

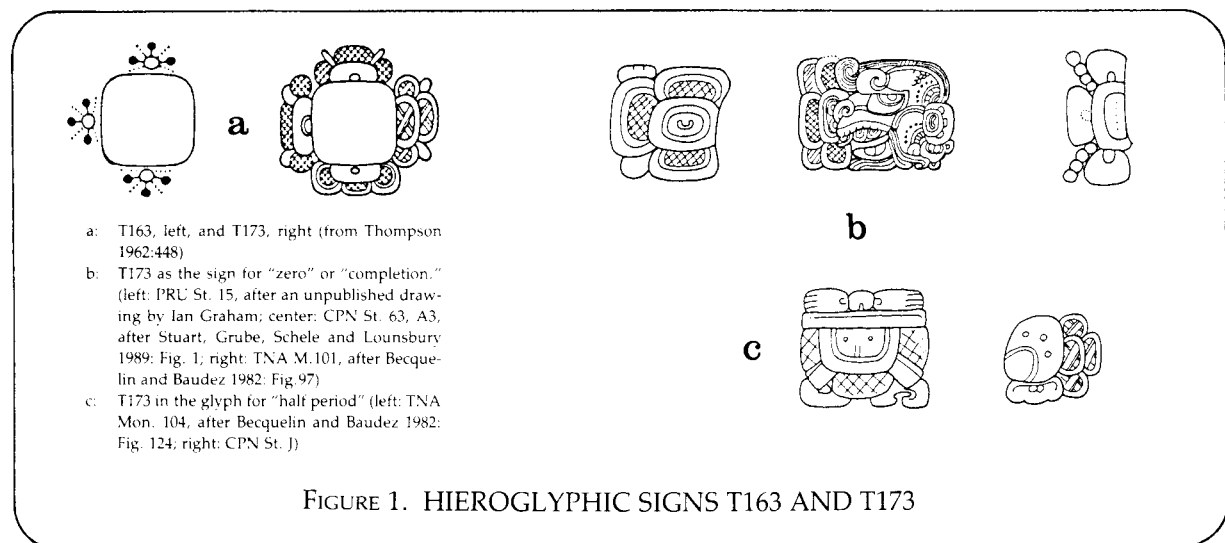
## A Sign for the Syllable *mi*

NIKOLAI GRUBE AND WERNER NAHM  
*Rheinische Friedrich-Wilhelms-Universität, Bonn*

**I**N THIS PAPER we will analyze a Maya hieroglyphic sign and suggest a syllabic reading for it. The sign is catalogued as T163 and T173 in Thompson's (1962) glyph catalog. The graphic similarity of the signs represented by T163 and T173 and the fact that they have the same reading strongly suggest that Thompson was in error when he catalogued the classic form of the sign (T173) under a different number from the codical form (T163) (Fig. 1a). In this paper we will use the Thompson number T173 for all variants of the sign.

On the other hand, the examples which Thompson illustrates for T173 include two clearly different signs, one being the sign that will be discussed here, the other a sign which is never found in substitution with it. This other sign is part of the so-called "Half Period Glyph" (Fig. 1c). While T173 usually has three shaded areas attached to a semi-circle with a central dot, the sign found in the Half-Period Glyph has crossed bands infixed into each of the four semi-circles. Though the outline of both signs seems to be the same the signs never occur in the same contexts and cannot be regarded as allographs. The sign from the Half Period Glyph will not receive further attention in this paper and is not meant when we refer to T173.

The function of T173 as a sign for the completion of a period (Fig. 1b) was first discovered by Ernst Förstemann in 1894. Förstemann initially thought that T173 had the numerical value of



“twenty.” Subsequent research by Spinden (1924: 18-22) and Thompson (1950: 137-139) showed that the sign more likely had the numerical value of “zero”, or the meaning of “completion.” Due to its obvious morphemic function nobody has hitherto tried to decipher T173 as a syllabic sign. However, its use in nominal phrases and the fact that it occurs reduplicated in an inscription from Chichén Itzá are good indications for a phonetic value.

When T173 is not used as a sign for completion, it occurs most often as a suffix in an event glyph recording death (Schele 1982: 134-135) (Fig. 2). The main sign of this death verb is a skull. T173 usually occurs as a suffix to the skull. A variant of the death verb consists only of the skull itself (Fig. 2a). An inscription carved into a bone from Tikal burial 116 (MT28b) shows that the skull is sufficient to spell the death event (Fig. 3b). The skull occurs with a date that refers to the death of Ruler 2 of Dos Pilas (Houston and Mathews 1985: 8). The same event is recorded on Dos Pilas Stela 8 with a “Wing Shell” death verb (Fig. 3a).

The skull-T173 spelling occurs as a death expression on a panel in a private collection at Emiliano Zapata, Tabasco (Fig. 4). As David Stuart notes in his study of this panel [Editor’s note: See *Research Report 32* immediately preceding the present paper], its style is characteristic of monuments of the Palenque region. On this panel the birth date of “Chan Bahlum” from Palenque (9.10.2.6.6. 2 Cimi 19 Zotz’) is linked by a long distance number of 3.7.13.0 to his death at 9.13.10.1.6 7 Cimi \*3 Pop. The verb related to the death date is the skull with a T173 suffix.

The optionality of the T173 sign in the death expression clearly indicates that the skull is a logographic sign which can spell the death verb without the help of other signs. Sometimes the skull has a T126 **ya** suffix (Figure 2d). David Stuart (1987: 42) speculates whether the common **ya** suffixes under verbal glyphs have the function to specify that the *-i* vowel of the preceding signs was actually read (and not dropped, as in other syllabic spellings). The **ya** sign could indicate that the skull-logograph spells a verbal form ending in *-i*. Various authors have suggested that the death skull is to be read **KIMI**. The Yucatec word *kimil* and its Cholan equivalent \**chäm* (Kaufman and Norman 1984: 117) are intransitive verb roots meaning “to die”. In the completive aspect both languages would add the aspect suffix *-i* to the root, thus giving *kimi* in Yucatec and *chämi* in the Cholan languages for the past tense form “he died”. The missing ergative pronoun before the verb root shows that it spells the completive aspect, the time-aspect which is clearly predominant in historical texts. Thus, the verb in any case ended in *-i*. The addition of T173 to it does not alter its meaning. We find the same T126 **ya** suffix also with the skull and T173 suffixed (Figure 2 e, f). We may conclude from these observations that T173 is a redundant sign which operates as a phonetic indicator. Provided it corresponds to the other known syllabic signs of Maya writing it should also have a CV value. If it is a true phonetic complement, the reading **mi** would be the only one possible. Thus, the skull, the skull and **ya**, the skull and the suggested **mi** sign and, finally, the skull, the **mi** sign and the **ya** all spell the same word. In the following sections it will be shown that a **mi** reading for T173 also works well in glyphic environments other than those already discussed.

Another instance where T173 is used optionally after the skull sign is in the nominal phrase of Lady *chak kimi* of Yaxchilán (Fig. 5). On Yaxchilán Lintel 1, Stela 4 and Stela 7 her name is spelled as Lady **CHAK KIMI-mi**, Lady “cahal”, with T173 in the role of a phonetic complement.<sup>1</sup> On Lintels 14 and 53 the T173 **mi** suffix is absent.

At Chichén Itzá, T173 occurs in a parentage statement: On Monjas Lintel 7a, T1.173:173 or *u mim* is placed between two female names (Fig. 6). In Yucatec *mim* is translated as “father’s mother” (“*abuela de parte de padre, y bisabuela de parte de madre*”), according to Barrera Vásquez (1980: 523). The woman whose name is recorded in the second glyph block and who is *u wohol*, “owner of the glyphs” thus is the grandmother of the female recorded in the third and fourth glyph block of the Lintel 7a inscription.

Another instance where T173 is used in a phonetic spelling occurs on an all-glyphic

FIGURE 2. THE SKULL-DEATH VERB



a



b



c



d



e



f

a: TIK Misc. Text 29 (after Trik 1963)

b: COL alabaster bowl (after Houston 1983: 105)

c: COL Dumbarton Oaks, Relief Panel 1, J1 (af-

ter Coe and Benson 1966: Fig. 1)

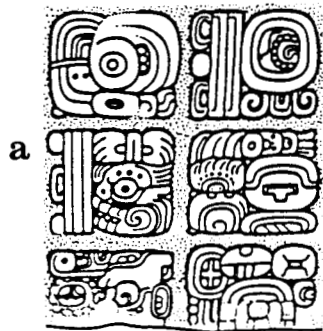
d: COL tablet from the Piedras Negras region,

II, Mayer 1989: Plate 113

e: CPN Hieroglyphic Stairway, Step 49 (after a

drawing by Barbara Fash)

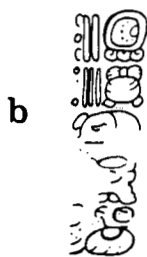
f: COL polychrome vase [Kerr 791]



a

a: DPL Stela 8, H9-111 (drawing by Peter Mathews)

b: TIK Misc. Text 28 (after Trik 1963)



b

FIGURE 3.  
THE DEATH OF DOS PILAS RULER 2

A1-B5 of the text (drawing by David Stuart)  
[See Research Report No. 32, pp. 10-11, above]

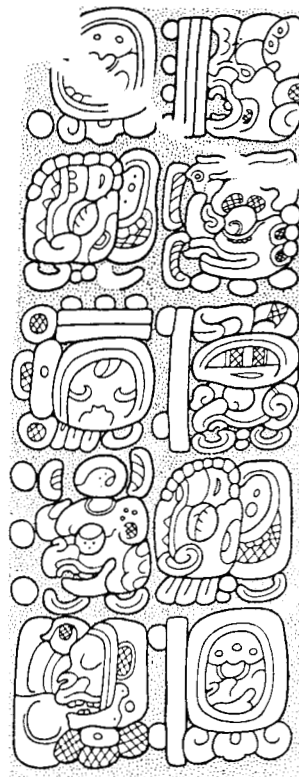
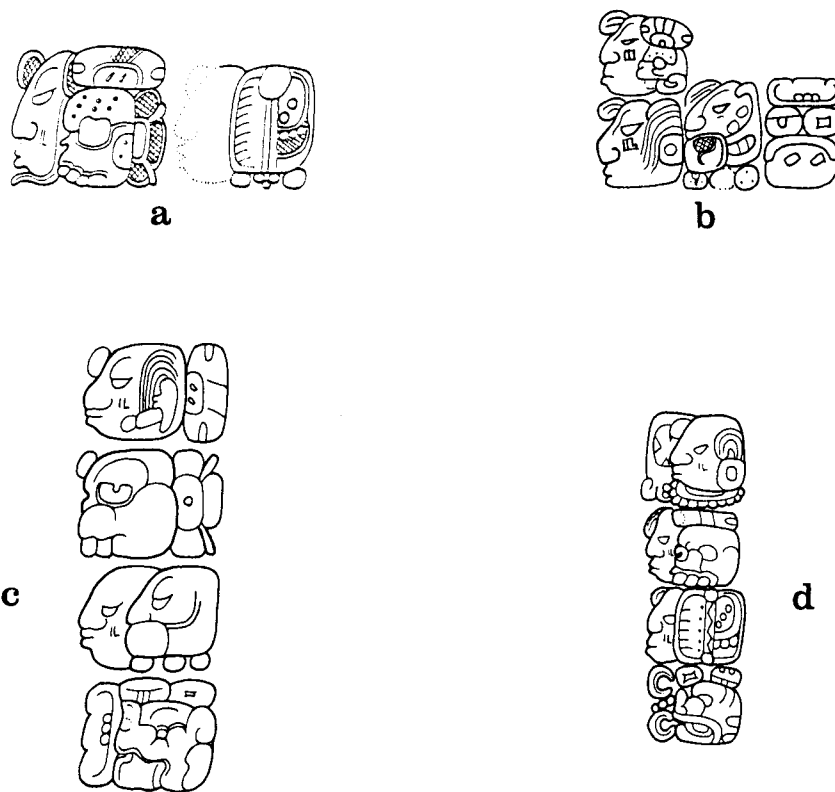
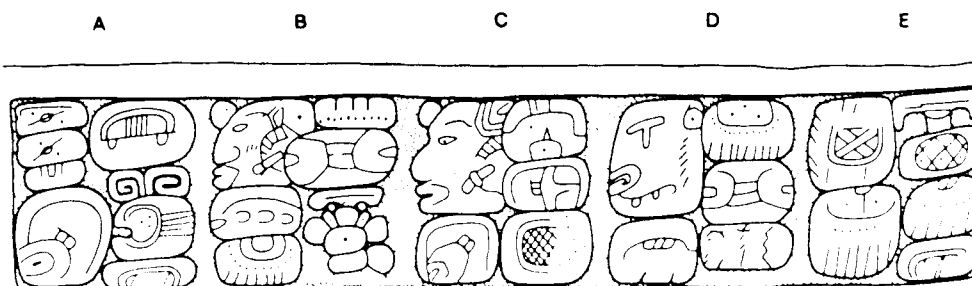


FIGURE 4. BIRTH AND DEATH  
ON THE EMILIANO ZAPATA PANEL

FIGURE 5. THE NOMINAL PHRASE OF LADY CHAK KIMI OF YAXCHILAN



- a: YAX Stela 7, pD7-pC8 (after Greene, Rands and Graham 1972: Plate 52)
- b: YAX Stela 4, A4-A7 (after Maler 1903: Plate LXX)
- c: YAX Lintel 54, E1-G2 (after CMHI 3:117)
- d: YAX Lintel 14, F1-F4 (after CMHI 3:37)



CHN Monjas Lintel 7a (after Bolles 1977)

FIGURE 6. THE GLYPH FOR U MIM, "HER MATERNAL GRANDMOTHER"

“Codex-style” vase (Robicsek and Hales 1981: Vessel 130). Here, the end of a long sequence of titles, among them the “crossed bundles/lineage founder” title (Schele 1986, Grube 1988: 81-86), is marked with the glyph whose components read **mi-ya-tsi**. (Fig. 7). Yucatec dictionaries provide the translation “wise man” (“*sabio, docto, cientifico*”) (Barrera Vásquez 1980: 523) for the word *miyats*. Unfortunately, most of the titles still elude decipherment, but a title “wise man” would fit well into any sequence of titles.

Probably the best evidence for a **mi** reading for T173 is found in the codices. In the Dresden and Paris Codices T173 is suffixed to a main sign which corresponds to Landa’s E in order to spell the word *emi*, “he came down”, “he descended” (Fig. 8a-c).<sup>2</sup> On Dresden 20b the glyph occurs as the first one in two sentences (Fig. 8d). The second glyph in both sentences is *ch’ok*, a title that refers to children and young persons (\**ch’ok*, “unripe/young child” [Kaufman and Norman 1984:119]). The next glyphs in both sentences spell the names of the gods involved. In the left column it is Itzamna who is the protagonist; in the right column, the Death God A is referred to. The *emi* verb in both instances has a rare prefix—a sign depicting an inverted human body. It is possible that this sign is a logographic expression for *em*. The two sentences from Dresden 20b can be translated as “it descended the young Itzamna” and “It descended the



COL “codex-style” vessel (after Robicsek and Hales 1981: 100)

FIGURE 7. THE TITLE MIYATS, “WISE MAN”

young death god". Without suggesting particular readings for the signs involved, Thompson (1972:56) thought that this part of the almanac refers to pregnancy or birth. It is quite possible that the descent of the young gods means their birth.

The same *emi* verb probably occurs five times on top of the four glyphic columns and a text written in double columns from Dresden 23a (Fig. 8e). Unfortunately most of the upper glyphs are eroded. In Förstemann's reproduction of the Dresden Codex the first glyph in the rightmost column can be recognized as the *emi* verb. Since the syntactical structure of all five sentences is the same (the second glyph spells the name of the agent, the third glyph again is the *ch'ok* title, and the last glyph is an augury), it is very likely that the same verb began all the five sentences. That this verb was the *emi* verb is further confirmed by the painting accompanying the almanac. It shows a youthful deity in divinmg position holding a T506 WAH ("maize tamale") logograph. The topic of this almanac also is the descent of some of the known gods from the codices as young persons, perhaps representing their births.

Finally, the *emi* verb is part of a glyphic phrase in the Paris Codex referring to a divine location of God C. On Paris 15b to 18b, God C or K'U ("god") is shown on various locations. The structural similarity of the texts accompanying the pictures on these pages make it easy to iden-

tify those parts of the hieroglyphic texts which refer to the locations. The almanac has its counterparts in the Madrid and Dresden Codices representing the locations of Chak and God C (Thomas 1888; Barthel 1953; Treiber 1989). The texts begin with a stationary verb which is not yet deciphered but which may roughly be paraphrased like "it is present" or "he resides at". The next glyph is the name glyph for God C, a glyph which simply reads K'U, or "god". The following glyphs provide us with information about the location shown in the accompanying scenes. The middle section of Paris 17b shows God C descending headlong inside a house (Fig. 8f). The third glyph apparently refers to the descending position of God C: it is our *emi* verb, however with a *ya* prefix. This prefix cannot spell a pronoun, nor is it likely that it is employed here in a phonetic construction. Thus we are left with the only possibility that it is used here logographically. *Ya* in Yucatec has many meanings. In this context it could be an adverb for "roughly" or "quickly" ("*cosa spera, fuerte, recia y rigurosa que da pena interiormente...*" and "*cosa que se hace con mucha prisa*" [Barrera Vásquez 1980:958,960]). The fourth glyph in this text, introduced by a *ti* preposition, gives us the specific name for the place where God C descends. Unfortunately, of the two signs that constitute the place name, only the final *i* can be recognized. Two glyphs related to food offerings conclude this text.

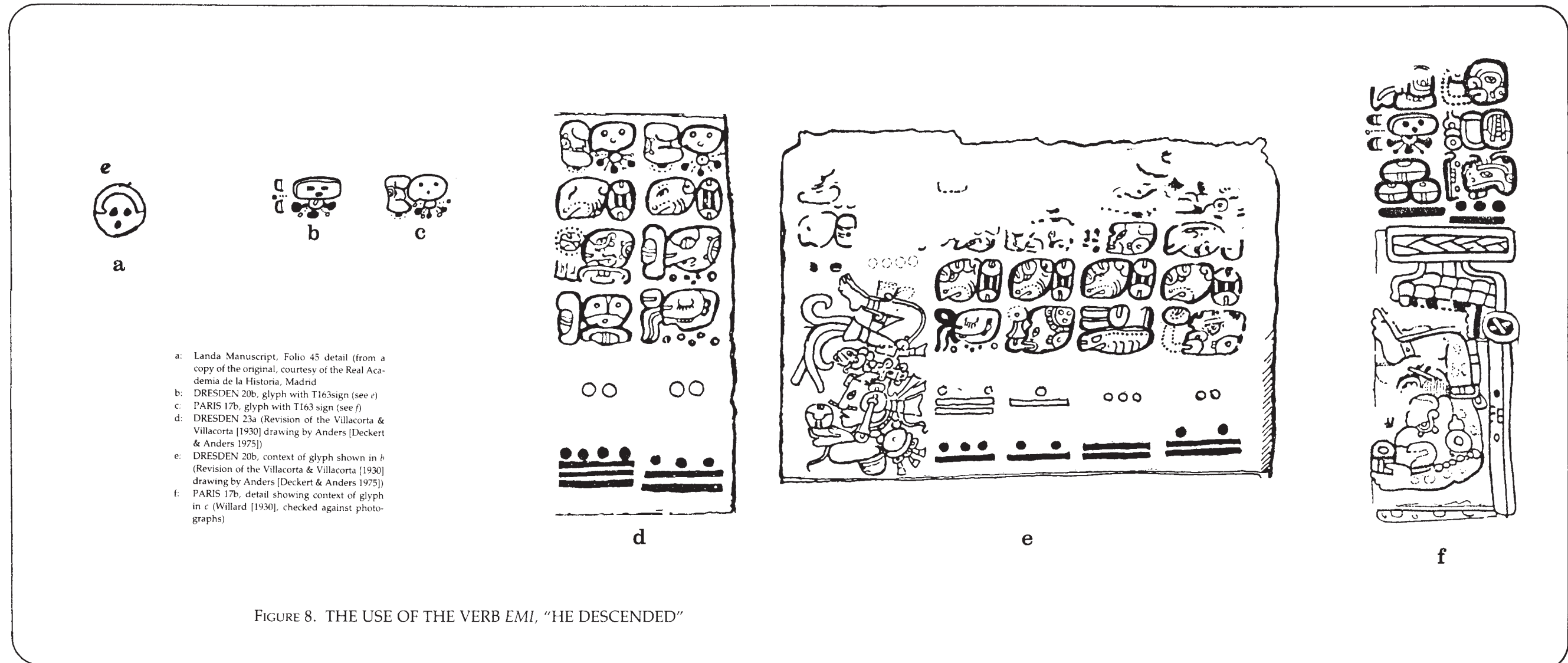


FIGURE 8. THE USE OF THE VERB *EMI*, "HE DESCENDED"

The **mi** sign is also found in the Madrid Codex. The last pages of that manuscript are devoted exclusively to rites related to the bees and apiculture. On pages 111c and 112b various gods are shown holding brooms in their hands (Fig. 9). The accompanying texts always begin with the same verbal glyph: the **mi** sign, another sign which can be identified as the Madrid version of the syllable **si** and the logograph T526 which in the bee chapter always is used for **KAB** ("bee"). The **mi** and **si** signs together spell the word *mis*, which in Yucatec not only means "broom", but also "to clean" ("*barrer, limpiar o renovar caminos...*" [Barrera Vásquez 1980:523]). The first glyph translates as (*u mis kab*), "he cleans the bees".<sup>3</sup> In present-day Yucatán, ritual cleaning ceremonies (now called *santiguar*) are performed with beehives in order to prevent the bees from dangerous epidemics or the attack of *xulab* ants (Bolles 1982). In these ceremonies Yucatec *hmèn* use brooms made of the leaves of the *sipche* (*Bunchosia swartziana*, Griseb.). When the *hmèn* is cleaning the beehives he recites prayers in which the verb *mis* describes the ritual performed—one more proof for an uninterrupted continuity in Yucatec ritual from prehispanic to modern times.

In at least two contexts the **mi** sign can be replaced by a different sign which is not listed in the Thompson catalog. The "square-nosed-beastie" glyph which is a name for a supernatural

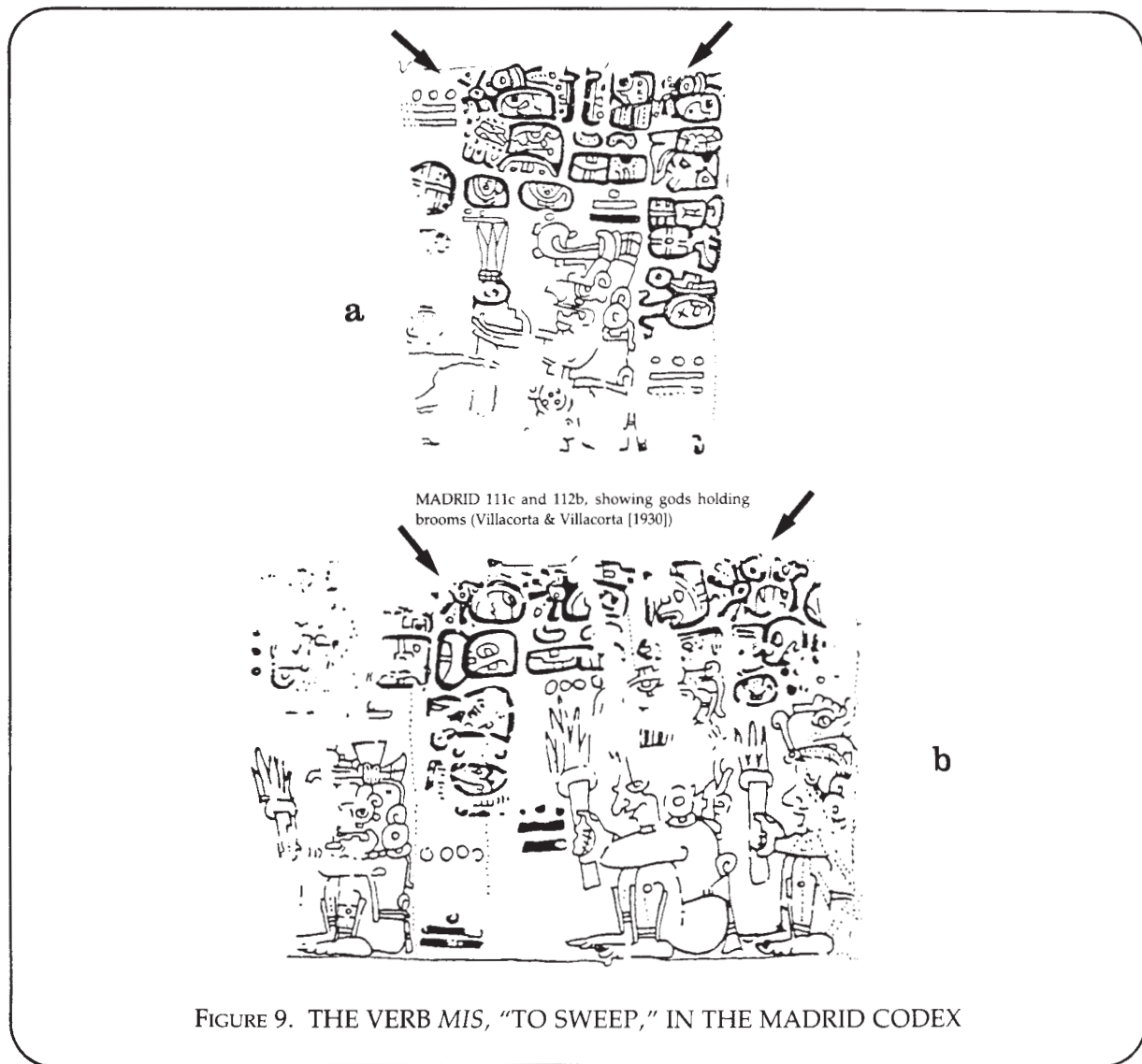


FIGURE 9. THE VERB *MIS*, "TO SWEEP," IN THE MADRID CODEX

and the founder of the royal lineage of Naranjo (Grube 1988) is spelled with a T173 prefix on the Middle Tablet of the Temple of the Inscriptions at Palenque (Fig. 10a). At Naranjo the same name has a different sign as a prefix (Figure 10b). The same sign also was identified by Seler (1904: 812-814) as a sign for "zero." It occurs as zero in Long Count dates of 10.2.5.0.0 and 10.2.10.0.0 on two stelae from Sachanna (Fig. 10d), and in the 9.18.0.3.4 date in the Bonampak murals. On Tikal Stela 24 and the Chinikiha throne, the sign is used for the numerical value of zero in Distance Numbers (Fig. 10c). Finally, in the inscriptions of Yaxchilán and a couple of other sites there is a title which employ this sign prefixed to the signs *xi* and *nal* (Fig. 10e-h). It is possible that this glyph reads *mixnal*, though the identification as the prefix as another sign for *mi* has yet to be confirmed in other contexts.

The readings cited show that T173 works well with a phonetic value of *mi*. However, there are still some open problems with regard to T173, for it occurs in a number of elusive glyphs where no convincing decipherment could be made. A few such glyphs are illustrated in Figure 14 for future research. Finally, the question of the completion sign is not solved. In no Mayan language exists a word like *mi* for "zero" or "completion".<sup>4</sup> We suspect that T173 is a very ancient sign that was already developed in Protoclassic writing systems. Possibly—and this is

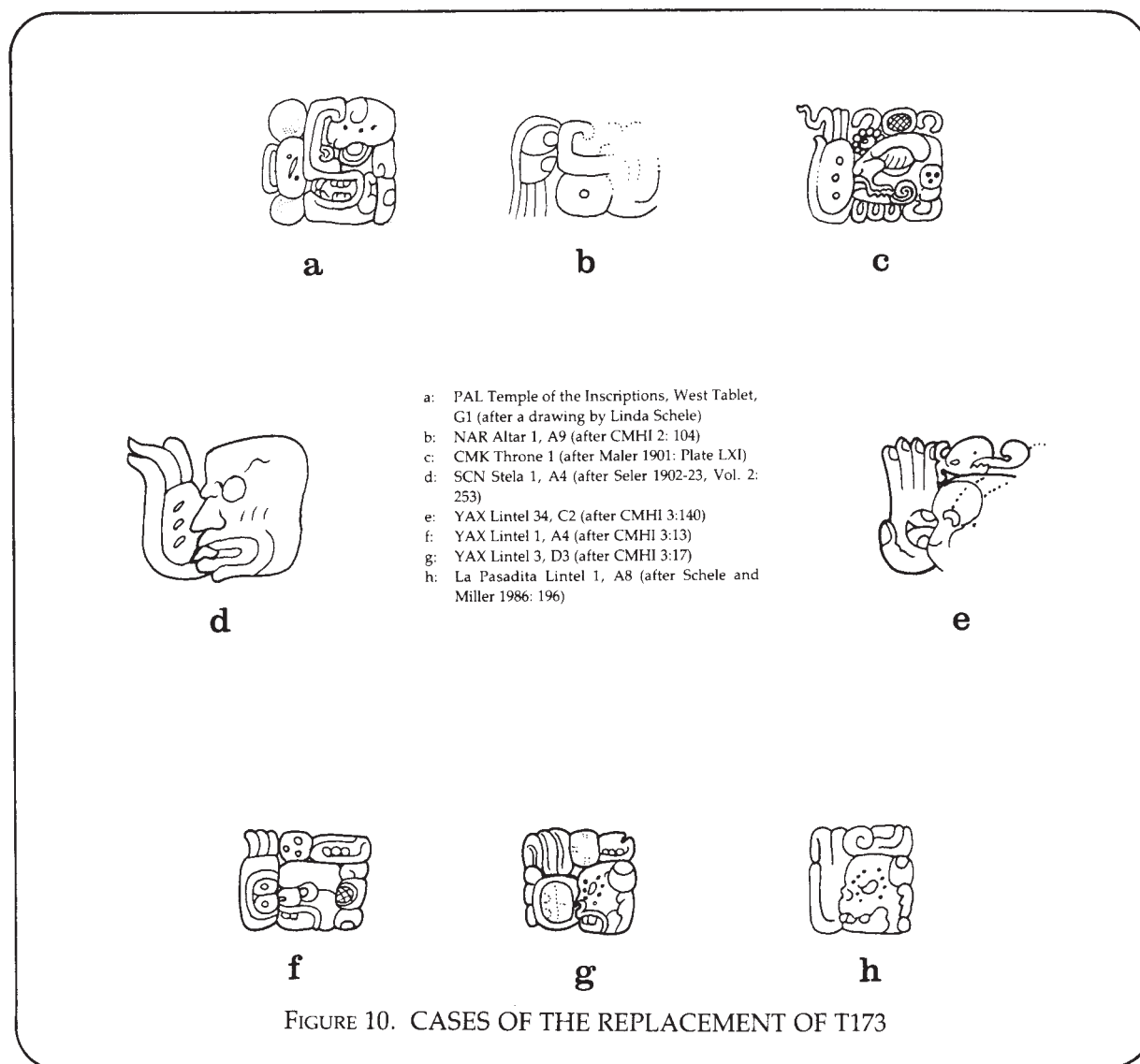
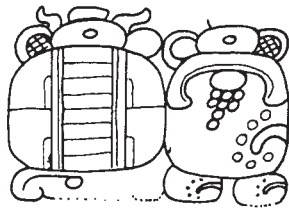
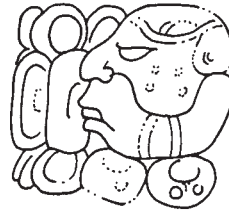


FIGURE 11. THE MI SIGN IN UNDECIPHERED GLYPHS



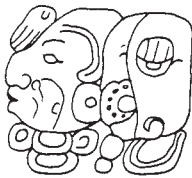
a



b



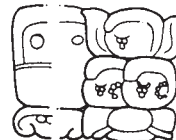
c



d



e



f



g



h



i

- a: CPN Hieroglyphic Stairway, Step 61 (after a drawing by Barbara Fash)  
 b: CPN Stela B (after a drawing by Barbara Fash)  
 c: CPN Stela I (after a drawing by Barbara Fash)  
 d: PAL Stucco glyph from Temple XVIII (after Schele and Mathews 1979: No. 440)  
 e: PNG Stela 1, G11 (after Stuart 1985: Fig. 2)  
 f: SBL Hieroglyphic Stairway, Step 3 (after an unpublished drawing by Ian Graham)  
 g: YAX Lintel 10, F5 (after CMHI 3:31)  
 h: YAX Hieroglyphic Stairway 3, Step III, D10-11 (after CMHI 3:169)  
 i: DRESDEN 65b

pure speculation—*mi* or *mih* meant “completion” in one of the languages spoken by the inventors of ancient Mesoamerican scripts and the sign was later borrowed by Mayan speakers.

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## NOTES

1. The *cahal* reading is put in parenthesis since this title most likely was read differently. A good point can be made that T630, the main sign of the symbolic variant of this title, was read as the syllable *sa*. However, a title *sahal* is not known in colonial dictionaries or sources. Momentarily it seems best to keep the matter open and to refer to the title as “cahal,” simply as a matter of convenience.

2. In all cases *emi* occurs without an ergative pronoun. *Em* is an intransitive root, and, like *cimi*, takes the aspect suffix *-i* in the completive aspect. Since the intransitives follow an ergative pattern in the completive aspect, absolutive pronouns are used

to mark the agent of the verb. The 3.Sg. absolutive pronoun is marked by a zero-allomorph and thus is not represented in the writing system.

3. In the Madrid Codex, which is probably a very late copy of an much older book produced by a semi-literate artist, the pronouns are very often dropped or misplaced. *Mis* is a transitive verb and should have an *u* pronoun. This is represented only once on Madrid 111c, but mistakenly written *after* the glyph.

4. In the Quichean languages *mi* is a particle which marks the completion of a verb or event (Dürr 1987; Smailus 1989:543).

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