CHAPTER VII HIEROGLYPHS FOR ENDING OR COMPLETION IN CHICHEN ITZA

Critical investigation of the calendrical material from Maya sources has enabled Bowditch to determine a number of affixes and some glyph compounds as ending signs.¹ A few more were identified by Morley² and by me.³ On the basis of this attested small group of signs we can attempt to extend our research to hieroglyphs that are not calendrical, at least not at first glance. As long ago as 1897 Goodman published a series of affixes as "Signs denoting Beginning", which we know now are, on the contrary, signs denoting ending. But, as usual, he did not give proofs nor an exposition of his method.⁴

However, this is not the place to treat of ending signs in general for which reason I shall limit myself to the few introductory remarks just given and next enter upon a discussion of the new material. The new variants of hieroglyphs for "Ending" in the Chichen Itza inscriptions form not only a welcome addition to the set already known, but some of them are of decisive value in certain doubtful cases.

SIMPLE GLYPHS

The most common hieroglyph for ending or completion in Chichen Itza, as elsewhere, is the Teeth sign. It appears in its fullest form in figure 721, somewhat reduced by the loss of the circlets in figure 722, and still more simplified by the elimination of all details in figure 723. For the sake of clarity, all variants are reproduced here in standardized form, the actual imperfections of the coarse limestone combined with mediocre workmanship as well as incomplete preservation being supplanted by ideal conditions. Of the two former variants, so many examples exist that respective examples may be found easily. The very reduced form shown in figure 723, however, is rare; it occurs in figures 117A and B, 118A, 151A, 153A, 318, and in a few more cases.





Fig. 722 VARIANTS OF THE TEETH SIGN (Standard Forms)

Another very common ending sign in the inscriptions of the Maya cities of the south, the conventional animal head of figure 724 (a variant of the Fish-Head), is not found at all in Chichen Itza. In this point, then, the Itzas differ from the style of the southern cities and agree with the Codex Tro-Cortesianus, where this glyph also is absent. In the Dresden Codex, however, it still is employed in its simplified written form.

¹ Bowditch, 1910, pl. XIX.

² Morley, 1915, p. 78; Morley, 1915*a*, p. 196.

³ Beyer, 1932, pp. 113-123.

⁴ Goodman, 1897, p. 77.

Of frequent occurrence at Chichen Itza is prefix figure 725, an ending sign composed of a skull and two details which evidently represent the inverted upper parts of the ending sign figure 733. In the variants like the one in figure 725 the middle part generally is somewhat slanting; like other similar examples, evidently copied from actual writing where such a position is more convenient than the strict horizontal form. This detail is doubled a number of times in figures 99, 226, and 275.

With this hieroglyph must not be confounded another one (fig. 726) which also has a skull as upper part. The lower part contains two teeth and sometimes a curved line of dots or circlets (figs. 316 and 630). In reality, this sign originally represented the forepart of a beaked Turtle-Head. The nasal opening of the animal became the eye of the skull and some of the scales of the upper half of the bill were transformed into teeth. Notwithstanding these changes, the Itzas still must have known the original significance, for several times they employ the complete Turtle-Head when space conditions favored that device (figs. 103B, 174B, 175B, 178B).

Figures 727-731 give us the standard forms of four related signs. Figure 728 is only a simplification of figure 727, both representing the Death God's hair. This is interspersed with globular eyes and therefore two of them are at the ends of these and the following three signs. The entangled Death-Hair, with eyes and two bars, is visible in figure 727, while in figure 728 the latter are dropped and the hair is indicated by parallel lines.

Figure 727 is common and is found in figures 167B, 175X, 177Y, 184A, 185A and 191A, etc. Variants of figure 728 occur in figure 35A and partly destroyed in figures 36A and 43A.

In figures 729-731 only the eye-balls of the former figures are retained and the middle part is exchanged for Fire symbols. The round eyes in figure 729 are already a trifle larger and become still larger in figures 730 and 731. The largest ones (fig. 731) accordingly offer opportunity to inscribe another curved line.

Figure 729 with a Flame sign occurs only in the inscription of the Akab Tzib (figs. 262, 682 and 707). The type of figure 730, with Crossed-Bands in the center, is found in figures 27, 34, 248, 303, 336, etc. In weather-worn examples this sign must not be confounded with the numeral Two, where the cross is only a space filler. At Chichen Itza, however, the cross does not seem to have been employed for that purpose in numerals. Figure 731 having a line of dots or cirdets as central element is used in figures 37A, 55B, 514, and 596.

The Eyelash, the dead man's eye, in figure 732 is a symbol related to the preceding figures 727-731, of which the turgid globular eye of the cadaver formed a part. In figure 732 the lines which represent the lash of the closed eye are presented as slanting and not horizontal; evidently again because this was the usual and most convenient mode in writing.



Fig. 724

FLATTENED FISH-HEAD

(Standard Form)

Fig. 725

SKULL-FIRE ELEMENT

(Standard Form)



Fig. 726 SKULL-TEETH ELEMENT (Standard Form)



Fig. 727 DEATH-HAIR SIGN (Standard Form)



Fig. 728 DEATH-EYES AND HAIR (Standard Form)



Fig. 729 DEATH-EYES AND FLAME (Standard Form)



Fig. 730

DEATH-EYES AND CROSSED-BANDS

(Standard Form)



Fig. 731

DEATH-EYES AND SPARK-LINE

(Standard Form)

Fig. 732 EYE-LASH (Standard Form)



Fig. 733 GREENSTONE-DISC WITH FIRE ELEMENTS (Standard Form)



Fig. 734 GREENSTONE-DISC-ONE-FIRE-ELEMENTS (Standard Form)



Fig. 735 GREENSTONE-DISC-ONE-AHAU-FIRE-ELEMENTS (Standard Form)



Fig. 736 GREENSTONE-DISC-CONVENTIONAL ELE-MENTS (Standard Form)

Fig.737 MULUC VARIANT (AFFIX) (Standard Form)



Fig. 735 MULUC VARIANT (MAIN SIGN) (Standard Form)



Fig. 739 ~ CENTIPEDE ~ SIGN (Standard Form) As a general affix, figure 732 is not uncommon in our texts; in the rôle of ending sign, however, it occurs only a few times. Group 32 has it in glyph A. In group 34 it might be the ending sign of glyph B, but the situation is not clear, and less so in group 35. In figure 166, element *c*, the case is much better, as the homologous element in figure 167 is the ending sign figure 727. In group 48 glyph A possibly represents a combined ending hieroglyph composed of several ending signs. By its position Eyelash in figure 286 must function as ending sign. In figure 370, on the contrary, our sign is subfix, but might have the symbolic value "ending", since its possible homologon figure 371 has an ending sign as superperfix. The prefix in figure 606 might be Eyelash, but the glyph is too much worn to be recognized with certainty.

The three following signs (figs. 733-735) are variations of one theme: the Greenstone-Disc with a Flame symbol on top. The standard form in figure 733 is taken from the well-preserved figure 223. The character is quite common as affix and its pre-fixial forms are mostly, if not all, ending signs. We have it in glyph B of group 7, in D of group 8, in figures 223, 257, 325, 344, 348, etc.

Figure 734 is the same hieroglyph, but the Greenstone-Disc is covered with crosshatching, to which in figure 735 is added a diminutive Ahau, probably in an inverted position. There are distinct forms of figure 734 in figures 169, 170, 263 and 387. On the whole it seems to have been employed less frequently than its more elaborated variant in figure 735. Of this we have instances in figures 260, 346, 514, 576, 579, 671-673, 689, 695-697. Under exceptional space conditions the signs take awkward positions (figs. 260 and 346), but the odd shape of the sign in figure 515 is so different from the standard form of figure 735 that only its homology with figure 514 permits the identification.

Figures 736-739 also contain the Greenstone-Disc as an element.

Figure 736 is the ending sign generally accompanying the Bat-Head in the inscriptions of the southern Maya ruins. Here we have it in this connection in clearly recognizable form in figure 158A, while group 26 (glyph A) probably has a variant of it. It is again well preserved in figure 382 but somewhat rubbed off in figure 383.

The variant of the Muluc hieroglyph in affix-shape (fig. 737) is often found as an added element to the Gouged-Eye (figs. 92, 163, 170, 186, and 187). There its ending character is probable but not demonstrable. In the calendrical matter of figure 670 its employment as ending sign is fairly clear. Its character as ending sign is also warranted by the parallel cases in figure 584. Unfortunately, the superficies is worn. In figure 588, however, the sign is clear and its value again unmistakably determined by its parallels. In these last two cases the ending sign is quite broad and has to be standardized as in figure 738. Its use as ending sign is not so clear in figure 600, but is completely acceptable for figure 627. Thus, I think there exists enough evidence to add figure 737 to the list of ending signs.

Figure 739, which has at the bottom a disc with dots, is fairly frequently employed as ending sign in common hieroglyphs as well as in strictly calendrical signs. For the former we can refer to figures 12A, 51B, 52A, 202A, 224, 237, etc.; for the latter to figures 670, 671, 685-689. It has been called Centipede Sign just to give it a brief descriptive name but by no means must it be taken as a real representation of that arthropod.

The Double-Dotted-Line (fig. 740), connected with the main sign following it, is fairly common in our texts, but the cases where it clearly means "Ending" are not many. The best one probably is figure 314, because most of the homologous signs in figures 315-

319 are undoubtedly ending glyphs.

Figure 741, with some variation in the middle part, is found as ending sign in glyph A of group 2, and B of group 3. It is not impossible that in group 8 it is only added to glyph B for aesthetic reasons, but belongs really to C (Ahau) as prefix. In figure 42 it actually occupies that position. The sign occurs furthermore in figure 51C, figure 52B and C, group 26 B, group 28 A, group 34 A, group 35 A, group 36 (prefix), group 44 B, and group 47 A. It is also found among the Single Hieroglyphs (figs. 235, 240, 277, 278, etc.).

The ending sign in figure 742, Landa's "i" frequently is employed in the inscriptions of the south but seldom appears at Chichen Itza. We have it in group 55, where figure 726 is its equivalent. It occurs also in figures 279, 392, and 686.

In calendrical matter (figs. 648, 672, 674, 680-684, and 690) we find figure 743 as a new ending sign, as the context and the equivalent hieroglyphs demonstrate. Sometimes it is flattened as superfix, but does not occur in narrow prefix form. We are entitled to assume the same significance also for this sign in figures 98A and 396.

Only at the Temple of the Hieroglyphic Jambs do we find the glyph in figure 744 employed as ending sign. One of the two instances is presented by figure 302, while the other one is not reproduced, as its main sign is too indistinct. In figure 324 probably the other and more common variant of the Bundle sign is used as an ending glyph.

For figure 745, only the probability exists that it had the value "Ending". It occurs in group 12 and in figures 519-530 in slight variation but never is replaced by another sign. This consistency of the hierogrammats is very unfortunate for us, since it deprives us of the opportunity of knowing equivalent glyphs of figure 745.



Fig. 740 CURVED-DOUBLE-DOTTED-LINE (Standard Form)



Fig. 741 FLAME COMBINATION (Standard Form)



Fig. 744 BUNDLE-VARIANT (Standard Form)

	1
Q	0

Fig. 742 LANDA'S "I" (Standard Form)

Fig. 745 SKEIN (Standard Form)



Fig. 743 SERPENT-SEGMENT-WITH-CROSSED- BANDS (Standard Form)

GLYPH COMPOUNDS

Many of the ending signs classified as Simple Glyphs really are composite (figs. 725, 729-731, 733, etc.). Thus they are relatively simple but are not elementary signs. However, they have the character of graphic or glyphic units, while the hieroglyphs for "ending" or "close" that shall receive our attention next are clearly combinations of two or more independent signs.

Figure 746, still in the usual narrow affix form, shows as main part a series of circlets and below an inverted Ahau. By its position this Ahau is designated as subfix. In the full form of this ending sign (fig. 747) its nature as a compound of various glyphic

units is still more obvious. The doubling of the Ahau can be explained as a mere aesthetic device, but the prefix is surely a new addition. The sign is employed in calendrical matter only, but its equivalence with other known ending glyphs (see figs. 682 and 686) leaves no doubt as to its symbolic value.

The second of these homologous signs is again a compound and therefore is reproduced here in standard form (fig. 748). It is composed of Manik (the hand in a certain gesture) as main sign, Landa's "i" as superfix and the Double Ahau as subfix.

The Gouged-Eye as ending sign is always in full main form with Dotted-Lines as prefix (standardized in fig. 749) or superfix. Sometimes other details are added. Thus in figure 750 the Muluc-Variant on top forms a superfix and the Teeth sign in figure 751 a prefix. The first two variants (figs. 749 and 750) are quite common in our texts, while figure 751 is an exceptional case caused by peculiar space conditions. Its actual form is found in figure 88. Several times another small ending sign follows, as Death-Hair in figures 221 and 239, and the Reduced-Turtle-Head in groups 19, 20, and 21. In group 21 the two different ending signs fill one glyph block (fig. 752).

To consider figure 749 as ending sign is a hypothesis which will be fully discussed in a special paper dealing with all its occurrences in the different sources. The Chichen Itza texts, however, offer some easily available proofs. In group 46 we probably have figure 749 as equivalent with figures 725 and 722. The variants of the double (figs. 221-228) and the single Corpse-Head-Thumb (figs. 237-243) might also be adduced. Furthermore, the Ahaus with ending sign (figs. 314-319) include our hieroglyph.

It is not impossible that the compound in figures 439-441 serves as ending sign; at least in two cases (figs. 439 and 440) this would explain its position immediately before a Tun glyph. For figure 441 this explanation, however, is not so convincing since the Tun sign has its usual ending glyph. In this case we had to assume that there were three glyph blocks, each representing an ending sign, belonging to "13 Tuns".

Besides these few genuine one-block signs we find in the inscriptions of Chichen Itza quite a number of what we may call artificial or occasional compounds created by joining two (figs. 753-756), three (figs. 758 and 759) or even four (fig. 760) smaller signs which in most cases fill but one glyph block. Often naturally small signs are replaced by larger ones.

How such combinations arose is well exemplified by group 34. Glyph A in figures 133-135 and 137 shows the correct arrangement of the main sign with the affixes pertaining to it, the Skein really belonging to the Dog-Head. However, the fact that this variant of the Dog-Head has already an added element (an Etznab "ear") makes it appear unproportionately small in these complex hieroglyphs (see especially figs. 133 and 134). In order to lessen the crowding the sculptor moved the Skein sign over to the next glyph block. Being a relatively flat sign, about two-thirds of the second block were left empty and this space was then filled by two (and not only one) ending signs (figs. 131 and 132). Where only two smaller signs were to occupy the block one of them had to be exchanged for a larger one. Thus in figure 133 the Eyelash was replaced by the fantastic head, seen in standardized form in figure 755, while in figure 134 the elongated Teeth sign had as its substitutes are employed. In figure 757 they are placed one beside the other as all groups have been reproduced in that arrangement in our studies. In the original, however, the first glyph is above the second.





Fig. 746 CIRCLETS SIGN (AFFIX) (Standard Form)

Fig. 747 CIRCLETS SIGN (MAIN GLYPH) (Standard Form)



Fig. 748 HAND SIGN (Standard Form)



Fig. 749 GOUGED EYE-DOTTED CURVE (Standard Form)



Fig. 750 GOUGED EYE-DOTTED CURVE-MULUC (Standard Form)



Fig. 751 TEETH-DOTTED CURVE-GOUGED EYE (Standard Form)



Fig. 753

DOTTED CURVE AND DEATH-HAIR (Standard Form)

Fig. 754



FLAME COMBINA-TION AND DEATH-HAIR (Standard Form)



Fig. 755 FISH-HEAD AND TEETH SIGN (Standard Form)





Fig. 756 EYELASH AND DEAD-FACE (Standard Form)

Fig. 757 FISH-HEAD AND DEAD-HEAD (Standard Form)

Fig. 758 EYELASH, TEETH SIGN AND EYELASH (Standard Form)



Fig. 759 DEATH-HAIR, EYE-LASH AND DEAD-FACE (Standard Form)



Fig. 760 DOTTED CURVE, DEATH-HAIR, EYE-LASH AND TEETH SIGN (Standard Form)

After this necessary general explanation we may take up the brief comment on the examples not yet mentioned. Figures 753 and 754 are compounds with Death-Hair as one of the components. The idealized figure 753 fills a whole block and can be found in its real shape with the hieroglyph to which it belongs as ending sign in figure 222. In figure 754 the two ending signs are used as prefix and superfix of the main glyph. The complex hieroglyph has been reproduced in figure 393.

Possibly there are a few other compounds which contain two ending signs. Figure 169, for example, has the glyphs in figures 733 and 748, both probably in the function of ending signs. The same is still more probable for figures 291 and 514.

In figure 758 three signs are combined; two of them are Eyelashes, the other one being the Teeth glyph. They are, unlike similar cases, arranged in vertical position. The hieroglyph following this compound ending sign in both occurrences (Initial Series Lintel, E 3 and E 8) is too indistinct to be identified, for which reason they were not listed among the glyph pairs. The ending sign combination itself, however, is quite well preserved and therefore is reproduced in figure 758.

There is also a complex ending sign in glyph X of figure 175, but as its prefix cannot be recognized, no accurate drawing could be made of it.

Figures 759 and 760 are homologous givphs appearing in group 48. In figure 759

occurs the same full face with closed eyes we have seen in figure 756; and here it also corresponds to the Teeth sign. Death-Hair and Eyelash accompany the face in figure 759; to these elementary glyphs the Double-Dotted-Line is added in figure 760.

PSEUDO COMPOUNDS

On the other hand, not every compound hieroglyph that contains several elementary signs, which are sometimes used as ending glyphs, can be analyzed as having various ending signs. The ending function of the sign really must be proved. If, for instance, we should consider the first two flat signs in figures 254-257 as ending signs, we would probably be in error. From many other occurrences we must infer that Eyelash belongs to the Imix-Variant without indicating "ending" (*cf.* groups 7 and 8, figs. 47, 252, and 253). It is, then, only the first of the two affixes that carries the significance "ending" in figures 254-257; it is therefore fallacious to adduce the extracted accidental combinations figures 761-764 as pairs of ending signs.



Fig. 761 TEETH SIGN; EYE-LASH (Standard Form)



Fig. 762 TEETH SIGN; EYE-LASH (Standard Form)



Fig. 763 DEATH-HAIR; EYE-LASH (Standard Form)



Fig. 764 GREENSTONE-FIRE ELEMENTS; EYE-LASH (Standard Form)

VAGUE AND DOUBTFUL ENDING SIGNS

While the character as ending signs for the one-block compounds (figs. 747-753 and 755-760) is well established, this is not the case with a few other hieroglyphs which will be discussed now. These compounds, however, are of such frequent use in the Chichen Itza inscriptions that some general significance evidently is attached to them.

Figure 765, the Hand with infix and affixes, probably is used as ending sign in figures 101 and 102: in the one case preceding the glyph to which it is related, in the other case following it. This position at the end is characteristic in group 8. Here it might indicate the end of the series. In other instances like group 5 interpretation becomes dubious. However, I would venture to say that there it stands as a kind of vague general symbol with the main purpose of supplementing another glyph to glyph A, so that both form a pair.

The same, unfortunately, must also be said about figures 766 and 767, namely that they seem to have no precise meaning, but only a vague general significance as Fire and end symbols, even becoming at times mere space fillers.

Besides the three signs reproduced in figures 765-767 there might exist a few others with the occasional or even constant meaning "Ending". Such signs are possibly shown in figures 519-530 and 420-423. The safest scientific attitude in these, as in similar obscure cases, however, is to say with the Mexicans: "Quien sabe?"

On the other hand, we have no reason for pessimism, as twenty-six different ending signs may be safely accepted as such, since there is hardly any doubt left as to their symbolic value. They are the signs reproduced in standard form in figures 721-723, 725-752, 755-757, and 759. In this list figures 721-723; 737-738; 746-747; 749-752; 755 and 757 (first glyph); 756, 757 (second glyph) and 759 are treated as variants of one sign, respectively.



Fig. 765 HAND COMPOUND (Standard Form)



Fig. 766 MATTING COMPOUND (Standard Form)



Fig. 767 LANDA'S "I" COMPOUND (Standard Form)