Although the pace of the decipherment of the Maya writing has markedly slowed in the past ten years or so, hundreds of logograms remain to be read. The present paper offers a set of arguments in support of the decipherment of the variant of the character T709 in Thompson’s catalogue (Thompson 1962) as a logogram IB “lima bean” (*Phaseolus lunatus*). The identification of textual references to lima beans provides the first evidence of their use in Classic Maya cuisine before 750 C.E.

There is probably no epigrapher who has never pondered the fascinating labels on two polychrome plates deciphered by Marc Zender more than a decade ago (2000). In addition to the curious reference to venison tamales with calabash seeds (Tokovinine 2013:294), these inscriptions mention a distinct category of Classic Maya ceramic vessels—“eating utensils” or *we’ib* in Classic Ch’olt’an or Hieroglyphic Mayan. Three years after the publication of the article, Eric Boot spotted a third plate with a reference to *we’ib* in an obscure auction catalogue (Boot 2003:Figs. 1, 3a; Galerie Wolfgang Ketterer 1991). Boot (2003) suggested that the spelling in the dedicatory text on the vessel contained *u-WE’-i-bi-li* for *uwe’ibil* “the eating utensil of” (Figure 1a) which could be compared to *u-WE’-i-bi* spellings discussed by Zender (Figure 1b, c) except that the new example featured an -il suffix at the end. Yet while there could be no doubt about the overall reading of the word, the sign identified as a variant of T679 i by Boot did not quite look like any other example of the i grapheme. In fact, the sign seemed to be a head variant of T709 (Figure 2a). Consequently, it could be a previously unknown allograph of i or a logographic sign which was either acrophonically reduced to i or functioned as a phonetic spelling of the -ib suffix. In the latter case, the reading of the sign would be ‘IB. The use of logograms to spell suffixes is uncommon, but examples like CHAN-NAL for *chanal* “celestial” or AK’-TAJ-ja for ak’taj “he dances” suggest that Maya scribes occasionally adopted this approach.

The variant of T709 in question shares some of its elements with a number of graphemes. The ABAAK/SABAAK/SIBIK “ink/soot” logogram (Stuart 2012) is one of the closest (Figure 2b), but it has a distinct upper element which resembles T174 and dots on the main body which probably represent ink or soot splashes. The TI’ “edge/mouth” variant that is particularly common at Tonina (e.g., Monument 146:1, Monument 159:1; see Graham et al. 2006:79, 94) has two antenna-like upper elements and a different lower section of the main body.

![Figure 1. T709 in the spelling of we’ibil: (a) detail of a Late Classic vessel (after Boot 2003:Fig. 3a); (b) detail of a Late Classic vessel (K5460, after Zender 2000:Fig. 9a); (c) detail of a Late Classic vessel (K6080, after Zender 2000:Fig. 9b). All drawings by the author.](image-url)
(Figure 2c). The lower part of the T709 variant discussed here—a possible reference to straps or other means of attachment—resembles those of the T168:518 logogram AJAW “lord” (Figure 2d), which may have originally represented a strapped headdress (Davletshin 2006), and a somewhat rare (e.g., Copan Stela 6:A6) glyph that was possibly read as CH’AAJ “liquid incense” (Figure 2e), which looks like a bowl or an open bundle full of incense. Interestingly, all these comparable graphemes are containers, even the headdress as it wraps around one’s head.

The hypothesis that this T709 variant is a mere allograph of i is refuted by an inscription on a Late Classic Codex Style vessel from Calakmul (Schmidt et al. 1998:Cat. 448). The painted scene shows a baby-like maize god emerging from a split T533 sign that probably stands for a flower or bud of some sort or simply corresponds to one of the SIH “birth” logograms. The caption to the nascent maize deity reads 1-IXIIM i-T709-?la-AJAW (Figure 3). Here, a common syllabic i sign serves as a phonetic complement to the same variant of T709 as on the plate analyzed by Boot. Therefore, the T709 should be a logogram with the initial i- vowel and not an allograph of i, because the i-i-la spelling would be very unlikely.

Two key contexts for the reading of the T709 variant are provided by the captions to a wahy demon on the unprovenanced vases—K791 and K1901—in Justin Kerr’s data base at www.mayavase.com. That particular wahy looks like a death deity with a conch shell. The caption on K791 reads u-ku-li chi-CHAM-ya u-WAHY-ya K’UH-T709-AJAW (Figure 4a). The caption on K1901 is nearly identical except for a full phonetic substitution for T709: u-ku-li chi-CHAM i-bi-li (Figure 4b). The words uwahy and ajaw are abbreviated in the inscription on K1901, but other captions to wahy demons on the same vessel show comparable abbreviations and a tendency to spell-out the place names phonetically. For example, the caption to the wahy of Kanuul lords, chijil tal chan, known from several depictions and captions on Classic Maya pottery (Grube and Nahm 1994:693) is chi-hi-li TAL-CHAN-na ka-nu-la, also omitting uwahy and ajaw. The omission of uwahy and/or the final word in the place-incorporating title of the wahy owner (ajaw, winik, baah tuun, etc.) occurs in captions to wahy creatures on many other vessels. Moreover, extensive abbreviations may be found in other kinds of Late Classic period captions (Houston and Martin 2011).

The only way to interpret this T709 variant in the inscription published by Boot, in the caption to the maize god on the Calakmul vessel, and the caption to the wahy on K791 and K1901, is that it is a logogram that can be read as IB (‘IB). However, this reading is based on the phonetic substitution alone. None of the three contexts would be very helpful in figuring out the meaning of ib or in explaining why the grapheme looks the way it does: the first inscription uses the character for its phonetic value alone and the other two examples feature IB as part of the spelling of a place name (“a place of ib”).

The linguistic data summarized in Table 1 indicate that there are several candidates for the translation of the IB grapheme. One gloss is ib for “armadillo” which is reconstructible all the way to proto-Mayan *iib. The problem is that, with the exception of Ch’ol, the Ch’olan gloss is ibach. There is also a corresponding hieroglyphic spelling i-ba?-cha ibach “armadillo” in the Dresden Codex on page 21 (Boot 2009:72), although there is no accompanying picture to make sure that the intended
meaning is indeed “armadillo.” The “armadillo” reading also fails to explain the iconography of IB. The graphemes which stand for the names of animals in Maya writing usually look like those animals or their body parts. Typically, it is the head, which may be reduced to a smaller element like a feather, an eye, or an ear. Animal heads are usually shown in profile. The IB sign looks nothing like an armadillo head in profile or any other part of its body.

The other ib gloss is “foundation, lower part, root.” The examples of this lexical item come mostly from Eastern Mayan and Greater Q’anjobalan languages (Wichmann and Brown n.d.). The Western Mayan languages where ib for “root” is reported are Tzotzil and Wastek. Ib’el in Tojolabal means “below.” The words for “below” in Ch’ol (ebal) and Ch’orti’ (ebar) could be related to pM *ib but they have a different initial vowel.

The third ib gloss is “bean plant.” The more restricted meaning of “lima bean” (Ph. lunatus) along with a general “cultivated bean vine” may be found in the Yukatekan languages. This gloss is not present in Ch’olan languages, but there is no shared Ch’olan lexical item for Ph. lunatus. For example, lima beans are just

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Meaning</th>
<th>References</th>
</tr>
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<tbody>
<tr>
<td>pM</td>
<td>*iib armadillo</td>
<td>Kaufman and Norman 1984:120</td>
</tr>
<tr>
<td></td>
<td>*ib foundation, root</td>
<td>Wichmann and Brown n.d.</td>
</tr>
<tr>
<td></td>
<td>*iib bean plant</td>
<td>Wichmann and Brown n.d.</td>
</tr>
<tr>
<td>pWM</td>
<td>*ib armadillo</td>
<td>Kaufman 2002:599</td>
</tr>
<tr>
<td></td>
<td>*iib bean plant</td>
<td>Wichmann and Brown n.d.</td>
</tr>
<tr>
<td>pEM</td>
<td>*ibooy armadillo</td>
<td>Kaufman 2002:600</td>
</tr>
<tr>
<td>pCh+YUK</td>
<td>ibach armadillo</td>
<td>Kaufman 2002:600</td>
</tr>
<tr>
<td>CHU</td>
<td>ibach armadillo</td>
<td>Diego et al. 1998:76</td>
</tr>
<tr>
<td></td>
<td>ibnh kapey coffee bush</td>
<td>Diego et al. 1998:76</td>
</tr>
<tr>
<td>YUK</td>
<td>ib lima bean (Ph. lunatus), bean vine</td>
<td>Bricker et al. 1998:10</td>
</tr>
<tr>
<td></td>
<td>ibil bean field</td>
<td>Bricker et al. 1998:10</td>
</tr>
<tr>
<td></td>
<td>ibach armadillo</td>
<td>Barrera Vásquez et al. 1995:261</td>
</tr>
<tr>
<td>ITZ</td>
<td>ib lima bean (Ph. lunatus), cultivated vine</td>
<td>Hofling and Tesucún 1997:247</td>
</tr>
<tr>
<td>MOP</td>
<td>ib black lima bean</td>
<td>Ulrich et al. 1976:90</td>
</tr>
<tr>
<td>TZO</td>
<td>ibes runner bean (Ph. coccineus darwinianus)</td>
<td>Breedlove and Laughlin 1993:2:121-122, 297; Delgaty 1964:20; Laughlin 1975:53, 112</td>
</tr>
<tr>
<td></td>
<td>ibel root, tooth, plant, vine, tree</td>
<td>Delgaty 1964:19; Laughlin 1975:53</td>
</tr>
<tr>
<td></td>
<td>ib armadillo</td>
<td>Delgaty 1964:19; Laughlin 1975:53</td>
</tr>
<tr>
<td>TZE</td>
<td>ghib armadillo (original spelling)</td>
<td>Ara 1986:290</td>
</tr>
<tr>
<td>TOJ</td>
<td>iboy armadillo</td>
<td>Lenkersdorf 1979:125</td>
</tr>
<tr>
<td></td>
<td>ibel below</td>
<td>Lenkersdorf 1979:125</td>
</tr>
<tr>
<td></td>
<td>ibe bush, shrub</td>
<td>Lenkersdorf 1979:125</td>
</tr>
<tr>
<td>CHL</td>
<td>ib armadillo</td>
<td>Aulie and Aulie 1978:58</td>
</tr>
<tr>
<td></td>
<td>ebal below</td>
<td>Aulie and Aulie 1978:142</td>
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<tr>
<td>CHR</td>
<td>ibach armadillo</td>
<td>Wisdom 1950:484</td>
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<tr>
<td></td>
<td>ebar below</td>
<td>Wisdom 1950:467</td>
</tr>
<tr>
<td>CHN</td>
<td>ibach armadillo</td>
<td>Keller and Luciano 1997:115</td>
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<tr>
<td>HUA</td>
<td>ibiil root</td>
<td>Larsen 1981:32</td>
</tr>
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</table>

Abbreviations: pM – proto-Mayan; pWM – proto-Western Mayan; pEM – proto-Eastern Mayan; pCh – proto-Ch’olan; CHU – Chuj; YUK – Yukatek; ITZ – Itzaj; MOP – Mopan; TZO – Tzotzil; TZE – Tzeltal; TOJ – Tojolabal; CHL – Ch’ol; CHR – Ch’orti’; CHN – Chontal; HUA – Wastek
called “large beans,” nukta’ buur, in Ch’orti’ (Wisdom 1950:546). The gloss ibes designates runner beans (Ph. coccineus, ssp. darwinianus) in Tzotzil, whereas ibel means “root.” As pointed to the author by Terrence Kaufman (personal communication, 2013), this bean species is distinguished, among other traits, by its large, starchy and eatable roots and hypogeal (cotyledons remain below ground) germination (Freytag and Debouck 2002:60). There may be, therefore, a connection between “root” and Ph. coccineus glosses in Tzotzil, but this is just a speculation. Redfield and Villa report that Lima bean roots were also eaten (Redfield and Villa Rojas 1934:38). Chuj and Tojolabal glosses apparently denote a broader category of plants (bush/shrub), which may comprise beans.

The inscription on the lid of an Early Classic tripod vessel from the Rio Azul region (K1446) offers additional evidence in support of the identification of the IB logogram with the ib gloss for “bean plant” or “lima bean.” The text labels the vessel as yu-k’i-bi ta-?IB-li (the li reading is a bit problematic because Early Classic la looks very similar) ka-[ka]-wa y-uk’ib ta ibil kakaw “his drinking utensil for ib-y cacao” (Figure 5). It is unlikely that the text refers to “armadillo cacao” or “root cacao.” In this context, the ib gloss should rather stand for a specific plant ingredient that can be mixed with and give a certain flavor to a cacao beverage. A pinole drink may indeed be made out of toasted and ground bean seeds. Even wild varieties of lima beans are still used for cooking in parts of Mesoamerica (Zizumbo Villarreal et al. 2012:332, 336). Diego de Landa mentions ritual drinks made of beans and squashes (Tozzer 1978[1941]:158). Redfield and Villa Rojas describe a paste from cooked lima beans and ground squash seeds that is then dried to be stored for later consumption (Redfield and Villa Rojas 1934:40). Therefore, “lima bean cacao” seems to be the best fit for a translation of the label on the lid, although there is no direct ethnographic analogy of this particular mixed drink (cacao and lima bean pinole). It must have been rare even for the Classic Maya because this text is the only known reference. Some rare mixed drinks mentioned in Classic Maya inscriptions have no direct ethnographic analogies (Beliaev et al. 2009), so there is nothing unusual in yet another one.

The Early Classic IB grapheme on K1446 offers additional visual clues to its meaning. The “straps” in the lower part are already present, but the overall contour of the sign looks like a type of bead and also like a common representation of part of a flower. Early Classic images of the maize god like the one on the Dumbarton Oaks stone bowl (PC.B.209) typically show his head adorned with such beads, often with strands of hair or some plant stalks coming through and out of them (Figure 6a). As suggested by Martin (Martin 2006, 2012a), the Classic Maya maize deity was perceived as a source of all cultivated plants, sometimes depicted growing out of his body. It may seem a bit far-fetched, but these IB-like beads with stalks or vines might as well represent bean pods/flowers and vines on the maize god’s body just as real bean vines which rely on the corn stalks for support in the milpa. Given that Classic Maya plant iconography is more abstract than animal representations, the IB logogram might well represent a bean plant or its part like a pod or a flower (Figure 6b). Lima beans and black beans were usually planted with corn in the milpa (Redfield and Villa Rojas 1934:46). A close association between corn and beans is also hinted by the maize god’s name in the caption on the Calakmul vessel discussed above (Figure 3): juun ixíim ibiil ajaw “First Maize (Seed), Bean Field Lord.”

There also seems to be a curious overlap of graphic elements between the NAL “corn plant” logogram (T86) and IB. The name of the owner in a tag on one of the earflares from Tomb 4 in Structure 2 at Calakmul (Fields et al. 2005:255, cat.no. 151) ends in a head variant of IB with NAL-like (T84) upper element above and prefixed by K’UH (Figure 7a). Something along the lines of k’uhul ib y-nal [winik] was probably intended given the frequent omission of winik in titles with place names. Yet even though there seems to be a full substitution between T84 and T86 in Late Classic texts, epigraphers have long suspected that the two graphemes once belonged to different compound signs, of which only T86 was NAL. The title on the earflare looks suspiciously like an abbreviated spelling of the k’uhul ib y-nal winik “holy bean field person” title found, for example, in Drawing 29 at Naj Tunich (Stone 1995:fig. 7-8) where it is spelled in full.
but his emblem glyph is different: (Figure 7-8) also carries the titles of K’inich mentioned in Drawing 29 at Naj Tunich (Stone 1995:Fig. 7-8); (c) detail of a Late Classic vessel (K3924, after photograph by the author); (d) detail of Pendant 17B, Comalcalco (after Zender 2004:Fig. 76).

The decipherment of the IB logogram expands the list of known references to Phaseolus sp. in Classic Maya texts. The more common Ch’olan gloss for beans—bu’ul—spelled bu-la—appears only once in tags on three bags depicted in a household scene on a Late Classic vase from the Rio Azul area (K2914). A possible reference to beans in Caption NE-N1 on the murals of Structure Sub 1-4 in the North Acropolis at Calakmul has been called into question on paleographic grounds (Martin 2012b:69-70). The specific identification of ib as lima bean also adds a new piece of evidence in support of its use in the Maya area during the Classic Period. The earliest archaeological evidence of the cultivation of Phaseolus lunatus in the Maya area at Dzibilchaltun is dated to the late 8th century C.E. (Kaplan 1965:367, fig. 4). The more recent DNA evidence, however, suggests somewhat earlier cultivation of lima beans and even a possible second Mesoamerican domestication event in the Maya area (Andueza Noh et al. 2013). As we have seen above, the reconstruction of ib as a term for specifically lima beans all the way to proto-Mayan is unlikely.

The Classical period epigraphic data supports a more ajaw (“six palanquins lord”). This pair of titles is present in the name phrases of El Palmar rulers (Octavio Esparza, personal communication 2014) and individuals on a set of stylistically uniform ceramic vessels of which at least one was found at the site of Icaiche to the east of El Palmar (Cortés de Brasefer 1996; Tokovinine 2012). However, the author is not aware of any example of the “holy Ibil person” title at El Palmar or Icaiche.

Besides the toponym on the Calakmul earflare and the lists of wahy creatures on K791 and K1901, there are also historical references to “Ibil lords.” A caption to a standing figure of a young lord on the side of Yaxchilan Stela 1—this part of the monument has unfortunately been lost by now, but it is visible in Morley’s photographs—identifies him as a son of the “Ibil lord,” IB-AJAW-wa (Figure 8a). Another mention comes from the dedicatory text on a Late Classic incised vessel, K4372 (Figure 8b). The name of the vessel’s owner, Juun Tsakab Took’, resembles those of Lakam Ts’an lords of El Palma and Itza’ lords of Itzimte’ (Tokovinine and Zender 2012:55), but his emblem glyph is different: K’UH i-bi-li a-ja-wa, k’u[h][u]l ibil ajaw “holy Ibil lord.” The third example in Caption 4 in Room 1 of Structure 1 at Bonampak is less certain because of its preservation and style.

There are no references to events at Ibil, one cannot be sure if it was an actual locale or some mythical first lima bean field to which a particular royal dynasty of “Ibil lords” traced itself. On the other hand, the title of “holy Ibil person” may be tentatively attributed to lords in Southeastern Campeche. The “holy Ibil person” Upakal K’inch mentioned in Drawing 29 at Naj Tunich (Stone 1995:fig. 7-8) also carries the titles of sak ook and wuk piit

Figure 8. “Ibil lords” in Classic Maya inscriptions: a) detail of Stela 1, Yaxchilan (after photograph by Sylvanus Morley, CMHI archives); b) detail of a Late Classic vessel (K4732, after photograph by Justin Kerr).
Beans and Glyphs: A Possible IB Logogram

generic significance of ib as “bean plant” as in the maize god titles, but also a specific significance as “lima bean” in ibil kakaw—“lima bean cacao.”

References


Ara, Domingo de
1986 Vocabulario De Lengua Tzeldal Según El Orden De Copanabastia. Universidad Nacional Autónoma de México, México.

Aulie, H. Wilbur and Evelyn W. de Aulie

Barrera Vásquez, Alfredo, Juan Ramón Bastarrachea Manzano, William Brito Sansores, Refugio Vermont Salas, David Dzul Góngora and Domingo Dzul Poot

Beliaev, Dmitri D., Albert Davletshin and Alexandre Tokovinine

Blanco, Manuel
1877 Flora De Filipinas. Gran ed. 2. Establecimiento tıp. de Plana y Ca., Manila.

Boot, Eric

Breedlove, Dennis Eugene, and Robert M. Laughlin

Bricker, Victoria Reifler, Eleuterio Po’ot Yah and Ofelia Dzul de Po’ot

Cortés de Brasdefer, F.

Davletshin, Albert

Delgaty, Colin C.

Diego, Mateo Felipe, Juan Gaspar Juan, and Proyecto Lingüístico Francisco Marroquín

Fields, Virginia M., Dorie Reents-Budet, and Ricardo Agurcia Faquelle

Freytag, George F., and Daniel G. Debouck

Galerie Wolfgang Ketterer

Graham, Ian, Lucia R. Henderson, Peter Matthews, and David Stuart

Grube, Nikolai, and Werner Nahm

Hofling, Charles Andrew, and Félix Fernando Tesucun

Houston, Stephen D., and Simon Martin

Kaplan, Lawrence