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Possible Maya Logograms for IKATZ, "Cargo," and TZIMAH, "Gourd"

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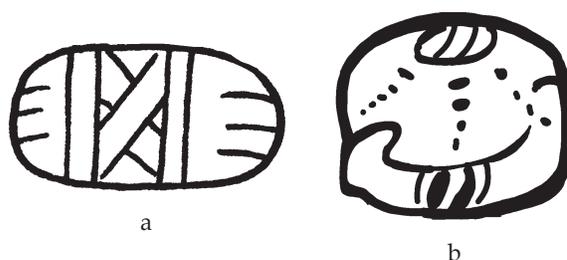


Figure 1. Possible logograms for (a) IKATZ, "cargo, load," and (b) TZIMAH, "gourd cup" (drawings by the author).

This paper explores the readings of two possible logograms in Maya writing, one for IKATZ, "cargo, load" and another for TZIMAH, "gourd cup" (Figure 1a, b). Although their forms and word values are distinct, a few common threads of evidence lie behind their respective patterns of use, prompting their treatment together here.¹ Beyond the epigraphic particulars, each sign also has some interesting historical and cultural implications in the study of elite Maya commerce, especially concerning two of the most important prestige-related resources in southern Mesoamerica, jade and cacao.

Many will recognize the first of these elements, the so-called "spotted-Kan" (T507), as the syllable *tzi*, a reading I proposed some years ago based on its appearance in several spellings, such as *wi-tzi*, *witz*, "hill, mountain," and *pi-tzi*, *pitz*, "play ball," among others (Stuart 1987). Of course, some Maya hieroglyphic signs can have polyvalent roles, with both syllabic and logographic functions within the larger system. Well-known examples include the bat head sign that serves as both the logogram SUUTZ' and the syllable *tz'i*. Another example would be the logogram TOK, visually indistinguishable from the syllable *to*. Some of these functional overlaps are obvious and even derivationally

related, as we see in the use of *ka* from the logogram KAY, "fish." Here I will propose that the *tzi* sign works similarly, having at times an alternate logographic value TZIMAH, "gourd," from which it was probably derived in the early developmental stages of the script.

As background, the first indication of the *tzi* sign's polyvalency comes from certain settings where it appears together with other logograms, without adjacent syllabic signs. This pattern was also noted by Beliaev, Davletshin, and Tokovinine (2009) in their overview of "mixed drink" texts on Maya vessels. One such setting is shown in Figure 2b, from an Early Classic example of the Dedicatory Formula on a ceramic vessel probably from the El Zotz region. The glyph is the simple prepositional phrase *ta*-SPOTTED. KAN-*ka-wa*, *ta ? kakaw*, "...for ? kakaw." Here a syllabic function for

¹ We will see that the spellings of both *ikatz* and *tzimah* use sequences of CV syllables that are disharmonic in their vowel, as in *i-ka-tzi*. This might well prompt us to consider a long or "complex" second vowel (V2 in CV₁CV₂C). However, the early historical reconstructions of both terms do not indicate this, going back to Tzeltalan *i(h)katz* and proto-Mayan *tzima'* or *tzima(h)*, the latter a clear borrowing from Mije-Sokean (Kaufman 2003). Throughout this study, rather than presume the qualities of these vowels and impose them in a retrospective way, I prefer to "keep it simple" and spell the Classic Mayan forms as *ikatz* and *tzimah*, respectively.

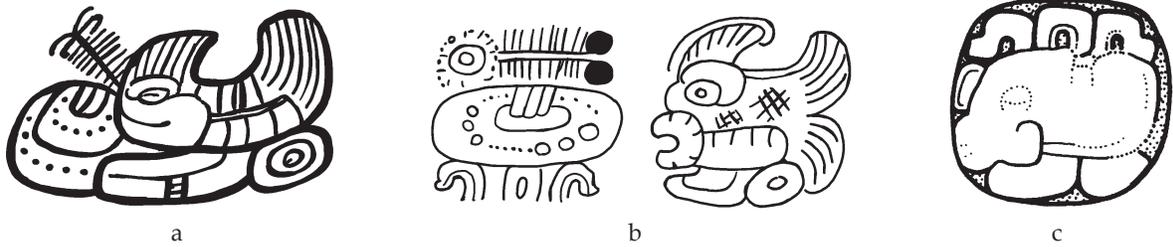


Figure 2. The “spotted kan” and variants in combination with *kakaw* spellings: (a) Early Classic vessel from El Zotz region; (b) K8042, Kerr Database (drawings by the author); (c) Berlin vessel (drawing by Nikolai Grube).

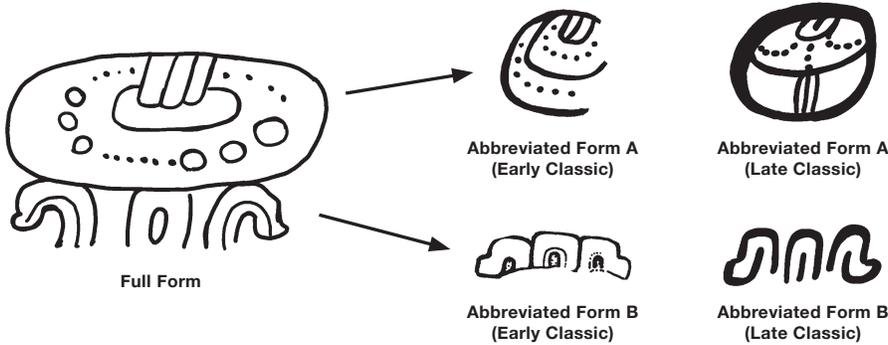


Figure 3. The variants of the “spotted kan” (*tzi*, etc.) as graphic reductions of an early fuller form (drawings by the author).

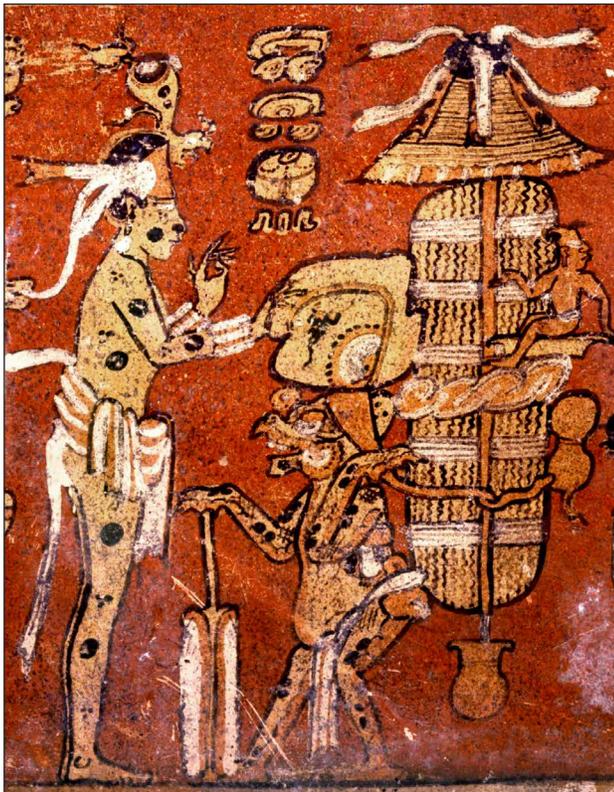


Figure 4. Spellings of *yi-ka-tzi* using full (b) and reduced forms (c, d) of *tzi* (a, b from K7727, Kerr Database); (c) inscribed jade from Temple of the Skull, Palenque; (d) inscribed jade reportedly from Teotihuacan (photograph by Justin Kerr, drawings by the author).

the spotted Kan seems unlikely, appearing after the preposition *ta* and before the noun *kakaw*. In most analyses this has been assumed to be an underspelling of another combination usually read as *tzihi*, for *tzihi*, interpreted usually as meaning “fresh” (Grube 1990; Macleod and Reents-Budet 1994:118, 161). In this analysis the *tzi* syllable alone suffices to write *tzihi*. Although possible, I believe we should keep an open mind on this particular point, if only for the reason that *tzihi*, “fresh,” has long remained an uncertain reading overall, so far difficult to confirm.

Another example of the same sequence appears on an Early Classic vessel from the Naranjo region (K8042), where we see the spotted-Kan with a trilobed affix that is also known to work alone as a variant or allograph of *tzi* (Figure 2b). Beliaev et al. (2009) suggest this is evidence for reading the spotted Kan as a logogram for *SUUTZ* “cherry,” as a phonetic complement (*SUUTZ?-tzi*). In their view, *SUUTZ* is a possible value for the spotted-Kan because (1) it must refer “to some sort of flavor added to cacao drinks,” and (2) *sutz* is attested as a word for “cherry-like fruit” in Ch’orti’. In various examples of the phrase we find in the Dedicatory Formula, including the illustrated example, they

propose a reading of *ta suutz kakaw*, “for cherry-flavored cacao.”

I agree that the spotted Kan sign probably has a logographic function in these contexts, but we need not assume that the “small **tzi**” affix works as a compliment in these spellings, or even that it is a separate sign from the spotted-Kan to which it is attached. Given that both forms can serve as **tzi**, I suggest that we instead have a single sign at work, with one variant slightly more elaborate than the other, with an added component above or below. These components can appear conjoined or separated with the value **tzi**, as well as the logographic value it may hold. This pattern is strongly suggested in cases where the small affix alone can appear prefixed to *kakaw* (Figure 2c) (here the *ta* preposition is unwritten). In other words, all three examples given in Figure 2 display the same description for a type of cacao. The pattern strongly suggests an underlying prototype, a *single* sign that could give rise to the two forms we have long known (Figure 3). As with many other Maya signs consisting of different visual parts, scribes could simplify, reduce, or abbreviate the fuller form over the course of the script’s history.

The full form of the spotted-Kan or **tzi** sign is confirmed in a text from the vase K7727, where we see **yi-ka tzi**, *y-ikatz*, “his load,” directly above the representation of an anthropomorphic reptile carrying a variety of objects in a tumpline (Figure 4a, b). Here the full caption reads **PIHK yi-ka-tzi**, *pihk y-ikatz*, “8,000 (a multitude) is his cargo.” **Yi-ka-tzi** is the possessed form of the noun **i-ka-tzi**, as first discussed in a paper where I identified the assortment of **yV** syllables that were used to represent the prevocalic third-person pronoun (*u*)**y-** before a vowel-initial root (Stuart 1987; see also Stuart 1997:9-10). Usually, spellings of *y-ikatz* appear as the three signs **yi-ka-tzi** in a conventional sequence, using the reduced forms of **tzi** we have just discussed (Figure 4c, d). On K7727 the **tzi** takes its rare original form, still as a single, more complex sign.

Interestingly, the smaller trilobed element can appear either above or below the main part, though its placement below is more common and therefore may be a closer reflection of its original arrangement.

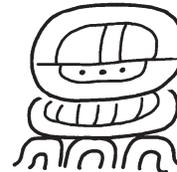
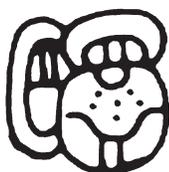
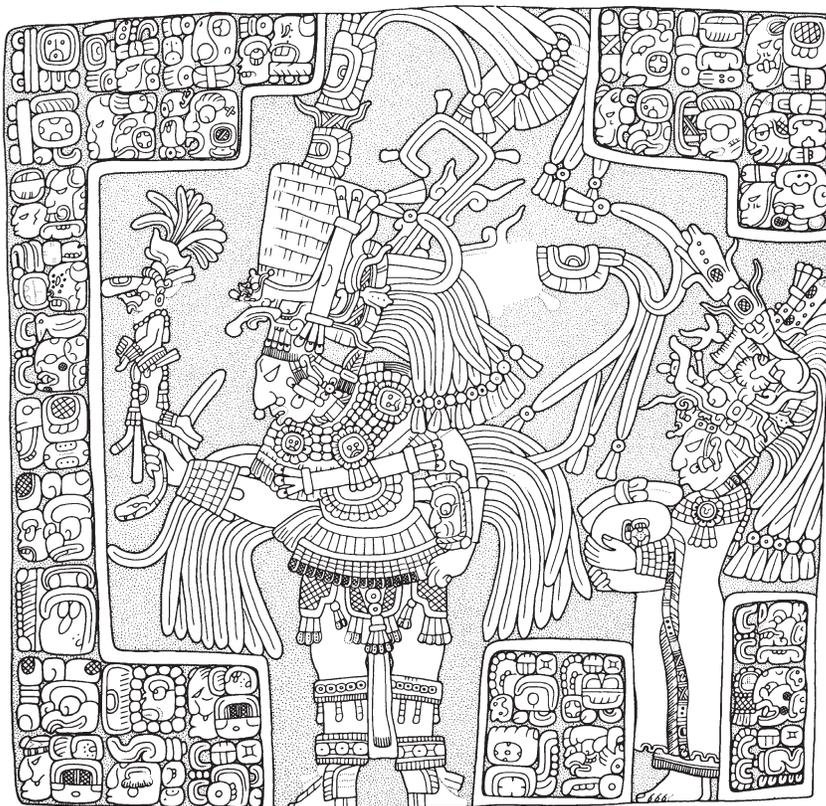


Figure 5. Spellings of **i-ka-tzi** using reduced forms of **tzi**: (a, b) Yaxchilan, Lintel 1, with **i-ka-tzi** on bundle; (c) Early Classic jade or greenstone celt from Costa Rica; (d) Naranjo, Stela 32 (a, b drawing by Ian Graham © President and Fellows of Harvard College, Peabody Museum of Archaeology and Ethnology, 2004.15.6.5.1); c, d drawings by the author).

We will return to this point later, but now I would like to keep on the subject of still other spellings of the word (*y*)*ikatz*, and their possible employment of a logogram that has thus far gone unrecognized.

A Possible IKATZ Logogram

The unpossessed form of the noun **i-ka-tzi**, for *ikatz*, “load, cargo,” was first pointed out independently by Brian Stross (1988) and by Karl Taube (1988) (see Stuart 1997). Both noted its appearance on depictions of large cloth bundles in the sculpted lintels at Yaxchilan (Figure 5a, b). Revealingly, some spellings also show the reduced trilobed form of the **tzi** sign we have just discussed (Figure 5c, d). The possessed form spelled **yi-ka-tzi**, a few examples of which we have already seen (Figure 4), was identified soon afterwards, occurring with notable regularity on earspools, beads, and jade celts, where they are attributed to named

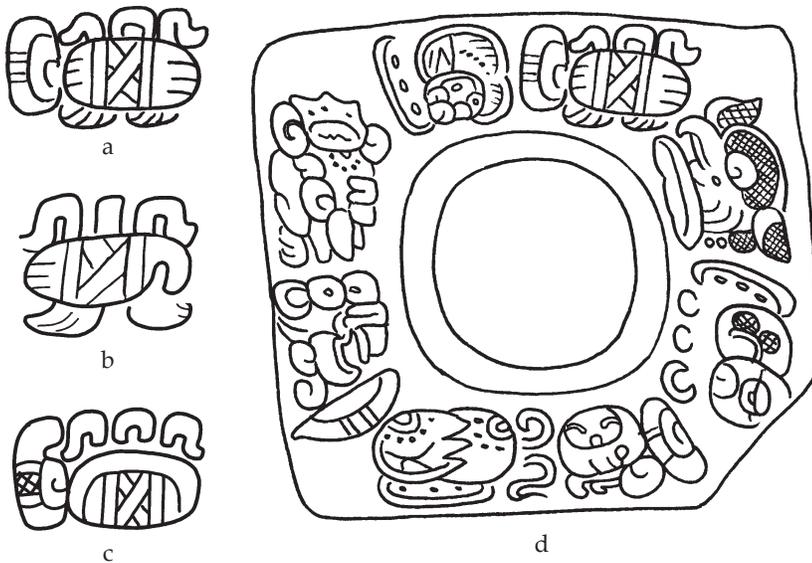


Figure 6. Spellings using the possible IKATZ logogram: (a, d) jade from the tomb of K'inich Janab Pakal, Palenque; (b) Early Classic jade, K1505, Kerr database; (c) jade earspool, Calakmul, Tomb 4 (drawings by the author).

individuals. The pattern suggests that *ikat* has a more specific semantic range in Classic texts, referring to highly valued objects used as tribute, and to precious jade (Helmke et al. 2020:17; Stuart 1997, 2006). The ceremonial bundles depicted at Yaxchilan probably are marked with *ikat* as a way of identifying their contents, perhaps the jade jewels worn in the dance performances depicted.

Other spellings of the possessed form *y-ikat* are different from those already cited. These appear also on a variety of jade objects, as we see on one of the jade ear ornaments from the sarcophagus of K'inich Janab Pakal at Palenque (Figure 6d). There is no doubt as to their equivalence to the other *y-ikat* spellings just described, for these usually also display *yi-*, *ka*, and *tzi* signs. However, these also have a new sign added to the mix, showing a crossed bands sign with flanking lines (Figure 6a–c). This

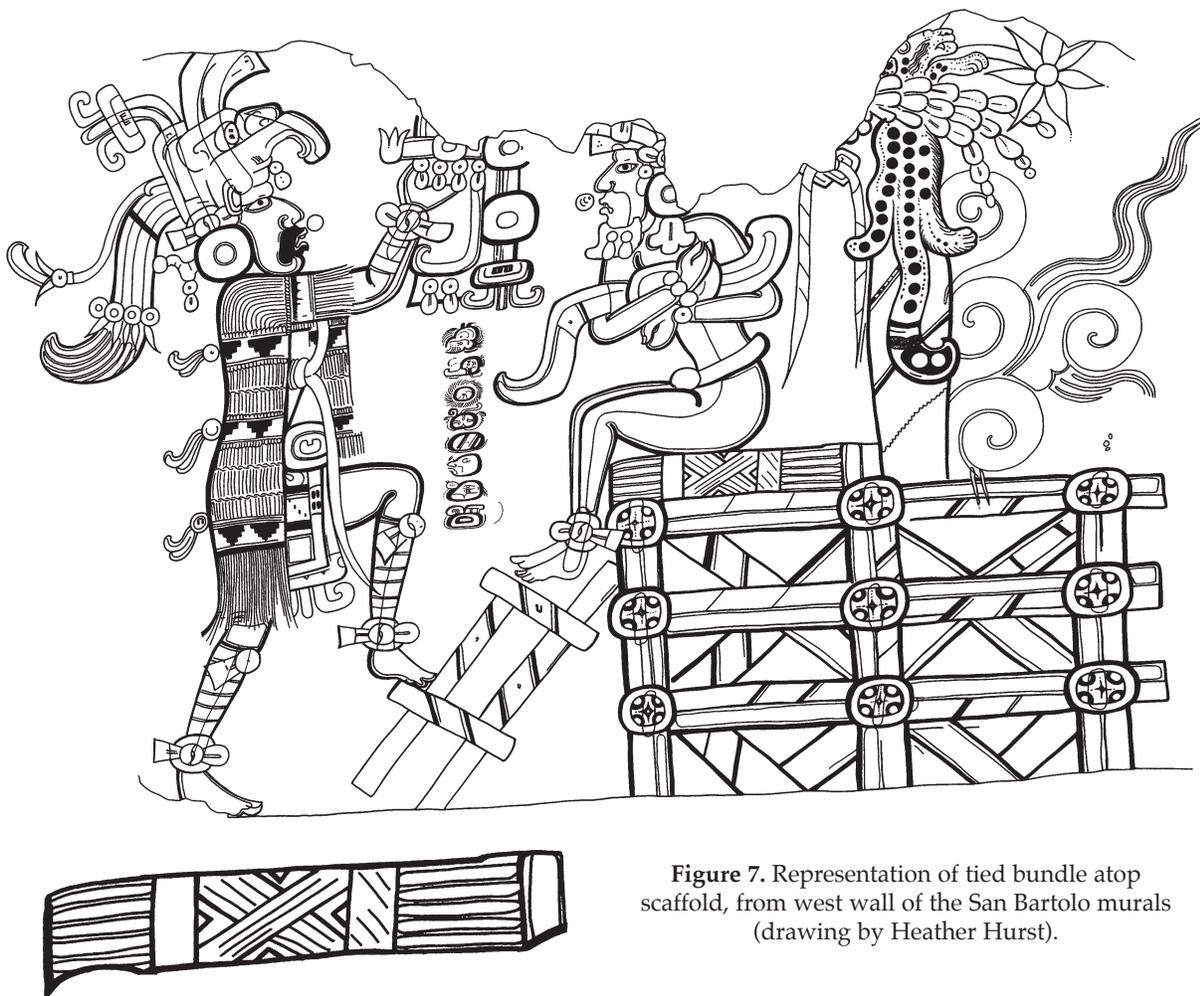


Figure 7. Representation of tied bundle atop scaffold, from west wall of the San Bartolo murals (drawing by Heather Hurst).

additional element is not one of the three syllabic components, so it would be natural to consider it as a "core" logogram for the possessed noun, surrounded by syllabic forms. It seems reasonable to think that this incorporated sign may be read **IKATZ**, with the aforementioned examples possibly reading either **yi-ka-*IKATZ*-tzi** (Figure 6a-b) or **yi-*IKATZ*-tzi** (Figure 6c).

This possible **IKATZ** sign may represent a tied bundle of firewood, lashed together with crossing bands or cords. This is suggested by its superficial resemblance to the principal element of the **K'AHK'** "fire," logogram, which has long been interpreted as an image of wood and sticks beneath ascending flames (Spinden 1924:202). In fact, Thompson (1962:185-186) mistakenly equated these forms in his sign catalog, seeing them both as bundles of firewood. If we see the putative **IKATZ** sign as a bundle of wood or sticks, its connection to loads and cargos is obvious. The root *ihqa* is found throughout

Eastern Mayan and Greater Q'anjob'alan languages as a verb "to carry (on one's back)," from which the Common Mayan noun *ihqatz* is derived (Kaufman and Justeson 2003). In colonial Tzotzil *j-'ikatz* means a bundle of wood, or a torch bundle (Laughlin 1988:1:144). The **TOK** logogram and the **to** syllable seem related to this as well, distinguished from the proposed **IKATZ** sign only by the dotted "sparks" at the top. It is quite possible that this sign is related to the Yucatekan verb root *tok*, meaning "to burn," but this word is unattested in Ch'olan languages.

The possible **IKATZ** sign appears in an interesting iconographic setting in the Late Pre-Classic paintings of San Bartolo. There we find it beneath the seated ruler in the well-known crowning scene of the west wall, set atop the lattice-like scaffold (Figure 7). This is clearly ancestral to the well-known scaffold "ascension" scenes on several monuments at Piedras Negras, wherein newly

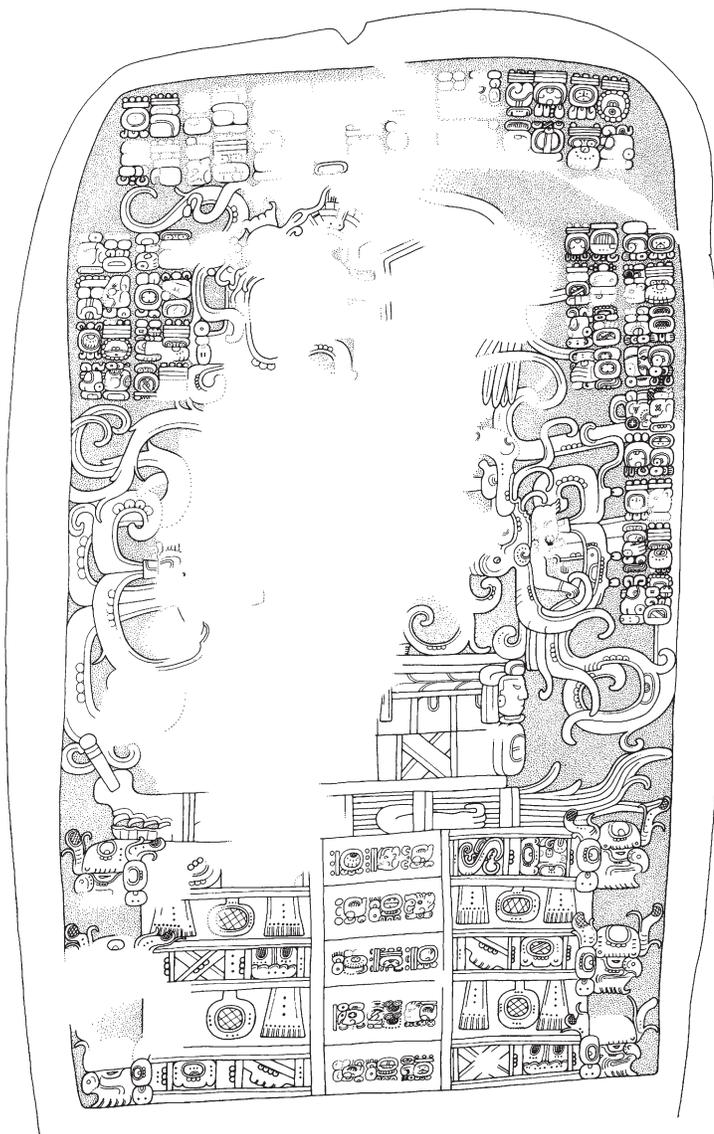
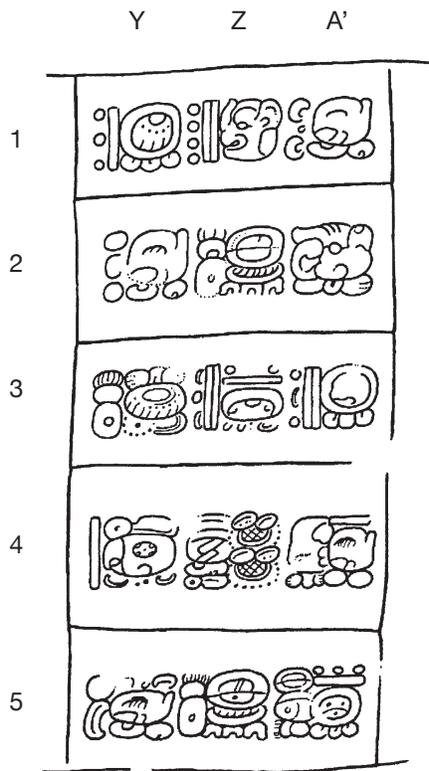


Figure 8. Naranjo, Stela 32, with detail of hieroglyphs on stairs below tied bundle; note the *i-ka-tzi* glyphs at Z2 and Z5 (detail drawing by the author; overall drawing of stela by Ian Graham © President and Fellows of Harvard College, Peabody Museum of Archaeology and Ethnology, 2004.15.6.3.14).

crowned rulers are shown presiding over their initial Period Ending ceremonies. In those later monuments, we see a bound bundle of sticks assuming the form of an effigy-like image of a deer. Taube (1988:343) has connected these representations to themes of deer hunting, and specifically to imagery of deer being carried in a tumpline, as a type of cargo. The presence of a possible **IKATZ** sign at San Bartolo in precisely the same setting is highly suggestive.

Another interesting juxtaposition occurs on the front of Naranjo, Stela 32 (dedicated in 820 CE) which seems to be a late variant of the same “ascension” theme (Figure 8). The monument once portrayed Naranjo’s newly installed ruler, Waxaklajun Uba K’awil, seated atop a cosmological platform with frontal steps. A bound effigy of an animal made of firewood or reeds, possibly the “Starry Deer Crocodile,” appears atop the platform or scaffold, similar to where the **IKATZ** sign occurs in the San Bartolo scene. It is interesting to note that the text inscribed below the bundle twice records the offering of *ikatz* cargo bundles (for example, at Y5–Z5: **ya-k’a-wa ti-i-ka-tzi**, *y-ak’aw ti ikatz*, “he gives it as the cargo”) (Stuart 1991) (Figure 8 detail). I suspect that the inscription’s subject matter, with its focus on cargo and gifting, relates to what is encoded in the iconography of the scene, and to the consistent display of effigy bundles whose form can be traced many centuries earlier to the **IKATZ** sign. In all of these accession scenes, visual and textual allusions to *ikatz* may well serve to accentuate how new political offices were seen as burdens and “cargoes,” an idea of widespread importance in Maya communities up to the present day (Cancian 1965; Stross 1988, Vogt 1969).²

In some contexts, this “cargo” sign can be doubled in a vertical arrangement, forming what appears to be a different hieroglyphic element with an unknown reading (Figure 9a). Its use in a title for Shield Jaguar II at Yaxchilan appears to indicate a number or a quantity of prisoners, a variant of the “count of captives” title (Martin 2012:79; Stuart 1981) (Figure 9b). Placed between the number “one” and the counted noun (*baak*, “captive”) the sign would seem to work as a numerical classifier. A numerical value of **BAK’**, “400,” is one possibility I have considered, but it requires more testing.³ It is fitting perhaps that a sign representing a numerical quantity would represent stacked bundles of cargo. In Tzeltal Mayan, *ihkatz* is a numerical classifier for loads of firewood and other cargos (Polian 2017:262). The title at Yaxchilan may refer to the powerful ruler’s multitude of captives, one way or another. The same “stacked cargo” appears in the market-scene mural paintings of Calakmul, as discussed by Martin (2012:79). There it seems to be part of a woman’s name written in a horizontal band, surrounded by the imagery of commerce, trade, and consumption. On *Dresden* page 68b, the same stacked elements form a seat for Chahk,

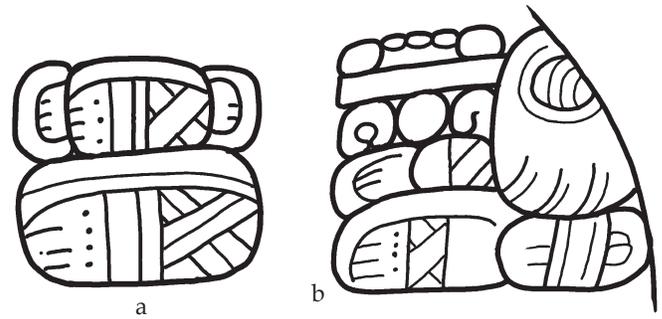


Figure 9. Related logograms (**IKATZ** variants?) representing stacked bundles: (a) from Cancuen Panel 1; (b) from Dos Caobas Stela 1 (drawings by the author).

suggesting it stands for a location of some sort, as Martin (2012:79) observes. Alternatively, is it simply Chahk sitting with his *ikatz* “loads”?

Here we have veered away into small side issues, but at the very least we can posit the single form of the sign (Figure 1a) as having the possible reading **IKATZ**, as a logogram integrated into syllabic spellings of this word. Its representation probably originated as a bound bundle of firewood, the weighty cargo of daily life.

A Possible TZIMAH Logogram

Returning to the “spotted Kan” or **tzi** sign, it too has an interesting visual origin. This is revealed by the text and image on K1453, an “Ik’ style” vase now in the Australian National Museum (Figure 10). There we see an example of the spotted-Kan sign in a caption above a large gourd vessel resting on the ground, with its lid resting nearby. The vessel’s exterior is covered in drip stains, clearly the spillage of liquid contents. A dwarf sits nearby and drinks from a small cup, clearly a small *jícara*. The large gourd bears a strong resemblance to the

² One other possible iconographic use of **IKATZ** (or a similar sign) occurs on Capstone 21 from Santa Rosa Xtampak (see Benavides Castillo, et al. 2022:38-42). There it appears under or behind the foot of a standing K’awil figure, who has before him a large bundle of cacao beans, and who holds a basket brimming with maize kernels. The imagery is repeated throughout the capstones of Santa Rosa Xtampak and other Campeche sites. The presence of the glyphic label for “cargo, burden” in such a scene would be fitting.

³ The **BAK’** reading for the double version of the sign has been considered independently by Beliaev, cited in Helmke et al. (2020). The other possibility, mentioned just briefly here, is that the doubled version is just an alternate version of the supposed **IKATZ** sign, with the same value. This is especially attractive for understanding its repeated presence with the market scenes of the Calakmul murals, where bundles and cargoes abound. There it seems to refer to an important woman who could be referred to as Ix Ikatz, “She of the Cargoes.” In the numerical context of the Yaxchilan-area title, it is interesting that *ihkatz* is attested as a numerical classifier in Tzeltal, for the counting of “loads.” One working idea is that the count-of-captives is not specific, referring to a “load of prisoners.”

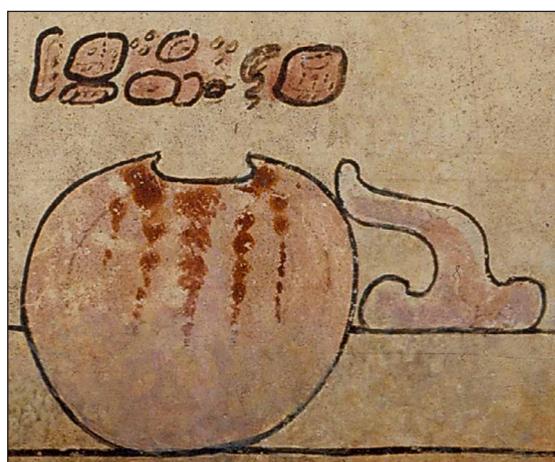
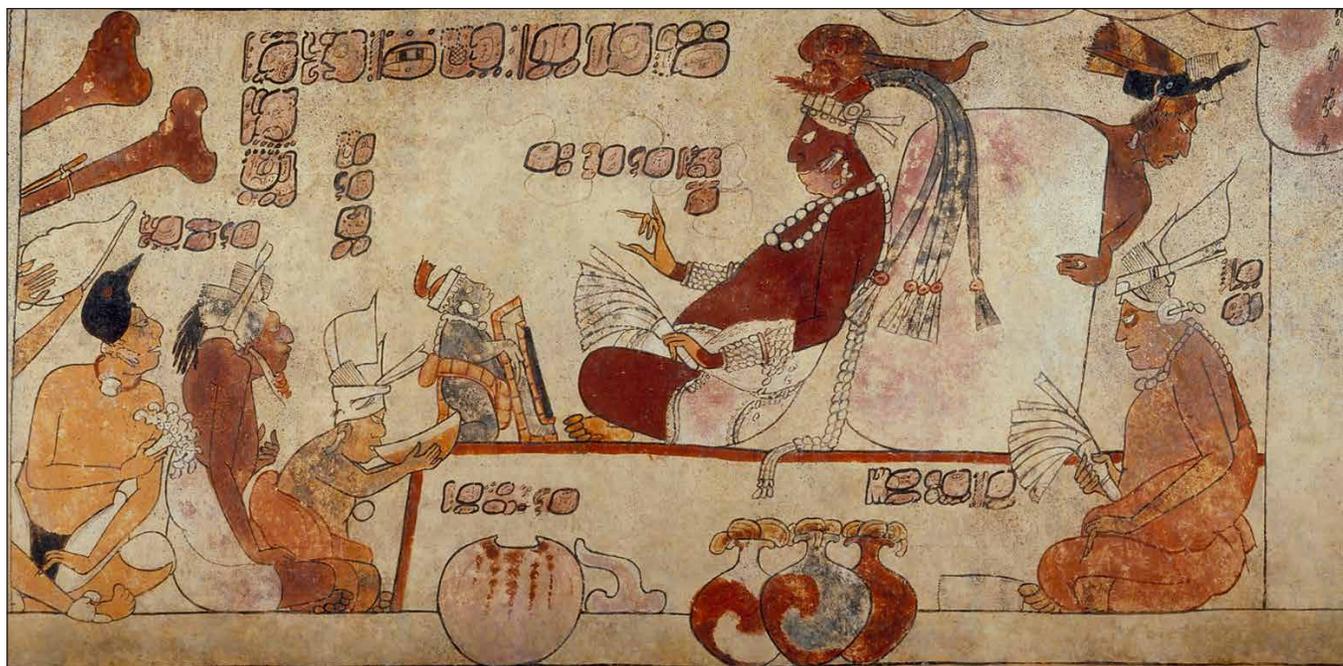


Figure 10. Representation of a gourd container with drippings on K1453, Kerr Database; note "spotted kan" in final glyph above gourd (photograph by Justin Kerr).

"spotted Kan" glyph itself, and the appearance of the sign in the adjacent caption strengthens the association. It is also significant that we find the same hieroglyph used in the speech of the seated ruler, there in connection with the sign for the verb root UK', "to drink." In both instances we see a scroll-like prefix before it, which we can interpret as either a separate sign or perhaps as a visual elaboration, related to the expanded variants of the sign we have already discussed. The visual similarity seen here on K1453 raises the strong possibility that the spotted-Kan itself represents a gourd or gourd-like vessel with drips on its exterior. Looking at one of the earliest known examples of the sign, we can see that

it indeed resembles a lidded gourd, with a covered opening at the top.⁴

Coupled with these telling visual clues, the value **tzi** raises the interesting possibility that, as a logogram, the sign might be read **TZIMA(H)**, a widespread Mayan word for "gourd vessel." Classic Mayan *tzima(h)* corresponds to the proto-Mayan root **tzima'*, "jicara," which was clearly borrowed from Mije-Sokean, **tzima'* (Kaufman 2003). Within Greater Tzeltalan, we find

⁴ One point needs to be addressed regarding the graphic forms of the **tzi** and **TZIMAH** signs. If it is indeed a logogram that originated as a representation of a gourd container, as I have suggested, then what accounts for its obvious similarity to the "Kan" day sign, otherwise known to be the **WAAJ** logogram (and, very rarely, the syllable **wa**)? As Taube (1989) demonstrated, the latter seems to represent maize tamales, *waaj* being the Classic Mayan noun for "tamale," with later meanings of "tortilla, bread." Taube also suggested that the **tzi** sign originated as a tamale with dripping liquid sauce. The visual overlap extends even to the respective head variants of these signs, which both show a profile form of the vegetal maize god, an animated form of a tamale. I doubt that this overlap involves any possible semantic connection having to do with foodstuffs. Rather, I see their visual resemblance as another example of "sign convergence," the common scribal blending of forms that occurred relatively late in the script's history, at least by the Late Classic period. In other words, scribes of the Late Classic began to represent two distinct signs, **TZIMAH/tzi** and **WAAJ**, using a single underlying "template," even though in the Early Classic they were quite different in their respective forms. To my mind, the use of the Maize God in animate forms of **tzi** probably came about as an overextension of the idea that the non-animate forms of the two signs were visually connected in some way. As we now know, over the course of many centuries, Maya scribes were often unaware of the deeper paleographical histories of many signs, and would render them in novel or idiosyncratic ways.

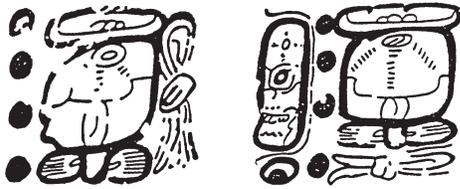


Figure 11. Spellings of *tzi-ma-hi* in references to *kan tzimah*, “four gourds,” from Ek Balam Mural A, aka Mural of the 96 Glyphs (F1 and T3) (drawings by Alfonso Lacadena).

proto-Ch’olan **tzimaj* and proto-Tzeltal-Tzotzil **tzima*. Importantly, the word does not appear in Yukatekan languages. I suggest that the **TZIMAH** logogram was the basis for the identical syllable **tzi**, a process similar to others we have noted (logogram CVC(VC) > syllable CV). The full form of the sign that we have discussed suggests that it may represent a gourd with drips, resting atop a firm support.

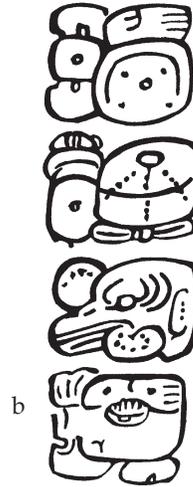
The word *tzimah* is already attested in the hieroglyphs in a full syllabic form in the Mural of the 96 Glyphs at Ek Balam, where it appears in the ritual phrase *kan tzimah*, “the four gourds” (Figure 11).⁵ Its presence at Ek Balam appears to be an example of a Ch’olan or Greater Tzeltalan lexeme in the inscriptions of northern Yucatan (*tzimah* and its cognates are absent in all Yukatekan languages). MacLeod and Reents-Budet (1994:127-128) identified another possible syllabic spelling of *tzima(h)* in the rim text of K530, as **tzi-ma-li** (this might also be seen as **TZIMAJ-ji-li**, with an overlap in the use of /h/ and /j/ in final position). We therefore see that the word has some precedent in at least two Classic Maya texts. I believe we can expand its presence in the script by now considering **TZIMAH** as a logographic reading in several other contexts in vessel dedicatory texts.

Tzimah on Ceramics

As we have seen, dedicatory texts on ceramic vessels often show the “spotted Kan” in close proximity to the word *kakaw*, in prepositional phrases that describe a vessel’s contents, after the possessed noun *y-uk’ib*, “his/her cup” (see Figure 2). If we look at a wider sample of such phrases, we see that the sign can appear alone in this position, or with the affix **-hi** placed either above or below (Figure 12). As noted earlier, the combination of the “spotted-Kan” sign with **-hi** has previously been interpreted as **tzi-hi**, for *tzihi*, “fresh,” modifying *kakaw* (MacLeod and Reents-Budet 1994:118,161). I suggest these might be better analyzed as cases where the phonetic complement **-hi** or **-ji** bolsters the **TZIMAH** reading, in phrases that may be read as *ta tzimah*, “as a gourd,” or *ta tzimah kakaw*, “for gourd cacao.” A variation we find from time to time, especially on Chochola-style vessels, is *ti tzimahil kakaw* (Figure 12b).⁶ I see both of these as slightly more specialized terms, where the chocolate



a



b

Figure 12. **TZIMAH-hi** glyphs before *kakaw*, from two examples of the Dedicatory Formula on vases: (a) El Zotz area vessel (from Coe 1973:85); (b) Chochola vessel (from Coe 1973:115).

drink is inextricably linked to its type of container. Here it is worth noting that a lone reference to *kakaw* could be ambiguous, as it could refer in broad terms to the tree, the pod, the seeds, and the drink derived from it. It is possible that *tzimah kakaw* was a descriptive term developed in Classic Mayan for the drinkable variety.

It is interesting also that *tzimah*, if that is its reading, can occur by itself without *kakaw*, after *ti-* or *ta-* and following the possessed noun *y-uk’ib*, “his/her cup” (Figure 13). This could be a truncated form of the formulaic phrase, or, alternatively, *y-uk’ib ta tzimah* might be analyzable as “his/her cup, in (the form of) a gourd,” a slight variation on the *ta tzimah kakaw* phrases we have

⁵ We find the mentions of “four gourds” in the Mural of the 96 Glyphs at Ek Balam, in Room 29-sub of the acropolis (Lacadena 2004:52-53). Both are spelled **KAN-na-tzi-ma-hi**, *kan tzimah*, with one also taking the possessive pronoun *u-*. The contexts and associated verbal phrases are unclear. However, this phrase likely relates to the ritual use of gourds in contemporary Maya ceremonies. In Yucatan, four or more *jícaras* or gourd bowls called *liuch* are essential to the proper cosmological layout of a ritual mesa or altar, depending on the occasion (Hanks 1990:368-9). A similar pattern occurs among the Ch’orti, where the same word (*ruch*) applies to the gourd containers placed on table-altars (Girard 1995:140). It seems likely that *liuch* and its cognates are derived from the verb root meaning “to spoon out” (Yuk. *luch*, *sacar con cuchara*). Its use as “*jícara*” is so far not attested in Classic Mayan, and I suspect *tzimah* was the more archaic term for both the vessel and the fruit.

⁶ MacLeod correctly identified the word *tzimaj* in a dedicatory phrase before *kakaw*, where the more complete phonetic sequence **-ma-ji** appeared after the spotted Kan. She read this as **tzi-ma-ji**, but I suppose there is now the possibility that it is a logogram accompanied by two phonetic complements, as **TZIMAH-ma-ji**. Whatever the case, the presence of **ji** here suggests a looser spelling convention, where the distinction between /j/ and /h/ was perhaps beginning to be lost.



Figure 13. TZIMAH-hi as isolated term after *y-uk'ib*:
 (a) K9153, Kerr Database; (b) vessel excavated from Burial at El Zotz (from Houston et al. 2018) (drawing *a* by author, *b* by Stephen Houston).

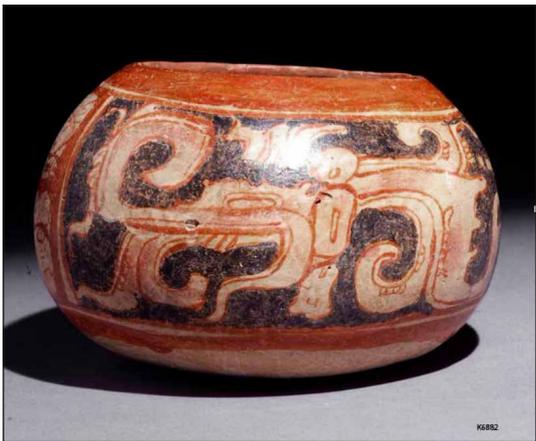


Figure 14. TZIMAH-hi on K6882, Kerr Database (photograph by Justin Kerr).



already examined. One example of this usage appears on a vase excavated at El Zotz, which bears a dedicatory text ascribing the vessel to an individual named Bahkab K'inich (Figure 13b) (Houston et al. 2018). The core elements of the rim text are, in the present analysis, *y-uk'ib ta tzimah*, "his drinking cup, like a gourd." The bowl itself bears a very strong resemblance to the form of a *jícara*, even more than other cacao ceramic vessels.

A different usage of the glyph occurs on a bowl from the Xultun region, K6882 in the Kerr database

(Figure 14) (its text was probably painted by the same scribe who painted the glyphs shown here in Figure 13a, also from the Xultun area). Rather than a standard dedicatory statement, the vessel's label opens with the pairing *yo-OTOOT TZIMAH-hi*, *y-otoot tzimaah*, "(it is) his house-gourd..." We know that *otoot* can refer to a variety of ceramic containers (see Houston et al. 2006:114; Stuart 2005), and here I believe it serves much the same function, but with *tzimah* as the core element of the possessed noun. The shape of this vessel is notable

in its clear resemblance to a gourd container, more so than any of the examples we have considered so far.

In these contexts, *tzimah* alone may take on an added significance, implying *kakaw* as the intended drink. Throughout Mesoamerica there exists an inextricable connection between gourd cups, called *jícaras*, and cacao, both historically and today (Coe and Coe 1996:120-121; Graham and Skowronek 2016:658; Tedlock 2002:170; Ventura 1996). The Spanish word *jícara* is derived from Nahuatl *xīcalli*, “gourd cup” (Karttunen 1984:323) which was, in turn, borrowed from Sapotekan *xika* “gourd dipper” (Kaufman and Justeson 2007; Kiddle 1948). It is significant that *xīcalli* is defined specifically in Molina’s 1571 Nahuatl vocabulary as “vasija pequeña que suele emplearse para tomar chocolate.” The *Codex Mendoza* (page 47r) includes larger gourds in its visual tribute tallies, marked as “400 gourd vessels (*tecomates*) of this shape, for drinking cacao.” So fused were the terms in central Mexico that *jícara* came to be used in the colonial era as a term for a basic measurement of chocolate and sugar combined. One *jícara* referred to one ounce of chocolate with 1.5 ounces of sugar (Graham and Skowronek 2016:658). “The phrase *sacar la jícara* (get out the tree gourd) means “to welcome, or flatter” in Guatemala and Costa Rica. It refers to the indigenous custom of welcoming visitors with a chocolate drink served in a gourd cup” (Kiddle 1948:140).

As Tedlock (2002:170) has noted, “in present-day Spanish, the expression ‘una jícara de chocolate’ is used even when the vessel is an ordinary ceramic cup.” I wonder if the same was true in Precolumbian times, that a *tzimah* would for the Classic Maya be the container for cacao drink *par excellence*. Tedlock goes on to mention how calabash drinking cups made at Rabinal, Guatemala, known as *tzima rob’enal*, were considered especially prized as items of tribute in the sixteenth century. Intricately painted or carved cups are still made today in the region. Tedlock (2002:171) also makes the perceptive observation that “ancient calabash vessels decorated by means of similar techniques could have served as the prototype for Classic vessels with designs incised on their exteriors.” Although he was not aware of the frequency of the proposed *tzimah* hieroglyph, Tedlock already saw the clear formal association between gourds, calabashes, and the thin-walled ceramics of the central Peten.

The connection between ceramics and gourds has also been recently highlighted by Dmitri Beliaev (personal communication 2022), who notes the appearance of **u-le-chi**, *u leech*, on a Late Classic vessel in the collections of the Miraflores Museum in Guatemala City. This word corresponds to *leech*, a term for “gourd” or “bowl” in Tzeltalan, and to Yukatekan *lek*, a familiar word even today for a gourd container. It raises the possibility of a lexical distinction between Classic Maya *tzimah*, a vessel mostly for liquid chocolate, and

leech, a more general term for a gourd-like container.

Finally, the use of gourd glyphs in the labeling of ceramic vessels should be considered in light of the early history of ceramic wares in southern Mesoamerica, and their clear emulation of gourd vessels. Among the earliest ceramics in the Maya region, dating to the Barra (1550–1400 BCE) and Lacona (1400–1250 BCE) phases of the Pacific coast, we find that ceramic “tecomates” predominate, replicating the form of gourds (Clark and Blake 1994; Lesure 1998; Lohse 2010:327). The processes and history leading to the adoption of ceramic wares in the Maya lowlands remain a point of some debate, but it seems likely that a rapid influence from the Isthmus and Pacific Coast region was a key impetus. And here it may be relevant that the word *tzimah* was a direct loan into Mayan from Mije-Sokean languages, historically located to the west and south of the Maya region. In other words, it is tempting to see the loan of the Mije-Sokean word for “gourd” into Mayan languages as reflective of this deep history in the regional transmission of material culture into the Maya lowlands.

Research into the functions of these very early ceramics echoes the same strong relationship between *tecomates*, *jícaras*, and cacao that we have encountered in later and in contemporary sources (Powis et al. 2007). Other beverages such as *chicha* and *atole* were important as well. The larger point to ponder here is that early “prestige” ceramics may have exerted a powerful influence when they were first introduced among the early lowland Maya and their neighbors, possibly alongside a borrowed vocabulary that persisted for a time into the royal courts of the Classic period. The appearance of *tzimah* as a possible descriptive term on Classic ceramics would serve to link such vessels to the traditional and ubiquitous gourds used for the drinking of cacao. In this sense, it may act like a “textual skeuomorph,” paralleling much more ancient efforts we see to replicate gourd vessels in ceramic form.

Conclusion

Evidence for the readings of the two logograms **IKATZ** and **TZIMAH** stems in part from spellings that employ the so-called “spotted Kan” sign, whose graphic history is perhaps more complex than previously thought, having a polyvalent function as both a syllable (**tzi**) and as a logogram. Beyond the particulars of epigraphic analysis, the signs tentatively identified here for “gourd” and for “cargo” also hold interesting implications for the study of ancient Maya categories of material and vessel function. As the study of the Dedicatory Formula on ceramics and other items continues, I believe that we will continue to gain new insights into the ways the Maya saw their luxury goods, and into the roles these played in the economic cultures of elite courts and households.

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