

CONTRIBUTIONS TO AMERICAN ARCHAEOLOGY, NO.21
STUDIES ON THE INSCRIPTIONS OF CHICHEN ITZA

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PREFACE

The object of this treatise is to submit the general results of the author's investigations on the hieroglyphs of Chichen Itza, Yucatan, Mexico; the elaboration of all minor questions requires much time and would unduly retard the publication of this material. The illustrations are regarded here as the essential contribution, while the brief comments will be superseded later by more extensive and more thorough special studies.

An intensive investigation of the Chichen Itza hieroglyphs was desirable because they are of special importance as almost the only consistent material of one epoch of Maya glyph history. There exist abundant texts for the Second Epoch of Maya writing in the inscriptions of the so-called Old Empire and also for the Fourth Epoch in the codices, but outside of Chichen Itza there is only some scattered glyph material available for the Third Epoch, the period of transition between the old stable forms and the new generally adopted standard forms.¹

The author's aim has been to make a complete survey of all inscriptions that have been found in Chichen Itza and its vicinity. The following edifices and monuments bear hieroglyphic texts, all twenty of which have been fully exploited in this study.

1. Akab Tzib, lintel.
2. High Priest's Grave, re-used inscription (wall panel?).
3. Casa de las Monjas, East Annex, façade decoration.
4. Temple of the Hieroglyphic Jambs, doorway jambs.
5. Temple of the Initial Series, lintel.
6. Casa de las Monjas, seven lintels.
7. Halakal, lintel.
8. Casa Colorada (or Chichen Chob), hieroglyphic band.
9. Temple of the Three Lintels, three lintels.
10. Temple of the One Lintel, lintel.
11. Caracol, hieroglyphic band.
12. Caracol, stela.
13. Temple of the Wall Panels, serpent's tail.
14. High Priest's Grave, column.
15. Hacienda, water trough (now in Museum of Archaeology and History at Merida).
16. Temple of the Four Lintels, four lintels.
17. Yula, Temple of the Two Lintels, two lintels.
18. Temple of the Owls, capstone.
19. Tomb, capstone.
20. Caracol, stone disc.

¹ See Beyer, 1932a.

Photographs of Nos. 4, 7, 9-13, 15-17, 19, and 20 are reproduced in plates 1-14. Nos. 1, 3, 6 (incompletely), and 8 have been published by Maudslay¹ either in heliotype or as lithographic drawings or in both techniques. Seler has No. 5 in a halftone illustration of a cast in the Peabody Museum of Harvard University.² A good photograph of No. 14 is reproduced in one of Dr. Gann's books.³ Finally, No. 18 was published by Willard.⁴

Most of the inscriptions, as noted above, occur on lintels, the front parts of which generally form a narrow band of two rows of hieroglyphs. The underside of the lintel, containing the bulk of hieroglyphs arranged in the usual two repeating columns, is designated by a number; the front of the lintel is indicated by the number plus the letter *a*.

The lintel of the Temple of the Initial Series shows the underside columns arranged lengthwise, instead of in the usual manner, that of the front. Another exceptional feature is the use of rows of three glyphs, found on the Temple of the Hieroglyphic Jambs.

In the Monjas the lintels of the northern façade clearly have a third division, the inner quadrangle, composed of one or two double columns of hieroglyphs. Evidently it is not the direct continuation of the text, but an independent chapter, so to speak, since in three cases out of five the inscriptions on the quadrangle commence with the same hieroglyph (figs. 519-521). The independent chapter, therefore, is distinguished from the main part of the inscription by capitalization of the final letters of the alphabet in its columns.

A few of the hieroglyphic texts in the buildings of Chichen Itza are nicely carved and well preserved (Akab Tzib, Casa Colorada), but others are weather-worn (Monjas, Hieroglyphic Jambs) or executed in a somewhat careless manner (Four Lintels, Yula); in some cases clumsy carving and bad preservation are combined (Water Trough, Column of High Priest's Grave). For these reasons the recognition and deciphering of the hieroglyphs found at this site were not easy tasks, and it was only by using various methods of approach that I succeeded in identifying at least seventy-five percent of the existing characters.

The work began with making reduced drawings of the hieroglyphs of an inscription from a good photograph, or using Maudslay's lithographic reproductions for those texts which he published in the magnificent *Biologia Centrali-Americana*. The first drawings were corrected by careful and repeated comparisons with the originals under different light conditions during two visits to Chichen Itza, in 1928 and 1932. The inked paper rubbings which Mr. J. H. Denison, jr., had made, kindly put at my disposal by Dr. Morley, were also very useful for this project. In these paper rubbings, fine lines, which easily are overlooked in the originals, came out clearly

These direct measures, indispensable as they are, still leave much uncertainty in cases of partly destroyed hieroglyphs and hieroglyphic elements. It was with the help of an indirect method that I succeeded in overcoming many of these difficulties. A great many hieroglyphs form parts of groups of two or more units; in fact, the great bulk of hieroglyphic characters is employed in such aggregations. While the traces of an indistinct sign may not be sufficient to allow its determination, such a mutilated glyph often can be safely recognized if the neighboring signs are sufficiently preserved to be identified. Sometimes the mere outline of a glyph, or even a small but very characteristic detail, suf-

¹ Maudslay, 1889-1902, vol 3.

² Seler, 1914, pl. 46.

³ Gann, 1924, plate facing p. 214.

⁴ Willard, 1926.

fices for its recognition. Even totally destroyed hieroglyphs can be filled in when they are determined unequivocally by their position in a series. The application of this method presupposes, of course, a thorough knowledge of Maya hieroglyphics and special familiarity with the use of specific forms under certain conditions.

Although the collection of hieroglyphs presented here is so large that probably no important symbol at Chichen Itza is omitted, it is not exhaustive. By a re-examination of some inscriptions, a few more hieroglyphs may be salvaged. Such possibilities exist especially for those texts of which I did not possess rubbings, as, for example, the stela found on the platform of the Caracol. New additions cannot, however, materially change any of the general deductions which are based on abundant material.

The illustrations in this monograph give the impressions of the trained eye of an epigrapher, not those of a casual observer. In spite of the many cracks, pores, and other imperfections in the stone, and notwithstanding the nearly obliterated vestiges of low relief and incising, the illustrations have been drawn without direct restoration. All weather-worn or rubbed parts and all mutilations are indicated by shading. Where lines in the shading appear, they can still be distinguished in the original although they may be very faint in parts. Where every trace of a glyphic element has disappeared or is beyond recognition, only the outlines with blank interiors are given. In such instances the figures can be classified only by a comparison with better preserved specimens.

Here, for the first time, a complete analysis of all the existing inscriptions of an ancient Maya city has been worked out systematically.

Generally, I have given a short interpretation of the symbols without entering into a detailed discussion. This arbitrary procedure is motivated by practical reasons, as a long and fairly exhaustive elucidation of every glyphic element not only would enlarge this treatise but too often would divert the attention of the reader from the main issue: the hieroglyphs of Chichen Itza. The brief interpretations may be accepted provisionally, receiving their proofs in the future in special papers on the various hieroglyphs that compose the body of Maya writing signs. Until now, I have treated only a few of these hieroglyphs in an adequate manner, as this special field of investigation is yet in its incipient stage.

It must be admitted that many terms will appear obscure or unwarranted, as, for instance, Owl-Plume, Gouged-Eye, Bundle. In such cases I beg the reader to suspend judgment and wait for other papers which will be published in the near future. For those readers who deem the author's explanations unacceptable, the Chichen Itza hieroglyphs may be considered as material to which they can apply their own interpretations.

Where the equivalent of Maya dates in our own Christian chronology is given, the Thompson-Teeple correlation is employed, as it seems to offer the best solution of the problem. In it the transcribed Maya Long Count date 11.16.0.0.0 corresponds to the Julian date November 3, 1539.

I frequently have differed with the opinions of Dr. Sylvanus G. Morley. This is easily explained by the fact that he is one of the few archaeologists who have studied the hieroglyphs of Chichen Itza. While I agree with his results on the inscriptions of the Old Empire cities which contain many dates and time periods, I find that his method of dealing solely with calendrical matter fails at Chichen Itza, since there are but few hieroglyphs of that nature.

I am quite willing to admit that many of my own statements have only scant back-

ing, but I fear that for the present they cannot be improved on. I think I have overlooked no method or line of study that possibly could throw light on any subject, and if the final results are meager, I must blame the deficient material on the one hand, and the lack of development of our special science on the other.

I must thank, in the first place, Dr. Sylvanus G. Morley, director of the Chichen Itza Project of Carnegie Institution of Washington, who permitted me to use the Institution's unpublished photographic material and paper rubbings. He also kindly read the first draft of the manuscript and suggested many changes in details.

Furthermore, I am obliged to Señor D. Luis Rosado Vega, formerly director of the Museo de Arqueología e Historia of Merida, who, with great liberality, allowed me to copy all the hieroglyphic material I needed for my purposes.

For help and encouragement I am much indebted to my kind chief, Mr. Frans Blom, director of the Department of Middle American Research of Tulane University, who allowed me to elaborate these studies with all the time and the facilities I needed. I gratefully mention also my draftsman, Mr. André Duval, who had the difficult task of making absolutely faithful pen-and-ink copies of most of my pencil drawings. This he did with great care and patience.

I also wish to thank Dr. A. V. Kidder, Chairman of the Division of Historical Research of Carnegie Institution of Washington, for many valuable suggestions, and especially for the new and clear photographs published among the plates of this study, which were taken by Karl Ruppert and Sr. Raúl Cámara at Dr. Kidder's request. I am very grateful to the Institution for enabling me to make a second visit to Chichen Itza in order to investigate in detail the hieroglyphic inscriptions. The time I spent at Chichen Itza in 1932 was marked by the great hospitality of the staff of the Carnegie Institution, and I am now further indebted to the Institution by the fact that it is publishing these studies.

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JUNE, 1937

CHAPTER I

GLYPH PAIRS AND GLYPH SERIES IN THE CHICHEN ITZA INSCRIPTIONS

It has been indicated in the preface that the hieroglyphic texts of Chichen Itza (and other sites as well) must be broken up into series, glyph pairs, and single hieroglyphs. Groups of two, three, and more hieroglyphs form the most important part of the inscriptions. These groups afford the greatest possibilities of interpretation owing to their frequency. In them we perceive clearly the variations of the component hieroglyphs in all their details, and notice the occasional substitution of signs at homologous places. The single hieroglyphs are less satisfactory material with which to work.

A full exploitation of all these approaches to the interpretation of Maya hieroglyphs can be made only when the Chichen Itza texts, and all the other inscriptions as well, are at our disposal in clear and reliable drawings. As only part of these texts is now available in this form, such studies would be incomplete at present. We must confine ourselves here to those inferences that may be drawn from our limited subject matter without incurring the risk of error, leaving more exhaustive studies for the future.

HIEROGLYPH HAND-CORPSE-HEAD IN COMBINATIONS

GROUP I

We begin our review of the groups of hieroglyphs which the Chichen Itza texts contain with figures 1-14; that is, with fourteen versions of a series composed of three main signs. These three main signs which form the principal parts of three full hieroglyphs are designated in the illustrations by capital letters. An analysis of all hieroglyphic units is given in many cases in order to make a clear comparison of all details. These elementary units are indicated by small letters.

The first sign (glyph A of the series) probably is a fusion of a dead man's head and a hand.¹ The four fingers are covered by the features of the profile face and only the thumb is visible to the right. There are represented not only the closed eye with its enormous lashes, a fleshless nose, and teeth, but often also a peculiar symbol consisting of two dots between a straight or curved line, which is employed sometimes in the Tzolkin as a substitute for the hieroglyph Cimi, "death". In figure 12 the hieroglyph has an additional sign as prefix, which in other cases signifies "end".

The second main glyph (indicated by the letter B) is composed of two shells (a bivalve), and the sign for One of great size. This sign always has crosshatching in the inscriptions, while in later times, in the codices, this filling is sometimes omitted.

Then follows the One again in the main sign C with two small affixes, one the sign Eyelash, the other the hieroglyph Ahau, here inverted. In some instances (figs. 6, 7, 13, 14) instead of the flat character of the Eyelash, a peculiar head in the rectangular shape of a main glyph is given. The head often shows death characteristics (such as bared teeth, fleshless nose, round eye) and to the right a spot of crossed lines. The hair seems to be

¹ See Beyer, 1934, p. 160

arranged in upright locks with a nearly circular space in the middle.¹ If this sign occurred as an isolated glyph, it would be impossible to assign any meaning to it. The same must be said of the simplified variants of Ahau in figures 9 and 14. Without their positional significance we would take them rather for small Ik signs. Both of these divergent variants or substitutes appear in other series also, so that there can be no doubt about their correct identification. These two new data are a direct result of our comparative method of dealing with glyph groups.

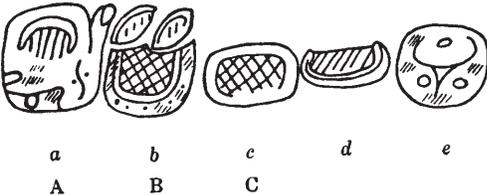


Fig. 1
Monjas, Va, B.

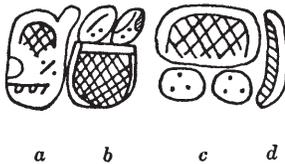


Fig. 2
Three Lintels, I, BI-A2

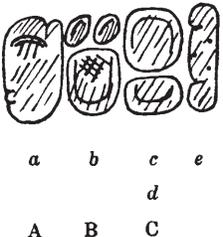


Fig. 3
Monjas, III, Y3-Y4a.

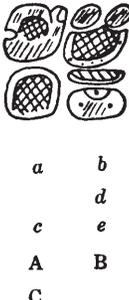


Fig. 4
Four Lintels, I, C5.

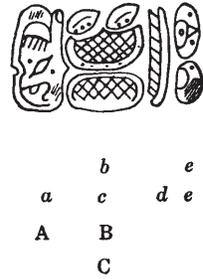


Fig. 5
Monjas, IV, Y3.

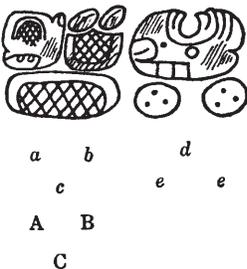


Fig. 6
Four Lintels, IV, D4-C5.

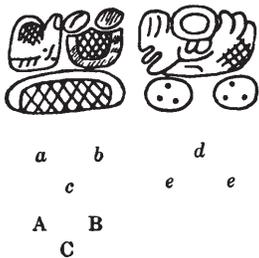


Fig. 7
Four Lintels, IV, E4-F4.

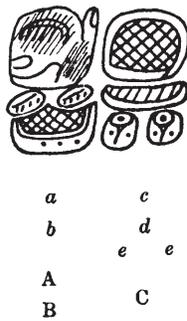


Fig. 8
Monjas, IIa, B.

¹ This description refers only to the Chichen Itza variants of the sign. Originally it was the head of a fish as may be proved by the forms of the Second Epoch (Old Empire).

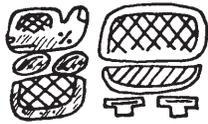


Fig. 9
Initial Series, D1-C10.



Fig. 10
Halakal, Ia, F2-G1.

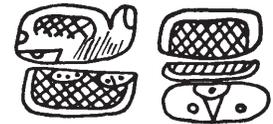


Fig. 11
Yula, II, C D1.

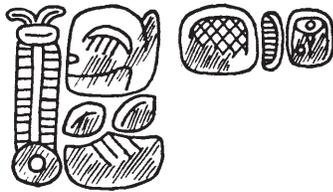


Fig. 12
Monjas, III, D4-E1, A.

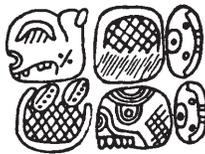


Fig. 13
Casa Colorada, 22-23.



Fig. 14
Yula, I, C4-D4.

Further peculiarities of the hieroglyphs reproduced in figures 1-14 will be discussed briefly. In the variants of glyph A that occur in the Monjas and the Casa Colorada (figs. 1, 5, 12, 13) the closed eye with the long eyelashes is recognized easily, while the variants from the Temple of the Four Lintels and from the Yula lintels (figs. 4, 6, 7, 11) deviate much more from the normal because they have crosshatching instead of straight lines.

In figure 1, element *e*, the sign Ahau, has the size of a main sign while the other series employ it merely as a secondary character.¹ It must have been the arrangement of the hieroglyphs in the original, where a main sign follows in the same row, which caused the sculptor to give it that exceptional size. Glyph *c*, on the contrary, pressed in between two rows of main signs, is smaller than usual.

Figure 3 is very indistinct in the original; only a few inner details are preserved. But these details, together with the outlines of the glyphic elements, suffice to identify the different hieroglyphs that compose the series. The traces for sign *e* are insufficient to enable one to decide what form of Ahau must be employed in a hypothetical restoration of this particular glyph.

In the Halakal lintel, now in the Museum of Archaeology and History at Merida, the upper row of glyphs on the low front part is destroyed almost completely; but the suffix of glyph C, the two inverted Ahaus which remain (fig. 10), enables us to infer that probably the signs One and Eyelash once occupied the now obliterated space.

Glyph B of figure 11 shows the upper details of the glyph (the shell halves) pressed

¹ Its character of secondary sign, however, is clearly indicated by its reversed position. See Beyer, 1934a, pp. 101-108.

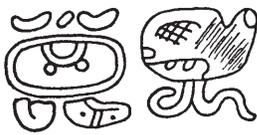
into the crosshatched interior. The inverted Ahau is relatively large but by its flat shape is characterized as an affix.

Figure 12 is partly destroyed, and the drawing of it published by Maudslay¹ does not give sufficient data to enable one to recognize it as belonging with the series under discussion. The original, however, supplies us with the details reproduced in figure 12, which make such a determination possible.

In figure 13 we have very elaborate Ahaus (element *e*) and the peculiar head for *d* is fairly well preserved.

The Ahau variants of figure 14 are transferred to the following glyph block and will be taken by the casual observer as superfix of a main sign which follows, but with which, in reality, they have nothing to do.

GROUP 2



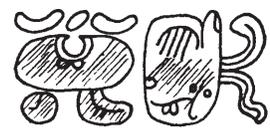
A B

Fig. 15
Four Lintels, II, G H8.



A B

Fig. 16
Four Lintels, I, G H3.



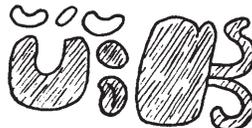
A B

Fig. 17
Four Lintels, IV, F8-G9.



A B

Fig. 18
Three Lintels, I, E2-F1.



A B

Fig. 19
Four Lintels, III, E F5.



A B

Fig. 20
Four Lintels, III, B7-A8

A Moon hieroglyph (A) forms a group with our Hand-Corpse-Head (B) in figures 15-20. Two flames issue from the latter. Although the hieroglyphs are badly defaced in figure 19 and the Moon sign is partly destroyed in figure 20, they can nevertheless be determined safely as their outlines are very characteristic and cannot be confused with any other glyphs of the inscriptions. The Moon sign (A) will be discussed below. A careful examination of glyph B in figure 18 did not show an indentation in the upper margin. Probably there was once an incised line which disappeared with the weathering of the surface.

¹ Maudslay, 1889-1902, vol. III, pl. 13.

GROUP 3

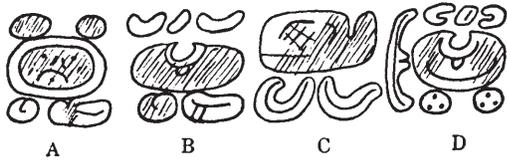


Fig. 21
Four Lintels, IV, G5-H6

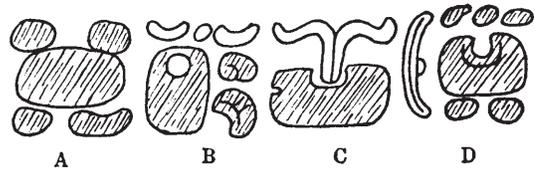


Fig. 22
Four Lintels, III, C3-D4.

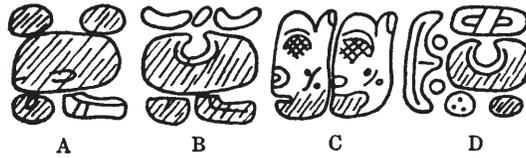


Fig. 23
Four Lintels, I, H5-G7.

The same glyph pair, preceded by an Ahau sign and followed by a different Moon hieroglyph, form a new combination (figs. 21, 22). The character of the third glyph in figure 22 can be inferred only from its position in the series, as all finer details are eroded. Possibly some defect of the stone suggested to the sculptor the distorted version of the sign. Figure 23 has two of the Hand-Corpse-Heads instead of one with Flames; otherwise, it is like figures 21 and 22. If this is not simply an error of the sculptor, it shows that the peculiar head has the same significance as the Flames, or that the double head is equal to the head with Flames.

GROUP 4

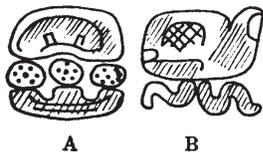


Fig. 24
Yula, II, D7-C8.

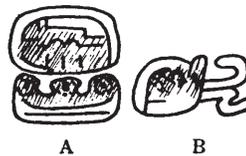


Fig. 25
Yula, I, F4-E5.

The Hand-Corpse character with two Flames, as we had it in groups 2 and 3, is represented again in this glyph pair (figs. 24 and 25). It is accompanied by a double hieroglyph whose upper sign is too much destroyed in both cases to permit identification. The lower sign consists of three dotted discs over a tripartite detail.

GROUP 5

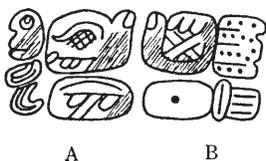


Fig. 26
Four Lintels, I, A B6.

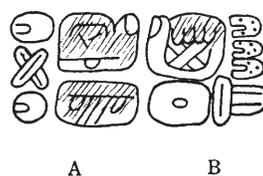


Fig. 27
Four Lintels, I, E F4.

Figures 26 and 27 are identical except for their prefixes. Both prefixes, however, have the same significance, "ending". Possibly glyph B, the Hand with several affixes, has the same meaning, "ending". Under the Hand-Corpse-Head we have for the first time an affix consisting of two straight lines and two loops, which we shall meet frequently in the following series.

GROUP 6



Fig. 28
One Lintel, F1



Fig. 29
One Lintel, H1.

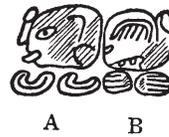


Fig. 30
Monjas, III, E1.



Fig. 31
Three Lintels, III, H1.

Although figures 28-31 occupy the space of only one glyph block each, they are composed of two independent main signs. The first one, a human head, probably is that of the deity of the number One. The suffix of our familiar Hand-Corpse-Head, a Down-Ball, seems to be characteristic; wherefore we should probably regard figure 31 as a defective variant.

HIEROGLYPH IMIX-VARIANT IN COMBINATIONS

GROUP 7

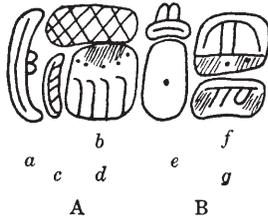


Fig. 32
Four Lintels, II, E F2.

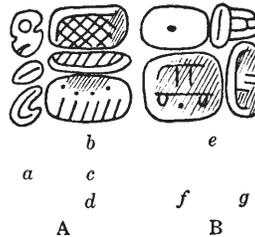


Fig. 33
Four Lintels, I, E F3.

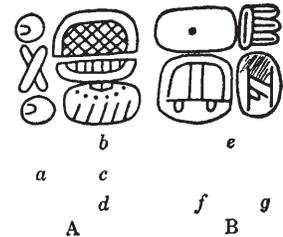


Fig. 34
Four Lintels, I, A B5.

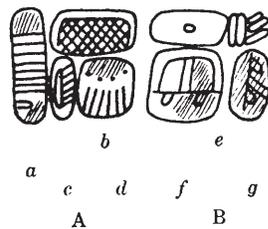


Fig. 35
Four Lintels, II, B5-A5.

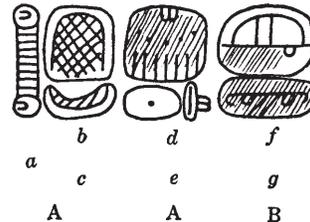


Fig. 36
Initial Series, C4-C5.

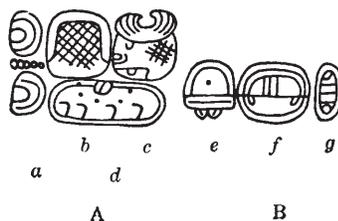


Fig. 37
Monjas, IIIa, A2-3.

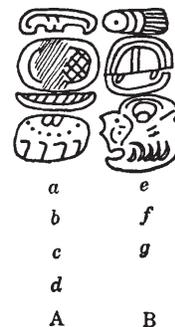


Fig. 38
Monjas, II, C4.

The figures 32-38 are parallels with slight variations, so that it is easy to recognize and compare all the elements into which they can be divided. Only the two last versions of this series (figs. 37 and 38) show remarkable differences. The instance in figure 37 is the same as that which we had in the first series; that is, the usual small Eyelash sign is augmented into a great square glyph with the details already mentioned above. In figure 38 a very peculiar head must have been thought to symbolize the same idea generally indicated by the simple affixes in the other members of the series. In figure 36 the series occupies three glyph blocks, while in figures 32-35 it is placed in only two squares. Some crowding also is shown by the two versions from the Monjas (figs. 37-38).

Element *a* has many variants, only those of figures 35 and 36 being identical. A study of all the different forms used in this and other series will give new insight into the meaning of these fairly important hieroglyphs. In figures 26 and 27 we had two of them and it was stated that they most probably signify "end". This problem will be more fully discussed in one of the following studies.

Element *b* is already known to us as number One, and *c* and its variants have been mentioned. The hieroglyph *d* is very similar to the day sign Imix and sometimes is used as such in the inscriptions of Chichen Itza and Yaxchilan. For the composite character *e* I have used the designation Vulture symbol, as it generally appears over the bill of this bird. The main sign *f* is given for the letter "i" in Bishop Landa's alphabet. Finally, *g* is an oval with some lines and loops. We see it in figures 26 and 27 as suffix of glyph A.

GROUP 8

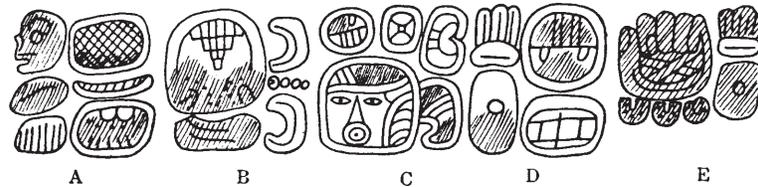


Fig. 39
Monjas, IV, BI-E2.

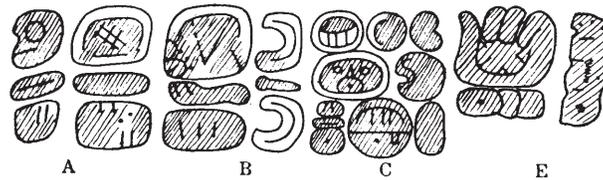


Fig. 40
Monjas, V, B1-E1.

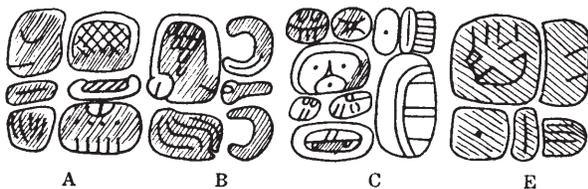


Fig. 41
Monjas, III, C5-B1.

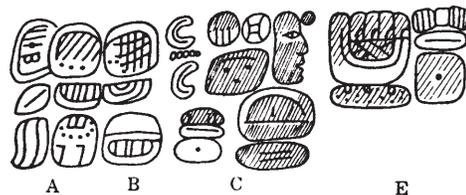


Fig. 42
Monjas, VI, E5-C1.

The same two hieroglyphs are repeated as glyphs A and D in figures 39-42, but here they have incorporated the expression Tun Ahau (glyphs B and C) and are followed by the Hand sign (glyph E), which we know from group 5. Evidently this series brings a certain Imix period or Imix phenomenon into relation with the Tun period. Unfortunately, at the moment we can make only this vague statement, as the value or significance of that Imix cycle is unknown to us.

The homologous elements can easily be recognized by the reader and the slight variations noticed. The last group (fig. 42) is interesting for two reasons. One is that the three glyph blocks into which the four compound hieroglyphs are crowded are not close together, but are at the end of one band and the beginning of another in the lintel of the Casa de las Monjas, indicating to us the manner in which the hieroglyphs are to be read in this inscription. The other reason for comment is the substitution of the head turned to the right for the Owl-Plume sign in glyph C.

This substitution proves that the Owl-Plume must have the same symbolic value as the human head. This latter probably is that of the deity for number One, and both are, then, fire symbols. The uncommon position of the head, looking to the right instead of to the left, I interpret in the sense of "not to be read the usual way". The head does not represent number One here. If the substitution occurred only once, our hypothesis would rest on a very doubtful basis, furnishing at best only a possible but not very convincing explanation. However, as we shall find several similar cases, the cumulative evidence increases, and I think we have discovered the fact that in our texts a certain human head was used as a variation or substitution of the common affix Owl-Plume. Our satisfaction about this discovery, however, diminishes somewhat when we find that this substitution is employed only at Chichen Itza, or, perhaps, only in northern Yucatan. At least, in the inscriptions of the South (Old Empire) nothing similar can be found.

GROUP 9

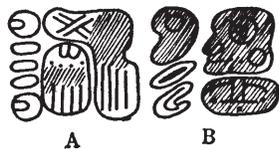


Fig. 43
Four Lintels, I, D1-C2.

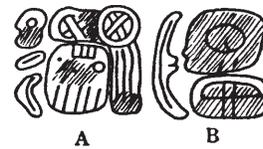


Fig. 44
Four Lintels, I, E8-F8.

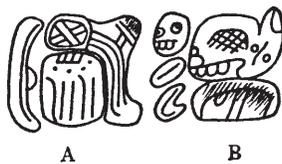


Fig. 45
Four Lintels, IIIa, D1-C2.

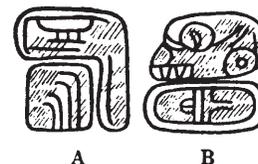


Fig. 46
Yula, H3-G 4.

The modified Imix is prominent in figures 43-44, where it presents the main sign of glyph A. The heads in glyph B have a great circular eye in common but otherwise are too indistinct to allow more precise description. Their suffixes are identical but likewise are in a bad state of preservation. Possibly the same idea is represented by figure 45, in which the Hand-Corpse-Head replaces the unknown head. Both members of the series,

that is, glyphs A and B, have ending signs as prefixes. On the other hand, no ending signs are employed in figure 46 which otherwise resembles figures 43 and 44 in outline and details. The Imix-Variant here has a peculiar form, probably caused by a flake in the limestone.

GROUP 10

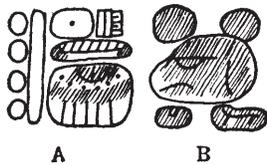


Fig. 47
Four Lintels, I, E5-F5.

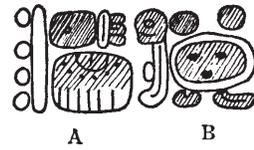


Fig. 48
Initial Series, a, I 1-2.

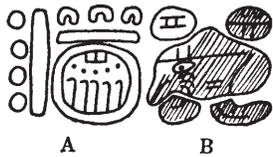


Fig. 49
Yula, I, E2-F2.

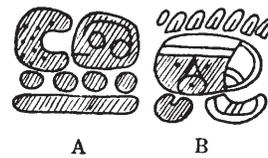


Fig. 50
Four Lintels, I, A7-B7.

The Imix-Variant in figures 47-49 is replaced by quite another glyph in figure 50, though probably of the same or similar significance. In figure 49 the Vulture sign (the superfix in figs. 47 and 48) is used as main hieroglyph into which Imix is inscribed. All four variants of glyph A have number Nine as an affix. The Nine can only have symbolical significance here since it is not probable that “Nine Imix” cycles are intended to be represented, it being hardly possible that the same cycle number can have been used at the time of the Initial Series lintel and the much later period of the Temple of the Four Lintels at Chichen Itza and the Temple of the Two Lintels at Yula. The Eyelash element which occurs in figure 47 between the Imix-Variant and the Vulture sign does not appear in figures 48 and 49. Possibly the prefix of glyph B in figure 48 is its substitute. Glyph B gives variants of the hieroglyph Ahau.

I think that our comparative method enables us to refute Morley’s hypothesis that figure 48 represents the dates 9 Muluc and 2 Ahau.¹ The two circlets above the Ahau, although smaller than usual, are only the somewhat rubbed-off symbols Lamat-Center and Ben, which in figure 49 fortunately are sufficiently preserved. The Imix-Variant in figure 48 is also much damaged, but some vertical lines in the lower half are still visible and these cannot form part of the day sign Muluc. Furthermore, if Muluc were employed as day sign it should have a frame as it has in glyphs B 5 and C 2 of this same monument. Lastly, the Vulture sign as superfix of the day Muluc would be a novelty.

GROUP 11

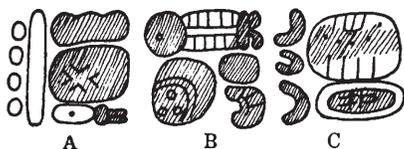


Fig. 51
Four Lintels, II, C1-C2.

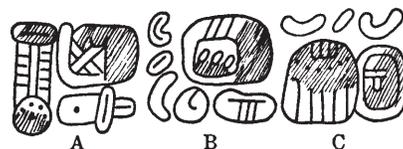


Fig. 52
Four Lintels, IIa, F1-F2.

Although the hieroglyphs that compose group 11 (figs. 51 and 52) are badly worn, the general concordance among the two series is obvious. Glyph A has in one case number Nine as prefix, in the other a fire or ending sign. Glyph A itself is the Hand-with-Crossed-Bands which we know from groups 5 and 8. In glyph B is the peculiar fire sign (fig. 51) substituting small Flames (fig. 52). The main sign of B probably is a conventionalized shell, a *Spondylus*. In glyph C we find the Imix-Variant again as main sign.

HIEROGLYPH KAN IN COMBINATIONS

GROUP 12

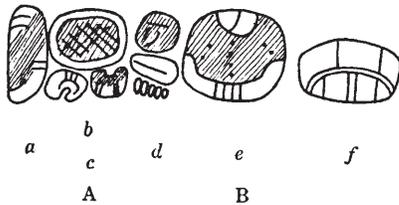


Fig. 53
Monjas, IIa, A.

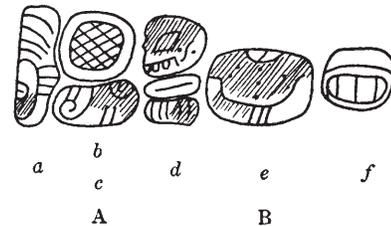


Fig. 54
Monjas, Va, A.

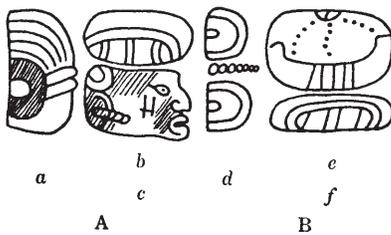


Fig. 55
Monjas, IVa, A.

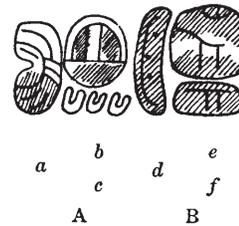


Fig. 56
Initial Series, a, G H1.

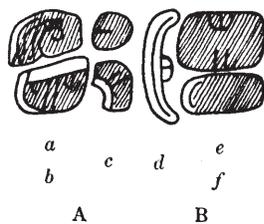


Fig. 57
Four Lintels, IIa, D2-E1.

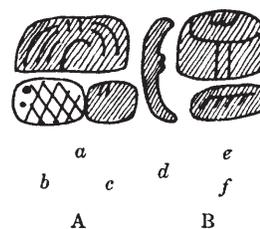


Fig. 58
Four Lintels, II, A8-B8.

In this group we have the large disc of crosshatching or its substitutes (glyph A) combined with the sign Kan (glyph B). Figure 53 corresponds exactly to figure 54, while in figure 55 the main sign One is replaced by the Ten-Derivate, and the Owl-Plume by a human head. The Owl-Plume, consisting of two parts, is carved in figure 53 in the usual form, but in figure 54 a fusion has taken place which has created a figure that no one could identify outside of the context.

Similar to the situation we had in figure 42, the Owl-Plume of figures 53 and 54 is replaced in figure 55 by a human head facing in the reverse direction. In this case the head has no element near the forehead, but it probably is meant as the same.

The prefix in figures 53-56 and superfix in figures 57 and 58 is a Skein, represented

¹ Morley, 1920, p. 573.

in more or less the same way here and in figures 519-530.

Element *b* of figure 55 is practically identical with that in figure 57, because this same simple hieroglyph is always represented with straight lines in the Casa de las Monjas, while the texts of the Temple of the Four Lintels have it with two curved lines and two straight ones. The simplest variant of this sign, however, is presented by figure 56. In figure 58 a very different emblem is employed.

The glyphic element *c*, generally the Owl-Plume, has been discussed. In figure 56 it is replaced by three simple Flames, while in figure 58 the corresponding element is too weathered to allow identification.

The sign *d* has several different forms in this series. In figures 53 and 54 one variant occurs, and there is another in figures 57 and 58, while figures 55 and 56 have distinct variants. These glyphs are, again, ending signs. There is, indeed, at Chichen Itza and elsewhere a Kan cycle or Kan period clearly characterized as such (figs. 59 and 60).



Fig. 59
“End of Two Kan-Cycles,” Akab Tzib, a, B2.

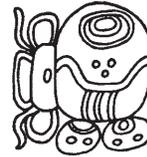


Fig. 60
“0 Kan-Cycle,” Copan, Stela B, A11.

Kan (element *e*) is modified by dotted lines in figures 53-55, but dots are visible also in figure 60. Element *f* is again the Ten-Derivate in some variation.

For the beginner in these studies the extreme variants and the substitutions are bewildering, but they afford to the more advanced student a means of eventually penetrating the meaning of the hitherto completely undecipherable parts of the inscriptions.

GROUP 13

Another glyph pair in which Kan is one of the main elements is reproduced in all its variations in figures 61-71. The prefix of Kan in all specimens is identical. Its origin and significance will be discussed when we come to groups 24 and 25, where we shall find variants that are better suited for explanation. Kan itself here shows only a little variation, with the exception of figure 67, where it is represented by a human head. The small Flames or fire elements of the suffix *c* also have more or less the same shape. In figure 66 however they are somewhat distorted, owing to the fact that the whole group has been compressed into one glyph block.

The second glyph compound (B) is built up of a Sun-Disc (lying on?), an outstretched Hand, the Moon, and one or two small Ahaus, which can be recognized in practically all the specimens.

In most of these glyph groups at least the outline of the elements can be traced except in figures 67-70 where they are either partly destroyed or too heavily eroded. In figure 69 the details are a little disfigured by the peculiar technique of the relief, but the sun disc and the hand are sufficiently clear to enable one to identify the glyph pair in question.

A very significant substitution has been made in figure 71, where a variant of the Hand-Corpse-Head stands for the Hand-Sun of the usual specimens. This substitution may

throw light on the significance of both hieroglyphs.

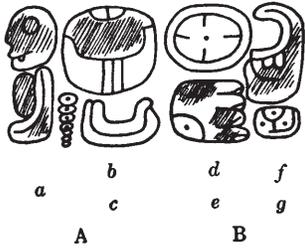


Fig. 61
Monjas, IV, B5-C5.

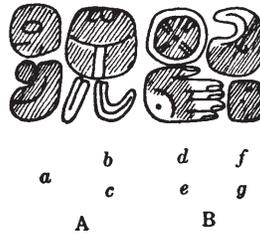


Fig. 62
Yula, Ia, A1-2.

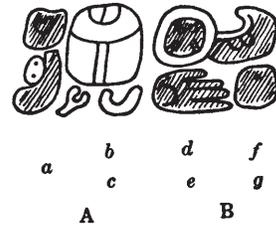


Fig. 63
Four Lintels, III, A B1.



Fig. 64
Initial Series, C D1.

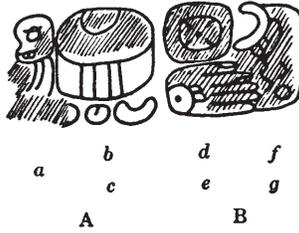


Fig. 65
Hieroglyphic Jambs, D E1.



Fig. 66
Monjas, III, A5.

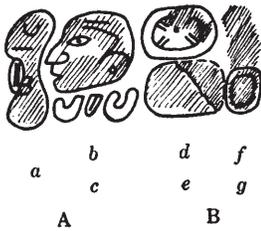


Fig. 67
Four Lintels, Ia, A1-B1.

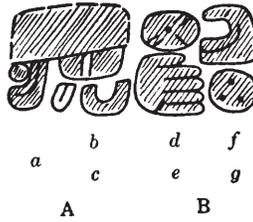


Fig. 68
Yula, IIa, A1-2.

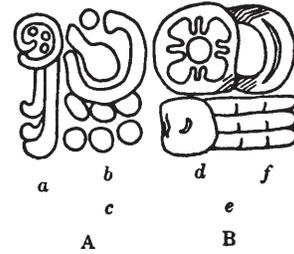


Fig. 69
Monjas, Annex.

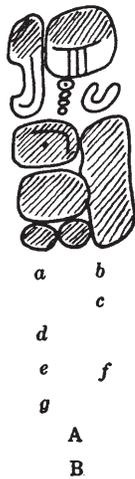


Fig. 70
Monjas, I, A1.

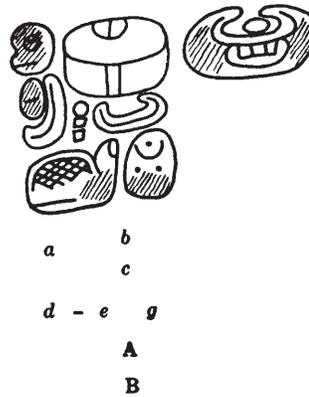


Fig. 71
Monjas, VIII, A B1.

GROUP 14



Fig. 72
Four Lintels, II, E FI



Fig. 73
Yula, II, A B3.

Glyph B of the last group is used as glyph A of the new group (figs. 72 and 73). Both of these glyphs are much worn, but the contours and inner lines which remain are more than sufficient to establish the identity of this characteristic hieroglyph.

The accompanying glyph B is also nearly destroyed in both cases, but by comparison with other occurrences of this compound it can be identified as having as its main sign the same shell with three dots or circlets which we encountered in group 11. Above this element in figure 72 and before this element in figure 73 is an angular double Flame. The Ten-Derivate is used as postfix or subfix while the prefix is a composite sign with outlines of the Vulture emblem but filled with crosshatching.

GROUP 15

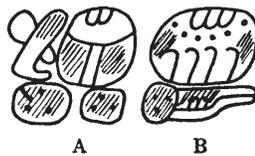


Fig. 74
Four Lintels, I, G H2.

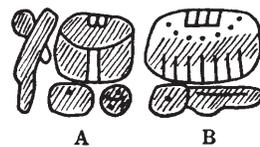


Fig. 75
Four Lintels, II, G H7.

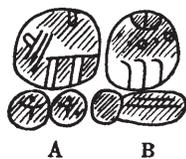


Fig. 76
Halakal, a, E2.

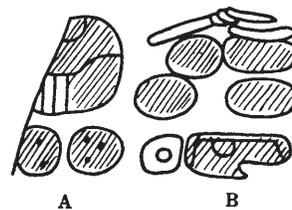


Fig. 77
Caracol, Hieroglyphic Band, 7.

Kan, with a hatchet as prefix, is the first glyph in the pairs of figures 74-76. In figure 76 the hatchet seems to be employed as infix in Kan. Two small Ahaus serve as subfixes. The second main glyph is the Imix-Variant which we have seen in former series. Its subfix is a composite hieroglyph consisting of the Green-stone-Disc and the Teeth element.

Figure 77 probably belongs to this group, although the Imix-Variant is unrecognizable. Possibly it is replaced by another hieroglyph which is too greatly mutilated to be determined.

GROUP 16

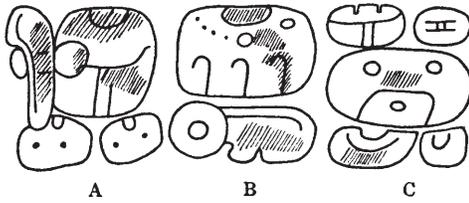


Fig. 78
Akab Tzib, A4-C1.

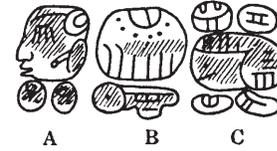


Fig. 79
Monjas, IV, Z2-3.

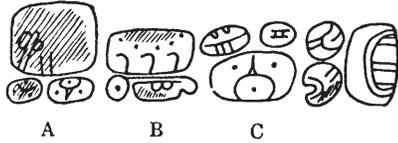


Fig. 80
Monjas, IIa, C.

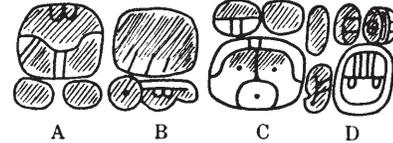


Fig. 81
Monjas, III, Z3-4.

The same glyph pair, here followed by the hieroglyph Ahau, constitutes the next series (figs. 78-81). In the worn Kan specimens of figures 80 and 81 the hatchet seems to be incised on the Kan sign as it was in figure 76. The human head as glyph A in figure 79 unfortunately is clear only in its contours, but by its position it must be equal to Kan with the hatchet. The two small Ahaus under it support this assumption.

The great Ahau of glyph C in figure 80 has its usual affixes augmented by the Ten-Derivate, to which in figure 81 Landa's "i" is added, a combination which is known to us already from its occurrence in group 8. These additions possibly do not change the significance of the series, and may have only a general meaning attached to Ahau. The hieroglyphs of the Casa de las Monjas show a certain elaboration which makes such a simple explanation acceptable.

GROUP 17

Imix with the same affix as in the two preceding groups seems to occur also in figures 82 and 83 (as glyph B), although it is much defaced. Glyph A of this group is formed by a jar-shaped object out of which something issues. Since the object, resembling a jar in outline, is covered with parallel lines in diverging directions, possibly it may represent a receptacle made of rushes or palm leaves.

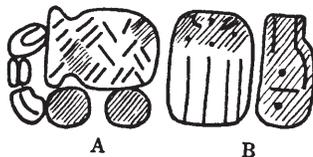


Fig. 82
Four Lintels, IV, G H4.

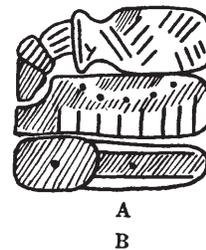


Fig. 83
Yula, I, F5.

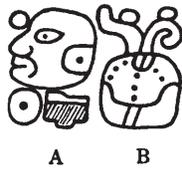


Fig. 84
One Lintel, E2.



Fig. 85
Monjas, III, D1.

A dotted Kan hieroglyph from which two Flames arise, each having a tooth or circlet, is well preserved in figure 84, while the corresponding Kan in figure 85 has suffered partial defacement. The decorated Flames in figure 85 take the shape of open Serpent-Jaws.

The human head with the composite affix which we saw in connection with the Imix variants is in fairly good condition in figure 84, while both these glyphs are much worn in figure 85.

HIEROGLYPH BIVALVE-SHELL IN COMBINATIONS

In the series in figures 86-89 Kan occupies the last place. It has the Owl-Plume and Flames as affixes. These small Flames, however, come out clearly only in figure 88, while they are so closely united with Kan in figure 89 that they seem to form a new hieroglyph. The real conditions may be ascertained only by the comparison of these two elements in figures 88 and 89. In figure 86 the Flames are lacking, while figure 87 is too worn to show whether or not they originally existed in the lower part of Kan.

The first hieroglyph of the series (A) probably means "end".¹ In figure 88 there is another ending sign as prefix. The second serial hieroglyph (B) has the prefix we found in group 13. Its main sign, a curved body with two shells (clearly preserved only in fig. 88), represents a Bivalve-Shell with its animal, which in figure 89 has Kan, "yellow", as infix. Below this curious animal is an oval subfix, in which U-shaped elements are discernible.

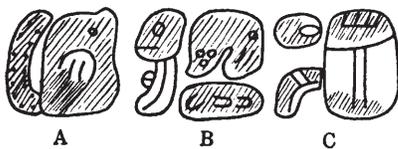


Fig. 86
Three Lintels, I, F2-G2.

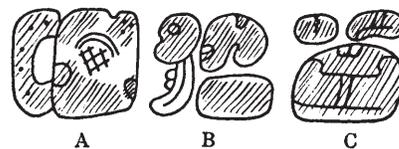


Fig. 87
Four Lintels, III, CI-C2.

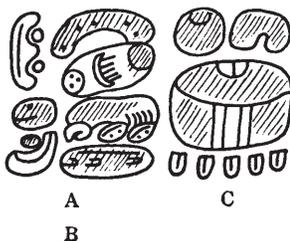


Fig. 88
Monjas, VII, B3-A4.



Fig. 89
Monjas, Va, D.

¹ This sign will be discussed in detail in a special paper, where it will be identified as Gougged-Eye.

GROUP 20

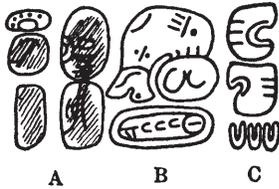


Fig. 90
Casa Colorada, 23-25.

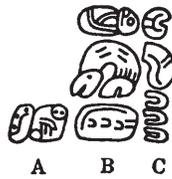


Fig. 91
Casa Colorada, 55.

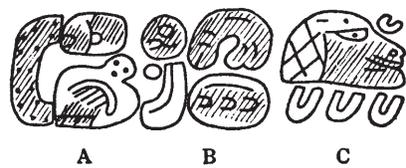


Fig. 92
Yula, I, C5-C7.

These series (figs. 90-92) are like those of the preceding group, except that the Kan glyph is missing. All the other glyphic elements occur with slight variations of position and minor details. Only figure 92 offers an exception, inasmuch as the hieroglyph Owl-Plume is replaced by a fantastic head, which, as we shall see later on, is that of a dog with a symbol to the left. The ending hieroglyph (glyph A) has additional signs in figures 90 and 92. In figure 90 it is so much damaged that only the affix with dots is recognizable.

GROUP 21

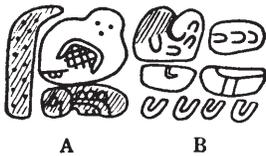


Fig. 93
Four Lintels, I, D2-C3.

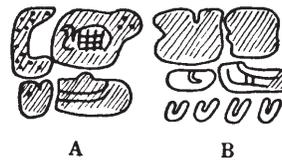


Fig. 94
Four Lintels, IV, D3-C4.

The two glyph pairs shown in figures 93 and 94 can be classified as parallel representations notwithstanding the fact that the upper part of glyph B in figure 94 is almost completely destroyed. They are, furthermore, identical in all elements with those of group 20, except the main sign of glyph B which has a hook-like indentation above. This form may well be only a variant of the Mollusk. However, as this assumption cannot be proved, it seems better to separate these two glyph pairs from those of the former group.

GROUP 22

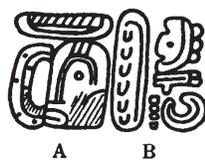


Fig. 95
Monjas, IVa, C2.

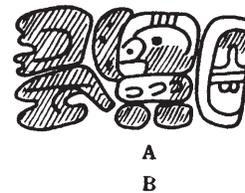


Fig. 96
Monjas, Ia, B1.

Figures 95 and 96 probably are parallels, although only two of their respective hieroglyphs, the head of god C and the oval with U's, are identical. Above the fantastic head in figure 95 appears the Eyelash to which the indistinct prefix in figure 96 must correspond. The two final signs are entirely different in form, but probably are similar in significance.

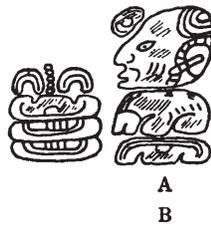


Fig. 97
Monjas, IVa, C2.

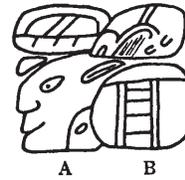


Fig. 98
Akab Tzib, G2.

The Mollusk again is represented in the manner of groups 19 and 20 in figure 97. In my opinion, figure 98 is a parallel to figure 97, and the upper part of B in figure 98 a simplified conventional form of the Mollusk. The human head (deity of the number One) is very similar in both glyph groups, while the remaining details show great differences, the explanation of which cannot be ventured upon here.

HIEROGLYPH MANDIBLE IN COMBINATIONS

GROUPS 24 AND 25

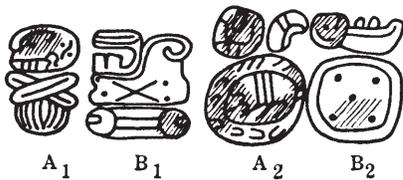


Fig. 99
Monjas, IVa, B-C.

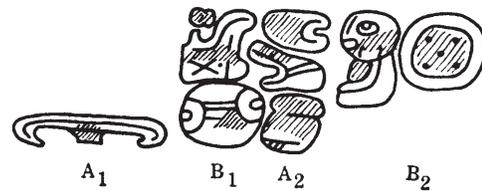


Fig. 100
Monjas, IV, E2-4.

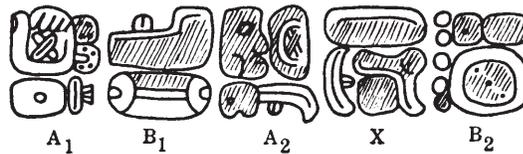


Fig. 101
Initial Series, D5-D7.

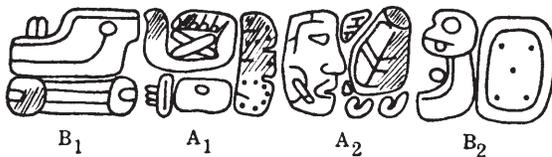


Fig. 102
One Lintel, D1-E1.

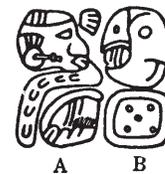


FIG. 103
Casa Colorada, 26.

A glyph series, undoubtedly composed of two groups, is represented by figures 99-102. In figure 103 the second group is given by itself, while in all other instances it is coupled with the first composite sign, whose main glyph is a fleshless lower jaw (a human mandible or maxilla). Under the Mandible a Long-Bone with longitudinal lines is found in all cases.

In figure 99 glyphs A₁ and B₁ probably mean “End of Mandible” cycle. Homologous to the ending sign there appears in figure 100 another common sign of the

same meaning and in figures 101 and 102 a Hand with affixes to which we are entitled to give the same symbolic value, that is, “end”, “ending”. The Hand as an ending sign is well known, although not in exactly this composite glyph. Thus, there is some probability that our inference is justified. In figure 102, the Hand ending sign is put after the Mandible glyph.

The first sign of the second group (A_2) has as main sign a Serpent-Segment with vertical lines (or a bar) surrounded by a frame with loop-shaped details. The Serpent-Segment is fairly clear in figure 99, and the small loops appear on the circular band. Above this combination is the Owl-Plume. It is very large in figure 100, while the details of the glyph below are too worn to be made out, although by its position in the series it must have been originally the Serpent-Segment. In figure 103, then, the Plume is replaced by the Deity-Head as in figures 42 and 55. Probably the turned heads in figures 101 and 102 also have the same role. The details that must correspond to the Serpent-Segment and its ornament are disfigured, but enough traces remain to recognize in figure 102 the upturned symbol with one bar and in figure 101 the same with two bars. In figure 101 a glyph (X) is inserted after A_2 .

The terminal signs of the series (B_2) are identical in figures 100 and 102, and very similar in figures 99 and 101. In figure 103 a head is employed that appears to be that of a parrot; however, it is probably that of a tortoise. The difference between the full head of figure 103 and the narrower affixes in the other cases is caused by the circumstance that in the latter only the forepart of the tortoise head is used. The main sign of glyph B_2 in all cases is the Greenstone-Disc with five dots or circlets.

GROUP 26

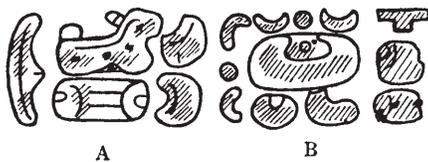


Fig. 104
Caracol, Hieroglyphic Band, 11.

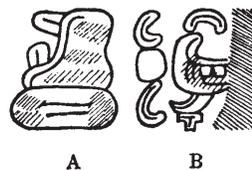


Fig. 105
Halakal, A5-6.

The Human Mandible with the Bone suffix can be recognized in figures 104 and 105 also, notwithstanding the fact that some details are lost, especially in figure 105. In figure 104 this composite glyph is enriched by an ending sign as prefix and what is probably the Owl-Plume as postfix.

The second hieroglyph evidently is “1 Moon”. The Moon sign is partly covered by another hieroglyph in figure 105. Under it is seen a T-shaped detail which also occurs in figure 104 but in another place.

There is possibly another specimen of this series in glyphs C D2 of the Temple of the One Lintel; at least the first glyph of the pair seems to be the same. The second glyph, however, is now too indistinct to allow its identification.

GROUP 27

The outline of the Jawbone can be discerned in glyph B of figure 106, but in figure 107 it is broadened, probably with the idea of providing space for the inscribed symbol, and thus deviates somewhat from its usual representation. However, the characteris-

tic curves and two teeth in front suffice for the determination. The Crossed-Bands as infix is an interesting and rare variant. Under the Mandible is found a glyph which we shall call the Bundle. We had it in figure 46 and shall meet it again in other composite hieroglyphs. In figure 107 appears an indistinct superfix.

Of glyph A only the Tun disc or sign Muluc is clear; the other details are partly or entirely destroyed.

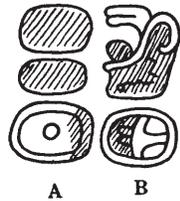


Fig. 106
Monjas, V, E3.

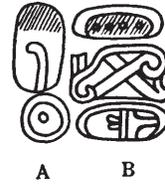


Fig. 107
Casa Colorada, 15.

GROUP 28

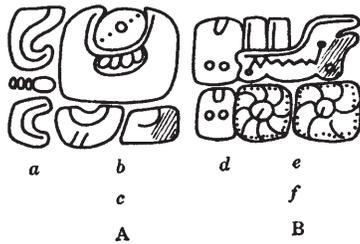


Fig. 108
Akab Tzib, a, D2-E1.

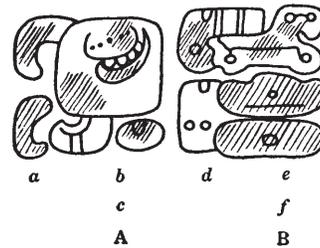


Fig. 109
Akab Tzib, A2-A3.

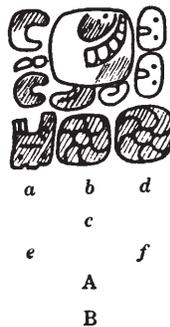


Fig. 110
Akab Tzib, D4.

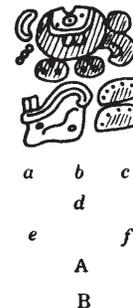


Fig. 111
Casa Colorada, 57.

In this group (figs. 108-111) we have the Moon as main sign in glyph A and the Mandible in Glyph B. Element *a* represents fire details, element *c* the Owl-Plume, element *d* two small Ahaus, and *f* a peculiar double glyph, evidently of fire symbolism. In figures 108 and 109 the small Ahaus are employed as prefixes of Mandible, while in figures 110 and 111 they are affixes of the Moon sign, this being probably the more correct use.

GROUP 29

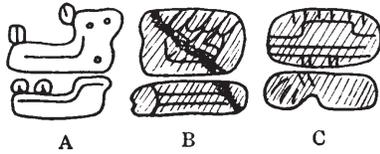


Fig. 112
Four Lintels, III, B4-B5.

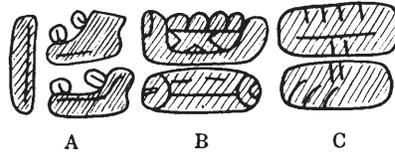


Fig. 113
Four Lintels, III, F7-F8.



Fig. 114
Four Lintels, IIIa, D2.

The Mandible in duplicated form is seen in glyph A of the following series (figs. 112-114). In figure 113 it has an indistinct prefix. Glyph B is much damaged in figures 112 and 113, but in figure 114 fortunately is well preserved; it represents the Hand-with-Crossed-Bands and the Bone as subfix. Glyph C is in all three cases rather worn, and only with difficulty can the inverted Day-Sky be made out. Its subfix, the Skein, is also largely destroyed.

HIEROGLYPH LONG-BONE IN COMBINATIONS

GROUP 30

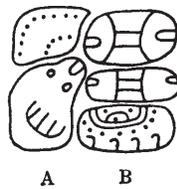


Fig. 115
Akab Tzib, a, E2.

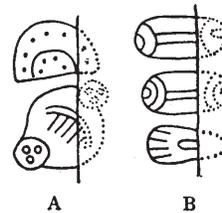


Fig. 116
Casa colorada, 57.

The Long-Bone with longitudinal lines, in double form, is the main sign of glyph B of group 30, which probably is the most important part of this combination (figs. 115 and 116). In figure 115 its subfix is an Imix with inserted Ahau, while in figure 116 it seems to be a Down-Ball; but as this detail is small and indistinct in the incomplete original sculpture its determination is not safe. Glyph A is the Gouged-Eye with a prefix of two dotted lines, a compound that seems to mean “end of . . .”

GROUP 31

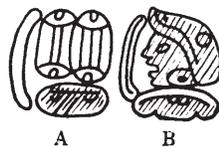


Fig. 117
Initial Series, E4-F4.

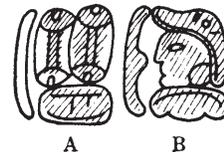


Fig. 118
Initial Series, D8-C9.

“End of Double Bone” cycle or phenomenon also must be the meaning of glyph A in figures 117 and 118. The Long-Bones are here in vertical position and the ending sign is the common small hieroglyph in reduced form, the teeth being suppressed or indistinct. The subfix seems to be the usual one.

Glyph B again seems to signify “end of” something, this something being a human head with a peculiar headdress, which possibly is an animal head. The suffix is the common Fire-Teeth element.

GROUP 32

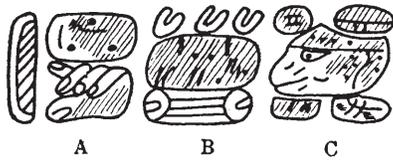


Fig. 119
Yula, II, F7-F8.

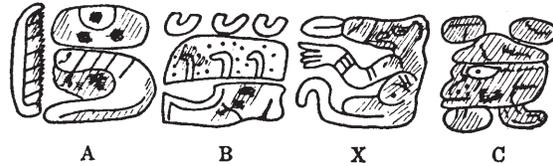


Fig. 120
Yula, I, G1-H2.

In this series glyph A is identical in both variants (figs. 119 and 120), a Hand with Eyelash as prefix and Ahau as superfix.

Glyph B is clearly the Bone with longitudinal lines in figure 119 and equally clearly is not this Bone in figure 120. Most probably a blemish in the stone impeded the sculptor in chiseling out the Long-Bone and he represented some other bone instead. The inserted glyph X in figure 120 probably explains in some way the irregular bone. It seems to be a dog with a human arm. Now the Long-Bone often is associated with the dog's head in hieroglyphics. The two superfixes of glyph B evidently are identical, although the second superfix in figure 119 is much defaced.

Finally, we have the typical Chichen Itza Ahau with its superfix and suffix as glyph C.

GROUP 33

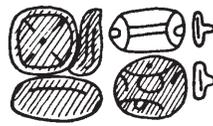
In glyph A of this group the Sun-Disc (element *a*) and the Sun-Beard (element *b*) are always present, while the third element varies. In figures 121, 125, 126, 127, it is the simple character consisting of two lines and two dots, but in figures 128-130 the body of the sign has crosshatching with a tiny Ahau of three dots on one side. We have seen these two signs as equivalent in group 12, but here in figures 128 and 129 they are much better preserved.

Glyph B has as its main sign a Skull in which we can recognize the great eye, and the fleshless teeth and nose, while other details do not show clearly. As affixes it has the Bone with longitudinal lines and Ahau. The latter assumes its variations, already well known to us. The simple Ahau is seen in figures 124-129, the double normal form in figures 123 and 130, and the T-like variant in figures 121 and 122.



a d
b e
c f
A B

Fig. 121
One Lintel, H2.



a b d f
c e
A B

Fig. 122
Initial Series, E6-F6.



a b d e
c f
A B

Fig. 123
Three Lintels, Ia, D2-EI.



a d
b e f
c
A B

Fig. 124
Four Lintels, III, E2.



a b d e
c f
A B

Fig. 125
Four Lintels, II, A7-B7.



a b d
c e f
A B

Fig. 126
Four Lintels, I, G1-H1.



b a d
c e f
A B

Fig. 127
Three Lintels, III, F2-GI.



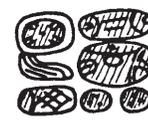
a b d e
c f
A B

Fig. 128
Four Lintels, II, E7-F7.



a c d
b e f
A B

Fig. 129
Four Lintels, IV, F7-E8.



a d
b e
c f
A B

Fig. 130
Four Lintels, IVa, D2.

The hieroglyph Yax as element *b* is in most instances sufficiently well preserved to be deciphered without difficulty. Then comes in *d* a sign somewhat similar to Skein but probably representing a Tied Rope.

Element *e* is the Eyelash in its simple form in figures 131, 132, 134 and 136, and as a head variant in figures 133 and 135. Also element *f* appears as the usual flat Teeth sign in figures 131, 132, and 133, while it assumes main sign size in figures 134-136. It is regrettable that these interesting variants are not better preserved.

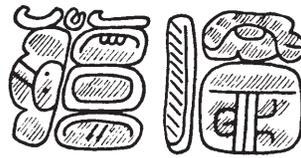
Finally, in C the usual enriched Ahau hieroglyph in different variations is found in figures 131-135. In figure 136 it does not follow A B, and figure 137 does not allow a satisfactory analysis of its second compound glyph.

GROUP 35



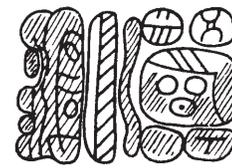
	<i>a</i>	<i>f</i>
	<i>c</i>	
<i>b</i>	<i>d</i>	<i>g</i>
	<i>e</i>	<i>h</i>
	A	B

Fig. 138
Caracol, Stela, K L5.



	<i>a</i>	
	<i>c</i>	
<i>b</i>	<i>d</i>	?
	<i>e</i>	
	A	

Fig. 139
Glyph A of Group 35, Caracol, Stela, K L1.



				<i>f</i>
<i>a</i>	<i>b</i>	<i>d</i>	<i>e</i>	<i>g</i>
				<i>h</i>
			A	B

Fig. 140
Caracol, Hieroglyphic Band, 10.

This glyph pair (figs. 138-140) resembles the foregoing series in most of its component parts. To the details *a*, *b*, *e*, and *j* of glyph A of group 34 correspond *a*, *b*, *d*, and *e* of figures 138 and 139. One is inclined to see in detail *c* (the Teeth symbol) a substitute for the dog's head. In figure 140 element *c* seems to be missing. On the other hand, this composite hieroglyph contains the enriched Ahau, while in figure 139 it is replaced by an entirely different sign.

GROUP 36

The first two elements of this group repeat the corresponding details of groups 34 and 35, that is, the Flame combination and Yax, but absolutely different glyphs follow. Element *c* in figures 141 and 142 is a variant of the Muluc sign, a Greenstone-Disc with teeth. In figure 143 this hieroglyph is replaced by the common Teeth sign, while in figures 144 and 145 peculiar human heads take its stead. All five figures possess the glyph Bivalve-Shell-One in *d*, while the last element (*e*) is evidently the same sign more or less varied. The upper head in figure 145, possibly that of a bird, must stand for elements *a* and *b*.



Fig. 141
Halakal, a, G2.

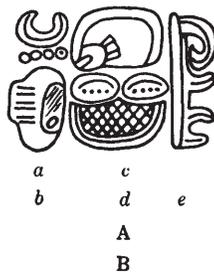


Fig. 142
Casa Colorada, 7.

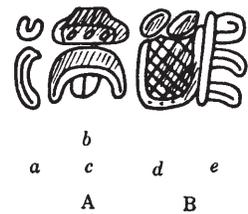


Fig. 143
Initial Series, a, E2-F1.

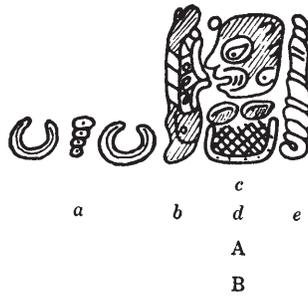


Fig. 144
Monjas, VI, C1-D1.

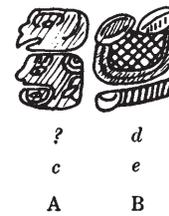


Fig. 145
Monjas, IIIa, E.

GROUP 37

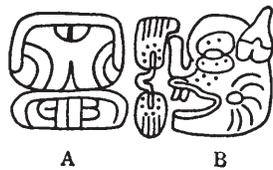


Fig. 146
Hieroglyphic Jambs, D8-E8.

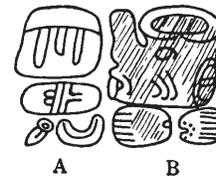


Fig. 147
Casa Colorada, 43.

The glyph pair in figure 146 is well preserved and clear, while the one in figure 147 is imperfect, although by comparison the corresponding parts can be identified. Glyph A has as main sign the hieroglyph Chuen or Uinal, resting on the hieroglyph Bundle. The Bundle glyph is also in good condition in figure 147, but the Chuen sign is indistinct. In figure 147 a simple Fire sign is added as second subfix.

The Bat-Head is well executed in figure 146, glyph B, and in its main traits is recognizable in figure 147. The prefix in figure 146, two Down-Balls with a central element, is changed into a subfix without the central part in figure 147.

GROUP 38

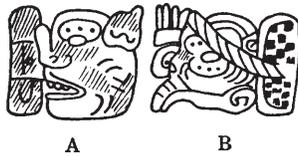


Fig. 148
Hieroglyphic Jambs, C5-A6.

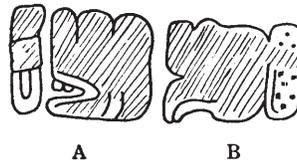


Fig. 149
Hieroglyphic Jambs, E F3.

The fairly well preserved figure 148 allows us to determine its glyph A again as the head of a bat and B as that of a vulture. The much damaged figure 149 evidently was once its exact repetition. The prefix of A is different from that employed in glyph B of figure 146, but will be found in the following series in figure 158. The bird's head can be determined as that of a vulture because of the characteristic symbol in front of it. The bird carries another symbol, a kind of Checkerboard, in a tumpline.

GROUP 39

This group appears in many versions, so that details which in several instances are destroyed or partly rubbed off can be supplemented by those that are intact.

Glyph A begins with an ending sign which is the simple Teeth character in figures 150-157 and also in figure 162. In figure 158 it is replaced by a tripartite sign, whose central part is a perforated disc. This peculiar affix is generally used with the Bat-Head in the ruins of the Old Empire. A variant of it was also employed in the foregoing group. A familiar ending sign is employed in figure 159, while the remaining two (figs. 160 and 161) are too badly damaged to allow classification.

The Bat-Head in many cases is clearly represented; in a few examples, however, it is somewhat arbitrarily treated (figs. 154-156). Under it (figs. 150, 151, 158, 159, 161, and 162), or beside it (figs. 152-157, 160), is the Gouged-Eye glyph. Then follows a variant of the Teeth glyph (element *d*) which in figure 152 is employed twice, while it is missing in figures 158-161. Here, as in some other cases (fig. 135, element *f*), it is replaced by a Head-with-Closed-Eyes. The Teeth hieroglyph often signifies "end" and the eyes with drooped lashes mean "death" in Maya symbolism.

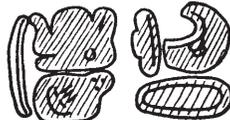
The main sign of glyph B of the series is the Moon. It has the usual form in figures 152-157, while in figures 150 and 151 it is partly covered by element *d*, and in figures 158-161 it is fused with the Human-Head. In figure 162 an incomplete Moon sign like that in figures 150 and 151 seems to be represented.

The Bundle as an affix (element *f*) comes out clearly in some cases (figs. 153, 154, 160), while in many others it is weather-worn. In a few instances it is replaced by another sign, consisting of two small discs, of which only the contours remain (figs. 157, 158, and 162). Possibly the details of two Ahaus once were incised upon them.



a b d e
c f
A B

Fig. 150
Initial Series, C D3.



a b d e
c f
A B

Fig. 151
Initial Series, E F1.



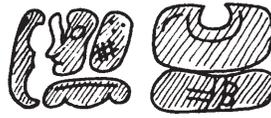
a b c d e
d f
A B

Fig. 152
Three Lintels, III, B2-CI.



a b c e
d f
A B

Fig. 153
Four Lintels, IV, B4-A5.



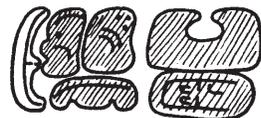
a b c e
d f
A B

Fig. 154
Four Lintels, II, B3-A4.



a b c e
d f
A B

Fig. 155
Four Lintels, I, A B4.



a b c e
d f
A B

Fig. 156
Four Lintels, I E F2.



a b c e
d f
A B

Fig. 157
Four Lintels, III, A B2.



a b d - e
c f
A B

Fig. 158
Monjas IV, D5-E5.



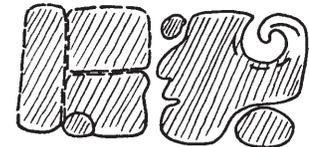
b d - e
a c f
A B

Fig. 159
Monjas, IIIa, A.



a b c
d - e f
A B

Fig. 160
Monjas, II, B5.



a b d - e
c f
A B

Fig. 161
Monjas, V, D E5.



b d
a c e
f
A B

Fig. 162
Monjas, VI, D E5.

HIEROGLYPH TORTOISE-SHELL IN COMBINATIONS

GROUP 40

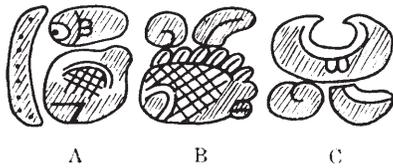


Fig. 163
Yula, A7-A8.

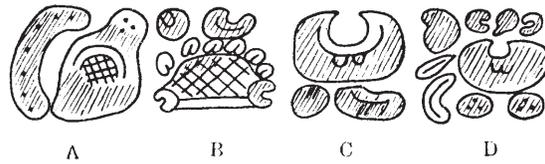


Fig. 164
Four Lintels, I, D3-D4.

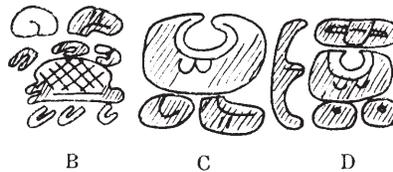


Fig. 165
Four Lintels, IV, G7-H8.

In some previous groups we have seen the tortoise head as a hieroglyph; in figures 163-168 we have its shell. It is found as glyph B in group 40, C in group 41, and A in group 42. The Carapace is surrounded always by simple Flame signs and by the Owl-Plume symbol. In figure 167 the Owl-Plume is replaced by a head which evidently is like that in figure 92—a dog's head.

The series in figure 165 is without glyph A, the Gouged-Eye, while in figure 163 the peculiar Moon sign (glyph D of this group) is missing. That the ending sign Gouged-Eye was omitted in figure 165 probably was caused by the fact that this character is represented just one glyph block before this series and the sculptor did not want to repeat it so soon.

The two different Moon glyphs of group 40 (glyphs C D) have occurred already in group 3.

The Tortoise Shell with Flames means “shine”, “brilliancy”, and figures 163-165, consequently, signify “End of Shining Moon”.

GROUP 41

In this series (figs. 166-167) the homologous members of the two versions are indicated by small letters once more in order to facilitate comparison. Here the Owl-Plume is not immediately adjoining the Carapace, but is separated from it by the sign Eyelash. This characteristic detail makes the identification certain, although element *d* is defaced in both instances, and element *c* is not identical. In figure 166 *c* is the Eyelash and in figure 167, the Death-Hair; thus we are dealing here with closely related symbols.

Figures 166 and 167 will have to be interpreted as “End of Shine”.

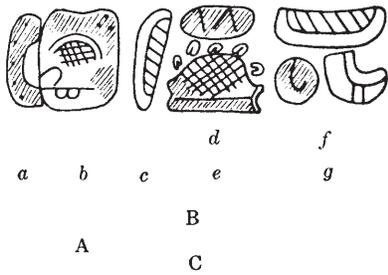


Fig. 166
Four Lintcls, II, H5-H6.

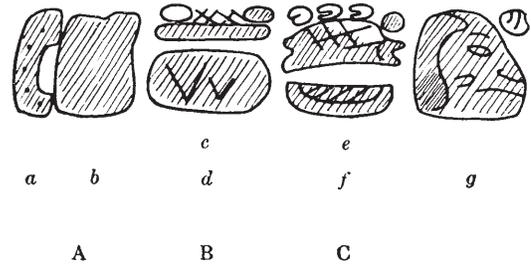


Fig. 167
Four Lintcls, III, EI-F2.

GROUP 42

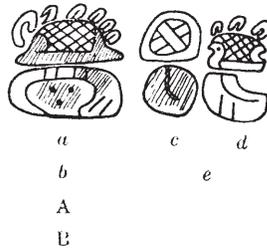


Fig. 168
Four Lintcls, IV, D7-C8.

Figure 168 has the Tortoise-Carapace (elements *a* and *d*) twice, the Shell-Ornament in *b*, Crossed-Bands in *c*, and Owl-Plume in *e*. The repetition of the Carapace possibly is caused only by space conditions, being used just as a filler.

GROUP 43

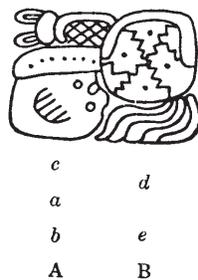


Fig. 169
Akab Tzib, a G1.

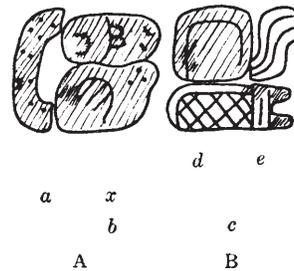


Fig. 170
Yu1a II, E F1.

In figure 169 glyph B probably represents a piece of Tortoise-Shell. Possibly it is to be considered as the Tun glyph, for it has the Sun-Beard below. The turtle or tortoise among the Maya was an animal connected with rain, which fact may explain the substitution. On the other hand, Tortoise Shell is undoubtedly a symbol of brilliancy and thus it may mean again “End of Shine”

With this hieroglyph must be connected the affix having crosshatching, although in figure 169 it is placed over the Gouged-Eye glyph. In figure 170 the glyph representing the Tortoise-Shell is obliterated completely, except for its bare contour, and it is only by the other elements present that it may be classified properly

Glyph A is still the Gouged-Eye with dotted curve. In figure 170 a Muluc Variant is added.

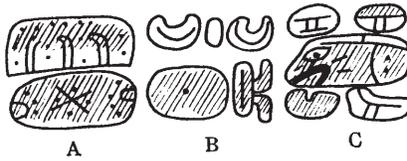


Fig. 171
Yula, I, B8-D1.

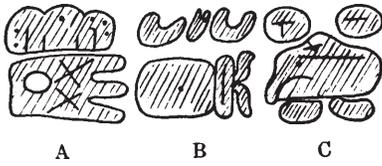


Fig. 172
Yula, II, B8-D1.

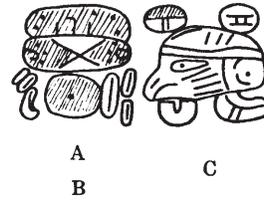


Fig. 173
YuIa, II, F2-F3.

The first glyph of this series is unfortunately somewhat effaced in all three cases (figs. 171-173); however, enough details remain to permit its classification as a flint implement with three dotted elements above it. In figures 171 and 173 the flint has the shape of a knife or a spearhead, while in figure 172 it may represent a kind of weapon described by Follett¹ as a three-bladed claw knife.

The second hieroglyph (B) is slightly different from the similar sign which we have called the Vulture emblem. It is different also from the usual Zac sign. We cannot, then, identify it with either one and must leave it as one of our many unsolved problems. Some Flames accompany this glyph.

The third hieroglyph (C) is Ahau in its bird head variant. Above and below appear the usual affixes.

GROUP 45

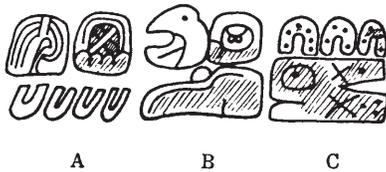


Fig. 174-Four Lintels, I, H2-H3.

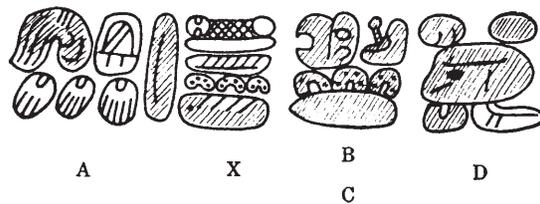


Fig. 175-Four Lintels, IV, G4-H5.

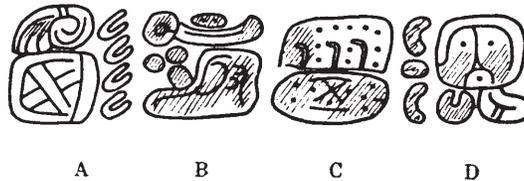


Fig. 176-Four Lintels, II, G1-H2.

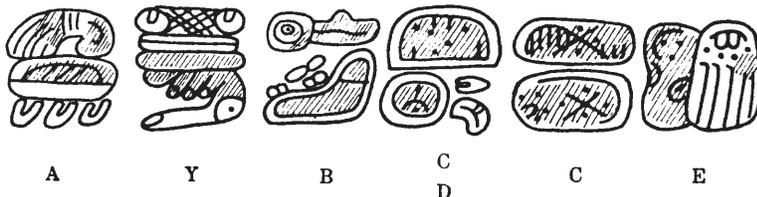


Fig. 177-Yula, I, G6-H8.

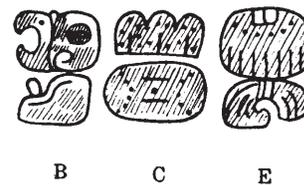


Fig. 178-Initial Series, F8-F9.

¹ Follett, 1932, pp. 388, 391.

In this series the flint object again is badly preserved (glyph C), but on the whole I think there cannot be any doubt that it corresponds to the knives with wavy lines (the Etnab sign) in the codices. The three dotted elements on top of the knife are fairly clear in figures 174 and 175 but are fused in figures 176-178. In figure 174 the curious flint weapon we saw in figure 172 is again represented; this time it has only two salient details.

Glyph A has the Skein in combination with the hieroglyph Serpent-Segment-Crossed-Bands. The usual Flame affix is replaced in figure 175 by three Down-Balls.

The upper part of glyph B is the Tortoise-Head in variants. In figures 174, 175, and 178 the whole head is represented, while in figures 176 and 177 the reduced, flat form is employed. In figures 175 and 178 only the outline, the eye circle, and a curved detail are preserved, while figure 174 has the complete eye.

The lower part of glyph B is not so surely determinable. In some cases it looks like the Mandible, but this probably is a misleading similarity; it seems rather to be a different hieroglyphic character.

Figures 175 and 176 have at the end an additional Ahau, which in figure 177 is inserted elsewhere.

The glyph E probably was regarded as part of the series, as it is the last hieroglyph in an inscription on a lintel (fig. 177). Probably E in figure 178 corresponds to it. In this case it is fairly clearly Imix-with-Skein as suffix. The Imix-Variant also is clear in figure 177, but the prefix remains indistinct.

Inserted hieroglyphs occur in figure 175 (designated as X) and figure 177 (designated as Y) between A and B.

HIEROGLYPH SPINDLE-SHAPED-OBJECTS IN COMBINATIONS

GROUP 46

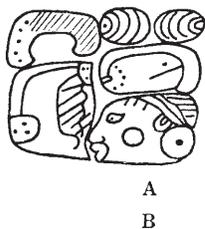


Fig. 179
Monjas, IVa, E.

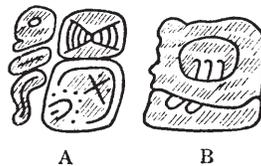


Fig. 180
Yula, I, H4-I5.

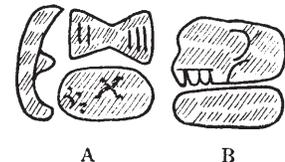


Fig. 181
YuIa, III, E6-F6.

Probably the three glyph pairs in figures 179-181 are variants of the same idea, although they show some dissimilarities. Only figure 179 is well preserved and in it we have, first, the ending sign Gouged-Eye occupying the left half of the complex. The right half is composed of three parts, the uppermost being the Double-Spindle. Under it is clearly a Cauac form resting on a human head which has as its distinguishing characteristic a circle on the cheek.

Ending signs are to be found also in figures 180 and 181, but the two Spindles deviate in form. Cauac is still recognizable in figure 180, while in figure 181 only a few indistinct traces of it are left. The two heads are much defaced; evidently each had a large circle in the face, which in figure 180 seems to have been filled by the sign Imix.

GROUP 47

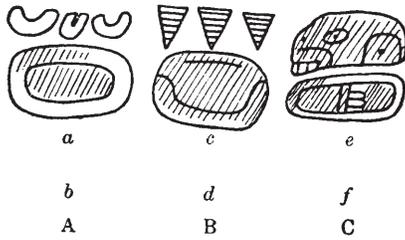


Fig. 182
Yula, Ia, CI-DI.

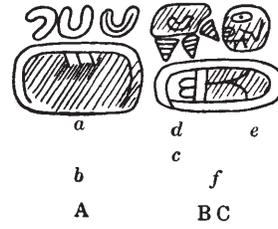


Fig. 183
Yula, I, E F1.

Possibly the three triangular objects with transverse lines (elements *c* in figs. 182 and 183) are only a variant of the Spindles. Glyph A is too much destroyed to permit any remark as to its significance. Above it a composite Flame Sign is seen. A head and the Bundle sign constitute glyph C of this series.

HIEROGLYPH FIRE-WOOD-BUNDLE IN COMBINATIONS

GROUP 48

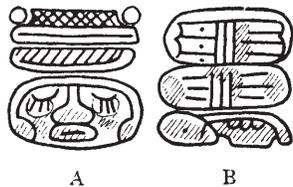


Fig. 184
Caracol, Stela, N3-M4.

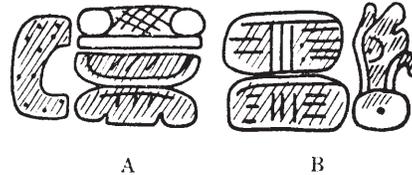


Fig. 185
Caracol, Hieroglyphic Band, 8.

Although partly effaced in glyph B of this series, the essential lines of two bundles of firewood in figures 184 and 185 can still be distinguished. Its affix is the composite character Greenstone-and-Teeth sign, this latter part taking extravagant shape in figure 185.

In glyph A we have what I consider a combination meaning “Ending”. Two of the respective component glyphs are identical; namely: (1) the sign with two circles at the ends and crosshatching between, and (2) the sign Eyelash. Under it we have in figure 184 the Head-with-Closed-Eyes, this time in front view, and in figure 185 a worn specimen of the Teeth sign. So again we have these two different symbols as equivalents. Before it in figure 185 is a curved double line of dots, an element we shall find employed several times as a mere space filler.

GROUP 49

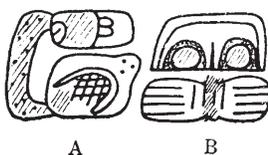


Fig. 186
Yula, I, C D2.

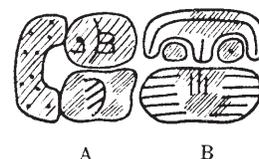
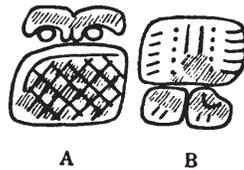


Fig. 187
Yula, II, G H7.

In this group (figs. 186 and 187) the Fire-Wood-Bundle is still more damaged, but I think enough vestiges remain to enable one to recognize it (glyph B). On top of it is an extraordinarily large Teeth sign; in fact, I am not sure whether this is not intended as a symbol of the planet Venus.

In A we perceive the Gouged-Eye glyph with dotted line and an additional element, the Muluc-Variant on top.

GROUP 50



A B

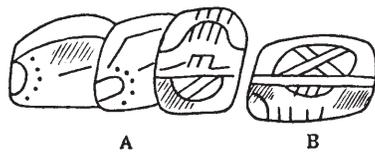
Fig. 188
Halakal, G7.

This group, represented by only one illustration (fig. 188), is annexed to the hieroglyph Fire-Wood-Bundle, because in external appearance it is almost identical with it (glyph B). A careful investigation of all its variants at the different Maya sites, however, makes it clear that it is really a composite glyph of two specimens of the Eyelash. Under it is an incompletely preserved Owl-Plume.

Before it in A is the large crosshatched One and above it the Teeth ending sign.

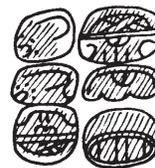
HIEROGLYPH SKY IN COMBINATIONS

GROUP 51



A B

Fig. 189
Monjas, VI, E3.



A B

Fig. 190
Monjas, II, E3.

The hieroglyphs that compose figure 189 have only slight blemishes and therefore can be identified easily as two Cauac-Variants in A, followed by the sign for Day-Sky in inverted position. The same hieroglyph Day-Sky is then repeated in glyph B, but this time in its normal position.

In figure 190 the same details can be made out in the first four glyphic elements, although in this case they are somewhat effaced. To these signs are added the Teeth character and the Ten-Derivate.

GROUP 52

Here we perceive in figures 191 and 192 what are evidently two variants of a combination of hieroglyphs in which Day-Sky has an important place (glyph A). Under it comes first a variant of the Teeth sign and then an inverted Ahau.

The next column is headed probably by a Greenstone hieroglyph (Muluc), under

which in figure 191 comes a human head with vertical lines and again an inverted Ahau. The corresponding details in figure 192 are almost completely obliterated.

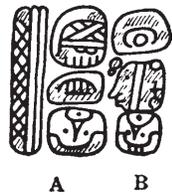


Fig. 191
Monjas, VI, E2.



Fig. 192
Monjas, II, B1.

GROUPS 53 AND 54

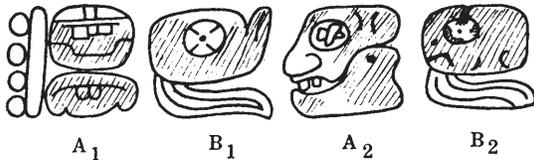


Fig. 193
Four Lintels, III, H1-G3.

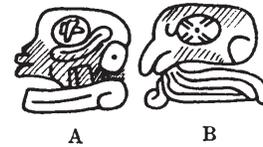


Fig. 194
Four Lintels, IV, B7-A8.

The series in figure 193 must be divided into two hieroglyphs. Group 53 consists of the Day-Sky groups, each consisting of hieroglyph with the Teeth subfix and the number Nine as prefix (A₁). This is followed by an animal head with the Sun symbol in its eye and the Sun-Beard as subfix.

The second group begins with an indistinct head (glyph A₂) which can be identified by a comparison with the Palenque variants as that for number Sixteen. In fact, the hatchet in the eye in both specimens (figs. 193 and 194) is fairly well preserved and the bony underjaw is also discernible in each. Then comes as second glyph of this group (B₂ in fig. 193 and B in fig. 194), again an animal's head with the Kin sign in the eye and Sun-Beard below.

HIEROGLYPH CROSSED-BANDS IN COMBINATIONS

GROUP 55

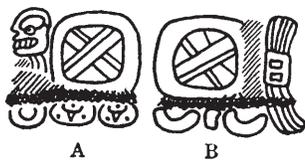


Fig. 195
Hieroglyphic Jambs, A B7.

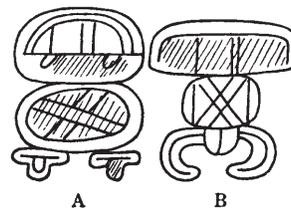


Fig. 196
Caracol, Hieroglyphic Band.

The Crossed-Bands form the upper half of the Sky glyph and sometimes they stand for it as *pars pro toto*, as we shall see later on. Thus it is justifiable to treat it immediately after the Sky series.

Both examples (figs. 195 and 196) are in part mutilated and eroded, but no important details are missing. The group begins with an ending sign. In figure 195 this has as upper part a skull, while in figure 196 it is replaced by Landa's "i". Then comes Crossed-Bands as main sign, having two different Ahau Variants as subfixes.

The second glyph (B) in figure 195 is clearly Crossed-Bands again as main sign. Under it appears a Flame combination and behind it possibly a Skein symbol. This element probably forms the superfix in figure 196. Under it is Crossed-Bands, but in reduced size. The subfix looks in this case almost like the Teeth sign, but by comparison with figure 195 it becomes clear that it is only an arbitrary combination of Flame details.

HIEROGLYPH SERPENT-JAW IN COMBINATIONS

GROUP 56

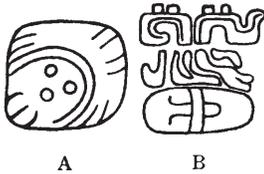


Fig. 197

High Priest's Grave, re-used Stela.

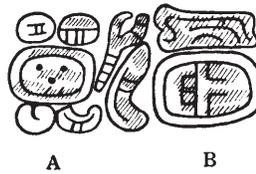


Fig. 198

Yula, II, A B6.



Fig. 199

Casa Colorada, 37.

We have seen in figures 84 and 85 the Double-Flame-with-Teeth resembling open Serpent-Jaws. This symbol and its substitute occur in a prominent place in figures 197-199. While figures 197 and 198 can be pronounced parallels, I am not sure about figure 199.

In figure 197 we note in glyph A an unfamiliar sign characterized by three circlets in the center. What seems to be the usual composite Ahau hieroglyph corresponds to it in figure 198. Entirely different is the ending sign in figure 199, consisting of a skull with other details.

As glyph B we have in figure 197 the upturned Flames adorned with Teeth. This symbol is replaced by two different Flame details in figure 198. But figure 199 has what surely are the upturned Serpent-Jaws.

Under the symbol in figure 197 is a sign composed of ragged details which probably is a peculiar representation of the Sun-Beard. In figure 198 this glyphic element is much worn but corresponds in outline to the Sun-Beard, while in figure 199 it is clearly this latter sign.

The subfix is clearly the Bundle in figures 197 and 198. In figure 199 it is too much effaced to allow identification.

PSEUDO GLYPH PAIRS

GROUP 57

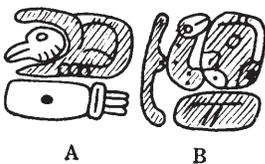


Fig. 200

Four Lintels, II, A B6.

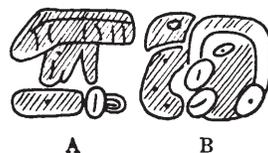


Fig. 201

Four Lintels, II, E F3.

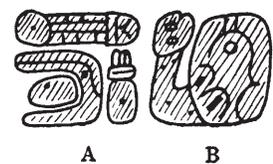


Fig. 202

Yula, II, C D5.

A mere schematic division of the inscriptions will give us the glyph pairs of groups 57 and 58 which, in my opinion, are only apparently groups. In reality, both are composed

of two independent glyphs which only accidentally came together a few times. At least, so far as glyph B of pair 57 is concerned, there can be no doubt that it appears in practically all other Maya texts as an isolated hieroglyph, and in Chichen Itza, too, it generally occurs unconnected. It represents the head of God C with a prefix consisting of two parts (figs. 200-202). In figure 200 it has also an ending sign in front and an indistinct subfix below.

Glyph A shows variants of a composite hieroglyph whose main sign is a small bird head in a kind of animal head with open jaws. All three have the Vulture sign as affix; figure 202 has besides a peculiar ending sign (>Centipede<) on top.

GROUP 58

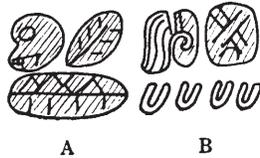


Fig. 203
Four Lintels, II, H3-G4.



Fig. 204
Four Lintels, IV, G H2.



Fig. 205
Yula, I, E F1.

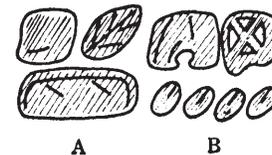


Fig. 206
Four Lintels, III, C D5.

Little can be said about glyph A of this group (figs. 203-206), except that it commonly occurs isolated and probably has a very vague and general significance. The hieroglyph consists of plated strips and probably signifies a roof enforcement. In figure 205 it seems to have been replaced by Landa's "i". On top of it is seen a skull and what probably is a macaw feather.

Glyph B, also, generally appears isolated or as the first sign of a group (see group 45). It has been analyzed in dealing with that group as Skein, Serpent-Segment-Crossed-Bands, and Flames.

With this group we have terminated our brief survey of the Chichen Itza hieroglyphs that can be classed as pairs and series. What remain in the texts are isolated glyphs. Single hieroglyphs, pairs, and short series are evidently the fundamental units in the texts. Often these units are combined with each other in the same sequence and so create the impression of being long series. A few examples for such compound series are given in figures 207-212; a few others have been described already in figures 99-102 and figure 193. By a careful perusal of the whole text material, however, it has been possible to determine those pairs and groups that play a role as such and, on the other hand, to split up the longer series that are only aggregations of simpler units.

In figures 207 and 208 two glyph pairs are combined, while in figures 209 and 210 a glyph pair is joined to a set of three glyphs. The long series of figures 211 and 212 can be subdivided into five glyph pairs and one glyph trio. These two combined series are parallel except that a single glyph (designated as X) is intercalated in figure 212.

When the units are not arranged in the same sequence, the parallelism of the sev-

eral series is not so obvious and the correspondence of the equivalent terms not so clear. I think, however, that the series shown in figures 213 and 214 deal with the same things and that the corresponding terms are correctly indicated by the lettering below them. Under this assumption, glyph I, the Bat-Head with fire symbols, is identical; glyph II occurs as Tun in figure 213 while in figure 214 it reads Ahau. The sense of the two formally different signs, however, is the same, since Tun in general can very well be rendered by Ahau in general as every Tun ends on some Ahau. In glyph III the heads probably are those of the same deity, namely that of number One. The affix probably means “end” in figure 213, and such a significance for the Eyelash in figure 214 is also quite possible. Finally glyphs A B have been treated already as equivalents. Although the variations of their details are great, they can be explained as different symbols for one idea in each case. Such an explanation, however, requires a great amount of comparative work and must be reserved for another occasion.

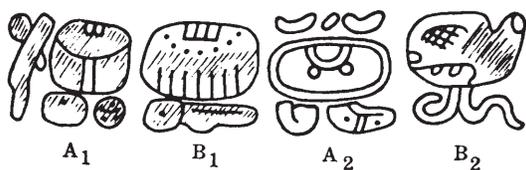


Fig. 207
Combined Series (Groups 15 and 2)

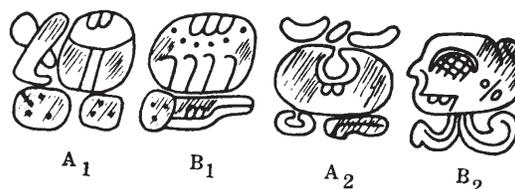


Fig. 208
Variant of fig. 207 (Groups 15 and 2)

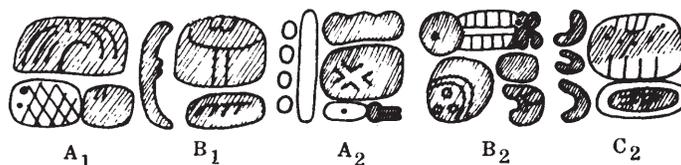


Fig. 209
Combined Series (Groups 12 and 11)

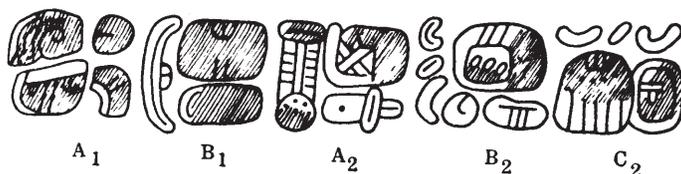


Fig. 210
Variant of fig. 200 (Groups 12 and 11)

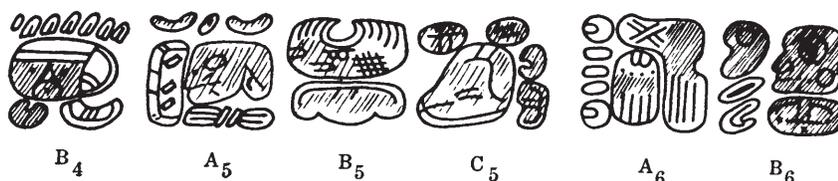
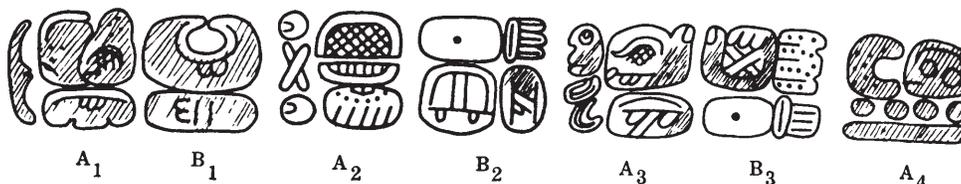


Fig. 211
Combined Series (Groups 39, 7, 5, 10, 34 and 9)

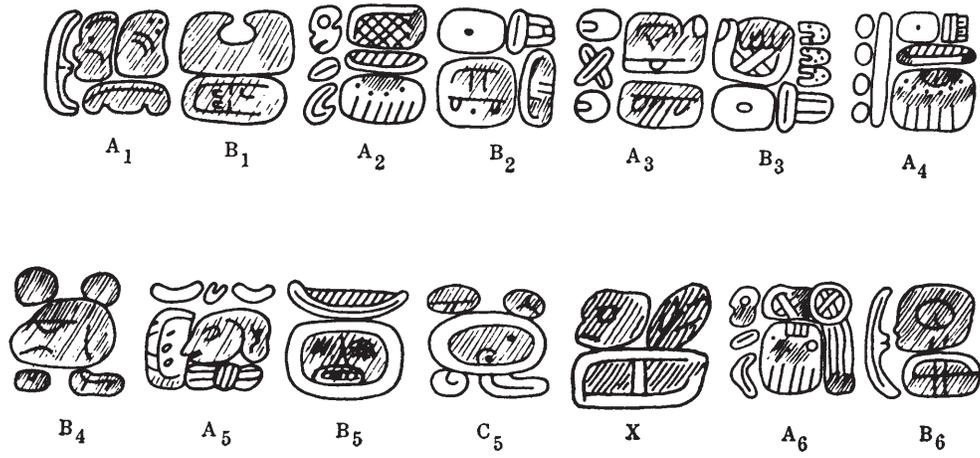


Fig. 212

Variants of fig. 211 (Groups 39, 7, 5, 10, 34, Single Glyph 556, Group 9)

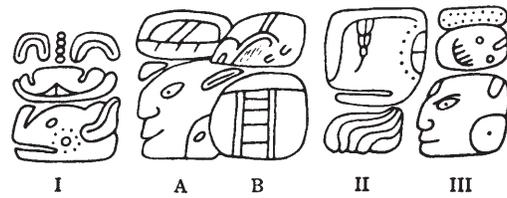


Fig. 213

Combined Series (Group 23, Single Glyphs 378, 750 and 369)



Fig. 214

Probable Variant of fig. 213 (Group 23, Single Glyphs 309, 379 and 368)