catalogs of Maya signs, but his mistaken grouping of one or both of the Maize God signs with the Female Portrait glyph has persisted. Thus, while the consensus of opinion among epigraphers present at the 1979 Albany conference on Maya hieroglyphic writing was to recognize T1000c-g and T1000i as a distinct sign reading AJAW (Justeson 1984:359-360), the same group nonetheless saw T1000a as a logograph for both "one" (i.e., JUUN) and "woman" (i.e., IX). Similarly, while Ringle and Smith-Stark (1996:353) also extracted the AJAW signs from T1000, they nonetheless retained both the T1000a Tonsured Maize God and T1000h Foliated Maize God as "female heads," and further compounded the problem by retiring the actual T1002a-b Female portrait, grouping these signs with the two Maize Gods as T1000j (1996:325, 352). More recently, Macri and Looper (2003:148) also recognized the AJAW signs as distinct, but they nonetheless renumbered Thompson's T1000a Tonsured Maize God as PC1, and erroneously assigned it the logographic values NA' 'mother,' NAH 'first,' and IX 'woman,' in addition to the syllabic value na (2003:134). As I observed some years ago (Zender 2006a), and as detailed below, only the syllabic value is correct, and the authors have missed the sign's actual logographic values of **IXIIM** and **JUUN**. As a result of this ongoing confusion between the Tonsured Maize God and Female portrait glyphs, none of the recent sign catalogs contains an entry for the actual Female portrait IX, one of the more common signs in the script.

Apart from the catalogs, recent popular introductions to Maya writing have continued the confusion of, especially, the Tonsured Maize God with the Female portrait, routinely reading the former as IX- or IXIK (Coe and Van Stone 2005:75, 163; Kettunen and Helmke 2010:140; Johnson 2013:45, 231, 280) and even, occasionally, as logographic NA' "lady" (Lacadena 1998:42; Johnson 2013:299). Following my own personal communications to the authors, there are now at least two recent introductory works on Maya writing that correctly distinguish the Tonsured Maize God and Female portrait glyphs (Kettunen and Helmke 2014:83; Tokovinine 2013:23). However, even here a **na** syllabic value has been incorrectly attributed to one of the examples of IX from Palenque's Tablet of the 96 Glyphs, J8a (Kettunen and Helmke 2014:76; see also Kettunen and Lacadena 2014:46, 50). Lists of errors make for dry reading and can seem uncharitable to colleagues. Yet To answer this question, I turn now to a discussion of the literature relevant to the visual separation, phonetic reading, and significance of these three signs, interspersed with evidence for some new decipherments and interpretations.

Previous Scholarship and New Observations

about.

The basic identification and visual separation of the head variant numerals for one and eight goes back to Joseph Goodman (1897:41-52) who even read them more or less correctly as hun and uaxac, respectively (1897:46).² Thompson (1950:Fig. 24) provides a useful collection of examples that amply demonstrate their visual and contextual separation. Yet it was also Goodman who began the misidentification of the Tonsured Maize God head variant of the numeral one as "the picture of a woman" (1897:42). Thompson (1950:131) fully endorsed this view, identifying the head variant numeral for one specifically as a portrait of "the moon goddess." At the same time, it should also be noted that Thompson (1950:134) correctly recognized the head variant numeral for eight as a Maize God, invoking its clear ancestral connection to the codical God E first identified by Paul Schellhas (1904:24-25).

Karl Taube (1985) was the first to correctly perceive the Tonsured Maize God (his term), and to observe the clear visual distinctions between the iconography and portrait glyph of the Tonsured Maize God and those of the Foliated Maize God (also his term). Taube described the Tonsured Maize God as a young lord with an elongated head and a tonsured coiffure. 'Corn curls' are placed prominently on the god's brow, or are infixed into the parietal region of his head. He also sports jade jewelry, either hanging like a tassel from his brow or interwoven with his silken locks. The portrait glyph of the Foliated Maize God, by contrast, is characterized by "a maize cob curling down from the back of the head" (Taube 1985:171), though it occasionally curls up and forward as well, lying flat atop the head. The cob incorporates the characteristic curls and silk of maize foliation and is usually inset with circular maize kernels. Either the cob or the head, and occasionally both, are frequently marked with the celt-derived label of bright, shiny, or wet objects (see Houston et al. 2006:16-17; Stone and Zender 2011:13, 71). Although Taube acknowledged that the Maize Gods exhibit several visual overlaps—such as the 'IL' element on the cheek: a marker of beauty, fecundity, and fertility also seen on the Wind God and Female portrait glyphs (see Stone and Zender 2011:35)—he explained these as a logical consequence of their being distinct but nonetheless related "aspects of the same entity" (Taube 1985:181).³ I agree with Taube's suggestion. I also strongly suspect that given their readings as **IXIIM** "grain corn" and **AJAN** "fresh ear of corn" (which will be discussed presently), these related entities probably represent different stages in the growth or harvesting of maize.

Building on Taube's identifications, David Stuart (2005:180-183) was the first to observe the formal distinction between the Tonsured Maize God and the Female portrait glyphs. As he noted in his study of the name of the Triad Progenitor deity of Palenque, which incorporates a Tonsured Maize God portrait glyph:

there is perhaps an important visual distinction between the profile of the Palenque name and the female head **IX** or **IXIK**: while similar in many respects, it bears a distinctive forehead tassel that has more resemblance to the Classic form of the young tonsured maize god identified by Taube ... The visual clues are clear enough to suggest that previous identifications of the Progenitor as a "mother goddess" are incorrect, and that the name in fact incorporates the word or name for the Classic Maya maize deity. (Stuart 2005:181)

The visual distinction between these two signs is indeed important, and Stuart's (2005:179, Fig. 149) tabulation of seven examples of the Triad Progenitor name provides particularly strong evidence supporting the separation of the Tonsured Maize God and Female portrait glyphs. Stuart's demonstration in fact provided the spur for my own reassessment of these signs. Unfortunately, few other scholars have taken note of the implications of Stuart's reasoning for the other instances of confusion between these signs.

Importantly, Stuart (2005:182) went on to observe that the Tonsured Maize God portrait glyph occasionally takes **i**- as an initial phonetic complement in nonnumerical contexts on pottery.⁴ Coupled with Taube's

² Comparative linguistic evidence suggests that the Classic Ch'olan values were *juun* "one" and *waxak* "eight" (see Kaufman 2003:1479; Kaufman and Norman 1984:137-138). Epigraphic evidence in support of *juun* "one" includes disharmonic spellings of **JUUN-ni** (Copan Altar J¹) and **ju-ni** (Comalcalco Urn 26, Spine 1). In late contexts, the sign can also substitute for earlier **HUUN** (e.g., Bonampak Sculptured Stone 5, and Copan, East Altar to Stela 5 [CPN 49]). Presently there are neither phonetic complements nor substitutions confirming *waxak* 'eight.'

³ Taube (1985:174, Fig. 3d) notes two instances where the Tonsured Maize God supposedly substitutes for the Foliated Maize God as a head variant for the number eight. Both stem from the analysis by Mathews (1980:71-72) of Bonampak Sculptured Stone 1. Yet as Mathews noted, "the two dates ... cannot be deciphered with absolute assurance" (1980:71) nor without the assumption of several additional scribal errors. Given that these portrait glyphs do not otherwise substitute, I suspect that the Tonsured Maize God in fact provides the expected number *juun* "one" here.

⁴ The clearest contexts are on K791, K3120, K8498, and K9115. These K-prefixed numbers refer to the online Kerr Photographic Archive (accessible at www.mayavase.com).

observations regarding the clear maize associations of the Tonsured Maize God, the initial i- led Stuart to propose the decipherment of one of this glyph's logographic values as IXIM "maize" (see also Stuart 2006:197). In additional support for Stuart's proposal, there may also be a few contexts where the sign receives the final phonetic complement -ma, although modern repainting and unclear contexts make it difficult to be certain.⁵ In any case, Simon Martin (in Carrasco et al. 2009) has recently pointed out a fully syllabic rendering of the same term as i-xi-ma, ixiim, "grain corn" in the murals of Chiik Nahb Structure 1 at Calakmul. As Martin notes, the disharmonic spelling probably reflects a complex vowel in the Classic Ch'olan word ixiim "grain corn."⁶ For this reason, I transcribe this second logographic value of the Tonsured Maize God as IXIIM.

Importantly, when the Tonsured Maize God appears as an actor in the iconography, his image is frequently accompanied by the short caption 1-IXIIM, Juun Ixiim, presumably meaning something like "One Maize" or "One Grain Corn."⁷ It is intriguing therefore that the Tonsured Maize God portrait glyph carries the values JUUN and IXIIM. Presumably, the sign was recognized as the actual portrait of the deity known as Juun Ixiim and could therefore communicate both values, though there is no indication that the sign could read *JUUNIXIIM. In order to communicate the full name, it seems always to have required the prefixed dot "one." This behavior is remarkably similar to that of the portrait glyph of the jaguar-spotted Hero Twin Yax Baluun, which carries the logographic value YAX "green, blue" (see Lounsbury 1989:84-85) in addition to BALUUN "nine" (see Miller and Martin 2004:281, Note 13).⁸ The logic is straightforward, since the sign clearly represents an actual portrait of the deity known as Yax Baluun. Yet, as with the Tonsured Maize God, there is no evidence that the sign could be read *YAXBALUUN, as it apparently requires an explicit YAX prefix to communicate the full name of the god.9

The Female profile in Classic inscriptions was independently identified by Tatiana Proskouriakoff (1960, 1961) and Heinrich Berlin (1959). Both had been struck by the feminine features of the sign—namely that it portrayed "the head of a young person" with "long hair" (Berlin 1959:5), or bearing "a hatched oval on the forehead, which corresponds to the black spot used in the codices to identify women, or by a more naturalistic depiction of a lock of hair" (Proskouriakoff 1960:471). Berlin noted that his proposed feminine prefix appeared in captions associated with arguably female portraits on the sides of the sarcophagus lid of Palenque's Temple of the Inscription tomb-so identified because of their long hair and covered breasts (Berlin 1959:5)-and he observed that the sign never appeared in the captions associated with male portraits (1959:6). Similarly, Proskouriakoff observed that Piedras Negras Stelae

1 and 3 contained the same date and event: the birth of an individual whose name contained the proposed feminine marker, and who was moreover "dressed in a long robe" on the back of both monuments (1961:16). Proskouriakoff regarded this as considerable evidence that "all of the robed figures at Piedras Negras present women" (1960:461). Even more compellingly, she drew further attention to Piedras Negras Stela 3,

... which shows a small figure seated beside the one in the robe, [while] the text contains a second birth date, thirty-three years later than the first and only three years earlier than the final date on the stela. This later birth date is followed by a different set of name glyphs ..., though they, too, are prefixed by female faces. How can one reasonably doubt that both robed figures are portraits of the same person, that the person is a woman, and that her little daughter, not yet born when Stela 1 was erected, is shown on Stela 3? (Proskouriakoff 1961:16)

How indeed? Proskouriakoff was absolutely correct, and today we know these two women as Ix Winikhaab Ajaw (long nicknamed 'Lady Katun') and her daughter Ix Juuntahn Ahk (Lady Precious Turtle).

As for the phonetic reading of the Female portrait glyph, it was Berlin (1959:5) who first made the connection to the widespread *ix-* feminine prefix: "it has the functions of a glyphic indicator for female individuals. Since the feminine prefix in the Maya language is *Ix*, I will call this head—when it occurs in a context I believe refers to feminine individuals—provisionally, *IX* ... this article is obligatory for women." These observations were very perceptive, and there is now an abundance of evidence that **IX** is indeed the logographic value of Berlin's feminine prefix. As David Stuart (1998:386, Note 7) first observed, the syllables **i-xi** substitute for the Female profile in the name of a royal woman on

⁸ Lounsbury (1989:84-85) first noted the **YAX** value of this sign on Copan Stela N, in the context of the name of Yax Pasaj Chan Yopaat. A full figure example can also be found on the Copan Corte Altar (see Stuart 2008). Other examples include the spelling of the deity name Yax Ha'al Chahk on the Trocadero Vessel (cf. Boot 2004), an emblem glyph on the Topoxte bone awl (**K'UH-YAX?-AJAW**), and an unclear context (**a-ya-YAX?**) on the Hieroglyphic Stairway of Machaquila Structure 4, Block F.

⁹ See for example K1004, K1183, K1222, K1892, K7821, and Quirigua Stela C, North (L1).

⁵ See K1202, K3120, K8498, and K8740 for several examples.

⁶Kaufman has reconstructed Proto-Mayan **ixi'm* "maize" (2003:1034-1036) and Proto-Ch'olan **ixim* "grain corn" (Kaufman and Norman 1984:121). Yet it now seems that Proto-Ch'olan may have conserved vowel length (Houston et al. 2004), and other Proto-Mayan forms with preconsonantal glottal stops are consistently written disharmonically in Classic inscriptions (e.g., pM **ba'h* "gopher" as **BAAH-hi**, pM **hu'ŋ* "paper" as **HUUN-na/hu-na**, and pM **k'e'n* "cave" as **CH'EEN-na**). For these reasons, I suppose that pM **ixi'm* developed as Proto-Ch'olan-Tzeltalan **ixiim* and was retained as such into the Late Classic period.

⁷ See for example K1004, K1892, K6979, and K8494.

Bonampak Sculptured Stone 4 (see also Wagner 2003:2, Fig. 3; Arrellano Hernández 1998:Fig. 14).¹⁰ Stuart also noted several instances where the Female profile glyph **IX** takes the suffixed phonetic sign -**ki** in nominal contexts, suggesting the widespread noun *ixik* "woman."¹¹ There also seem to be some supportive initial phonetic complements. Wagner (2003:2) notes an initial **i**- complement for the Female profile in a woman's name in the Akab Dzib inscription at Chichen Itza (front, G2a). Finally, the Female sign apparently receives both initial **i**- and final -**ki** syllables on La Corona Hieroglyphic Stairway 1 (Block 4). Taken together, there now seems little doubt that the Female portrait had a core logographic value of **IX**.

Yet there has always been substantial confusion of the Female portrait glyph with that of the Tonsured Maize God, and this is the origin of the frequent (but incorrect) supposition that the Female portrait carried the syllabic value **na**, or the logographic value **NA'** "mother." As we have seen, Goodman and Thompson saw the Tonsured Maize God as either a human female or a goddess. And although Berlin (1959:5) recognized the Female portrait glyph as a feminine prefix, he nonetheless equated it with the head variant of the numeral one (which he also assumed to represent a female).¹² As we will see, Berlin's presumed equivalency has proven particularly influential.

The **na** syllabic value for the Tonsured Maize God was first set forth in a brilliant article by Floyd Lounsbury (1984) in which he demonstrated the equivalence of T23 (the well-known **na** affix), T537 (Thompson's 'Xipe'), and T1000a (the Foliated Maize God) as syllabic **na** by noting their substitution in multiple contexts, such as Glyph F of the secondary series (*ti' huun*), the passive verbal expression governing the presentation of captives and royal brides (*na'waj*), and the Classic term for "sky" (*chan*) among others. As Lounsbury (1984:169) acknowledged, Thompson was actually the first to demonstrate the interchangeability and therefore equivalence of T23 and T1000a. In his own discussion of the variant forms of Glyph F (now known to read **TI'-HUUN-na**),

Thompson observed that:

[t]his sign usually has a postfix [T23] which I have termed *te*, but occasionally the corresponding head form [T1000a], which is almost certainly that of the maize god, replaces it. (Thompson 1950:38; figure and page references omitted, T-numbers added)

In his commentary on these insights and their extension to other allographs of the syllable **na**, Lounsbury (1984:169) gave Thompson appropriate credit for recognizing the equivalency of T23 and T1000a, but he also observed that "[t]he values that Thompson ascribed to these signs, namely a reading of *te* for T23, and an identification of T1000a/b as the maize god, can now be ignored; neither is tenable." In retrospect, Lounsbury was correct to reject Thompson's *te* reading, since that suggestion rests, among other things, on a series of mistaken substitutions with T87 **TE**' (see Thompson 1950:283). But Lounsbury should not have equated T1000a and T1000b, and he ought to have considered Thompson's Maize God identification more seriously, for this has proven correct.

Although Lounsbury had correctly deduced one of the values of T1000a (namely syllabic **na**), his discussion of a key context at Copan illustrates the continuing influence of Goodman, Thompson, and Berlin (Figure 3). Thus, although T1000a is clearly used as a phonetic complement to **CHAN** in the spelling **YAX-PAS sa-ja CHAN-na YOPAAT** (for Yax Pasaj Chan Yopaat, the name of the sixteenth king of Copan), Lounsbury mistakenly accepted Berlin's equation of the sign with the Female portrait, observing that

... here we have again the snake-head sign ... substituting for the sky sign; but instead of the phonetic complement *na* [T23] which both of those signs normally have, we see here the snake head compounded with a human head [T1000a], commonly called simply the 'female head' because of its frequent use as a title preceding feminine names (first noted, I believe, by Heinrich Berlin [1959]). (Lounsbury 1989:83; italics, square-brackets, and T-numbers in the original)

Lounsbury was undoubtedly correct to identify this sign with Thompson's T1000a, and to recognize its value as syllabic **na**, here employed as a redundant phonetic complement to **CHAN**. Nonetheless, he was incorrect to associate it with the Female portrait for which Berlin (1959) had proposed the **IX** value. The prominent 'corn curls' and jewelry in the hair clearly identify this as the



Figure 3. The name of Yax Pasaj Chan Yopaat, Copan Receiving Stand (drawing courtesy of Linda Schele, inked by Mark Van Stone).

¹⁰ Mora-Marín (2008:199) misinterprets the Bonampak spelling **K'UH-IX-i-xi K'AN-to-ko-sa** as an example of an eclectic principle he refers to as 'full phonetic complementation,' arguing that the Female profile **IX** is phonetically complemented by both **-i** and **-xi**. Yet this spelling has many parallels in other monuments from the region and it must involve two distinct noun phrases in apposition, namely **K'UH-IX** (*k'uh*[*u*l] *ix*[*ik*], "holy woman") followed by **i-xi K'AN-to-ko-sa** (Ix K'an Tok Sas, her name). The *k'uhul* requires a noun to modify, and the female name requires its obligatory feminine prefix.

¹¹ Good examples of the **IX-ki** spelling for *ixik* "woman" can be seen on Yaxchilan Lintels 32 (I1) and 56 (I2a). Kaufman has reconstructed Proto-Ch'olan **ixik* "woman" (Kaufman and Norman 1984:121) and Proto-Mayan **ix-oq* "woman" (Kaufman 1964:117).

¹² In Berlin's (1959:5) words, "[t]his head seems to be identical to that of the numeral one, the head of the young goddess" (1959:5).

Tonsured Maize God.

In order to harmonize the observed **na** syllabic value with the assumed association with a feminine prefix, Lounsbury argued that "[a]s a logogram its reading must have been na', a word whose common meaning was 'mother,' but which in the inscriptions was used also as a title for ladies of high status" (1989:83). Lounsbury (1997:35, Table 2) repeated this view again in the 1990s, and it has been remarkably influential (e.g., Johnson 2013:299; Lacadena 1998:42; Zender 1999:38). David Stuart (1998:386, Note 7) still had Lounsbury's equation in mind when he wrote about the Female portrait glyph that "[t]he head sign is certainly **na** or **NAH** in numerous contexts." As we have seen, Stuart would later question the equation of the Female and Tonsured Maize God portraits in the context of the Triad Progenitor name at Palenque, but Lounsbury's proposed connection between the na syllabic value and the Female portrait has proven more difficult to disentangle.

Yet in retrospect it must be said that Lounsbury's argument was a surprisingly weak one. To begin with, consider that the word na' specifically means "mother" in Ch'olan-Tzeltalan and Yukatekan languages (Kaufman 2003:91). It is true that the word has undergone some semantic broadening in Mocho, where it also means "older sister" and "aunt", but even there the focus remains a maternal one, highlighting the care-taking role of older female kin (Kaufman 2003:91). These pan-Mayan glosses account for the remarkably consensual proto-Mayan reconstruction of *na' "mother" (Brown and Wichmann 2004:174; Kaufman 1964:116, 2003:91). Given these data, it seems unlikely that a word primarily meaning "mother" could have developed into an ascribed title for ladies of high status during the Classic period only to once again take on its original meaning of "mother" in all of the descendant languages.

Furthermore, the actual contexts of the feminine prefix in Classic inscriptions do not provide much support for Lounsbury's idea that a basic term for "mother" had developed into a general "title for ladies of high status." For one thing, even very young female children appear with this common prefix—e.g., the three-yearold Ix Juuntahn Ahk of Piedras Negras (see Stela 3, C7-C8 [CMHI 9:26]). A three-year-old girl bearing a widespread word for "mother" as a high, ascribed title for "noble woman" (or the like) seems rather unlikely. Even more damaging, however, is that the element repeats frequently, prefixing each independent constituent of women's personal names, paternal affiliations, and titles throughout the inscriptions. This is the behavior we would expect from a preclitic, such as the widespread *ix-* "female prefix" (Kaufman and Norman 1984:139), not from a common noun such as *na'* "mother," or whatever hypothetical high title might have been derived from it. In any case, and all apart from the inherent unlikelihood of a generic female title derived from the specific

noun "mother," there no longer remain any epigraphic grounds to sustain a connection between the **na** value and the Female portrait.

Given that the Tonsured Maize God can now be seen to carry the syllabic value **na** in addition to the logographic values **JUUN** and **IXIIM**, and that many syllabic signs were derived acrophonically from the opening syllable of earlier logograms (Campbell 1984:12; Houston et al. 2000:328; Zender 1999:38-41), is there perhaps a relevant source lexeme for that sound? The best candidate would appear to be Proto-Mayan *nal "mazorca," with the descendent form nal in most of the Ch'olan and Yukatekan languages (Kaufman 2003:1063; Kaufman and Norman 1984:126). The reference is to a mature ear of corn, plucked after the cornstalks have been doubled over. It seems reasonable to suppose that NAL may have been either an earlier or even contemporary logographic value of the Tonsured Maize God sign, and it seems apposite that one and the same sign might conceivably have meant ixiim "grain corn" and nal "mature ear of corn." But we should take a lesson from the complex history of decipherment outlined above and not assume this value until such time as clear phonetic evidence presents itself.13

This leaves only the Foliated Maize God for us to consider. As noted above, this sign's role as the head variant numeral eight has been known since the late nineteenth century, and WAXAK seems a strong reading given the terms for "eight" in the Ch'olan and Yukatekan languages. Yet the sign also appears in non-numerical contexts, where it takes phonetic complements that suggest still another logographic value. Thus, the sign at least twice takes an optional initial **a**- complement.¹⁴ It also frequently appears with an optional final -na complement.¹⁵ On the basis of the phonetic evidence, coupled with the clear maize associations of the sign, I proposed a value of AJAN some years ago (Zender 2008; Stone and Zender 2011:21-22). The word descends from Proto-Mayan *ajn (Kaufman 2003:1159) to Proto-Ch'olan **ajän* (cf. Kaufman and Norman 1984:115) as a term for "elote" or "roasting ear of maize." This refers to the fresh ear of corn, still on the plant—a particularly satisfying outcome given the iconography of the Foliated Maize God sign.

Considered as a whole, the case for the Foliated

¹³ There are a few contexts where the Tonsured Maize God portrait glyph takes a suffixed -la—e.g., the sarcophagus lid of Palenque's Temple of Inscriptions tomb (see Stuart 2005:Fig. 146a)—though whether this merely represents **na-la** or some slight evidence for the hypothetical **NAL-la** is impossible to say.

¹⁴ The Foliated Maize God portrait appears with an initial T229 **a**- on Chinika Throne 1. It appears with both T12 **a**- and T23 -**na** on Tamarindito Hieroglyphic Stairway 3, Step 6 (C1).

¹⁵ The Foliated Maize God takes clear final -**na** complements on K8017, Copan Stela N (West face), Kuna-Lacanja Lintel 1 (inset caption), and Tikal Temple 1, Lintel 3 (F5), among a few other places.

Maize God as **AJAN** seems reasonably strong. Although speculative, I also wonder whether this entity was termed Waxak Ajan at some point in his career. Unfortunately, as Taube (1985:181) long ago noted, "whereas the tonsured lord is one of the principal characters depicted on Late Classic vessels, there is apparently no representation of the foliated character in any of the ceramic scenes." This makes fresh insights into the role and mythology of this character somewhat difficult to achieve. Nonetheless, we now know that there were at least two Maize Gods present in Classic times, and it is evidently the Foliated Maize God who survives into the Postclassic codices as Schellhas's God E.

And there are still other interesting implications stemming from the separation of these three portrait signs. For one, while several scholars (Schele et al. 1992:4-5; Saturno et al. 2012) have seen a role for the moon goddess in the Classic lunar series, Zender and Skidmore (2012:9) have pointed out that the young lunar patron is best identified as the Tonsured Maize God in his lunar aspect. On K5166, both the Tonsured Maize God (sporting a lunar crescent) and the Moon Goddess appear, along with other lunar patrons. And in several key Glyph C contexts this lunar patron sports the Tonsured Maize God's characteristic forehead jewel or 'corn curl' (e.g., Tikal Marcador, A7; Copan HS, date 24; Quirigua St F, East, E7). The complexities of the interpenetration of maize and lunar iconography are beyond the scope of this paper, but many previously unproblematic examples of the Moon Goddess will now need to be reassessed. Similarly, while Matthew Looper (2002) has made a case for the existence of a Classic

Maya third gender on the basis of rulers embodying or impersonating supposedly androgynous Maize Gods and masculine Moon Goddesses, the aforementioned reassessment will have an impact on those associations as well. Finally, just as Stuart (2005) was brought to the conclusion that Palenque's long-accepted "Mother Goddess" was actually an aspect of the Tonsured Maize God, so too will Bassie-Sweet's (2000) "Goddess of the Number One" and "Na Goddess" require reassessment in light of the deity's male gender.

The Signs in Context

Now that we have surveyed the literature bearing on the three portrait glyphs and discussed some novel readings and interpretations, it will be helpful to examine several examples in context. It would be ideal if we could find a single lengthy text, the product of a lone scribe, where all three signs occur, and with all of six of their documented reading values. Unfortunately no such text exists. As a pale but hopefully informative substitute, I have selected some roughly contemporary late eighth-century texts: two of them carved/incised, the other painted. Between them, they document all but one of the proposed reading values.

We begin with the Tablet of the 96 Glyphs from Palenque (Figure 4). This masterwork was discovered in rubble at the east base of the Palace tower by Miguel Ángel Fernández in 1935 (see Fernández 1985) and was first studied epigraphically by J. Eric S. Thompson (1950:Fig. 55) and Heinrich Berlin (1968). It opens with a reference to the end of the eleventh katun (in AD 652)



Figure 4. The Tablet of the 96 Glyphs, Palenque (drawing courtesy Simon Martin).

and the dedication of House E of the Palace (654), both by K'inich Janaab Pakal I, before turning to the accessions of his second son K'inich K'an Joy Chitam II (702), his grandson K'inich Ahkal Mo' Nahb III (721), and his great grandson K'inich K'uk' Bahlam II (764), and then concludes with the commemoration of the first katun anniversary of the latter on November 25, AD 783, which occasioned the carving of the text.

As a result of almost eight decades of analysis we now understand this text quite well, and it proves to contain five examples of the three portrait glyphs under study here (Figure 5). Instructively, the first two examples both depict the Foliated Maize God in his role as the head variant of the number eight, WAXAK (Figures 5a-b). While both heads display the diagnostic long, foliated cob-this element is unfailingly present—the first example incorporates a forehead 'corn curl,' whereas the latter instead infixes the marker of shininess on the cob and sports an earspool assemblage in addition to a long wisp of silken hair. Note especially that neither of these examples includes the 'IL' marker on the cheek, even though numerous other examples do so (e.g., Thompson 1950:Fig. 24). This range of variation turns out to be fairly typical of this sign, and this is so regardless of its function as **WAXAK** or **AJAN**. The next example is the Tonsured Maize God in his role as the head variant numeral one, **JUUN** (Figure 5c). Note the prominent 'IL' on the cheek, and the long silken hair with incorporated jade tassels. The frequent 'corn curl' seen on other examples is not present here (e.g., Thompson 1950:Fig. 24-1), but it is the jade jewelry which is most diagnostic of the sign, either as a single prominent tassel on the brow or (as here) incorporated into the hair. The final two examples both represent the Female portrait glyph IX (Figures 5d-e), providing the female prefix of names and titles. The 'IL' is again prominent, as is long flowing hair, and there are no corn cobs, 'corn curls,' or jade tassels in evidence. For the scribe who composed the Tablet of the 96 Glyphs, there was no doubt about the visual separation of these three portrait glyphs.¹⁶

Nor is this monument unique in that respect. Other carved and incised texts could be cited to demonstrate the consistency of this separation. As one example, consider the carved bench from Copan Str. 9N-82, first studied by Berthold Riese (1989). Dedicated on July 11, AD 781, this monument was closely contemporary with Palenque's Tablet of the 96 Glyphs (Stuart 1992:180; see also Zender 2014:267-269). Here, two full-figure Tonsured Maize Gods provide the syllable **na**: the first in the name **mak'a-na-CHAN-la**, Mak'an Chanal (Figure 6a); the other in the possessed title **ya-K'UH-na**, *yajk'uhuun* 'his priest' (Figure 6b). Nearby, a full-figure Female (**IX**) appears in a parentage statement, providing the feminine prefix for a royal woman's title (Figure 6c). The Maize Gods both



Figure 5. Maize Gods and Female portraits on the Tablet of the 96 Glyphs: (a) Foliated Maize God WAXAK in 8 Ceh spelling (WAXAK-CHAK-SIHOOM-ma), B1; (b) Foliated Maize God WAXAK in 8 Tuns spelling (WAXAK-HAAB-ya), C3; (c) Tonsured Maize God JUUN in 1 Katun spelling (JUUN-WINIK-HAAB-ya), H6; (d) Female portrait IX as prefix to Lady Tz'ikin-? (IX-TZ'IKIN?-?), J8; (e) Female portrait IX as prefix to Lady Salaj Juj (IX-sa-[la]ja-²ju), K1 (drawings courtesy of Simon Martin).

have tonsures and wear loincloths, whereas the Female has a long skirt and distinctive hairstyle. Once again, the sculptor of this bench has treated these signs very differently from one another.

Let us turn now to some examples of these signs from contemporary painted texts. Figure 7 presents Justin Kerr's rollout photograph of K1383, an unprovenanced black-on-white vessel in a private collection. Although damaged and with several missing pieces, the repairs seem to be slight, and there are no obvious indications of repainting.¹⁷ The style of the vase is consistent

¹⁶ Although it may seem conspicuous that only the Tonsured Maize God and Female receive the 'IL' marker on the Tablet of the 96 Glyphs, note that it appears with several other head variants, such as the numbers 2 and 12, as well as the Wind God **IK'** and the personified Tamale sign **OHL** (e.g., at A1a, B5a, D3a, F2b, E8a, F8a, H3b, and J2b).

¹⁷ I should note that the rollout of K1383 presented as Figure 7 differs in certain respects from that available online, for I have shifted several sherds into what I think are more promising positions (note especially the wings and tail-feathers of the leftmost quetzal). Several gaps and uncertain placements nonetheless remain.



Figure 6. Maize Gods and Female portraits from the hieroglyphic bench, Copan Str. 9N-82: (a) Tonsured Maize God na (ma-k'a-na-CHAN-la), Block D; (b) Tonsured Maize God na (ya-K'UH-na), Block L; (c) Female portrait IX (ya-YAL-la-IX-K'IN?-AJAW), Block E (photographs by the author).

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with the mid- to late-eighth century AD, probably not significantly earlier than either of the two monuments discussed above. The owner or commissioner of the vessel is identified as one Tzakaj K'awiil, a lord of Río Azul, in northeastern Peten, Guatemala.

The text is a rather formulaic Primary Standard Sequence giving way to a deity impersonation phrase and parentage statement, and it contains five examples of two of the portrait glyphs. The first (Figure 8a), is a Tonsured Maize God providing the syllable **na** in the possessed derived noun **u-tz'i-bi na-ja**, *utz'i[h]bnaja[l]*, "(it is) the writing of" (Lacadena 2004:187-189). The second (Figure 8b), is also a Tonsured Maize God, but here he provides the logogram **IXIIM** in the prepositional phrase ta-IXIIM TE'-le [ka-ka-wa], ta ixiimte'el [kakaw], "for [chocolate] of the Maize Tree" (Martin 2006; Stuart 2006). Despite the breakage, it is clear that these two portraits are practically identical. Each has an 'IL' marking on the cheek, a 'corn curl' at the back of the head, long silken hair, and a large earflare. For the scribe who painted this vessel, there was no question that it was the Tonsured Maize God who carried the values na and IXIIM. The next three heads (Figures 8c-e) reveal how very differently this scribe rendered the Female portrait glyph, which always has a black tuft of hair on the brow or a tight black bun at the back of the head, from which long thin hairs may or may not tumble down across the face. The only real point of similarity is the widely-shared 'IL' cheek symbol.¹⁸ Note also how the first Female portrait (Figure 8c) appears in a modified context and so must be transliterated as the noun *ixik* "woman": ?-**la**-K'UH-IX, ... *k*'*uh*[*u*] *ix*[*ik*], "... holy woman." By contrast, the other two provide only the female prefix *ix*- of names and titles. This is a common abbreviational convention of Classic Maya writing (Zender 2010:4-5): logograms frequently provide only the root of various derived and inflected lexemes, as when **K'UH** alone is written for *k'uh[ul]* "holy", **BAJ** for *baj[laj]* "hammering" and HUL for *hul[i]* "he arrived" (see Zender 2014 for additional examples).

These three largely contemporary eighth-century texts hardly provide a thorough survey of Maya inscriptions containing examples of these three portrait glyphs. Yet they do hail from geographically diverse regions of Late Classic Maya civilization—Chiapas (Mexico), Copan (Honduras), and Peten (Guatemala)—and it is encouraging to find that the same canons seem to have

¹⁸ Lest it be wondered whether K1383 is unique in the extent to which its painter distinguished the Tonsured Maize God and Female portrait glyphs, I invite the reader to compare the renderings of **IXIIM / na** and **IX** on the following vessels as well: K1941, K2777, K4340, and K5976. In each of these cases (and others besides), Late Classic scribes were consistent in their visual separation of these signs.



Figure 7. Unprovenanced Late Classic vessel naming a Río Azul lord, K1383 (photograph courtesy of Justin Kerr, with some modifications by the author).

been followed in each of these places. Moreover, numerous other texts from earlier and later time periods have been considered in the preceding historical commentary on the decipherment and separation of these signs, and none of them contradict the observations made here. My own survey of published and unpublished Maya inscriptions finds no additional contradictions, but rather

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much to support the distributions, reading values, and significance of these signs proposed at the outset of the paper. Only time and the discovery of new inscriptions can say whether there are additional surprises in store. In the meantime, I hope that my colleagues find these observations useful, and I look forward to their responses and observations.



Figure 8. Tonsured Maize Gods and Female portraits from K1383: (a) Tonsured Maize God na (u-tz'i-bi-na-ja), A3-A4; (b) Tonsured Maize God IXIIM (ta-IXIIM TE'-le), A6-A7; (c) Female portrait IX (?-la-K'UH-IX), F7; (d) Female portrait IX (IX-NAHB-ba ?-ta-NAL), G1-H1; (e) Female portrait IX (IX-ja-la-ma), I1 (photographs courtesy of Justin Kerr).

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"Out Of Order!" Or Are They? A Textual and Visual Analysis of Two Dedicatory Texts on Classic Maya Ceramics

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*Errours, like Straws, upon the surface flow; He who wonld search for Pearls must dive below.*¹

My first research into hieroglyphic texts on Classic Maya ceramics resulted in a thesis on a series of substitution patterns within the Primary Standard Sequence. This thesis (Boot 1984) was based on some 125 examples. Hieroglyphic texts on ceramics have been the subject of much early and more recent epigraphic research, with examples extracted from an ever-growing corpus (e.g., Grube 1985, 1991; MacLeod 1990; Stuart 1989, 2005a). While these texts on ceramics are still commonly referred to as the Primary Standard Sequence (Coe 1973), they have been identified as texts of a dedicatory nature, based on the decipherment of their constituent parts. In the years since my initial research I have collected some thousand examples of these dedicatory texts on ceramics, some short (e.g., K1203, simply yuk'ib ta u[u]l), others long (e.g., K635).² Some of these texts were painted (or incised, carved, or modeled) by competent scribes (e.g., K7524), some were painted by not-so-competent scribes (e.g., K8780), while others may be characterized as partially or fully "pseudo-writing" (e.g., K30064, K30065; Calvin 2006).³ The corpus is extended as soon as additional examples become available. A small selection of dedicatory texts is composed by well-versed painter-scribes, but something is out of the ordinary. The calligraphic style and graphic intelligibility of the hieroglyphic signs used by these scribes indicate a high level of scribal competence (knowledge) and performance (usage) (Boot 2003b; compare Brown 2007:35-38; Chomsky 1963, 1965; Givón 2005; Miller 1975; Rethans et al. 2002). However, the order in which these particular dedicatory texts are written can be best described as "out of order." By this I mean that these few texts do not conform to the common order of dedicatory texts on Classic Maya ceramics. On the surface, these texts can be simply categorized as *errours* or mistakes made by incompetent artists or scribes. Two of these texts are the subject of this essay, and I propose a solution for the actual reading order of both texts. I suggest that we need to look at the whole object to arrive at a probable solution for the actual reading order. Classic Maya ceramics

were not static objects—they were dynamic; they were often manipulated (i.e., handled) on special occasions. I propose that the manipulation of the objects will reveal

¹ John Dryden (1631-1700), "All for Love: or, The World well Lost," 1678 (Tho. Newcomb, London), Prologue, lines 25-26. This first printed edition has *wonld* instead of *would* in the lines cited, an intriguing *errour* corrected in subsequent print editions.

² The letter K followed by a four-digit number refers to a vessel in the archive of rollout photographs by Justin Kerr at www.mayavase. com. (Five-digit numbers refer to rollouts by Inga Calvin.) In 2013 Barbara and Justin Kerr decided to donate their photographic archive to the Image Collections and Fieldwork Archives of Dumbarton Oaks, Washington, D.C. The majority of the currently known dedicatory texts on ceramics date from the Late Classic period, ca. AD 550-850. The examples discussed in this essay date to this period.

³ A comparison can be made to texts in Greek vase painting. As Immerwahr (1990:174, 2006, 2009) notes, some painters of Attic vases were not competent writers. Many texts, specifically by Tyrrhenian painters, seem to be completely nonsensical. Those particular texts (ca. mid-sixth century BC) may provide a good comparison to Late Classic Maya nonsensical "pseudo" texts (also see Calvin 2006:213-221). However, a small series of thirteen vases with "nonsensical" texts (among some 2,000 of such texts on vases), painted by otherwise competent scribes, may contain foreign words, more specifically Scythian, a Caucasian language (given that the texts are associated with Amazons and Scythians in the iconography), as has recently been suggested, albeit tentatively (Mayor et al. 2012). In regard to nonsensical or pseudo-writing on Maya ceramics, I take the words of Harris to heart, "that writing in itself enjoyed prestige" (Harris 1998:52). While these pseudo-, imitation, and nonsensical texts thus may not perhaps be considered true writing (the purposeful and communicative graphic representation of real, or imagined, utterances/sentences, i.e., language-encoding through graphic form), they may have served as some kind of mnemonic device, supporting orally and publicly performed and/or privately spoken dedicatory formulae (these texts contained signs detached or removed from their Maya origin; it became writing instead of Maya writing, but on a specific medium and at a specific place on that medium). These pseudo-, imitation, and nonsensical "texts" may even have led to verbal creativity in the execution of vocalized dedicatory formulae (the formulae may thus have become less rigid or less restricted in form; see note 5) and may also have led to innovative artistic designs (for instance, a different way of incorporating script elements into a complete vessel design; e.g., K30079, K30085, K30090, K30097) (compare Grammenos 2014).

the actual reading order of these two dedicatory texts.⁴

Dedicatory texts on Classic Maya ceramics are a specialized form of a common dedicatory formula⁵ (e.g., Boot 2005c:6-10; Stuart 2005a), which can be found on a variety of portable and non-portable objects. It is especially on ceramics that a wide range of regional variants of dedicatory texts can be identified (Boot 1984, 2005c; Robicsek and Hales 1981). The dedicatory formula can be defined as:

[DATE]-DEDICATORY VERB(S)-[SURFACE TREATMENT]-OBJECT-[CONTENTS]-OWNER

The dedicatory formula is an elaboration of the common name-tag formula (e.g., Houston and Taube 1987; Houston et al. 1989; Mathews 1979), i.e., a prepositional, possessive noun phrase, "[it is] the X [for Y] of person Z" (compare Baron et al. 2001; Coene and D'hulst 2003; Feigenbaum and Kurzon 2002; McGregor 2009), which informs the reader about the proper name of the object and the name of the owner (thus **OBJECT-OWNER**). On Classic Maya ceramics a date that precedes the dedicatory text is rare;⁶ most commonly the text opens with the "Initial Sign." The exact reading of the "Initial Sign" is still debated, but a (probable) syllabically transparent example spelled **'a-la-ya** is suggestive of *alay* "here; this one" (Boot 2003a, 2005b, 2009:23-24; MacLeod and Polyukhovich 2005).⁷

The dedicatory phrase that follows the Initial Sign

is defined by a number of dedicatory verbs, among them the GOD.N verb (still undeciphered, although a variety of decipherments have been proposed), *t'ab-* "to make ready; inaugurate" (Boot 2009:172; perhaps also represented by STEP, through homonymic *t'ab-* "to ascend," as proposed by Stuart 1998:409-417), *k'al-* "to enclose, wrap; to present," and a rare BAT verb (perhaps for *tzutz-* "to join one thing with another so that it seems one"; see Barrera Vásquez et al. 1980:868) (Figure 1). The

⁴ These examples were discussed by the author in a paper (Boot 2010) presented at the symposium "The Idea of Writing 7: Errors, Mistakes, Glitches, and Lapses in World Writing Systems," June 9-10, 2010, Einsiedeln, Switzerland. An extended version is in preparation.

⁵ Formulae, in the stricter linguistic sense, are differentiated from other expressions as they are restricted in both form and distribution. However, these restrictions are more probabilistic than absolute, and formulae do tolerate some form of variation (Corrigan et al. 2009:xiii-xiv). As such, the Classic Maya dedicatory text may be qualified as a formula (its content is restricted as is its distribution), but variations do exist in form (i.e., different dedicatory verbs, different descriptions of surface treatment) and in medium of distribution (i.e., different communicative situations—ceramic, stone, bone, etc.—which lead to different object identifications). Additionally, there are regional differences, not only in the contents of the dedicatory texts (i.e., choice of dedicatory verb, grammatical paradigm), but also in the artistic and calligraphic execution (i.e., style, color pattern, choice of specific logographic and syllabic signs—sometimes defining the regional variant). See Boot 2005c.



Figure 1. Examples of some of the dedicatory verbs: (a) STEP verb (K508); (b) GOD.N verb (K532); (c) GOD.N and STEP verbs (K1921); (d) conflation of GOD.N and STEP verbs (K1837); (e) FLAT.HAND or *k'al*- verb (K1183); (f) *k'al*- variant (K4930); (g) *k'a-la?-ja* syllabic spelling (K2292; compare Xcalumkin, Column 1: B1); (h) possible full variant of *k'al*- verb (K1383); (i) possible full variant of *k'al*- verb (K1383); (i) possible full variant of *k'al*- verb; note probable -la phonetic complement (K3844); (j) RISING.BREATH verb (K4572); (k) reduced variant of RISING.BREATH verb (K5850); (l) probable conflation of RISING.BREATH and GOD.N verbs (K2914; perhaps rising SAK['IK]); (m) BAT verb (K1485); (n) alternative to BAT verb (K5062, precedes a GOD.N verb; also see K1873). Drawn by the author after photographs by Justin Kerr.

surface treatment involves the inclusion of a reference to painting-writing or sculpting, as identified by Stuart (1987, 1989). It needs to be noted that dedicatory texts on Classic Maya ceramics show an interesting overlap in the concepts of "painting-writing" and "incisingsculpting." The root *tz'ihb-* "paint; write" can be found in dedicatory texts that are painted (e.g., K530), incised (e.g., K2873, K3684), and also in texts that employ sculpted or molded (modeled) hieroglyphic signs (e.g., vessel A1-4480 from Tazumal) (Figure 2).⁸

The object itself can be simply classified by type (e.g., the type of vessel named *jay* "thin-walled" or the object named *lak* "plate; ceramic brick, plaque") and given a reference to its function (e.g., *uk'ib* "drink-instrument" or *we'ib* "eat-instrument") and/or to its metaphorical function (e.g., *yotot[il] uk'inil uchanil*, perhaps "the home, [of] the sun, [of] the sky") (Boot 2005a). On Classic Maya

⁷ The Initial Sign on K9130 is written syllabically as **'a-ya**. Perhaps this is an abbreviated spelling for *a*[*la*]*y* (i.e., the Initial Sign main sign is not included, only the prefixed and postfixed syllabic signs for **'a-** and **-ya**) or, alternatively, it leads to *aya*[*l*]. In the latter case, the spelling **'a-la-ya** on K8123 would be a violation of the canon of sign compounding.

⁸ The overlap is interesting indeed but may be explained in the following manner. In Classic Maya the root *tz'ihb-* "paint; write" encompassed all expressions of the "recorded word" (iconography included), were they painted (e.g., painted dedicatory texts or Codex Madrid 23C, if the deities indeed "write"), incised, modeled, or carved. In the expression ch'a[h]kaj utz'i[h]bal (Aguateca Stela 2: D2) the part *utz'i[h]bal* "the writing/decoration (of)" most probably referred to the whole corpus of carved monuments that was reduced to pieces after the conquest of Seibal by Dos Pilas. Several of the incised examples of tz'i[h]b are part of incised renditions of a common variant of the dedicatory text normally found painted on vessels in a regional variant of the Codex Style (e.g., K771). K530, found at Copan, may thus have an origin in the greater El Mirador-Nakbe area (the area of origin of the Codex Style and the regional variants derived from this style) or specifically emulate the dedicatory formula from this region. A dedicatory text originally painted and thus referring to *tz'i[h]b* was transferred onto an incised ceramic. The integrity and prestige of the dedicatory text possibly superseded the relative "correctness" of the separation between painting (as writing) and incising (for which the lu-BAT collocation would have been used; e.g., Stuart 1989). But ultimately, it all was tz'ihb-. The vessel from Tazumal contains two additional tz'i-ba-li collocations (no prefixed 'u- added, but in one case close to it); all collocations come from molds and it is not a complete text (text is "pseudo" or, perhaps better, "nonsensical"). A very similar vessel (most probably the same workshop/artist, auctioned in 2012 at Tony Putty Artifacts) has a glyph band with repetitive modeled compounds reading yu-xu-li for y-uxuli[l] "(it is) the carving/incision." Other texts that employ modeled (appliquéd) collocations use the root uxul(?)- "to carve; incise" (a.k.a. the lu-BAT collocation; e.g., K8779, K8786, K9261, all from the same workshop).



Figure 2. Examples of the root *tz'ihb-* "paint; write": (a)
'u-tz'i-ba-li *utz'i[h]bal[il?]* (K530); (b) tz'i-bi (K2873); (c) tz'i-bi (K3684); (d) 'u?-tz'i-ba-li *utz'i[h]bal[il?]* (vessel A1-4480, Tazumal). Drawn by the author after photographs by Justin Kerr (a-c) and Clifford T. Brown (d).

ceramics a large variety of short and long phrases define the contents of the object named (i.e., the prepositional part of the prepositional possessive noun phrase; see, for example, Beliaev et al. 2010; Hull 2010; MacLeod and Grube 1990). For containers like bowls and cylindrical vases most commonly the contents are some kind of cacao drink (based on *kakaw* "cacao") or maize gruel (u[u]l, *sakha*' "atole") (Houston et al. 1989:722). The final part reveals the elaborate or abbreviated name and titles of the owner (or patron) of the vessel, sometimes containing extensive parentage statements (e.g., K635).

While certain collocations within the dedicatory texts on Classic Maya ceramics still remain without a satisfactory decipherment or interpretation (e.g., collocations spelling **ji-chi** and **yi-chi**; see note 12), the order of most texts conforms to the above formula. Dedicatory texts on ceramics do show patterns of extension (e.g., multiple dedicatory verbs or elaborate sections on vessel type, function, and contents) and abbreviation, for instance starting at the object's name, indicating its type and/or function (in most cases thus becoming a simple name-tag or prepositional possessive noun phrase).

Many of the vessels used in Maya studies are part of private and public collections and unfortunately have no known provenience. A growing number of vessels have been found archaeologically as either part of a burial assemblage or part of a cache or deposit of some kind (including fill). A small number of ornately painted ceramics show images of ceramic vessels in use at the Classic Maya court (Figure 3). The bodies of these ceramic vessels in use can be plain, adorned with simple patterns (e.g., stripes; Figure 3a, b), or extensively decorated (e.g., iconographic and hieroglyphic bands; Figure 3c). As such the images of these courts reflect the use of various kinds of ceramics that we have at our disposal through collections and past and/or ongoing excavations (compare Reents-Budet 1994:74-75). Burials, caches, and deposits are thus, in the majority of cases, "final" resting places of

⁶ Examples include K791 (4 Hix 12 Kumk'u), K3120 (3 Ajaw 18 Sotz'), K3636 (12 Ajaw, followed by GOD.N verb), K4340 (Distance Number of 13.12.1, *utoom*, 4 Ajaw, followed by '**i**-GOD.N[**yi**]), K9130 (sequence of Calendar Round dates and Distance Numbers, terminating with 4 Ajaw, followed by '**a**-**ya**-**T'AB**?[**yi**] *a*[*la*]*y t'abay*), and K30092 (6 Ak'bal [6/1...]).







Figure 3. Three examples of various types of ceramic vessels in use at the court: (a) K1563; (b) K1790: (c) K2800. Photographs K1563, K1790, and K2800 © Justin Kerr.



Figure 4. Two examples of dedicatory texts that are "out of order": (top) K8722 (before restoration); (bottom) K5857 (height 21.8 cm, diameter 15.2 cm). Photographs K8722 and K5857 © Justin Kerr.

previously and sometimes intensively used ceramics.9

The corpus of dedicatory texts on Maya ceramics that I have collected to date (which includes complete texts as well as partial surviving texts on incomplete vessels and some larger sherds) contains several texts that do not conform to the common order of the dedicatory formula. Two of these texts stand out. Painted by artists who may be deemed competent based on the calligraphic quality of the texts and, when applicable, the style of the visual narrative, these texts are clearly out of order (Figure 4). For some time I had classified these texts as examples of mistakes or glitches made by the original artists in the composition of these particular dedicatory texts. One of the artists had produced another vessel (Figure 5) and the text on that vessel conformed to the common order of dedicatory texts on ceramics. However, when I analyzed these texts in greater depth, in a sense delving below the surface of the apparent *errour*, the possibility arose that both artists actually may have used a trick in the composition of the dedicatory texts. As can be seen in the three

examples of court scenes (Figure 3), ceramics were used at these courts and were manipulated by hand. This manipulation meant not just a simple handing over of a ceramic container from one person to another; it also involved filling it with some kind of substance and either drinking or eating from it.¹⁰ The manipulation is

⁹ Testament to this sometimes intensive use are ceramics showing signs of ancient repairs (e.g., K530, K1256, K6312, K6436).

¹⁰ A large number of tripod plates (and some tripod vessels) had small or tall rattle feet (e.g., MFA Boston 2004.240). Only movement through manipulation (e.g., passing the plate from one person to another, turning to read the dedicatory text) led to sounding the rattle feet. Sometimes even bowl-shaped vessels could rattle, such as K6005, which is double-walled and has pellets inside. Its iconography and imitation ("pseudo") text run over the belly of the vessel to the bottom; handling the vessel to observe the decoration would lead to a rattling sound. Also note K4387, with a complete dedicatory text and three short diagonal texts, and K6751, with a dynastic list: the bottoms of these vessels are hollow and contain pellets. Handling these vessels to read the text (and enjoy the drink!) thus would lead to a rattling sound.



Figure 5. K554, ceramic vessel most probably painted by the same artist as K5857. Photograph K554 © Justin Kerr.

thus not static, it is dynamic. This dynamic takes place not only on a vertical (up-down) or horizontal (leftright-forward-backward) plane, it also involves the rotation of the vessel around its vertical axis (which, for instance, is necessary to read the complete dedicatory text or view the full visual narrative). With the availability of an ever-larger number of rollout photographs of ceramics since the mid-1970s, we tend to look at Maya ceramics in a *two*-dimensional manner. However, the vessels were *three*-dimensional objects that were manipulated by those who acted at courts (being in political, social, and/or religious settings).

The first vessel under consideration is K8722. The vessel was first published in 1981 (Robicsek and Hales 1981:Fig. 4b). The rollout photograph in Figure 4 (top) shows the vessel before restoration, while Figure 6 shows the same vessel with only minimal restoration (note the discontinuation of the crack above Collocation 3). This is in marked contrast to the complete, and dramatically bad, "restoration" on a later occasion (see the rollout photograph available at http://research.mayavase.com/kerrmaya_hires.php?vase=8722). K8722 is a footed bowl (height 10.5 cm, diameter 10 cm), which contains a dedicatory text along the widest part of the bowl. The text contains twelve collocations.

The collocations that are in the third and the sixth to ninth position are, following the standard order of dedicatory texts on ceramics, out of order. The text, without alteration of the order, reads '*alay*(?) '*naja*[*l*](?) '*u* '*jich* ⁵*tz*'*i*[*h*]*ba*[*l*] ⁶*ta tzi*[*h*] ⁷*yuk*'*ib* ⁸[*ka*]*kaw* '*l*[*e*]'*et* ¹⁰*janab ti*' '¹⁰*o*' ¹²*hiix witz ajaw* (associated numbers present order as painted). While individual collocations can be read, the full text as written is largely nonsensical syntactically and morphologically, with the exception of the nominal and titular phrase spanning three collocations at the end. If numbers are added to the collocations in a manner more consistent with a correct order (Figure 6 top), Collocation 3 follows Collocation 4, while Collocation 5 is followed by Collocation 7 and then Collocation 6. Collocations 8 and 9 are also switched, while the final three collocations, providing the name and emblem glyph of the owner, are in the correct order. This text is thus out of order and seemingly this hints at the fact that the scribe made several mistakes. However, if one manipulates the ceramic container by hand (I made a paper model of this vessel, as well as the others that are the subject of this essay) and one rotates the vessel on its vertical axis, three simple backward¹¹ "turns" or "twists" (3 to 4, 6 to 7, and 8 to 9) may reveal the actual order of the text (Figure 6 bottom). The full text, ordered as I propose that it was intended to be read, leads to ¹*alay*(?) ²*naja*[1](?) ⁴*jich* ³*u*⁵*tz*'*i*[*h*]*ba*[1] ⁷*yuk*'*ib* ⁶*ta tzi*[*h*]⁹*te*'*e*l ⁸[ka]kaw ¹⁰janab ti' ¹¹o' ¹²hiix witz ajaw (associated numbers

¹¹ The terms used to describe the motions are inevitably confusing. The three-dimensional object, when in the hand, is turned clockwise to reveal the full dedicatory phrase. The motion is rightto-left (clockwise) while the reading takes place left-to-right. When, on K8722, one has to move from Collocation 3 to Collocation 4, within the linear arrangement of the two-dimensional text the motion is *backward* (right-to-left); however the original motion having the three-dimensional object in the hand, is *forward* (left-to-right; counterclockwise) to move from Collocation 3 to Collocation 4.



Figure 6. (top) K8722 and the order of the dedicatory text how it "should" be read (photograph K8722 © Justin Kerr, with superimposed numbering by the author); (bottom) the three backward "turns" that reveal the most probable and correct order of the dedicatory text.

present order as painted).¹²

This footed bowl (uk'ib "drink-instrument") was used to drink *tzi[h]te'el kakaw*, a special recipe of cacao.¹³ The **le-TE**' collocation, deliberately transliterated above as *l[e]'et*, shows a case of transposition (the non-transposed spelling is TE'-le, an abbreviation of TE'-'e-le to spell -te'el, e.g., K3744, K8008).¹⁴ Intriguingly, the le-TE' spelling occurs precisely at the location where the reader needs to go backwards for the third and final time. As such, the collocation le-TE', following the movement made by the vessel, has to be read right-to-left, thus first TE' then le. Perhaps this sole retrograde spelling served as an aid in establishing the reading order and hinted at the last backward turn or twist. The retrograde spelling **le-TE'** provides the necessary visual script elements for the correct recognition of the word (or word part), te'el (compare Pammer 2010). The next compound ka-wa for [ka]kaw "cacao" is written left-to-right and thus leads the reader back into the left-to-right reading order to arrive at the final three compounds or collocations. These collocations spell the name and emblem glyph of Janab Ti' O' Hiix Witz Ajaw.

In an illustration in the central Mexican early Colonial Codex Tudela a footed bowl of comparable dimensions, though slightly different shape, is the receptacle as a woman pours cacao from a height (Códice Tudela 1980 [1553]:1:Fol. 3r). Perhaps the K8722 footed bowl had a similar function within some kind of serving ceremony at a Classic Maya court. The owner of the vessel, *ajaw* Janab Ti' O' of Hiix Witz (see Martin and Reents-Budet 2010), is known from two other painted

¹² The transcription of K8722 in the intended order is 'a-'ALAY?-ya na?-ja? ji?-chi 'u tz'i-ba yu-k'i?-bi ta-tzi TE'-le ka-wa JANAB?-TI' 'O' [HIX-WITZ] 'AJAW. The anthropomorphic head sign transcribed as na may have a different value, but note K595 alay najal yich, Castillo Bowl (Museo Popol Vuh 0420) alay najal yich, and K2942 alay naja[1] yich. The spelling na-ja on K8722 may thus be an abbreviation for *najal*. The various meanings and functions of jich~yich are still under review (also note occurrences of yichil in yi-chi-li ja-ya, MFA Boston 1988.1264, and yichiy through yi-chiya, e.g., K6998, K9280). The original 1989 proposal by MacLeod of underlying *hich "surface" has, in my opinion, merit in many instances. Note for instance a secondary text on K8665, also from Hiix Witz: 13 ajaw 8 kej[?] tz'i[h]bnaj jich "[on] 13 Ajaw 8 Kej jich (surface?) was painted." The 'AJAW sign in the text on K8722 consists of just the "po" sign; a comparable reduction of 'AJAW, most probably due to compositional reasons, can for instance be found on K8780, also in a Hiix Witz Ajaw collocation, yuk'ib ta paj u[u]l hiix witz ajaw. Another example of just a "po" sign for ajaw can be found in the text of Copan Altar R, in the Copan emblem glyph at D6.

¹³ Most probably *tzi[h]te'el kakaw* is an abbreviation of a more complete phrase *ti tzihi[l] iximte'el kakaw* "for (*ti*) fresh (*tzihi[l]*) *iximte'el* cacao (*kakaw*)," as found on a tall cylindrical Codex-style vessel of unknown provenance (Robicsek and Hales 1981:Table 3B).

¹⁴ While the spelling TE'-le is transposed to le-TE', the sign TE' itself is not reversed. Compare to reversed compounds in complete "right-to-left" dedicatory texts (e.g., K4684 [note the error k'i?-bi-ta instead of k'i?-bi-yu], K6998).



Figure 7. K5857, with numbers showing the order of the dedicatory text as it is painted, and arrow indicating the reading order. Photograph K5857 © Justin Kerr, edited by the author.

vessels (K1387, K8665) and a small stone panel (Martin and Reents-Budet 2010). The three vessels are painted by different artists in different styles. The vessel with the "out of order" text may have been used at his court and perhaps was even gifted. During the early Classic period the Hiix Witz court may have been located at the site of El Pajaral; during the Late Classic period (after AD 600) the court probably moved to the site of Zapote Bobal (Fitzsimmons 2006). The site of La Joyanca was also closely associated with the court of Hiix Witz (Arnauld et al. 2013).¹⁵ The fact that ceramics containing dedicatory texts with the Hiix Witz emblem glyph are painted in a wide range of styles may be a consequence of the dispersed settlement of the polity and the location of the court and the many scribal schools that contributed to it.

The second "out of order" example under consideration can be found on K5857 (Figure 4, bottom). The text as written, when we start with the "Initial Sign" (Collocation 1 in Figure 7), reads ¹*alay*(?) ²*yich* ³GOD.N ⁴naja[l](?) ⁵yuk'ib ⁶ixim ⁷[ka]kaw ⁸te'[e]l ⁹[ka]kaw ¹⁰ch'ok ¹¹*k'a*[*h*]laj ¹²*ti*[...]*w* (associated numbers present order as painted). This example has, in my opinion, a textual organization similar to K8722. To reveal this organization I have extended the two-dimensional surface of the photograph (Figure 7). This was necessary as from Collocation 1 one first must go backwards (if my proposal is correct), passing Collocation 11; from Collocation 2 the text continues to Collocation 8. Here it goes back one position to go forward again (passing a repetition of Collocation 9, both referred to as Collocation 9 in Figure 7) and to end at Collocation 11. When I added the arrow, showing the reading order, over the iconography an intriguing pattern emerged. Of course the line that defines the reading

order is an imaginary one. However, as a three-dimensional object the proposed reading order of the dedicatory text, with the "turns" included, fully integrates the visual narrative into the experience of manipulating the vessel. Manipulation is thus, in my opinion, an intricate part of the (textual *and* visual) reading experience.

Holding the vessel in one's hands and going backwards from Collocation 1 to Collocation 2 makes one view (and thus observe specifically) the portrait of the most important protagonist, the one whose upper body is turned frontally. Frontality of the torso is a well-known canon common to many Classic Maya visual narratives on monuments and ceramics (e.g., Loughmiller-Newman 2008; Miller 1986, 1999). The main protagonist has the most elaborate headdress and holds a spear and spearthrower in his right hand. The dedicatory text continues now from Collocation 2 to Collocation 8, thus presenting the most important protagonist as the first in line followed by two assistants or officials, each identified as a hunter (note the headdress, spear, and spearthrower).

From Collocation 8 one needs to go backwards one position to Collocation 9 before one can move forward again (passing a repetition of Collocation 9) to Collocation 10 and ultimately 11 (thus passing Collocation 2). This second backward motion also forces the observer to pass more attentively over the deer below

¹⁵ A stela (Mayer 1984:25, Plate 25) in the Linden-Museum in Stuttgart, Germany, (if authentic) may have been looted from either site (or a close neighbor) as one of its short texts (Ap2) seems to feature the Hiix Witz emblem glyph.

these collocations. The deer is the target of the hunt by a party led by the main protagonist. Thus at the locations in the dedicatory text below which the main protagonist and the deer are painted one needs to turn backwards. This intentional feature, in my opinion, intensifies the experience of handling and observing the vessel and reading its dedicatory text and visual narrative. The deer has been shot through the neck with a spear and is bleeding. The renewed forward motion passes a second recording of Collocation 9 and moves to Collocation 10, hereby passing the last in the row of hunters that joined the main protagonist. This last hunter (pulling the tail of the deer) is smaller than the two assistants who were directly behind the main protagonist. Above, in the dedicatory text the painter seems to have made a mistake, twice painting the collocation ka-wa for [ka]kaw. Alternatively, I would suggest, the painter may have deliberately painted the collocation ka-wa twice to provide a logical continuation of the text. The double occurrence may signal the second and last twist backwards in reading the text; the **ka-wa** spellings even frame the **TE'-le** at which location one must go backwards (compare to the **le-TE'** spelling on K8722, which signaled the final turn backwards).¹⁶ Finally, the text terminates at Collocation 11, painted directly above the main protagonist (thus visually the main protagonist opens and closes the line of hunters). This collocation can only be deciphered in part. The center and largest sign within this collocation is an elegant anthropomorphic head which has a knotted element (headband?) of some kind as headdress. The lips are elongated and bent inwards.¹⁷ On the painted vessel this head is prefixed by **ti** and postfixed by -**wa**. As the anthropomorphic head remains without decipherment, I partially transliterate this collocation as *ti[...]w*. This collocation previously was passed when the observer and manipulator of the vessel moved backwards from Collocation 1 to Collocation 2. Thus, as the vessel is turned and turned again, both the text and the visual narrative start and finish with the main protagonist (in the case of the text not literally, but the first twist of the vessel forces the reader to pass over the nominal). The full dedicatory text, in the suggested order, thus would read ¹alay(?) ¹¹k'a[h]laj ²yich ³GOD.N ⁴[utz'ihbal]naja[l] ⁵yuk'ib ⁶ixim⁸te'[e]l ^{7,9}[ka]kaw ¹⁰ch'ok ¹²ti[...]w (collocations numbered in order as painted).¹⁸

K554 is painted most probably by the same scribe as K5857; note as such the calligraphic style of the hieroglyphic text, the similar style of the iconography, color palette, and the secondary texts (Figure 5).¹⁹ The text on K554 is painted in the normal order (but containing some mistakes and errors) and can thus be of assistance to substantiate my suggestions in regard to the text on K5857. It reads *alay(?) k'a[h]laj yich* GOD.N *utz'i[h]ba[l]naja[l] yuk'ib ixim[te'el] [ka]kaw ti[...w].*²⁰ As this text includes *utz'i[h]ba[l]*- there is no space left to include *ch'ok* or, even more importantly, *ti[...]w* in its full form (only **ti** is painted). The painter has made some mistakes (glitches?), as he uses the zoomorphic sign for '**u** in the spelling **ka-wa** for [*ka*]*kaw* and adds a **wa**-like sign to both '**u** and '**IXIM**. Independent of these mistakes or glitches the dedicatory text on K554 confirms the reading order I propose on K5857. This confirmation of the reading order thus also shows that the two

¹⁶ Although rare, there are other texts that contain the same collocation painted or incised twice. For instance, on K5454 **yu-k'i?-bi** for *yuk'ib* is twice incised consecutively, in slightly different compositions (the compounds contain different signs for **bi**). On K7190 **yu-k'i?-bi** for *yuk'ib* can also be found twice; however, this scribe employed the same spelling twice, but one spelling is in part transposed (or perhaps rotated 90° to the right, after which the largest sign **bi** was rotated 90° back to the left). On K1810 **ta-yu-ta-la** for *ta yutal* can be found twice and on Museum of Fine Arts, Boston, 1988.1288 **ya-[tzi]hi-la** is written twice, framing **ya-[tzi]hi-la** HEAD **ya-[tzi]hi-la**. These are most probably all errors.

¹⁷ Alternatively, but in my opinion less likely, the mouth is covered with some kind of bent object, which perhaps would hint at some kind of beak. This head is somewhat reminiscent of an anthropomorphic head employed at Palenque, with the value **TIWOL** (e.g., Temple XVIII Jambs: B14-A15, Tiwol Chan Mat) (also note the nominal phrase of lady Tiwol Chan Ek' at Caracol, e.g., Caracol Stela 3: A9, B15, C12, generally referred to as "Lady Batz' Ek'"). Perhaps on K5857 it is even a conflation of two anthropomorphic heads, **TIWOL** and '**AJAW** (which may be indicated by the knotted element, perhaps representing a headband, and the postfixed **-wa** as phonetic complement). Tentatively, the prefixed **ti** may serve as phonetic complement to the possible **TIWOL** logogram, Palenque, Tablet of the Slaves, Q1 (see Stuart 2005b:25); also note **to-TOK**' and **tu-TUN** spellings, [Boot 2009:169, 171], but compare Grube 2010).

¹⁸ The transcription of the text on K5857 is 'a-'ALAY?-ya/'a-'ALAY?-[la]ya K'AL-ja yi-chi GOD.N-yi na-ja yu-k'i?-bi 'IXIM? TE'-le ka-wa ka-wa ch'o-ko ti-...-wa. The opening section *alay k'a[h]laj yich* possibly translates as "here (*alay*) the surface (*yich*) was presented (*k'a[h]laj*)." In this text the **na-ja** spelling most probably was an abbreviation of *utz'i[h]bnaja[l]* as found on K554, composed by the same painter. This vessel (*yuk'ib*) was also used to drink *iximte'el kakaw*. *Ch'ok ti[...]w* names the owner/patron, who probably is also the main protagonist of the visual narrative. Is *ch'ok*, "child; sprout (offshoot/offspring)," deliberately placed above the smallest attendant? See later discussion of K703 in the main text.

¹⁹ K554 is the rollout photograph of a vessel now in the collection of the Kimbell Art Museum (inv. AG 1979.02), formerly in the O'Boyle collection. The secondary texts on this vessel and K5857 are repetitions of (nonsensical?) single blocks (Coe's 1973 "secondary repeat"). Note the **bi** for **ba** substitution on K554 and the repetitive ?-**ba-ka** on K5857.

²⁰ On K554 the sequence **'u tz'i-ba na-ja** is suggestive of a transliteration *utz'i[h]bnaja[1]* or more probably *utz'i[h]ba[1]naja[1]* "the painting/decoration" (compare K6294, **'u-tz'i-ba-li na-ja-la**, using T4 NAH—at the time the vessel was painted this sign was reduced to syllabic **na**, much like T757 BAH in late contexts was employed as syllabic **ba**). This text in my view shows that **na-ja** on K5857 is an abbreviation. On the variety of expressions that include the root *tz'ihb-* and the derivational suffix *-naj*, see Lacadena 2004:182-192. The section written **'IXIM ka-wa** targets *ixim[te'el] [ka]kaw* and is thus also an abbreviation.



Figure 8. The lines that define reading order of the two vessels, shown from above, including the backwards twists or turns; inner line shows direction of rotating the vessel to read the text in common left-to-right order. Diagrams by the author.

backward twists or turns need to be made to arrive at the proposed reading of the text. The reading with the two twists or turns additionally integrates the visual narrative into the full experience of manipulating or handling the vessel (compare Latour 1986). It has thus become a dynamic object which needs three dimensions to fully reveal its intended message. This message can only come to the fore through the two backwards twists or turns and thus presupposes both written and visual literacy of the manipulator (on visual literacy, see Debes 1969 for the introduction of the term; Braden and Hortin 1982; Elkins 2009; Felten 2008; Harrison 1982; Messaris and Moriarty 2004). Otherwise its intended message, in text *and* image, remains hidden.

The same applies to K8722 and the three backward twists or turns that need to be made to fully appreciate the contents of the written text. Here literacy of the manipulator is thus presupposed again; otherwise its intended message remains hidden and can be qualified as an error or mistake (as I myself have done in the past).

The level of manipulation that is necessary to reveal the correct reading order is clearly shown when we observe the vessels from above and add the line that reveals the reading order (Figure 8). While the two examples of the dedicatory texts are written in a simple linear arrangement, the twisting or turning in the reading order is somewhat reminiscent of the complexity in solving the reading order of the hieroglyphic texts on Copan's Stela J.

Copan Stela J has four sides. The east side of the stela employs an intricate weaving pattern. As Thompson (1944) discovered, the weaving pattern (with its many folds and twists) dictates the correct reading order of the text. The back side of Stela J has a completely different textual organization. I have made a few revisions to the reading order initially proposed by Schele and Grube (1990), and now it too can be placed in the correct order.

Although the texts on the two vessels are less complicated than the long texts on Copan Stela J, they are of great significance as they involve specific handling instructions before the correct reading order can be established. Now, the question is, were these handling instructions revealed to those who handled the vessels or were they to be discovered by them? It seems logical to assume that it is actually the handler (i.e., reader) who has to discover how to handle or manipulate the vessel and provide the twists or turns at the correct locations within the text. This discovery could have been part of a process in which, through interaction with the vessel, literacy (and in the case of K5857 visual literacy as well) could be obtained by the handler as part of an individual or group exercise (educational? ritual? ceremonial? just for the fun of it? all of the above?) and possibly being observed by an audience (thus there would be both agent-object and person-group interaction). However, as tempting as this scenario sounds, it will be difficult to prove.

For comparative reasons, I make an excursion to the Greek *symposion* in which a large variety of inscribed and painted vessels were used. As recently noted by Snodgrass (2000:26-28),

[t]o reconstruct the role of these inscribed vases at the *symposion* is not difficult, given the wealth of literary and iconographic evidence that we have for that institution. Just as the numerous visual portrayals of symposiasts on these vessels would fit in smoothly with the real-life enactment



Figure 9. Reading order of the hieroglyphic texts on Copan Stela J: (left) reading order as established by Thompson (1944), newly organized by the author (using numbers 1-48); (right) following earlier epigraphic suggestions by Schele and Grube (1990), reading order as established by the author (Boot 2011). Drawings: Linda Schele, courtesy of David Schele.

of very similar scenes, so the presence of writing would have its place in the atmosphere of convivial challenges; competitive recitation and singing, amorous discourse and table games which we know prevailed. A drinker would read out the inscriptions to his neighbours and thereby, especially in the case of caption or portrait-KAAO Σ inscriptions, find himself involved in a sort of impromptu and involuntary exposition of the scenes to which they belonged. He would be identifying for the company the heroes portrayed in a legendary scene; or the boys or *herairai* in a

genre picture—with the faint possibility that the latter, at least, were physically present to hear the performance. He would likewise have to divulge the subjects of the detached KAAO Σ inscriptions without a picture, and perhaps to describe or more fully identify their subjects for the benefit of the uninitiated. [...] The likelihood that a participant at a *symposion* could bring his own cup with him, as was certainly sometimes the case, gives an added edge to this imaginary picture. The cup would then serve not only as a talking-point at the party (with the added, near-literal sense that an inscribed cup would be 'talking' itself), but as source of pride to its owner, who would repeatedly present its iconography and inscriptions to a new audience.²¹

Maya vessels with "out of order" dedicatory texts would especially light up any party or feast and would be *performative* objects par excellence. The vessels and their written texts necessitate an agent to engage in a verbal (and non-verbal) act, in this case a three-way interaction, i.e., object and text – agent – audience (compare Austin 1962; Gell 1998; Halion 1989; Oishi 2006; Searle 1969). Vessels like these probably were not made for a single occasion and may have made multiple appearances at some Classic Maya court or courts with their inquisitive audiences.

As noted before, there are a small number of other dedicatory texts that are "out of order." These include K703 and K4030 (Figure 10). At present I have no ready solution for K4030; as far I can judge, based on my present knowledge, the text seems to consist of both normal and pseudo-glyphs. The "normal section" is out of order and repetitive (... [date?] GOD.N [ka]kaw tz'i[hb?] te'el [?] GOD.N ...). This painted text may thus be an actual nonsensical (or partially nonsensical) text, employing various "readable" collocations (but without any logical syntax), composed by a less competent scribe. But although the painted text may be nonsensical, or even qualify as a pseudo-text, the vessel featured writing and thus the vessel carried more prestige than a vessel which did not contain writing of any sort (compare Harris 1998:52; also see note 3).

However, in my opinion, K703 can be analyzed (Figure 11).²² The visual narrative belongs to the so-called Holmul Dancer theme (Hellmuth 1982), portraying the dancing Maize God who wears elaborate and variously fashioned backracks. With the knowledge that I gained from the two vessels analyzed above, the same principles can be applied employing hints in both text and visual narrative. Again, the pattern that emerges from the reordering of the text shows a wonderful integration of both text and visual narrative. From an aesthetic point of view, one may suggest that the vessel was painted by a less competent scribe possibly associated with a peripheral court in the greater Holmul-Naranjo area,

but clearly versed in Classic Maya Maize God mythology. The text as written reads ¹*alay*(?) ²*k'a*[*h*]][*a*]] ³*ch'ok*⁴*te'* ⁵*ti yuta*[*l*] ⁶*ka*[*kaw*] ⁷*buluch*(?) *ajaw* ⁸*buluch*(?) *ajaw* ⁹*ta ixim* ¹⁰*uk'ib* (associated numbers present order as painted). In order, as I reconstruct it, the text reads ^{7,8}*buluch*(?) *ajaw* ¹*alay* ²*k'a*[*h*]][*aj*] ¹⁰*uk'ib* ⁹*ta ixim*⁴*te'* ⁵*ti yuta*[*l*] ⁶*ka*[*kaw*] ³*ch'ok*.²³ The reading order of Collocations 1-3 turns backwards for Collocations 4 and 5. Collocation 5 reads *ta ixim* (**ta-'IXIM**?),²⁴ employing the word *ixim*. It is part of the phrase *ta iximte'* (Collocations 5 plus 6), but note

²¹ Also see Hedreen 2007. On the symposion as a dynamic and integrative, as well as selective, social event, see Hobden 2013; Wecowski 2002, 2014. According to Wecowksi (2014), the significance of the symposion rose during the ninth to seventh centuries BC. With the overwhelming majority of Maya dedicatory texts dating to the Late Classic period (as well as the many regional variations, which each provided a recognizable and productive identity among a manifold of other identities), perhaps this aspect of Maya court culture rose in this particular period as well, ultimately with its roots in the Early Classic, when there were significantly fewer sites (and thus royal courts) active in the political landscape of the Maya area.

²² K703 is the rollout photograph of a vessel now in the collection of the Museum of Fine Arts, Boston (1988.1181), formerly part of the Clay collection.

²³ The transcription of the text on K703 is 11?-'AJAW 11?-'AJAW ta-'IXIM? 'u-k'i?-bi 'a-'ALAY?-ya K'AL? ch'o? ko-TE' ti-yu-ta ka. (For "11" I identify one dot, two fillers, two bars for five, twice in the rim text and perhaps repeated, as the number is painted in various shapes and forms, in the two columns.) The record of 11 Ajaw may refer to the k'atun 11 Ajaw at AD 771-790 (9.17.0.0.1-9.18.0.0.0), a date concurrent with the most probable time period of production of this vessel. A previous k'atun 11 Ajaw would fall ca. 256 years earlier, a consecutive k'atun 11 Ajaw would fall ca. 256 years later. (Alternatively, a k'atun 6 Ajaw would fall at AD 692-711 \pm ca. 256 years.) If indeed a k'atun 11 Ajaw is intended, note that according to the Books of Chilam Balam the k'atun 11 Ajaw was the first of the complete k'atun cycle (the very first day of a k'atun 11 Ajaw was the day 1 Imix, the first day of "their calendar," as Fray Diego de Landa wrote). The verb root k'al- is only represented by a large SUN sign (and some suffixed sign), which can be found in some variants of the FLAT.HAND verb (e.g., K4357; compare K1392, which may have just the SUN sign for the k'al- verb). Compare k'a[h]laj uk'ib "presented was (the) drink-instrument" to K6436 with GOD.N *uk'ib* (written in retrograde, *k'i*?-*bi-'u*). For the suggested order of ta iximte' ti yuta[l] ka[kaw] "for (ta) iximte', for (ti) fruit(?) (yutal) of cacao," note K2323 with the order ta ixim[te'] ta(?) yutalaj [ka]kaw.

²⁴ The anthropomorphic head employed is the head of the young or adolescent Maize God, and it is transcribed as '**IXIM**? based on the occasional presence of the affixes 'i- and -**ma** (e.g., K791; note the query in '**IXIM**?, as the identification is still under review) (Stuart 1995, 2005a). In dedicatory texts this leads to vessel content variations as *iximte*' and *iximte*'el kakaw. However, not all Maize God heads (perhaps also in dedicatory texts) are to be transcribed '**IXIM**; a fair number were read as **NAL** (others as *ajan*, through spellings '**AJAN-na** and '**a-ja-na**, and, in numerical context, *waxak*; e.g., Boot 2011 and Zender, this issue). Stuart (2006) suggests that *iximte*' refers to some kind of medicinal or ceremonial plant species, while Martin (2006) proposes that *iximte*' may refer to the mythological origin of *kakaw* and the drink derived from it.



Figure 10. Two additional examples of texts that are "out of order": (top) K703 as posted online; the text can be given a logical order that includes the visual narrative; (b) K4030; only a small selection of the hieroglyphic collocations can be identified with certainty. Photographs K703 and K4030 © Justin Kerr.



Figure 11. K703, with the order of the collocations established and the line of reading that shows the full integration of the visual narrative. Note that *ch'ok* "child; sprout" is the last in order and that it is placed above the smaller "child-like" version of the dancing Maize God. Photograph K703 © Justin Kerr, with superimposed line by the author.

that *ixim* is placed directly above the dancing Maize God with his backrack (the collocation **ta-'IXIM**? is placed close to the center between the Maize God and his backrack). *Ixim* means "maize" (Dienhart 1989:2:149-152; Kaufman 2003:1034-1036). The placement of *ixim* above the Maize God and his backrack may not be accidental. This is, in my opinion, confirmed by the continuation of the text. The reading order from Collocation 5 to Collocations 6-7-8 leads at the very end to a backward turn to Collocation 9. This collocation reads **ch'o**? and has to be combined with **ko** in next collocation (**ko-TE'**) to get to *ch'ok*, a noun meaning "child; sprout" (Kaufman 2003:32, 79). It functions as a title for the owner of the vessel, but at the same time it is placed above the second dancing Maize God. This Maize God is of "child-like"

stature.²⁵ As such, in my opinion, the placements of the collocations *ixim* (above the tall dancing Maize God with backrack) and *ch'ok* (above the child-like dancing Maize God with backrack) are intentional and seem to be at the base of the "out of order" arrangement of the dedicatory text as it was planned to integrate the visual

Boot

²⁵ Representing the Holmul Dancer theme, K4619 also portrays a dancing Maize God of normal posture and one of a significantly smaller stature. The dedicatory text is painted in normal order. However, the nominal / titular phrase after the *chak ch'ok* collocation is difficult to transcribe (the glyphs drawn have a touch of "pseudo" to them), while the two vertical (secondary non-repeat) texts are clearly "pseudo" or nonsensical.



Figure 12. K2796, the "Vase of the Seven Gods." Anonymous loan to The Art Institute of Chicago. Photograph K2796 © Justin Kerr; photograph showing vessel shape after Coe (1973:106).



Figure 13. Examples of Greek texts: (a) φυλλος Γλεμυδο written on the inside of the lid of *lekanis* Athens NM 852 (drawn by the author after photograph by Alexandra Pappas); (b) epigram on the Stele of Marathonomachoi, an Athenian funerary monument (found in 2000 at Eua-Loukou, now at the Archaeological Museum of Marathon; list of 22 names of warriors of Erechtheid origin fallen at the battle of Marathon) that deliberately avoids the *stoichedon* textual organization (drawn by the author after Kaczko 2012:Fig. 1 and Steinhauer 2004-2009:690).

narrative.²⁶ This placement may even be stressed by the separation of the parts *ixim* and *te*' (one passes from the tall to the short Maize God in the iconography) and the split of **ch'o**? and **ko** (which, I surmise, could have been written in one single collocation; but **ko** is paired with **TE**', the sign one has to arrive at when passing from **ta-'IXIM**).

Twisting or turning of Classic Maya vessels is thus an integral element of how to *read* these vessels. These backward twists or turns are functional and reveal visual literacy. Now, there are also vessels that contain texts organized in regular order that similarly force the reader to actively twist or turn the vessel. One of these is K2796 (Figure 12). The rim text of this vessel is a dedicatory text painted in order. The integration of text and image is contained in the columnar text, as shown by the superimposed arrow that indicates the reading order. The text is painted in front of the cave in which God L is seated in his palatial home on a throne covered in a jaguar pelt. The text opens with a date (4 Ajaw 8 K'umku in 3114 BC) and the verbal expression tz'a[']kj[i]y"put in order were," followed by a long list of expressions that name and identify individual gods and/or groups of gods: Ik' Utahn K'uh "Black is (are) the Center God(s)," Chanal K'uh "Celestial Gods," Chabal K'uh "Terrestial Gods," Balun Yokte' K'uh "Nine are the okte' God," Ux [?] K'uh "Triad Gods," Winaakte' Chi[j] K'uh "Twenty Deer(?) God(s)," and "Jaguar God."²⁷ The last



collocation employs the portrait head of the Jaguar God of the Underworld, who is seated first in line in the top row in front of God L. However, the text continues, and to continue the text means that the vessel needs to be twisted or turned counterclockwise, albeit slightly, to arrive at a single collocation. This collocation thus brings the reader from the nominal glyph of the Jaguar God of the Underworld to this particular god in the top row. This last collocation represents the head of the so-called Pax God (the "patron" of the month Pax, a personified tree trunk) and it probably names and identifies a mythological location.²⁸ The location it refers to is the location where this scene actually takes place. Evidence for this conclusion can be found on K7750, a square vessel, on which the same text is painted, except for the final part. The text on K7750 ends in the expression *u*[*h*]*tiy k'inichil* "it happened at K'inichil (the Sun-person Place)."²⁹ As such, both text and image need to be read on K2796; they form a unity.³⁰

In this essay I introduced two Classic Maya vessels with dedicatory texts that were "out of order." I proposed that these two dedicatory texts could be assigned a logical reading order by manipulating the vessels through counterclockwise twists or turns. Only through these twists or turns was the actual reading order revealed, probably as part of a process in which the handler of the vessel could show his or her literacy (which is defined by both the competence and performance of the handler). One vessel contains a dedicatory text only (K8722) and it necessitates three backward or counterclockwise twists or turns. The other vessel (K5857) contains an intricate visual narrative; on this vessel the handler who discovered the actual reading order of the dedicatory texts was also led through the intended order of the visual narrative. Handling of these vessels thus not only confirmed written literacy but also visual literacy. The backward twists or turns without which the dedicatory texts

²⁶ This particular text may provide us with additional insight into the meaning of the ch'ok and chak ch'ok titles, not only taken by many of the owners of ceramic vessels (compare Houston 2009), but also by Classic Maya heirs apparent (as ch'ok and bah ch'ok). On this vessel, if correctly deduced, ch'ok is directly related to the childlike Maize God. As ch'ok means "child; sprout" (and, I add, more generally, "offshoot/offspring") and the lives of elite persons were seen to be parallel to the life cycle of the Maize God, perhaps the title ch'ok refers to these elite persons as the ch'ok child or young life stage of the Maize God. In the title chak ch'ok the qualitative adjective chak is often translated as "great." Chak also means "red" (Kaufman 2003:239-240). This is the color of the body of the Maize God in the majority of examples, in his possible direct relationship with the east, of which red is the associated color. Ch'ok means "sprout" and could refer to a child-like (growing) stage of the Maize God; chak ch'ok would mean "red sprout" and would refer to both the color and the child-like (growing) stage of the Maize God; bah ch'ok would mean "first/head sprout" and designate the heir apparent among a group of elite "sprouts" that all reflect the child-like (growing) stage of the Maize God. If my suggestion is correct, it would bring the life cycle of Classic Maya elite persons even closer to the life cycle of the Maize God.

27 The text opens with the Calendar Round date 4 Ajaw 8 Hul(?)ohl (Colonial Yucatec: Kumk'u'), followed by the verbal statement spelled TZ'AK-ja-ya. This may be an abbreviated spelling of **TZ'AK-ja-ji-ya** for *tz'a[']kjiy* (< **tz'a[h]k[-a]j-i[ji]y*) "put in order (*tz'ak*-) were ([']...-[*a*]*j*) some time ago (-*i*[*ji*]*y*)," in which -ji- was underspelled (a discussion of the various senses and subsenses of the root *tz'ak*- cannot be included; compare spelling of the compound to SIY-ja-[ji]ya on Tonina Mon. 134, which has the ji infixed into ya). The transcriptions of the names of individual gods and groups of gods which follow are: 'IK'-'u??-TAN-na K'UH ik' uta[h]n k'uh, [CHAN]NAL-la K'UH chanal k'uh, CHAB-la K'UH *chab[a]l k'uh* (EARTH sign without prefixed **ka**- is most probably, by default, CHAB), 9-'OK-TE' K'UH balun [y]okte' k'uh, 3-?-ti K'UH ux [?] k'uh (while a full analysis falls outside the scope of this essay, the reading of the Triad epithet may be Ux Yutib K'uh "Three Bundled Gods"; at Palenque note the spelling 3-?-ti[bi?] K'UH [Temple of the Inscriptions, Center Tablet, F5] and the three yu-ti-bi spellings [Temple of the Inscriptions, West Tablet, K4-K6]), 20?-TE'-chi K'UH wina[a]kte' chi[j] k'uh (note single dot in Moon-sign; alternatively, the opening sign may be 'UH "moon"), JAGUAR.GOD.

²⁸ Support for the Pax God collocation naming a location may be found in the iconography of various vessels. The Pax God head is found at the base of a tree (K555, K1226, K1345; blowgun scenes) or marks a location of some sort, with vegetal elements sprouting from it and combined with for instance a serpent and a decapitated head (K998, K2785, K4336; scenes associated with deer or Deer God).

²⁹ I analyze *k'inich* as *k'in+ich*, in which *-ich* (perhaps originating as -Vch) is the same suffix that appears in colonial and present-day

remain nonsensical go beyond the "amusing turns that force the viewer to turn the pot time and again" (Miller 1999:201). The turns are not "amusing" (in the strict sense of the word); the turns are *functional*. The great majority of Classic Maya vessels were turned clockwise; this "reading order" is based on the fact that the anthropomorphic and zoomorphic head variants of hieroglyphic signs face the start of the text.³¹ The twists and turns thus provide a counterclockwise motion. These vessels would show the competence

Yucatec Maya words as *mamich* (a variant of *mamaj*) "madre; madre o persona de mayor edad" and *tatich* "reyezuelo o cacique" (Barrera Vásquez et al. 1980:491, 779). The -Vch suffix identifies a revered person of advanced age, either within the community and family (the human social hierarchy) or within the pantheon of gods (the supernatural social hierarchy). It substitutes for the suffix *-aj* (i.e., *mamich~mamaj*), which functions as a postfixed agentive (note Classic Maya k'uhaj "god-person" and *joch' k'a[h]k'aj* "drill-fire-person"; see Boot 2009:12, 85). *K'inich* would thus mean "Sun (or perhaps "hot," k'ihn) Revered Person," in short "Sun-person."

³⁰ K2796 and K7750 were discussed in detail during the 17th EMC workshop "Classic Maya Mythology" in Helsinki, Finland (Boot 2012) and are part of an essay in preparation (Boot 2014). The black background indicates the scene takes place in the west (black is the color associated with the west) and the red background, as employed on two sides of K7750 (a square vessel), indicates the scene takes place in the east (red is the color associated with the east). Thus the Pax God location is in the west, K'inichil is in the east. (I should note that the second god in the upper row has the Pax God facial features; while I prefer the Pax God location identification, I keep an open mind to the alternative, that the Pax God is named.) Another example in which text and image need to be combined both textually and visually is K717; after uhtiy ('UH-ti-ya) "it happened (at)" no collocation follows that spells the name of the location. The elaborate palace scene depicted on the vessel is that location (see Boot 2006). A similar textual-visual pun is employed on K5453 (MFA Boston 2004.2204). While the vertical text provides the date and actual site (Topoxte'), the central secondary text (identifying the king) ends with just *uhtiy*, the court scene itself is where it happens.

³¹ A rare right-to-left text can be found on K1001 (Robicsek and Hales 1981:Vessel 49), painted in a variant of the Codex Style of the Greater El Mirador-Nakbe area. It is painted in a cursive manner and "looks" kind of "pseudo." Various Chocholá vessels have incised linear dedicatory texts just below the outer rim that read rightto-left (e.g., K4684). A larger number of Chocholá vessels contain diagonally incised dedicatory texts, which often run to the bottom of the vessel (e.g., K9092; National Museum of the American Indian, inv. 24/8346, from the Late Classic Maya site of Akan Kej). Handling is necessary to reveal and read the complete text. An interesting case is K6612, a vessel that necessitates counterclockwise turning. The text runs diagonally from upper right to lower left in two sections of three glyph blocks each. The text reads top down diagonally top right to lower left, while turning the vessel counterclockwise. However, each glyph block is read internally left-to-right (*lalay* $^{2}k'a[h]laj$ $^{3}yich$ $^{4}u^{5}tz'i[h]^{6}ba[l]$). Also note the incised travertine vase inventoried as 2002-370 at the Princeton University Art Museum (K3296); the bottom has a crossed incised text (one phrase opens with **ch'a-ja**?, the other with **ya-la-[ji]ya** and ends with the God D name; compare to a secondary text on K8008). The vessel must be handled to read this now-severely-eroded hidden text.

and performance not only of the handlers (i.e., readers, observers) but, at the base of it all, of course, also the producers: those who designed and executed the vessels discussed in this essay (as well as Stela J at Copan).³² These are objects that inspire and entice producer, handler, and observer. As such these "out of order" texts require an active engagement of the handler (human-object interaction), instigated by the producer, and thus will (perhaps even *must*) be observed by an audience as social interaction. It has thus become a full experience for the social body (i.e., the individual raised, socialized, educated, competent, and ultimately performing; compare Douglas 2001, 2004; Lindblom 2007; Shilling 1993:70-99; Synnott 2002). That makes these objects with "out of order" texts communicative tools par excellence. They present a challenge in which, through performance, competence can be shown, while the process of performance combines both the private and the public domains (compare Ackoff 1958:220-225). This could mean that these particular vessels and the challenges they offer would have led to the cognitive emergence of the social body on both the personal and interpersonal level (compare McClelland 2010). Just as important, these vessels would have led to talking, which is "at the heart of human existence" (Zimmermann and Boden 1991:3).

To further the comparison to the Greek symposion earlier in this essay, I will introduce some intriguing writing examples from portable as well as non-portable Attic inscriptions (ca. eighth to fifth centuries BC) that are also out of the ordinary. A Proto-Attic *lekanis* or covered low bowl or dish (ca. late seventh century BC), cataloged as Athens NM (National Museum) 852, has a lid the inside of which contains a circular dipinto text arranged around a small inner circle (Figure 15a). The text reads ουκλος Γλεμυδο (kyklos Glēmydō),³³ traditionally translated as "circle (ουκλος) of Glemydas(?) (Γλεμυδο)," although perhaps "(I am the) circle (lid?) of Glemydas(?)" may be preferred (Pappas 2011:42).³⁴ The scribe employed a mixed script that included letters from other early Greek alphabetic traditions (Argive, Ionic). It has been suggested that the circle itself may have been painted by Glemydas, while the text was painted by some scribe (Immerwahr 1990:10, No. 17, Pl. 2, 2009:No. 729). Pappas (2004:71) suggests that this particular text actually "reveals a [...] visual effect of writing, perhaps even incorporating a visual pun," as the text circles a poorly drawn inner circle and the first and last letters of the text are letters that contain "circles" (**o** and o; the vertical bar of the first letter **o** or *qoppa* even penetrates the inner circle). The whole text itself is encircled by a larger perfectly round painted circle. Pappas (2004:71; compare Pappas 2011:42) furthermore hypothesizes that "the painter was playfully aware that the odd, perhaps confusing mixture of forms would result in a meaningful aesthetic

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effect for the viewer."

Recently Kaczko (2012) discussed a small selection of Archaic and Classic Athenian epigrams on funerary monuments and dedicatory texts. Epigrams had a standardized structure and were highly formulaic.³⁵ The

³² At Quirigua the local sculptural workshop tried to imitate the intricate "woven" reading pattern of Copan Stela J. However, while the text on the east side of Quirigua Stela H (Looper 2003:Fig. 3.20) is contained within the folds of a woven mat, the text simply reads in a normal fashion within each section (left-right, top-down; in squares of four collocations), only being placed diagonally. (Both stelae have the woven pattern on their east side.) Other texts contained in a weaving pattern include a vessel of unknown provenance (read diagonally, top-to-bottom, starting upper left; for illustration Robicsek and Hales 1981: Table 3B), Site R Lintel 4 (read diagonally, top-to-bottom, starting upper left; for illustration see Grube 1992:Fig. 15), and the inscribed human skull fragment from Aguateca (read diagonally, upper-right-to-lower-left, top-to-bottom per column, text starting on right and ending on left; for illustration Inomata 1997:Fig. 13; compare K6612). Sculptors at Quirigua applied another visual-textual trick. On Stela J, in the North Text (at F4) a single feather of the costume of the portrayed ruler crosses over a very specific hieroglyphic collocation. This hieroglyphic collocation contains the k'al- event that defines the accession of K'ahk' Tiliw Chan Yopaat, in which the T713a hand sign is written in retrograde fashion. In my opinion, the sculptor(s) used both the crossing-over of the feather and the retrograde sign to highlight this very important event. Some years ago Justin Kerr suggested that the tip of a paint pot, worn in the headdress of a scribe, specifically touched the glyph for "ink" or "ink container" in the painted rim text (Kerr n.d). On K7999, excavated at Tikal (Burial 116), the outstretched hand of a seated high-ranked individual forms part of a collocation that must spell the Maya word for west, ochk'in or chik'in (compare to K7997, also excavated at Tikal, Burial 116), in which the hieroglyphic sign for either och- or chi- is missing. In Maya writing both signs for 'OCH and chi are hand signs (see Boot 2003c). As the middle finger and thumb touch, the outstretched hand may form the sign **chi** (in the common form of which the index finger and thumb nearly touch) for *chik'in* in the titular phrase *chik'in kaloomte'* (for instance recorded at Yaxchilan, Stela 11, Back: F5). The collocation would thus be read in retrograde. K7997 records only ochk'in, a probable abbreviation for ochk'in kaloomte'.

³³ The initial letter q in $qvx\lambda o\varsigma$, as I transcribe *kyklos* (< **qyklos*) here, is the letter named qoppa or koppa, a letter shape used for /k/ before rounded back vowels (O, Y, Ω) (Woodard 1997:137, 154, 159, 161; compare Jeffery 1963:33-34), which is no longer part of the Greek alphabet. The sign is still used in the numeral system for "90" (but with a different shape; for instance in Byzantine Greek, as *C*; the circle opened at one side and the bar shifted to the right, thus G-shaped). The original letter, composed of a circle with a straight vertical bar to the bottom, was borrowed into Latin script and in a slightly altered shape it is still in use as our "q" (the circle remained closed and the vertical bar moved from the bottom center to the right side, pointing down).

³⁴ In a later study Pappas (2011:42) suggests that $qυ \varkappa \lambda o \varsigma$ (kyklos), and thus by extension the small off-center drawn circle as well, refers to the lid. The small inner circle would thus (I surmise) be a pictogram, standing for the lid, instead of being the circle referred to as $qυ \varkappa \lambda o \varsigma$.

³⁵ For a large corpus of archaic Greek epigrams and dedicatory texts, which includes a discussion how the ancient Greeks may have accessed and perceived these texts, see Day 2010.

small selection of epigrams that Kaczko discussed are all out of the ordinary. For example, when stoichedon³⁶ textual arrangements became common (Austin 1938; Butz 2010), "some epigrams [were] engraved in an alignment which deliberately avoid[ed] the stoichedon order" (Kaczko 2012:§12, Fig. 1) (Figure 15b). Proietti (2013:25) notes the extreme rarity of this particular text organization and refers to it as "staggered stoichedon." In the case of some other dedicatory and funerary texts "the order of the lines [was] inverted from their "logical" order, i.e., instead of reading from top to bottom they read from bottom to top" (Kaczko 2012:§12, Fig. 2) or instead of left to right the text was carved to read retrograde, i.e., right to left (Kaczko 2012:Fig. 3). Also discussed is a dedicatory text cataloged as CEG (Carmina Epigraphica Graeca) 198, the scribe of which employed a mixed script of Attic and Ionic letters (Kaczko 2012:§20, Fig. 6). These and other examples led Kaczko (2012:§31) to the preliminary conclusion that some epigrams and dedicatory texts "deliberately exploited the interplay between the visual medium [...] and the immaterial/literary one in order to stand out and make themselves and, as a consequence, their patron noticeable."

It is my contention that the few Late Classic Maya examples that I discussed in this essay had a similar function. The Greek and Maya texts seem to contain clear errors and mistakes within their respective standard or canon of text composition (in both cases, highly formulaic epigrams and/or dedicatory texts), but below the surface these "errors" and "mistakes" may have had a very specific purpose. Not only did they stand out within a larger corpus of "normal" dedicatory texts (as well as texts that really are out-of-order and nonsensical, including "pseudo" texts), they may have functioned as communicative tools par excellence. Recently Thornes et al. (2013:ix) stated that "languages are the way they are because of what they accomplish. That is, communicative needs drive the continually changing shape of language." I would transpose this statement to writing in the following manner: Writing is the way it is because of what it accomplishes. Communicative needs drive the changing shape of writing.³⁷ In the examples of Greek and Classic Maya writing discussed above, those examples that were out of the ordinary, which seemed to contain errors or mistakes, all fitted some kind of communicative need. As such they were communicative tools, and ultimately what better way for writing (going beyond the plainly seen, observable, and visible) to lead to talk.

I am well aware of the fact that at present only a very limited number of "out of order" Classic Maya dedicatory texts may present solutions that could explain their presumed errors or mistakes. Among the thousands of Greek texts (including epigrams and dedicatory texts) the number of texts with alternative renderings (Kaczko 2012), the inclusion of letters from different alphabets in a single text (Immerwahr 1990; Kaczko 2012; Pappas 2004), or texts that may contain Scythian phrases (Mayor et al. 2012 [see note 3]) are also very limited. More research is needed on the Maya dedicatory texts which initiated this essay to see if alternative reading orders are possible (and perhaps more logical from a syntactic-morphological perspective). In this research hopefully more examples of "out of order" texts can be added to the small corpus now known.³⁸ One of these texts, on K703, provided an interesting case and showed, if interpreted correctly, an integration of both the dedicatory text and the visual narrative. Until the time that my suggestions on the reading order of these two dedicatory texts have been tested, and more examples have been identified, the suggestions made in this essay remain hypotheses.

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³⁸ For instance, a polychrome cylindrical vessel which recently surfaced at an auction of the Artemis Gallery (web auction, date February 1, 2013; lot no. 51D; ex-Christie's).

³⁶ Linear left-to-right (the common form), retrograde (e.g., Cup of Nestor, second half eighth century BC), or boustrophedon (e.g., Gortyn Code, first half fifth century BC) text organization in capital letters, letters evenly spaced horizontally, letters vertically aligned in columns.

³⁷ In the present day, due to its limited amount of characters (and, often, time) per message, texting on various platforms has led to changes in writing (including obvious and less obvious abbreviations, acronyms, etc., for example: 2nite, 4U, c u, l8r, A3, IMO, LOL, N2G, YOL1). Also note, within so-called (re-)Captcha codes employed as a security measure against automated download bots, the exaggerated and odd shaping of alphabetic letters (which, however, still need to be recognizable; other representational graphic systems occur as well, for instance parts of mathematical formulae and non-alphabetical writing systems).

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The Further Adventures of Merle (continued)

MERLE GREENE ROBERTSON

Palenque

By 1965 Palenque was headquarters for going back and forth to sites in Mexico, Guatemala, and Belize. Bob Robertson and I were married in 1966 and built our house Na Chan-Bahlum in 1970. Before that I was living by myself in one of Moises Morales's small rooms in La Cañada but spending all of my time at the ruins in our quarters at the campamento where Robert Rands and Ed Sisson hung out. Ed would come to pick me up at six in the morning—no breakfast that early. As Rands wasn't interested in eating, all Ed and I had was coffee and bananas that grew by the campamento.

Robert Rands initially was interested in Maya art, as can seen by the things he wrote in our book Maya Sculpture about the art of so many of the monuments (Robert Rands and John Graham were co-authors with me). But it turned out that Rands's life work was to be ceramics. His work has become the "Bible" on Mexican ceramics. Working with him at Palengue, I was initially supposed to be illustrating ceramics half of the week and doing rubbings of Palenque art the other half. This arrangement didn't quite work out, so it resulted in my doing ceramic illustrating one half of the summer and rubbings the other half (Figures 1 and 2). This worked out fine. When illustrating ceramics I would work all day, and I mean all day, then Rands would spend all night going over my work. If I was off just the width of a fine pencil mark, it was wrong—I had to do it over. It didn't take many times doing it over before I became very proficient at it. You can bet I became an expert under Rands's supervision. As a matter of fact, later when I was doing ceramic illustrating of Dzibilchaltun for Bill Andrews (E. Wyllys Andrews IV) in Merida, he said he wouldn't even bother correcting my work, as he knew what a perfectionist Rands was. Bob Rands, although a perfectionist, is the most gentle man I have ever known. I have never heard him raise his voice or get angry at anyone. Really, he is one of a kind.

Before Bob worked with me—or rather, I worked with Bob—at Palenque, I worked for him in a large mansion with no heat in the Lomas district of Mexico City. I remember when I first was welcomed at the door and walked inside, the first thing I saw was this huge circular stairway with bags on every step that said "For Merle." What was this all about? Well, all of the potsherds in those hundreds of sacks had already been analyzed by other scientists, and now they were waiting for me to draw them. The reason Bob had rented this particular house was that it had a large tower on top with windows all around, so I could work, with natural light, at illustrating no matter what kind of weather it was outside. I did work there all the time in freezing cold—no heat in the building—until finally I got pneumonia. Result: get better and back at it. Wouldn't do that for anyone except Bob Rands. Bob got pneumonia also, so we were both in the American Hospital.

Na Chan-Bahlum, on Calle Merle Greene in Palenque, was built mainly as a place to come back to after working in dense jungle with no conveniences such as hot water, a change of food (no more freeze dried), and a comfortable place to sleep. It turned out to be much more than that—a gathering place for all of our friends who were working in Chiapas, Tabasco, or the east coast of Belize: Eric Talladoire and Claude Baudez from Paris, working at Tonina; Annagrette Hohmann from Austria; Paul Gendrop from Mexico City; Karen Bassie-Sweet and David Kelley from Calgary; Ursula Jones and Andrew Weeks from London; and Hans-Jürgen Kramer from Germany, to name a few. Most of them came to do research at Palenque. With our good stove and refrigerator we could cook gourmet meals to share with all of our friends, both in Palengue and those passing through. Good food and drinks, as well as good conversation was always welcome. Bob, my husband, who had been a school administrator all of his life, immediately took possession of the Cuisinart my son David had given to me for Christmas. He became a chef. Just like that. His crepe suzettes with their flaming brandy were the very best. I could just stay out of the kitchen-he was the chef. We had so many banana trees on our property that Bob made banana bread almost every day, way more than we-or even all of our neighbors-could eat.

Na Chan-Bahlum at first consisted of one large room that was a cooking and eating area as well as a sleeping area, plus a very large bathroom. We soon knew that we needed more room where we could carry on with writing, drawing pictures of the sculpture, and pasting large rubbings together. So a large library was built with mahogany bookshelves on two walls, built-in tables for



Figure 1. Rubbing of full-figure glyphs from the Palace Tablet ("11 Tuns" of the Initial Series), an example of what Merle did with the "other half" of her time at Palenque.

drawing, and a comfortable place to sit and read. For this last, we bought a davenport, three chairs to lounge in, and a coffee table. We put in air conditioning and a dehumidifier to keep the books safe. Many pleasant evenings were spent there with our dog Chinkultic and our cat Cele curled up beside us. We added a small bedroom and storage room to the house at the same time, as well as large screened-in rooms up above. The roof was thatch, the most expensive kind of roof there was at that time, as a fee had to be paid to the village that had good thatch, another fee had to be paid to the workman who carted it, and yet another fee had to be paid to bring it into Palenque. Also, only certain men knew how to correctly put on the thatch so small animals wouldn't crawl under it or water seep through. I have a whole set of video prints, done by Kathryn Josserand, showing every step in the process of putting up this thatch roof. Later, we built another bedroom and bath with small porch, off the large porch at the rear of our house, that we called "La Selva."



Figure 2. Rubbing of Intaglio Stone from the Palace.