

THE INSCRIPTION.

THERE is one thing not discussed in the foregoing description of the Stairway, because of the absence of definite evidence bearing on the subject. I refer to the impression received while at work on the ruins of the structure, that all the parts were placed in position before they were sculptured. This does not of necessity mean that the whole stairway with its ornaments and accessories was built right up to the top before the sculpture was begun. This is perhaps improbable. At any rate, it is almost certain that each part was placed in position in the rough, and carved afterwards. The altar at the base, the seated figures, the ornamented balustrades, and the steps themselves, all were carved as it would seem *in situ*. It is easier to conceive of the nice adjustment of the adjacent parts having been achieved in this way. Where the lines of the sculpture intersect the joints in the stonework, there is no evidence of the disagreement or disproportion which would be more likely to occur if the stones were carved separately and placed in position afterwards.

More convincing than this, is the evidence in the carving of the glyphs at either end of the steps, which is never so deep or quite so finished as on the remainder of the step. It deepens gradually from the ends, and usually attains its normal depth between the first and second glyphs. There would be no apparent reason for this if the blocks were carved before they were placed in position, but it is easily understood if we suppose that the workmen were at the disadvantage that would be occasioned by the closeness of the balustrades, interfering with their work. There is nothing contrary, therefore, to the supposition that the carving of the inscription was done in the same order in which it is to be read, that is to say, from top to bottom, and that the top step with the beginning of the inscription was the first that was carved, and the lowest step with the end of the inscription was the last executed.

The incompleteness of the inscription, and the imperfect condition or entire obliteration of many of the glyphs in the part that remains, make it a less satisfactory subject for study than most of the long inscriptions at Copan, Quirigua, Palenque, and Piedras Negras. In most of these the initial series as well as many other time reckonings have been deciphered, and the texts are sufficiently legible not only to render the reading unequivocal, but to determine beyond question the significance of the reckonings in relation to a rigid chronological scheme. Even in cases where some of the glyphs are illegible or of unfamiliar form, these glyphs have been restored in the one case and their proper respective meanings assigned to them in the other, by means of the context.

For the reasons already stated, we cannot expect to obtain results so satisfactory in all respects from the inscription on the Hieroglyphic Stairway, and it is not unlikely that the results obtained by others will differ in some respects from those given here. Nevertheless, some very interesting facts appear from an inspection of the glyphs and some interesting problems present themselves.

The notation used in the following discussion is that adopted by Bowditch, which differs from that introduced by Goodman in having 0 instead of 20 in connection with the Katun, Tun, and Kin, and instead of 18 in connection with the Uinal. The numeration assigned to the Great Cycle period by Goodman is made use of, although this is not generally considered settled. The question of its correctness does not affect in any way the calculations made or the results obtained.


Goodman's tables are used in all the operations.

Turning to Plate VI, we have on step A the continuation of the broken inscription, without knowing what came immediately before. It will become evident, from our examination of the inscription, that the order of reading is from the top downward, from left to right along the faces of the steps.

DATE I.


Passing over the first three steps, on which most of the legible glyphs are unknown, we find on step D an initial series beginning at the left and reading as follows:—

- D 1. Great Cycle 54.
 D 2 *a*. Cycle 9. The head which represents the Cycle is characteristic, and does not differ in any material respect from that which stands for this period in many of the inscriptions.
 D 2 *b*. Katun 5. Here we have the familiar Katun sign. The numeral above it, if we compare it with the bar representing 5 over the Cycle sign or with the two upright bars in L 1, will appear to be undoubtedly 5.
 D 3 *a*. Tun 19. The familiar Tun sign surmounted by 3 bars and 4 dots. Two of the dots are broken away, but comparison with the same numeral in other inscriptions show that we are perfectly justified in reading this as 19.
 D 3 *b*. The familiar Uinal sign surmounted by a numeral that looks unfamiliar. This numeral is partly effaced, but parts of it are still clear enough. At the top can be distinguished either one, two, or three dots. Below this appears a sign, the left end of which is a sort of annular object.

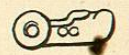
On Plate XII, L, 6th block, are two glyphs, the first of which, though only half of it remains, is seen to be the last of the initial supplementary series with the number 9 below; following it is the sign for the month Mol with the sign  over it. A comparison of this sign with that over the Uinal in

D 3 *b* will show that the two are very much alike.

On Stela C at Copan, north side A 3, over the sign for the month Cumhu occurs

the following  The lower part of this sign, with slight variations,

occurs often in the inscriptions, usually in connection with numerals or in positions where it would seem to have a numerical value. Among other instances may be mentioned on the north side of the great turtle at Quirigua, where it occurs as in Fig. 10 over the sign for the month Zotz, and again as

follows  over a sign which has been erased from the stone.

Goodman has already assigned the value 18 to the numeral on Stela C shown a short distance back. This would give the lower part of the sign the value 10. There would seem to be some doubt about the case, however, for the meaning of the text is not clear. Supposing however that this is the correct value, the numeral on Plate XII referred to, would then have the value 12, and the one on step D 3 *b* would represent either 11, 12, or 13.

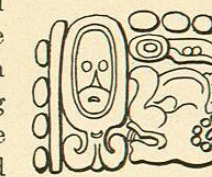


FIG. 10.

- D 4 a. Kin 0. The face sign for this period does not show any new features. The numeral above it looks like 0, and the day shows that it must be zero.
- D 4 b. Ahau. The numeral above the day sign is not clear, but it is not less than 5 or greater than 10.
- D 5, 6, 7, 8, and 9 a are supplementary glyphs. The last of these, though badly effaced, may be recognized as the last of the supplementary series with number 9 below.
- D 9 b is the month glyph, and it looks most like Mac, though it might be Chen. The numeral above seems to be 3, and indeed it can be no other, for 54.9.5.19.0.0 gives 13 Ahau 3 Pop, and since the beginning day of the Tun is the third of the first month, and there are no odd days, the required day must be the third of some month, no matter what the Uinal count is.

Giving the Uinal all possible values from 0 to 17, we get the following list:—

54.9.5.19.0.0	13 Ahau 3 Pop.
54.9.5.19.1.0	7 Ahau 3 Uo.
54.9.5.19.2.0	1 Ahau 3 Zip.
54.9.5.19.3.0	8 Ahau 3 Zotz.
54.9.5.19.4.0	2 Ahau 3 Tzec.
54.9.5.19.5.0	9 Ahau 3 Xul.
54.9.5.19.6.0	3 Ahau 3 Yaxkin.
54.9.5.19.7.0	10 Ahau 3 Mol.
54.9.5.19.8.0	4 Ahau 3 Chen.
54.9.5.19.9.0	11 Ahau 3 Yax.
54.9.5.19.10.0	5 Ahau 3 Zac.
54.9.5.19.11.0	12 Ahau 3 Ceh.
54.9.5.19.12.0	6 Ahau 3 Mac.
54.9.5.19.13.0	13 Ahau 3 Kankin.
54.9.5.19.14.0	7 Ahau 3 Muan.
54.9.5.19.15.0	1 Ahau 3 Pax.
54.9.5.19.16.0	8 Ahau 3 Kayab.
54.9.5.19.17.0	2 Ahau 3 Cumhu.

It will be seen that only one of these dates agrees with the conditions which were derived from our inspection of the glyphs. The one which fulfils in all respects these conditions is,—

54.9.5.19.12.0 6 Ahau 3 Mac.



FIG. 11.

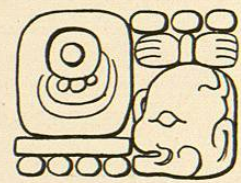


FIG. 12.

Fig. 11 is D 3 b restored, and Fig. 12 is a restoration of D 9. This date would seem to confirm Goodman's conjecture respecting the value of the month numeral in the initial date on the north side of Stela C.*

* Dr. Seler regards this date on Stela C as the normal date, 4 Ahau 8 Cumhu; in which case the sign immediately above the month symbol would be apparently without significance. An inspection of the stone convinced me that the Ahau number is not less than 5.

On this same step, 15, 16, there seems to be a distance number made up of Kins, Uinals, Tuns, and Katuns, but the numerals are all past recognition. In 19 are seen the day and month signs. The head in the day sign is somewhat injured; the month is apparently Chen. The numerals are not legible.

DATE II.

Step E begins with another initial series, as follows:—

- E 1. Great Cycle. The central superfix of the Pax sign is erased, and there is really nothing by which to identify the glyph, but it is probably the one called the 54th.
- E 2 a. Cycle 9.
- E 2 b. Katun 7 or 8. The Katun sign, unlike that in step D, is a head.
- E 3 a. Tun. The head which stood for the period is almost obliterated, and the numeral is entirely so. The position shows it to be the Tun.
- E 3 b. Uinal. Only the great curved tooth can be distinguished in the head. The numeral is very indistinct, but its value is greater than 5.
- E 4 a. Kin. Here an unusual thing occurs; the Kin number, instead of being represented by bars and dots placed above the head representing the Kin, is represented by a symbol in which a small head appears. This symbol is placed above, and takes the place of the bars and dots seen in the other period glyphs. The face seen in this numeral has the large ear ornament often associated with both the 1 face and the 8 face. The number cannot be identified at present by simple inspection. In the Kin face itself there does not appear anything unusual.
- E 4 b. Chicchan. The day sign here is very clear, and I take it to be Chicchan. Compare Plate XII. J, second block, 1st glyph, and K, 1st glyph. The first of these I take to be Cimi and the other Chicchan. The day being Chicchan, the unfamiliar Kin numeral must be 5. The day number is not legible.
- E 5 a. It appears doubtful at first whether this is the month sign, or whether the month sign is to be found in 8 a. The head in 5 a is not very clear, but it cannot be said to resemble any month sign. The head in 8 a is not clear, but it may well be Mac or possibly Chen. The superfix is especially like that of Mac, and the symbol itself is in all probability the fish head that usually stands for that month in the inscriptions.* The number above it is 8.

We have therefore as the probable date, as far as we have been able to make it out:—

54.9.7 or 8.?.?.5 ? Chicchan 8 Mac.

If we suppose the date to be in the 7th Katun, and give the Uinal all possible values above 5, we get a list of dates in which Chicchan does not appear as the 8th of Mac. But if we suppose the date to be in the 8th Katun, and give the Uinal all possible values above 5, we get a list in which two satisfy the conditions, and we get as the probable date:—

54.9.8.8.6.5 7 Chicchan 8 Mac.
or 54.9.8.12.7.5 11 Chicchan 8 Mac.

* That a fish head is intended seems likely from the resemblance of the symbol to the heads of fishes in various sculptures. See Copan, Stela A, west side C 8, where there is a fish, and, underneath it, the sign which is used as a superfix for Mac in the inscriptions, and which might well represent a pair of fins. See also Stela C, initial glyphs; Stela D, initial glyph, and Stela N, north side above headdress.

The former is the more probable, since the day number is more like 7 than 11.

54.9.8.8.6.5 7 Chicchan 8 Mac.



FIG. 13.

Fig. 13 is E 8 a partly restored.

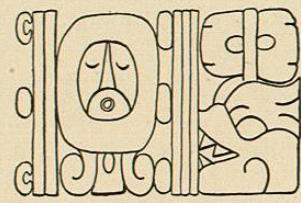


FIG. 14. — 11 AHAU 18 MAC.
Date on a small circular stone
from Copan.

DATE III.

On step F is another initial series, but the numerals are all illegible: —

- F 1. Great Cycle (probably 54th).
- F 2 a. Cycle (probably 9th).
- F 2 b. Katun (number above 5 and resembles 9).
- F 3 a. Tun (number seems to be above 10).
- F 3 b. Uinal (number seems to be above 10).
- F 4 a. Kin (glyph and numeral illegible).
- F 4 b. Day sign (either Kan or Cib, numeral not legible).

Following this is the supplementary series. F 5 is not clear. Compare F 6 a with D 6 a, and F 6 b with E 6 a and D 6 b. F 8 b is the last of the supplementary series, and F 9 a is the month sign Kayab, with the numeral 17. This shows the day to be Kan and not Cib, for the latter cannot be the 17th of a month. The Kin number must therefore be 4, and the probable date so far as made out would be: —

54.9.9??.?.4 ? Kan 17 Kayab.

If we suppose the date to be in the 9th Katun, and if we regard the Tun and Uinal numbers as being above 10, we have a choice between two dates: —

54.9.9.14.17.4 5 Kan 17 Kayab.
 54.9.9.18.18.4 9 Kan 17 Kayab.

The first of these would seem to be the more probable, since the day number looks more like 5 than 9: —

54.9.9.14.17.4 5 Kan 17 Kayab.

Passing over the next four steps and taking up step K, we find in K 1 a an unknown head (compare D 20 b). K 1 b is a cartouche supported on a tripod with a numeral over it. It has every characteristic of a day sign; the head is too much disfigured to be identified, but it would seem as if it might be a head with a long scroll projecting from the mouth and turned up in front of the face. K 2 a is not legible; K 2 b is a head, but is not at all clear. It is possibly the month Muan.

3 a is a familiar sign of unknown significance. From 3 b to 4 b inclusive is a distance number made up of Kins, Uinals, Tuns, and Katuns. Only the Kin number is clear. The cast shows the Uinal number to be 9, the Tun and Katun numbers cannot be recognized, but the Tun number is certainly above 5, but not above 10, and the Katun number is above 10, but not above 15. 5 b has every characteristic of a day sign, although the head does not look familiar. The day and month date corresponding to the number in K 3 b-4 is possibly in K 1 b-2, preceding the number, but may it not be that K 5 b is the day sign, and the corresponding month sign is L 20 b = Zotz? Is the number to be counted from the initial date beginning on K 16, or from some other date?

Naturally we would expect to find a month sign in K 16, if the order of the reading is from K 5 to K 16, but in L 1 if the reading is K 5, L 1, etc. In neither place, however, do we find a month sign.

DATE IV.

Coming to K 16, it is clearly seen, notwithstanding the condition of the stone, that this glyph is the beginning glyph of an initial series. At the lower part the outline of the Pax symbol is distinct, as is also the comb-like flank on the left above. All else is obliterated.

- K 17 b. The Cycle.
- K 18 b. The Katun.
- K 19 b. The Tun.
- K 20 a. The Uinal.
- K 20 b. The Kin.

The Cycle, Katun, and Tun signs are not very clear, but by comparison with those in other inscriptions they can all be recognized. The Uinal is at once recognized by the characteristic curve and the Kin head is very similar to the heads which stand for the same period in other inscriptions.

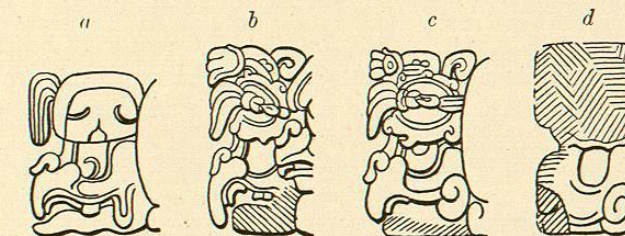


FIG. 15. — a, TEMPLE OF THE SUN A 8. b, PALACE STEPS A 3.
c, PALACE STEPS C 4. d, HIEROGLYPHIC STAIRWAY K 18 a.

Returning to the Great Cycle glyph, there is nothing to show what place it occupies in the scale of numeration we have adopted, and we must pass it over as unknown for the present. The number attached to the Cycle, being entirely effaced, must be passed over also as unknown. The Katun number, represented by the face 18 a, is not easily recognized. Two things may, however, be noticed about this face: first, the great curved tooth at the back of the mouth, characteristic of the Uinal head; second, the distance between the bottom of the head and the eye is small in proportion to the entire height of the head. Now, these two things are marked features of the face representing 13 in two conspicuous instances. In the Temple of the Sun at Palenque, A 8, is