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A NEW METHOD OF DECIPHERING YUCATECAN DATES WITH SPECIAL REFERENCE TO CHICHEN ITZA

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One of the most frequent methods of presenting chronological data in Yucatecan inscriptions is by means of a Calendar Round date followed by the recording of a certain Tun, and finally the day sign Ahau almost always with a coefficient. The last two data—the Tun and the Ahau—have been generally read to indicate that the given Tun ends on the recorded day Ahau, and it has been supposed that this combination gave the dedicatory date of the monument, which, in the case of Chichen Itza, was usually a lintel.[1]

Against such a method of decipherment three arguments can be advanced. Firstly, Bishop Landa specifically tells us that it was the custom in Yucatan to erect monuments every twenty years.[2] This is confirmed by the Chronicle of Chac Xulub Chen, by the writings of Lopez de Cogolludo, and by the third Chronicle of the Chilam Balam of Chumayel. Nevertheless, by the method of interpretation noted above no inscription at Chichen Itza records a Katun ending. Secondly, the system has ambiguous results in that a given Tun falling on a given day Ahau recurs every thirteen Katuns, but we know that the Maya, of the central region at least, went to considerable trouble to leave no reasonable doubt as to the position in the Long Count of nearly every recorded date. Thirdly, this method of interpretation reveals a total lack of relationship between the Calendar Round date and the accompanying Tun endings. In no case which the writer has been able to test does the Calendar Round date fall within the recorded Tun, and in many cases it does not fall even within a Katun of the recorded Period Ending. On the other hand dates recorded in central cities, as a rule, are either in the current Katun or are linked to it by one or more Secondary Series.

It would seem, therefore, that before accepting the system outlined above, an attempt should be made to seek some other method of interpretation—one that can be reconciled with the three arguments already presented.

The Initial Series lintel at Chichen Itza records the date 10.2.9.1.9 9 Muluc 7 Zac. The front of the lintel opens in A1-B1 with glyphs which have been read as 10 Tuns, 1 Ahau. Beyer, who was the first to decipher the day Ahau with its coefficient of one, takes this to record the Period Ending 10.9.10.0.0 1 Ahau 3 Zac, thereby producing an interval of slightly over seven Katuns between Initial Series and dedicatory date.[3]

However, these two glyphs can be read as recording that the Initial Series fell in a Tun 10 of a Katun which ended on 1 Ahau. In other words the day Ahau with its coeffi-

[1] Morley, 1918, 1920, p. 358, 511. Thompson, 1927, p. 17. Beyer, 1937, p. 138.
[2] Landa, p. 52.
[3] Beyer, 1937, p. 141.

cient may not refer to the day on which the current Tun ends, but to the day on which the Katun, in which this Tun occurs, comes to an end.

Such a method of decipherment answers the three arguments advanced against the old method of interpretation, since it records the current Katun ending, removes all ambiguity as to the position of the date in the Long Count, and establishes a relationship between the Calendar Round date and the accompanying Tun and Ahau glyphs with their respective coefficients.

A Calendar Round date followed by the information as to the number of the current Tun and the day on which the current Katun ends is fixed without any doubt in the Long Count, since such conditions will not re-occur until after the lapse of more than eighteen Cycles—far longer than the range of Maya history.

Unfortunately, many of the Yucatecan inscriptions are weathered. Alternative or dubious readings reduce the possibilities of definite proof of the thesis, but it should be noted that the chances against a Calendar Round date being in a given Tun of any Katun are twenty to one, while the chances against a given Calendar Round date falling in a given Tun of a given Katun anywhere between 9.17.0.0.0 and 11.3.0.0.0 are very considerable. Accordingly, if several dates in Yucatan conform to the given factors despite the high rate of chances against such conformity, the possibilities of coincidence must be ruled out and the thesis accepted.

Combinations of Calendar Round dates with numbered Tuns and the day Ahau recorded in Yucatan will be examined below in the light of the proposed new method of interpretation.

The four lintels at Chichen Itza record several times the Calendar Round date 9 Lamat 11 Yax, followed by Tun 13, 1 Ahau.[1]

According to the old method of decipherment, by which the day Ahau with its coefficient denoted the day on which the current Tun ended, the following readings were possible:

10.	2.12.	1.	8	9 Lamat	11 Yax	(10. 3.) 13.0.0	1 Ahau
10.15.	15.12.	8		"	"	(10.16.) 13.0.0	1 Ahau
11.	8.19.	5.	8	"	"	(11. 9) 13.0.0	1 Ahau

A choice between these possibilities had to be made on stylistic grounds, but it will be noted that the Calendar Round positions are distant from the dedicatory dates by intervals that vary from thirteen Tuns to over one Katun.

By the new method of decipherment, now proposed, the Calendar Round date (10.2.12.1.8) 9 Lamat 11 Yax falls in a Tun 13 of a Katun (10.3.0.0.0) which ends on 1 Ahau, the last being the dedicatory date.

Lintel II of the Four Lintels bears a date which has been read by Beyer as 12 Kan ? Zac.[2] On this same lintel there is also a record of Tun 13, 1 Ahau. The coefficient of Zac must be 2,7,12 or 17 since the day sign is clearly Kan. Lack of the hand sign eliminates the first, but the Calendar Round date 12 Kan 7 Zac, falls sixteen days after the Calendar

[1] Morley, 1925, p. 251. In this paper various affixes which have been translated by Beyer (1937) as "Ending" are left untranslated, as the writer has been unable to convince himself that these interpretations are necessarily correct.

[2] Beyer, 1937, p. 134.

Round date 9 Lamat 11 Yax occurring on this same lintel. This date (10.2.12.2.4) 12 Kan 7 Zac naturally falls in the required Tun 13 of a Katun (10.3.0.0.0) ending on 1 Ahau.

A date on Lintel II at Yula has been read by Beyer as 3 Eb 10 Pop, Tun 5, 1 Ahau.[1] According to the newly proposed method of interpretation this can only be (10.2.4.8.12) 3 Eb 10 Pop, falling in the required Tun 5 of a Katun (10.3.0.0.0) which ends on 1 Ahau.

There is another date on this lintel which Morley reads as 6 Imix 4 Zac[2] and which Beyer reads as ? Imix 4 Tzec.[3] This considerable divergence is the result of a combination of weathering and bad carving, to which attention has already been called. The month sign might be Mac, in which case the whole date would read (10.2.4.2.1) 2 Imix 4 Mac, a date six Uinals and eleven Kins before the date 3 Eb 10 Pop also found on this lintel. However, as both the day coefficient and the month sign are open to doubt, this reading must be taken as little more than a suggestion. Nevertheless, there are eight combinations of coefficients of Imix with the fourth positions of months, which would fulfill the requirement that the Calendar Round date fall in Tun 5 of Katun 1 Ahau.

Lintel I of the same temple at Yula carries a date which has been read by Beyer as I Kan 2 Pop, Tun 5, 1 Ahau.[4] Nevertheless, the head forming the day sign coefficient might equally well be eight, especially since the resulting 8 Kan 2 Pop is only eight days before the date 3 Eb 10 Pop, recorded on Lintel II of this same temple. The writer accordingly feels that the date is (10.2.4.8.4) 8 Kan 2 Pop, falling in the required Tun 5 of a Katun (10.3.0.0.0) 1 Ahau.

Several of the lintels at the Monjas, Chichen Itza, record 8 Manik 15 Uo, although the month sign is a little open to doubt. Lintels II, V, and VI also record Tun 11 and the day Ahau with a coefficient, which Beyer reads as one.[5] By the newly proposed method of decipherment these lintels can only record (10.2.10.11.7) 8 Manik 15 Uo, falling in the required Tun 11 of a Katun (10.3.0. 0.0) ending on 1 Ahau.

Glyphs 27-29 of the inscription in the Casa Colorada at Chichen Itza have been deciphered by Beyer as recording 9 Akbal 1 Chen.[6] They are followed by a record of Tun 1, 1 Ahau. The head form which represents the coefficient of Akbal has a Roman nose and a scroll under a large square eye, both clearly shown in Maudslay's drawing[7] and that of Beyer. These are features indicative of the number seven, or, perhaps of the number four, but, judging by the abundant material from the central cities,[8] they are never indicative of the head form for nine, which is invariably shown with an oblique eye, young features and a rather straight nose. The head in question has pendant from the optical scroll small circles which are found only with the head for number seven. It would appear, therefore, that this head must represent the number seven, and that the dots on the chin are fortuitous or, perhaps, the result of weathering.

The inscription then reads (10.2.0.15.3) 7 Akbal 1 Chen, falling in the required Tun

[1] Beyer, 1937, p. 134. Glyphs G1-H1, G2-H2.
[2] Morley, Field Note Book for 1918.
[3] Beyer, 1937, fig. 643.
[4] Beyer, 1937, p. 135. Glyphs A1-A4; figs. 663, 689.
[5] Beyer, 1937, p. 142; figs. 637-635, 683-685.
[6] Beyer, 1937, p. 133; figs. 637, 671.
[7] Maudslay, 1889-1902, III, pl. 24.
[8] Central cities are understood to be those to which the stela complex spread during Cycle 9. Cities in Yucatan and Campeche, to which the stela complex spread after the close of Cycle 9 or in which the stela complex was never dominant, might be termed the northern cities, while areas in which the stela complex and vault were both absent might be termed peripheral.

1 of a Katun (10.3.0.0.0) ending on 1 Ahau.

Block 18 of the hieroglyphic band from the Caracol has a date which Morley reads 3 Imix, 9 or 14 Yax, Tun 1.[1] Beyer adds the interpretation of the two last glyphs as 12 Ahau, indicating a preference for the month position 14 Yax.[2] His identification of the head that forms the coefficient of the day Ahau is based on the resemblance of the headdress to that of the head form for twelve which forms the coefficient of the Cycle glyph of the Initial Series of the Tablet of Cross at Palenque.[3] However, a close examination of the headdress on the head form of the Caracol with that from the Tablet of the Cross shows that the resemblance is purely superficial. The Palenque headdress is a well-known glyph, tentatively identified as a sky sign in one variant but perhaps of lunar significance in the form in which it serves as a headdress. Furthermore, the normal form for twelve shows an oblique eye, drooping lower lip, and generally young features. The head on the Caracol band, on the other hand, has a rather square eye and an inconspicuous lower lip, indicative rather of the head form for four. The headdress bears a certain resemblance to one found frequently with the Kin sign,[4] which also serves as the head form for the number four. Everything considered, it may well be that this head form represents the number four.

Morley has already shown that there are only three possible positions for 3 Imix 9 Yax or 3 Imix 14 Yax occurring in the first Tun of a Katun. The three current Katuns involved end on 4 Ahau, 7 Ahau, and 11 Ahau, respectively. The last, however, is too late to fit into the style of architecture of the Caracol, and can be rejected off-hand. Indeed, according to the correlation followed by the writer this last date, 11.16.0.4.1 3 Imix 9 Yax actually falls in 1540, a year before the final conquest of Yucatan by the Spaniards.

On the assumption that the coefficient of Ahau is four, only the first reading 10.7.0.5.1 3 Imix 9 Yax, is possible, since this falls in the first Tun of a Katun 4 Ahau.

This reading produces an interesting historical relationship. Roys has recently expressed his belief that the Katun 4 Ahau in which the Itzas under Kukulcan occupied Chichen Itza was twenty-eight Katuns before the Katun 13 Ahau of the Conquest. According to the 11.16.0.0.0 correlation this Katun would be 10.8.0.0.0 4 Ahau 13 Cumhu. The semi-legendary Kukulcan, who led the Itzas, is said to have built the Caracol at Mayapan and to have introduced the feathered-serpent cult in Yucatan. Pollock believes architectural evidence would indicate that the construction of the Caracol dates from the opening years of the Mexican period.[5] The tentative interpretation of Block 18 as (10.7.0.5.1) 3 Imix 9 Yax, falling in a Tun 1 of Katun (10.8.0.0.0), 4 Ahau would fit in very well with this reconstruction of Itza history.

The inscription on the Caracol stela opens with a record of Tun 16, 1 Ahau, which is also found on the hieroglyphic band of the Caracol.[6] There is a record of Tun 17 in Glyph Block C5 and 12 Ahau in M6. Glyph Blocks O22-P22 have perplexed both Beyer and Morley. The latter terms the second of the two glyph blocks “one of the most perplexing in the Corpus Inscriptionum Mayarum.”[7]

[1] Morley in Appendix to Ruppert, 1935, p. 290.
[2] Beyer, 1937, p. 135.
[3] Maudslay, 1889-1902, IV, p1. 73.
[4] Good examples are to be seen on Stelae 1, 3, and 4 at Piedras Negras.
[5] Pollock, 1936, p. 104.
[6] Morley in Appendix to Ruppert, 1935, pp. 278-279.
[7] Morley in Appendix to Ruppert, 1935, p. 280.

The first glyph block records Tun 17; the second has a Cycle sign with ten (or possibly eleven) and an ending sign above and a coefficient of three to the right. It was a very common practice in Maya writing to combine the two lowest units of a Secondary Series by eliminating the Kin glyph and attaching its coefficient to the left of the Uinal glyph. Although this practice was usually confined to the elimination of the Kin glyph, it could be applied to any other units in the vigesimal system, providing those of lower value had coefficients of zero. This is shown by Glyph Block H1 of Altar U, Copan, which records a Secondary Series of 1.10.0.0 by one dot above and two bars to the left of a Katun sign.[1]

Since Secondary Series are read in ascending order, in contrast to the descending order of the Initial Series, the coefficient to the left of the lowest digit represents the numerical value of the lowest unit. On the other hand, a time glyph which was provided with two coefficients but did not form part of a Secondary Series, would logically be read clockwise in descending order.

Since there is no evidence that Glyph Block P22 records a Secondary Series, it should be read in descending order. Read in that manner, it can only mean end of Cycle 10 (or 11), end of Katun 3. In the Long Count this is 10.3.0.0.0 1 Ahau 3 Yaxkin. However, we have already seen that the inscription opens with a Tun 16, 1 Ahau, which, by analogy must mean a Tun 16 falling in a Katun which ends on 1 Ahau. It is clear, then, that the sculptor was elaborating on the theme that Tun 17 also fell in Katun 1 Ahau, but as the position of such a date might recur every 260 Tuns in the Long Count, he fixed its position by declaring that it ended Katun 3 of Cycle 11.[2] To a certain extent this interpretation serves to confirm the newly proposed method of interpreting Yucatecan dates, and in presentation it is analogous to an inscription at Uxmal (p.16).

The 12 Ahau, apparently recorded in M6, may be a prophetic reference to the following Katun (10.4.0.0.0) 12 Ahau 3 Uo, for it is fairly evident that 10.3.0.0.0 1 Ahau 3 Yaxkin, was the dedicatory date of the stela.

The lintel which was used secondarily as part of a trough at the Hacienda of Chichen Itza presents a puzzling inscription. The seated figure very closely resembles in method of presentation that of the hieroglyphic lintel in the Akabdzib. Both figures are seated on cushioned thrones with their left legs tucked up against their right thighs and with their left hands resting on their left knees. Both face toward what are, apparently, tall jars.

At first glance the top row of glyphs of the trough lintel read 11 Ben 14 Cumhu, Tun 17, 3 Ahau. The first two glyphs, however, form an impossible combination, since Ben cannot be associated with a month with a coefficient of fourteen. Both Morley and Beyer[3] get around this by reading the day sign as Kan, and the month coefficient as twelve. Nevertheless, Glyph Al is surely I I Ben. The form is almost identical with that shown on Lintel 30 at Yaxchilan in the presence of a straight transversal line with four vertical lines below and two small circles near the top of the cartouche. Finally, the forms of the subfixes are identical save for the presence of a bar, a Yucatecan feature, in the subfix of the trough day sign.[4] On the other hand, the transversal line of Kan is usually looped, the

[1] Thompson, 1935, p. 12.

[2] Cycle 10 to our way of thinking, although, since cycle 10 ended on 7 Ahau 18 Zip, the current Cycle was number eleven.

[3] Morley, 1920, p. 512; Beyer, 1937, p. 134.

[4] Maudslay, 1889-1902, II, p1. 78.

upper element is usually a single dot with interior decoration or a double tooth-like infix, and the subfix, in the few places where it occurs, is of a different form. The month sign coefficient is very clearly fourteen.

It would seem, at first, very probable that the inscription should be read down column A and not across the top line. In the similar boxed arrangement of the glyphs on the lintels of the Monjas at Chichen Itza the inscription is read downwards from the top left hand glyph and not across, and *a priori* one would expect to read the boxed glyphs of the trough lintel in a similar manner. Thereby 14 Cumhu would not be associated with 11 Ben.

Glyph A2a is possibly the Bird Head Variant of the Kin sign. A2b is a sign which usually precedes the month sign in Yucatecan inscriptions. Beneath it is a rather irregular dot which may be numerical, while A2c might be a month sign, but can not be deciphered with any certainty. Nevertheless, such an interpretation is extremely dubious, and is invalidated by the fact that if read in this manner, there is no day sign at the close of the inscription to be coupled with the apparent 14 Cumhu. Furthermore, Glyph Block A extends a little farther to the right than the remainder of the column, suggesting that the inscription should be read across the top.

Let us return to an examination of the top row of glyphs. The four dots of the coefficient of Cumhu are not all of the same size, one being rather smaller than the rest. This might just possibly indicate the required coefficient of eleven, but it is very much more likely to be due to poor carving. The Tun coefficient appears at first glance to be seventeen, but there is visible in a photograph a small raised area where one would expect a third dot to be, if the coefficient had been eighteen. Beyer has, apparently, noticed this possibility, as he suggests alternative readings of eighteen and nineteen for the Tun coefficient.[1] Since there is seldom an error in the day sign, a possible construction of this inscription would be 11 Ben 11 (or 16) Cumhu, Tun 17 (or 18), Katun 3 Ahau. The position (10.1.17.5.13) 11 Ben 11 Cumhu falls in Tun 18 of Katun (10.2.0.0.0) 3 Ahau 3 Ceh.

The inner panel of this same lintel carries a date which Beyer has read as 7?, 17? Cumhu, Tun 14, 3? Ahau.[2] Owing to weathering and the smallness of the glyph blocks it is hard to make out details. The Tun coefficient would appear to be nineteen rather than fourteen, while the day coefficient lies somewhere between six and nine and the month coefficient between sixteen and nineteen, all figures being inclusive. The writer is inclined to think the date recorded here is either (10.1.18.6.5) 6 Chicchan 18 Cumhu or (10.1.18.6.6) 7 Cimi 19 Cumhu, both of which fall in the required Tun 19 of Katun (10.2.0.0.0) 3 Ahau.

The lintel of the Akabdzib in subject matter closely resembles the Trough lintel just discussed. The glyphs, h6wever, are executed in a much superior manner. Although showing a style more closely resembling that of the classical writing of the central cities, the inscription also has affinities with the Chichen Itza inscriptions already discussed. For example, the element above the head-form coefficient of Ahau at the beginning of the inscription is found on several of the inscriptions already discussed. The subsidiary elements associated with Tun 1 at the start of the inscription on the front of the lintel have affinities with similarly placed elements in other inscriptions notably that of the Casa Colorada. There are, therefore, reasons for placing this lintel in the same general period as

[1] Beyer, 1937, p. 144.
[2] Beyer, 1937, p. 135.

those already discussed. Its position, over an inconspicuous inner doorway, suggests a possible resetting.

The inscription opens on the front with a record of 1 Tun, 1 (or 8) Ahau. The ornament of beads shaped like grains of maize and the type of ear plug would suggest eight rather than one, but both Morley and Beyer consider the head to represent the number one. Furthermore, for stylistic reasons one would be loath to place this lintel nine Katuns before or four Katuns later than that of the trough. The front of the lintel records Tun 11, ? Ahau, the head form coefficient of Ahau being of an indeterminate character. There is no Calendar Round date. Everything considered, the lintel probably records 10.2.1.0.0, falling in Katun (10.3.0.0.0) 1 Ahau.

The High Priest's Grave has an inscription asymmetrically placed on one of the carved columns. The asymmetrical position of the inscription, and the fact that it does not occur at the top of the column and is the only known inscription at Chichen Itza definitely associated with a Mexican temple, suggest that the stone may have been recarved. The inscription is badly worn. Morley reads the inscription as 2 Ahau 18 Xul, End of Tun 11 (2 Ahau), and uses this reading as an argument against the 11.16.0.0.0 correlation.[1] In the summer of 1936 Mr. Conrad Kratz of Evansville made an excellent rubbing of this inscription which shows the month glyph to be almost certainly Mol. Morley, after having seen this rubbing, informs me that he now considers Mol as the best reading of this glyph. Accepting 18 Mol as the month sign, the only possible reading of the inscription according to the new method of decipherment would be (10.8.10.11.0*)* 2 Ahau 18 Mol, falling in the required Tun 11 of a Katun (10.9.0.0.0) 2 Ahau.

The lintel from Jalakal, now in the Merida Museum, has an inscription for which Beyer suggests 4 Kan 7 Pop, Tun 1, 1 Ahau. On the strength of the photograph, no rubbing being available, the writer feels somewhat dubious as to the decipherment of the Calendar Round date. The head-form coefficient of the day sign looks as much like nine or one as it does like four, the day sign is badly obliterated, and the month sign and coefficient are also badly eroded. The dates (10.2.0.7.4) 4 Kan 2 Pop and (10.2.0.7.9) 9 Muluc 7 Pop would both fulfill the requirement that the date fall in Tun 1 of a Katun ending on 1 Ahau but both are quite doubtful.

The Temple of the Three Lintels records Tun 10, 1 Ahau. In view of the typical pre-Mexican style of this building, the Long Count position 10.2.10.0.0 2 Ahau 13 Chen is indicated. This falls in the required Katun (10.3.0.0.0) ending on 1 Ahau.

The Temple of the One Lintel may carry the date Tun 15, 1 Ahau. This would be 10.2.15.0.0 12 Ahau 18 Zac.

[1] Morley, 1920, p. 511, fig. 76.

Below are listed in chronological order dates at Chichen Itza deciphered according to the proposed new method:

MONUMENT	CALENDAR ROUND	TUN	LONG COUNT	KATUN
Trough Lintel	11 Ben 11 Cumhu?	18	10.1.17.5.13	10.2.0.0.0 3 Ahau
" "	6 Chicchan 18 Cumhu??	19	10.1.18.6.6	" " " " "
Casa Colorada	7 Akbal 1 Chen?	1	10.2.0.15.3	10.3.0.0.0 1 Ahau
Halakal	9 Muluc 7 Pop??	1	10.2.0.7.9	" " " " "
Akabdzib	.. ..	1	10.2.1.0.0	" " " " "
One Lintel	.. ..	15	10.2.15.0.0	" " " " "
Yula I	8 Kan 2 Pop?	5	10.2.4.8.4	" " " " "
Yula II	3 Eb 10 Pop	5	10.2.4.8.12	" " " " "
Initial Series	9 Muluc 2 Zac	10	10.2.9.1.9	" " " " "
Three Lintels	.. ..	10	10.2.10.0.0	" " " " "
Monjas	8 Manik 15 Uo	11	10.2.10.11.7	" " " " "
Four Lintels	9 Lamat 11 Yax	13	10.2.12.1.8	" " " " "
" "	12 Kan 7 Zac?	13	10.2.12.2.4	" " " " "
Caracol Stela	.. ..	17	10.2.17.0.0	" " " " "
Caracol Band	3 Imix 9 Yax	1	10.7.0.5.1	10.8.0.0.0 4 Ahau
High Priest	2 Ahau 18 Mol?	11	10.8.10.11.0	10.9.0.0.0 2 Ahau
Tomb	6 Kan	9	11.12.8.13.4	11.13.0.0.0 6 Ahau

The last date, 6 Kan, Tun 9, on the capstone of a burial vault from east of the hacienda at Chichen Itza, represents an entirely different method of writing dates. Morley has put forward the very plausible suggestion that this is a date designated by means of year bearer, recording that the year bearer was 6 Kan and the Tun 9. As he shows the only possible Long Count position for this date would be 11.12.8.13.4 6 Kan I Pop.[1] The glyph preceding 6 Kan is of unknown meaning but has been tentatively identified as the sky sign. It has a coefficient of ten and may, therefore, mean ten sky. Roys has already suggested that this glyph may be that of the god Lahun Chaan.[2] The current Katun is 6 Ahau, which, according to the Katun wheel of the Chumayel manuscript, is associated with the west. Lahun Chaan is associated with the west and Roys believes that he may be connected with the appearance of Venus as evening star.[3]

The fact that at the date in question Venus was at or within a very few days of inferior conjunction prior to becoming evening star might be taken as possible, although rather weak, evidence in support of the Morley reading.

It will be noted that this new method of inscribing dates coincides, according to the 11.16.0.0.0 correlation, with the Maya revival following the fall of Mayapan and the close of Mexican-inspired domination.

It will be observed that the first fourteen dates, all of which are carved on lintels, fall within a space of one Katun. There is then a gap of five Katuns during which time apparently no dates were carved. In Katuns 10.8.0.0.0 and 10.9.0.0.0 two dates are carved but not on lintels. There is then another long interval with only one dated inscription; this is ended shortly before the Spanish conquest by a date painted apparently in the new year-bearer style.

Unfortunately, since several of the readings are questionable, the thesis can not be said to have been proved without further question, but on the assumption that the new

[1] Morley, 1920, p. 520.
[2] Roys, 1933, p. 101.
[3] Roys, 1933, p. 101.

method of decipherment is correct, and that the dates are, therefore, all correctly deciphered, let us try to fit this framework of dates into the history of Chichen Itza.

In connection with the cessation of activity in erecting dated monuments at 10.3.0.0.0 it is interesting to recall the following statement which occurs in the Chilam Balam of Chumayel: "1544 was the year... six hundred and seventy-five years after the town of Chichen Itza was depopulated, after its settlements were depopulated."[1] If 675 Tuns are subtracted from 11.16.4.0.0, which is the equivalent. of 1544 in the Goodman-Martinez-Thompson correlation, the position 10.2.9.0.0 falling in a Katun (10.3.0.0.0) 1 Ahau is reached. In this same manuscript the so-called second chronicle tells us that Chichen Itza was abandoned by the Itzas in Tun 3 of Katun 1 Ahau. The Chilam Balam of Mani and Tizimin also mention an abandonment of Chichen Itza in a Katun 1 Ahau.

These last statements, as they stand, are not very helpful, since they are not in correct position to have occurred thirty-three Katuns before the Spanish conquest. The Chumayel statement is placed twenty Katuns before the Spanish conquest but before the foundation of Mayapan. The abandonment of Chichen Itza in Katun 1 Ahau took place according to the Chilam Balam of Tizimin and Mani forty-six Katuns before the Spanish conquest, and seventeen or eighteen Katuns before the Itza occupation or re-occupation of Chichen Itza in Katun 4 Ahau or 6 Ahau. We thus have an abandonment of Chichen Itza occurring either twenty, thirty-three, or forty-six Katuns before the Spanish conquest.

The chronicles of the various Chilam Balams may be studied from two points of view. They may be taken as true records of Maya history in Yucatan, or they may be considered to be the compositions of seventeenth or eighteenth century re-write men, who knew very little about Maya history. In the latter case it would seem very possible that these later compilers scanned the historical writings or old songs for references to Katuns, and then strung these on a thread of continuous Katun endings in the positions which they considered most logical. It is not impossible that these compilers confused Tun and Katun references.

If the chronicles were composed in the manner suggested above, it would be quite easy for a reference to an event to be placed in the wrong sequence or in the wrong Katun round. Furthermore, it would seem quite probable that these colonial scribes had vague ideas of the differences between the Itzas and the true Mayas. Since the Itzas gave their name to Chichen Itza, the scribes appear to have ascribed to them everything that happened in that city. Yet there is a growing body of opinion that identifies the Itzas with the Mexican intruders. On the assumption that the Itzas were the Mexicans who conquered Chichen Itza under Kukulcan and established Mayapan, they can hardly have been the people who abandoned Chichen Itza in a previous Katun 1 Ahau.

Leaving open, for the moment, the position of the Katun 1 Ahau of the abandonment of Chichen Itza, let us approach the question from another angle. The erection of dated monuments ceased throughout the central area at 10.3.0.0.0, 1 Ahau. The erection of monuments, according to the new theory of decipherment, ceased at Chichen Itza in the same Katun. The writer has several times expressed the opinion that the cessation of the custom of erecting monuments in the central area did not necessarily imply the abandonment of the area but, perhaps, rather the overthrow of a sacerdotal class. The fact that the cessation of hieroglyphic inscriptions at Chichen Itza clearly did not involve the permanent abandonment of the site is too well known to need emphasis. That this cessation of

[1] Roys, 1933, p. 85.

epigraphic activity occurred throughout the Maya area in a Katun 1 Ahau which occupies the Long Count position 10.3.0.0.0, is a good evidence for choosing this same Long Count position for the abandonment of Chichen Itza by its ruling class.

Having tentatively established an abandonment of the epigraphic cult at Chichen Itza at 10.3.0.0.0, it is necessary to seek a re-occupation of the site by a sacerdotal class not later than Katun (10.8.0.0.0) 4 Ahau to account for the inscription on the Caracol which has been tentatively deciphered as occurring in the following Katun.

Every source is agreed that the Itzas under Kukulcan occupied Chichen Itza in a Katun 4 Ahau. The Itza occupation of Chichen Itza, the founding of Mayapan, the start of the Triple Alliance, and the occupation of Uxmal by the Xiu are all assigned in the most reliable compilations of the chronicles to twenty-seven to twenty-nine Katuns before the Spanish conquest.[1] In that case the Itza occupation of Chichen Itza took place in 10.8.0.0.0 4 Ahau 13 Cumhu. This is the historical reconstruction favored by Roys.[2] It should, however, be noted for what it is worth that an opinion was prevalent shortly after the conquest that the arrival of Kukulcan took place some eight hundred or not far short of a thousand years before the Spanish conquest.[3] This would place the advent of Kukulcan in 9.15.0.0.0 in the Goodman-Martinez-Thompson correlation, but this does not appear to agree with the architectural evidence as to the start of Mexican architecture.

The assignment of the Katun of the Itza conquest to the Long Count position 10.8.0.0.0 4 Ahau 13 Cumhu finds support in the inscription of the Caracol, since this type of building is said to have been introduced into Yucatan by Kukulcan as part of the feathered-serpent cult.

This reconstruction of Chichen Itza history finds some support from other sources. The League of Mayapan endured from the Katun after the Itza conquest of Chichen Itza in (10.8.0.0.0) 4 Ahau for two hundred years until a Katun 8 Ahau. In Katun 8 Ahau (10.19.0.0.0) the Itzas were driven out of Chichen Itza by Hunac Ceel. According to the Chilam Balam of Chumayel this dispersal of the Itzas took place fifteen score years before the arrival of the Spaniards. Since the Spaniards first arrived in 11.15.0.0.0 according to the Goodman-Martinez-Thompson correlation, this source would indicate 11.0.0.0.0 as the Katun of the Itza dispersal. This is in fairly close agreement with the reconstruction from other sources attempted above, the difference being merely one Katun.

As this paper is in the press, announcement is made of a new hieroglyphic inscription from the Ball Court at Chichen, discovered by Señor Miguel Angel Fernandez and deciphered by him and Licenciado Enrique Juan Palacios.[3] The inscription appears to record by an Initial Series the date (11).7.5.3.0 6 Ahau 13 Pax, the Cycle glyph and coefficient being suppressed. There is also a Calendar Round date 2 Ahau 3 Uayeb, which apparently corresponds to 11.9.16.0.0. The contemporaneity of the leading date appears to be authenticated by the indubitable Mexican figures shown on the semi-globular stone.

This, then, would appear to be the only known date at Chichen Itza from the period of Mayapan domination. In that connection it is interesting to note that whereas the Ahau signs are of a form not far removed from those of the time of Bishop Landa, the infix of the Cauac element in the Katun glyph is of the classical type. Indeed, as one would

[1] Morley, 1920, p. 503.
[2] Roys, 1933, p. 204.
[3] Relaciones de Yucatan, I: 148, 255.
[4] E. J. Palacios, 1937 and C. Lizardi Ramos, 1936.

expect for such a late date, there is a complete absence of those archaic elements found in the earlier inscriptions of Chichen Itza. This is in complete agreement with the classical features of late dates from Uxmal (p.16).

It is worthy of note that according to this reconstruction of the history of Chichen Itza the hieroglyphic lintel is confined to the pre-Mexican period. This is in accordance with archaeological findings, since the stone lintel was not employed during the Mexican period except, occasionally, over narrow subsidiary doorways. The stone lintels of the Caracol may represent the close of the purely Maya architecture at the start of the Mexican period, as Pollock has already suggested.[1]

The sources discussed above would suggest the following outline of history at Chichen Itza:

	? to 10.3.0.0.0, (A. D. 889)	1 Ahau	Occupation of Chichen Itza by Yucatecan Maya. Period of pre-Mexican architecture and hiero- glyphic inscriptions on stelae and lintels. Termination of period coincides with disappearance of stela complex in central cities. At Chichen Itza the period may have terminated with the departure of the sacerdotal class.
10.3.0.0.0 (889)	1 Ahau to 10.8.0.0.0 (987)	4 Ahau	Period of inactivity marked by no hieroglyphic inscriptions.
10.4.0.0.0 (987)	4 Ahau to 10.8.0.0.0 (1185)	10 Ahau	Itzas, a Mexican group under the legendary Kukulcan, dominant at Chichen Itza, introducing new architectural features centering around the feath- ered-serpent cult. Two hieroglyphic inscriptions at the start of the period. Subsequently, the custom of dating buildings falls into complete desuetude.
	10.19.0.0.0 (1204)	8 Ahau	Overthrow of the Itzas at Chichen Itza at the close of the League of Mayapan by Hunac Ceel. Some of the Itzas migrate to Lake Peten.
10.19.0.0.0 (1204)	8 Ahau to 11.12.0.0.0 (1457)	8 Ahau	Mayapan politically dominant. Chichen Itza still of considerable religious importance. Period closes with overthrow of Mayapan. Newly deciphered Ball Court inscription.
11.12.0.0.0 (1457)	8 Ahau to 11.16.0.0.0 (1539)	13 Ahau	Maya revival accompanied by the introduction of hieroglyphic writing with the year-bearer system. Year bearers now fall on Kan, etc. Revival terminated by Spanish conquest.

The reconstruction of Chichen Itza dates as outlined above is in direct contradistinction to the Beyer reconstruction of Chichen Itza dates based on stylistic differences. Beyer places his earliest decipherable date at Chichen Itza, that of the Akabdzib at 10.7.11.0.0, the Monjas lintels exactly thirteen Katuns later, the High Priest's Grave at 11.6.11.0.0, the Four Lintels at 11.9.13.0.0 and the Yula lintels at 11.12.5.0.0.[2] This sequence implies that the Mayas continued to use stone lintels in their buildings until within a hundred years of the arrival of the Spaniards. Since stone lintels were never used for important doorways during the period of Mexicanized architecture, this reconstruction

[1] Pollock, 1936, pp. 103-104.
[2] Beyer, 1937, p. 169.

surely is at variance with the facts.

The stylistic development of Maya glyphs except over long periods has many pitfalls. There are certainly great variations in the manner in which a hieroglyph is presented, but frequently very great contrasts occur in a single inscription) thereby invalidating the theory that such variations have strong chronological value.

The variant forms of the Ahau glyph on the lintels of the Monjas are so different in some cases that one would have been inclined to postulate a lapse of several Katuns between the extremes had these glyphs occurred on lintels in different buildings. Similarly, in the Monjas inscriptions there is a marked difference in the various representations of the day sign Manik. In two cases the day sign is enclosed within a cartouche; in the other cases the day sign lacks a cartouche.

The position of the infix in the Cauac glyphs, on which Beyer relies to a considerable extent in forming his chronological table of stylistic development,[1] appears to the writer to have only secondary chronological significance. In the central area the general custom was to place the infix on the right side, but it could be placed on the left side for the sake of symmetry, as is shown by numerous examples of the Cycle glyph. The Hotun glyph on Stela I at Copan shows the full element, a section of which forms the Cauac glyph. By taking a section of this element to form the glyph from the left side, the infix will appear on the right side of the glyph. Moving a little to the right with slight compression produces infixes on both sides, and by use of a section from the right of the element the glyph will appear with the infix only on the left.

It is true that in the Central area the infix is almost invariably on the right side. There are examples, however) mostly of the early period, where it occurs in both corners.[2] In the earliest published inscription in which detail can be clearly seen, that of Stela 10 at Tikal, the infix is on the left side in both Cauac elements of Glyph 8, right side. It would thus appear that in the early period of the Central area the infix could occur on either side, but that before the middle period, the infix had come to be placed only on the right side.

At Chichen Itza the infix appears on the left side and also on both sides in the same inscription, that of the Casa Colorada, but the Kin sign is of the classical type. The Monjas has the Cauac infixes on both sides, but the Kin is of the classical type. The Initial Series Lintel has the classical Cauac but the Kin with sloping single dashes. These variations, together with the extraordinary latitude allowed the sculptors in the representation of the Ahau glyph suggest a period of unstandardized forms such as marked the opening of the epigraphic period in the central area.

Indeed, one gets a very strong impression that archaic elements survived in Yucatan long after they had disappeared in the central area. One of the most prominent of these elements is that frequently found before the day Ahau in these Chichen Itza inscriptions.[3] This same element is found protruding from day signs in the earliest inscriptions of the central area, but with other archaic elements, this association disappears before the middle period.[4] The absence of a day sign cartouche, exemplified by the day sign Manik on lintels of the Monjas, would also appear to be an archaic survival.

[1] Beyer, 1932, pp. 81-84.

[2] Examples are Glyph A5, Lintel 27, Yaxchilan; Glyph I3, Middle Panel, Temple of Inscriptions; and Glyph 9a, north side of St. P Copan.

[3] Examples are Glyph E2a, Lintel IV, front, Monjas; Akabdzib, front B1, Glyph 35, Casa Colorada.

[4] Morley, 1920, p. 69. This is Beyer's centipede sign.

In the central area there are no known examples of day signs without any encirclement of any kind, but in many of the early inscriptions the framed day sign in its cartouche, which might be compared to a picture with mat and frame, does not occur. In some cases only the "mat" occurs; in other cases only the "frame" is shown. This archaism disappears in the central area at an early date, but survives in a number of the inscriptions of Chichen Itza, particularly in the frameless presentation of the day sign Ahau. The matless and frameless Manik signs of the Monjas are, apparently, extreme examples of this archaic survival. The irregular outlines of many of the Chichen Itza glyphs, the elaboration of redundant details, as exemplified by the elements attached to Tun signs and the day signs Ahau, are also archaic features found in the earliest inscriptions of the central area.

It is worthy of note that the only inscriptions free of archaisms at Chichen Itza are those of the High Priest's Grave, the newly deciphered inscription from the Ball Court, and the tombstone east of the hacienda. These, according to the newly proposed method of decipherment, are the latest inscriptions at Chichen Itza. The archaic flavor of the other inscriptions suggests that hieroglyphic writing reached Chichen Itza and northwest Yucatan at an early date, perhaps from the Usumacintla-Chiapas region,[1] but that the archaic elements then introduced persisted in this peripheral and, perhaps, isolated region long after they had fallen into disuse in the central area.

It may be significant that the earliest inscription lacking archaic features appears to date from the Katun following that of the Itza domination of Chichen Itza, and in the Katun in which the Xius took possession of Uxmal. As the Itzas appear to have shown very little interest in recording dates, one wonders whether these new hieroglyphic styles may not have been due to the Xius or other elements entering Yucatan at the same time.

INSCRIPTIONS AT HOLACTUN

The Initial Series at Holactun (Xcalumkin) has been read as 9.15.12.6.9 7 Muluc 2 Kankin,[2] a reading which is in agreement with the lunar date, and which has not been challenged. There is also a record of Tun 12, 2 Ahau. However, the Tun coefficient is carved so asymmetrically with reference to the glyph below it, that it looks very much as though Tun 13 was intended, the two dots being placed so that they occupy only the left corner and center of the top of the glyph block, the right hand corner of the top of the block being left empty. This arrangement led Morley, who had seen the original, to read the Tun coefficient as thirteen without a query mark.[3] Pollock, who kindly examined the cast of this inscription in the Peabody Museum at Cambridge, writes in a letter of November 4, 1936: "A close examination of the cast gives no indication as to whether the right hand dot may be cracked away or not. In other words the evidence is negative. So far as the balance of the dots is concerned there is every reason to believe that there was a right hand dot, as you, of course, can see from the photograph. I really believe that were it not for the fact that this coefficient is so important anyone would read it as 13, even Tozzer agrees with me on this."

The photograph of the temple shows a Tun sign with an indistinct coefficient fol-

[1] The closest parallels to the archaic style of Yucatan are, perhaps, to be found in the lintels of Structure 12, Yaxchilan, the dates of which fall in the fifth Katun of Cycle 9. This, however, may be due to the fact that these lintels supply the only well-preserved lengthy inscriptions of the early period.

[2] Thompson, 1931, p. 355; Beyer, 1931, p. 104.

[3] Morley, 1920, p. 358; Morley, 1916, fig. 1.

lowed by 2 Ahau on the capital of the west jamb of the doorway. Morley informs me that an examination of the original by him in 1918 showed the Tun coefficient to be thirteen. There can, therefore, be little doubt that the Tun coefficient following the Initial Series should be read as thirteen.

The Initial Series falls in Tun 13 of a Katun (9.16.0.0.0) ending on 2 Ahau. This inscription may, therefore, be said to conform to the newly proposed method of interpretation of Yucatecan dates.

Panels on the west and east walls of the inner room of the south building at Holactun carry dates which, if read together, record 1 ? 1 Mac, Tun 2, 2 Ahau. The first sign is unlike anything yet identified as a day sign, since it consists of four dots adjoining the top, bottom and two sides of the cartouche. The Calendar Round date 1 Ben 1 Mac, at 9.15.1.2.13 meets the requirements that the date fall in a Tun 2 of a Katun ending on 2 Ahau, but the day sign bears no resemblance to known forms of the day Ben. However, it must be noted that it is certainly not Akbal or Eznab. It might be Lamat except that the dots should be in the corners for a normal representation of that day sign.

In this same temple the central lintel records Tun 17, 4 Ahau. This Period Ending (9.14.17.0.0) would fall just five Tuns before the Period Ending Tun 2, 2 Ahau recorded on the east inner panel.

INSCRIPTIONS AT TULUM

The Initial Series of Stela 1 at Tulum records 9.6.10.0.0 8 Ahau 13 Pax. This is followed by the half (Katun) or Lahuntun glyph and 7 Ahau. The question arises as to whether the half glyph should be taken as a Secondary Series leading to (9.7.0.0.0) 7 Ahau, or whether it records that the Initial Series falls in the tenth Tun of Katun 7 Ahau.[1] In the latter case this inscription would support the new method of interpretation. Another dubious example occurs in the inscription on Stela F, Quirigua. There a half glyph stands between (9.16.10.0.0) 1 Ahau 3 Zip and 13 Ahau, which, presumably, is an abbreviation for 9.17.0.0.0 13 Ahau 18 Cumhu. Again one can not say whether this glyph represents a Secondary Series or not.

INSCRIPTIONS AT KABAH

A Calendar Round date, 2 ? 3 Muan or Xul? is carved on the north jamb of Building 1. The south jamb, which appears to be written from right to left, may record 2? Tuns, 11 Ahau. The whole reading is so dubious that it would be profitless to offer interpretations.

INSCRIPTIONS AT UXMAL

Dates on the rings of the Ball Court at Uxmal have been read by Morley as ? Ix 16 Pop, Tun 17, 12 Ahau and ? Ix 17 Pop, 12 or 17 (Tun). Actually, the day sign of the latter date, on the western ring, can hardly be Ix since there are dots above and vertical lines below, whereas the normal form of Ix on the inscriptions has vertical lines above and dots below. An examination of a photograph of this inscription, one of a series lent to the writer by the Department of Middle American Research of Tulane University through the courtesy of Mr. Blom, would appear to show that the day sign in question is a head form. Since

[1] Thompson, Pollock and Charlot, 1932, p.194.

the corresponding month coefficient is clearly seventeen, this head must represent Kan, Muluc, Ix or Cauac. Of these only Cauac is portrayed by a head in its normal form. Unfortunately, examples of the day sign Cauac are extremely rare, but, everything considered, the possibility that this day sign represents Cauac is strongest. In that case the date of this inscription might be (10.3.16.16.19) *3* Cauac 17 Pop falling in Tun 17 of a Katun (10.4.0.0.0) 12 Ahau. Alternative readings would be (10.16.16.8.19) 12 Cauac 17 Pop falling in a Tun 17 of a Katun (10.17.0.0.0) ending on 12 Ahau, or (11.9.16.0.19) 8 Cauac 17 Pop.

The day sign on the eastern ring resembles at first glance the day sign Ix, but a closer examination reveals that the upper element, consisting of a series of vertical lines, occupies less than one third of the vertical height of the area within the cartouche. Furthermore, the corresponding month coefficient is not seventeen, as would be required were the day Ix. A comparison with the inscriptions at Chichen Itza suggests that this glyph might be the day sign Ahau,[1] but in that case the month coefficient must be read as eighteen, despite the fact that it appears to be sixteen. A month coefficient of sixteen demands the days Akbal, Lamat, Ben or Eznab, but none of these resembles the day sign in question. A close examination of the photograph shows the lowest dot to be larger and encircled, apparently representing the mouth of Ahau, making this easily the most preferable reading.

The writer feels that the suggested readings (10.3.16.16.19) 3 Cauac 17 Pop and (10.3.16.17.0) 4 Ahau 18 Pop, must be considered extremely questionable. There is, of course, a possibility that the combination of day signs with month coefficients had changed before this inscription was carved, but the writer believes that this change took place only shortly before the Spanish conquest, and, furthermore, was accompanied by the introduction of the year-bearer method of designating dates.

It is worthy of note that the latest possible readings, (11.9.16.0.19) 8 Cauac 17 Pop and (11.9.16.1.0) 9 Ahau 18 Pop, fall nineteen and twenty days, respectively, after the terminal date of the recently deciphered Ball Court inscription at Chichen Itza.[2]

Two capstone dates from the Monjas group at Uxmal were copied in 1918 by Morley[3] and by Blom in 1930. The first of these records 5 Imix 18 (or 19) Kankin, Tun 18, Katun 13 according to Morley. Blom's drawing, made some twelve years later, shows the Katun coefficient as twelve, probably due to flaking of the remainder of the paint of the central dot in the interval between the two drawings. Morley has interpreted this inscription as (11.12.17.11.1) 5 Imix 19 Kankin, falling in a Tun 18 of a Katun 13. This method of interpretation, which would appear to be unanswerable, conforms to the system already discussed except that the Katun is designated by its position in the current Cycle and not by the day on which it ends. The system is very similar to that of the Caracol stela inscription (p. 4). Presumably, this date is not contemporaneous with the building in which it occurs.

The current Katun (11.13.0.0.0) ends on 6 Ahau, and in this connection it is interesting to note that according to the Chilam Balam of Chumayel a Katun 6 Ahau was established at Uxmal.[4] It is, of course, by no means certain that this date had any connection with the establishment of this Katun 6 Ahau at Uxmal, but it is perhaps worthy of note as

[1] *Cf.* Glyphs 19 and 25 of the Casa Colorada and Glyph C1b2 of Lintel 3, Las Monjas.
[2] Palacios, 1937.
[3] Morley, 1918, p. 273; 1920 p. 511; and Field Note Book, 1918.
[4] Roys, 1933, p. 161. Sec also Appendix D.

a possible line of research for future work. This inscription, painted in brush technique, lacks archaisms, agreeing in that respect with all known capstone inscriptions.

The second capstone inscription reads 4 Eb 15 Ceh, but information on the current Tun and Katun is not available. It was probably given in the obliterated section of the text. As it stands this date could recur every fifty-two Tuns, but the similarity in the dancing figures associated with both of these capstone figures suggests that they can not be separated by a very long period. The glyphs, which are painted in sculpture technique, similarly lack archaic features. Perhaps 11.12.8.6.12 4 Eb 15 Ceh is the best Long Count position for this date, but at these dates Uxmal is said to have been abandoned by the Xius, although, perhaps, still of ritualistic importance.

The numerous stelae at Uxmal yield no reliable dates.

INSCRIPTIONS AT OTHER SITES

Morley has read glyphs on the under side of the snout of a mask on the Palace at Labna as Tun 13, 3 Ahau.[1] Beyer, apparently unaware of Morley's reading, has published a similar interpretation.[2]

The presence of the archaic element before the day sign, and the absence of a cartouche around the day sign would indicate an early date for this inscription. The Long Count position 10.1.13.0.0 falling in a Katun (10.2.0.0.0) 3 Ahau is preferable, although the possibility of a survival of these archaic elements until the next occurrence of this Period Ending at 10.14.13.0.0 falling in a Katun (10.15.0.0.0) 3 Ahau can not be ignored so far as Labna is concerned, although these elements had apparently disappeared at Chichen Itza prior to 10.8.0.0.0.

A number of other dates exist in various sites of western Yucatan and northern Campeche, but all are too badly eroded to be given definite positions in the Long Count with the exception of the newly discovered stelae at Xtampak. These follow the classical system of designating dates by the Initial Series method.

Attention might be called to Stela 5 at Etzna. The inscription opens with an eroded Calendar Round date. This is followed by a ? Tuns, 11 Ahau. Apparently the Calendar Round position of which 11 Ahau is certainly not one of the elements, falls in the final Tun of a Katun 11 Ahau. In view of the known dates from Etzna a position 9.17.19.?.?., falling in a Katun (9.18.0.0.0) 11 Ahau is indicated.

Stela 8 at the same city appears to have a Calendar Round date followed by Tun and day Ahau, but the details can not be made out in the photograph.[3]

SUMMARY

1. At some Yucatecan sites, notably Chichen Itza, Calendar Round dates appear to have been accurately placed in the Long Count by means of two glyphs, those for the Tun and the day Ahau. The coefficient of the former, according to the method of interpretation now proposed, records the number of the Tun in which the Calendar Round date occurs.

[1] Morley, 1920, p. 358.

[2] Beyer, 1934.

[3] The sister monument Stela 9 has a clear 9 Ahau 18 Mol, presumably marking the Katun ending 9.19.0.0.0 9 Ahau 18 Mol, but, presumably owing to a slip in writing his notes, Morley reads this as 9 Ahau 3 Mol, giving the stela the position 9.11.17.0.0 9 Ahau 3 Mol (Morley, 1927, p. 266).

The day sign Ahau with its coefficient indicates the day on which the current Katun will end. Such a combination of Calendar Round date, Tun, and ending day of a Katun can only occur once in the course of Maya history. Accordingly, this system is as definitive as the Initial Series. Owing to poor sculpture, weathering, and paucity of dates, the proposed method of interpretation can not be said to be proved beyond question, but the possibilities of coincidence are so remote, that there can be little serious objection to it.

2. Using the new method of interpretation, all the decipherable dates at Chichen Itza, with the exception of those of the Caracol band, the High Priest's Grave, the newly deciphered Ball Court inscription, and the tomb capstone, fall into the period between 10.1.17.0.0. and 10.3.0.0.0.

3. The hieroglyphs at Chichen Itza, except those composing the four inscriptions noted above, are crude and show many archaic features. An early diffusion to Yucatan of hieroglyphic writing and a conservation of primitive elements in the writing of this peripheral region long after they had disappeared in the central area are indicated

4. There are grounds for linking these inscription at Chichen Itza with the four exceptions already noted to a pre-Itza occupation of the city, characterized by architecture resembling that of the Puuc. This period appears to end at 10.3.0.0.0 Katun 1 Ahau, when, according to the chronicles, Chichen Itza was depopulated. This depopulation, however, probably refers to the departure of a ruling group. It will be noted that this abandonment of Chichen Itza and temporary cessation of inscriptions coincide with the close of the dated epoch in the central area.

5. The Itza Conquest of Chichen under the legendary Kukulcan may have taken place at 10.8.0.0.0 Katun 4 Ahau, lasting until 10.19.0.0.0, when the Itzas were overthrown by Hunac Ceel. With the introduction of Mexican influences by the Itzas, the practice of recording dates soon ceases. Only two dates, those of the Caracol and the High Priest's Grave, appear to fit into this period and both of these occur at the very beginning of the postulated Itza occupation. Indeed, historical sources infer that the Caracol was built by Kukulcan. Archaic features are less prominent in the Caracol inscription and disappear entirely in the later inscription of the High Priest's Grave.

6. The Maya resurgence at Chichen Itza after the fall of Mayapan in 11.11.10.0.0 Katun 8 Ahau, is marked by one date, the painted capstone of the tomb east of the hacienda. This inscription introduces the custom of dating by year-bearers, which by this time had shifted to Kan, Muluc, Ix and Cauac.

7. Dates at Holactun, Tulum, Kabah, Labna, and Uxmal appear to be written in the same manner; that is, the current Tun and current Katun ending are recorded.

8. The earliest inscription in Yucatan as yet deciphered which records dates by this method is that of the Initial Series at Holactun, recording 9.16.0.0.0, but there is an incomplete date at this same site which may record 9.15.0.0.0.

9. The latest date of this class, although recorded in a slightly different manner, is that of the capstone of a room in the Monjas at Uxmal. This refers to the Katun ending 11.13.0.0.0 6 Ahau 3 Zip.

BIBLIOGRAPHY

BEYER, H.

1931. The Maya Hieroglyphs: The variable element of the introducing glyphs as month indicator. *Anthropos,* XXVI: 99-108. Vienna.

1932. The stylistic history of the Maya hieroglyphs. *Middle American Research Series,* IV: 73-102. New Orleans.

1934. Ueber das Datum auf der Russelmaske von Labna. *El Mexico Antiguo,* vol. III, Nos. 3-4, pp. 9-13. Mexico, D. F

1937. The Hieroglyphs at Chichen Itza, Yucatan. *Carnegie Inst. Wash.* Pub. No. 483, Contribution No. 21. Washington.

LANDA, D. DE

1864. Relation des choses de Yucatan. Translated by Brasseur de Bourbourg. Paris.

LIZARDI RAMOS, C.

1936. Los secretos de Chichen Itza. *Excelsior* (December 21). Mexico.

MAUDSLAY, A. P.

1889-1902. Archaeology. *Biologia Centrali-Americana,* 4 vols. plates, 1 vol. text. London.

MORLEY, S. G.

1916. The supplementary series in the Maya inscriptions. *Holmes Anniversary Volume,* pp. 366-396. Washington.

1918. Archaeology. *Carnegie Inst. Wash.* Year Book No. 17, pp. 269-276. Washington.

1920. The Inscriptions at Copan. *Carnegie Inst. Wash.* Year Book No. 219. Washington.

1925. Archaeology. *Carnegie Inst. Wash.* Year Book No. 24, pp. 247-270. Washington.

1927. Archaeology. *Carnegie Inst. Wash.* Year Book No. 26, pp. 231-267. Washington.

1935. Inscriptions at the Caracol. Appendix in Ruppert, The Caracol, pp. 276-293. Washington.

PALACIOS, E. J.

1937. La fecha del juego de pelota de Chichen Itza. Manuscript.

POLLOCK, H. E. D.

1936. Round structures of aboriginal Middle America. *Carnegie Inst. Wash.* Pub. No. 471. Washington.

RELACIONES DE YUCATAN

1898-1900. Relaciones histórico-geográficas de las provincias de Yucatan. *Colección de documentos inéditos relativos al descubrimiento . . . de ultramar.* Ser. 2, vols. 11 and 13. Madrid.

ROYS, R.

1933. The book of Chilam Balam of Chumayel. *Carnegie Inst. Wash.* Pub. No. 438. Washington.

RUPPERT, K.

1935. The caracol at Chichen Itza, Yucatan. Mexico. *Carnegie Inst. Wash.* Pub. No. 454. Washington.

THOMPSON, J. E.

1926. Chichen Itza, a centre of the Maya civilization. *The Field,* Christmas number. London.

1927. A correlation of the Mayan and European calendars. *Field Mus. Nat. Hist., Anthrop. Ser.,* vol. XVII, no. 1. Chicago.

1931. Archaeological investigations in the southern Cayo District, British Honduras. *Field Mus. Nat. Hist., Anthrop. Ser.,* vol. XVII, no. 3. Chicago.

1935. The dates on altar U, Copan. *Maya Research,* II: 11-13. New Orleans.

THOMPSON, J. E., POLLOCK, H. AND CHARLOT, J.

1932. A preliminary study of the ruins of Coba, Quintana Roo, Mexico. *Carnegie Inst. Wash.* Pub. No. 424. Washington.