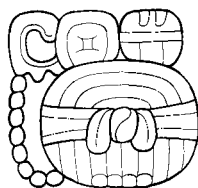


II

TIKAL STELAE AND STELA / ALTAR PAIRS



In this section we present the carved stelae of Tikal in their numerical order. The carved altars found with the stelae are described with them, while the rest are reserved for the next section (III). A stela/altar pair is determined as such by close physical location and alignment of the two stones, with the altar in front of the stela or displaced only slightly. Such stelae and altars often form compositional and inscriptional units.

TIKAL STELA 1

ILLUSTRATIONS: Fig. 1a-b (drawings); Fig. 83a-b (photographs). **LOCATION:** North Acropolis before Str. 5D-26-1st; probably in a secondary position; upper fragment missing; no paired altar (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** 9.0.0.0.0 ± 2 katuns (Proskouriakoff 1950:195). **CARVED SURFACES:** front, left, right, back (glyphic); Class 4 (Morley Class 12). **NUMBER OF GLYPHS:** 20. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 2.28 m,* surviving H 1.81 m, W 0.64 m, T 0.42 m, HA 1.98 m,* relief 1.3 cm (front), 0.3 cm (back). **PHOTOGRAPHS:** Maler 1911:Pls. 12,13; Morley and Morley 1938:Pl. 3a; Greene and Thompson 1967:Pls. 4, 5 (rubblings, front and left side); Greene, Rands and Graham 1972:Pl. 119 (rubbing, front and sides). **DRAWINGS:** Morley and Morley 1938:Fig. 4; Kidder and Samayoa 1959:Pl. 34; Coe 1967:92. **REFERENCES:** Maler 1911:61-67; Morley 1937-38, I:295-97; TR. 3:71-78; TR. 4:116-24; Bailey 1972:53-72; Coggins 1975:186, 255-56, Table 3; Marcus 1976:39, 54.

*Reconstructed

GENERAL REMARKS

Maler found St. 1 in an upright position beside St. 2 within the court between Strs. 5D-26-1st and 33-1st (TR. 33:77-78). He disturbed the area with considerable excavation, but the Project found the remains of a shallow stela pit approximately where Maler reported the stela to have stood (TR. 14). Within the pit were located a probably non-contemporaneous and possibly even unassociated offering (Ca. 77) and a fragment of a carved monument (MS. 16). The apparent secondary reduction of the stela butt and the presence of the large lower fragment of companion St. 2 in the Great Plaza below suggest both that St. 1 has been reset and that it derived from a probable primary setting in the Great Plaza/North Terrace area. Stratigraphic evidence in the area of the pit further suggests that the stela's resetting postdates Str. 5D-33-1st and an important deposit (PD. 22) in which were found various fragments of carved monuments (St. 32; St. 33:Frag. 3; MS. 49, 102).

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in double column. Number of blocks: 20.* Number of glyphs: same.

Back (lost?)	Four or more blocks, possibly calendrical
Az1	Destroyed and missing block
Bz1-Az5	Eight non-calendrical blocks
Bz5-Az6	End haab, end 2 tuns or katuns (anniversary?)
Bz6-Bz8	Five non-calendrical blocks (Stormy Sky? name at Bz6; TEG at Az8, without <i>ben-ich</i>)

*Reconstructed

THE MONUMENTS AND INSCRIPTIONS OF TIKAL: THE CARVED MONUMENTS

TIKAL STELA 1:
SUMMARY OF CHRONOLOGY

Above Az1 Possibly missing CR date
Bz5-Az6 (PE?) End haab, end 2 tuns or katuns
 (anniversary?)

COMMENT ON THE INSCRIPTION

The hieroglyphic inscription of St. 1 is on the back, in two columns, with the top glyphs broken away. The glyphs are eroded in their interior detail, but much can be seen by outline and surviving incision. We have postulated two missing rows above the top remaining ones. In order to stress the uncertainty of the reconstruction, the surviving row numbers are prefixed with the small letter *z*. Reconstruction of the top is based upon the similar arrangement of St. 2, whereon the upper portions of the text and the front figure are preserved. Morley's reconstruction of four missing rows should be rejected for lack of space; his alternative three rows must be allowed as a possibility.

An opening IS might have been present if three rows are missing, with the SR at Az1 and VYr at Bz1. Alternatively, the text might have opened with a PE date or have had no date at all. Although it would be unusual for a Tikal text to have carried no date, St. 13 seems to provide an example of this. An opening date is the most common pattern in early Tikal, as the following tabulation shows:

Opening IS (period ending)	St. 3, 6, 12, 15, 18, 25, 27, 31
Opening IS (non-period-ending)	St. 17, 23, 29, Uolan- tun, El Encanto
Opening ISIG (non-period-ending and without period glyphs)	St. 4, 10
Opening PE	St. 9
Non-calendric opening	St. 7, 8, 13
Lost opening	St. 1, 2, 14, 26, 28

Such a range of patterns, while showing the probability of an opening IS on St. 1, gives little indication of whether or not that date might have been a PE.

Morley noted the hand-and-tassel ending sign at Bz5 but not the following katun or tun head with coefficient 2. Possibly these two glyphs should be read together as a PE date, "end 2 katuns," referring to a

lost 9.2.0.0.0 opening date or to a less likely "end 2 tuns." A precedent for such a large separation of date and PE statement is found on St. 31, where the PE fix for Date M is repeated after a long non-calendric statement. Alternatively, Coggins interprets the "end 2 katuns" as an anniversary statement (1975:189). She suggests that it refers back 2 katuns to the inauguration of Stormy Sky, an event probably mentioned on St. 31 (Date L: 8.19.10.0.0). Noting the eroded name glyph of Stormy Sky at Bz6 and the appropriate TEG at Az8, she places St. 1 around 9.1.10.0.0 (2 katuns after the inaugural date) and, since the 9.1.1.10.0 painted on the wall of Bu. 48 is thought to mark the death of this ruler, considers the monument a post-humous one. Maya stelae are generally dedicated to current rulers, however. The hand-and-tassel glyph followed by a numbered katun sign with ending bracket prefix was used at Tikal for both PE and anniversary statements (St. 31:D15-C16 and St. 19:A12-B12) and thus does not decide the question. The clause is not likely to refer to the second katun of the ruler's life, as there are no *ben-ich* or *batab* signs nearby and age notations do not carry hand-and-tassel glyphs. The "end 2 katuns" statement may also refer to the second katun end of the reign. If so, this would place the stela at or around 9.1.0.0.0, a year and a half prior to the date in Bu. 48. In consideration of Proskouriakoff's style date and the similarity of the carving to that of St. 31, we would tentatively place the stone somewhere between St. 31 at 9.0.10.0.0 and St. 9 at 9.2.0.0.0.

TIKAL STELA 2

ILLUSTRATIONS: Figs. 2a-b, 3 (drawings); Fig. 84a-b (photographs). LOCATION: Frag. 1 (upper) North Acropolis before Str. 5D-26-1st; no paired altar; Frag. 2 (lower, reworked as Alt. 15) Great Plaza, paired with St. P21 (TR. 14). DEDICATORY DATE: none surviving. STYLE DATE: 9.3.10.0.0 ± 2 katuns (Proskouriakoff 1950:196). CARVED SURFACES: front, left, right, back (glyphic); Class 4 (Morley Class 12). NUMBER OF GLYPHS: 20. MATERIAL: limestone, compact. DIMENSIONS: H 2.28 m, surviving H 1.27 m, W 0.66 m, T

TIKAL STELAE AND STELA/ALTAR PAIRS

0.40 m, HA 1.98 m, relief 1.0 cm (front), 0.8 cm (back). **PHOTOGRAPHS:** Maler 1911:Pl. 14; Morley, V:1937-38:Pl. 73b; Morley and Morley 1938:Pl. 3b; Greene, Rands, and Graham 1972:Pl. 120 (rubbing, front and sides). **DRAWINGS:** Morley and Morley 1938:Figs. 4,5. **REFERENCES:** Maler 1911:64, 67-69; Morley 1937-38, I:297-301; TR. 3:71-78; TR. 4:116-24; Bailey 1972:53-71; Coggins 1975:186, 255-56.

*Reconstructed

GENERAL REMARKS

The large upper fragment of St. 2 was found by Maler in 1905, evidently reset on the North Acropolis next to St. 1 in the court between Strs. 5D-26-1st and 33-1st (TR. 3:78). Much later, the Project discovered a large lower fragment of St. 2 face down and reworked to form a rectangular altar (Alt. 15) in front of St. P21 in the Great Plaza (TR. 14). The two fragments cannot be fitted together, but, because of the elaborate and well-preserved frontal design and

the similarities to St. 1, we were able to orient the stones in our drawing with confidence.

Altar 15 (Fig. 3) has a plain top, the original glyphs apparently obliterated in the reshaping. Three of the four sides were recarved with incised borders; a small portion of the stela's wrap-around design survives on one side, and much of the frontal carving is preserved on the altar's protected underside.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in double column. Number of blocks: 20.* Number of glyphs: same.

Back

Az1-Bz7

Fourteen probably non-calendrical blocks, but opening date also possible CR? (coefficients 3 and 15 clear)

Az8

Bz8-Bz10

Five missing blocks, possibly with DN and missing DD

*Reconstructed

TIKAL STELA 2: SUMMARY OF CHRONOLOGY

Az8

(CR) (Not a PE)

COMMENT ON THE INSCRIPTION

Morley suggested that a PE date in an extra row of glyphs had scaled off the top of the stone. Seeing no evidence of an extra row, we nevertheless cannot discount the possibility of severe erosion and have accordingly allowed for it by prefacing the surviving row numbers with the letter z.

The main sign at Az1 has a cartouche like that of day signs. Even though its position within the block does not suggest a SR, it does not rule it out. Thus the text might have begun with a date, either in row z1 or above. An opening IS is impossible for lack of space.

In the divided block Az8, there is apparently a CR with day coefficient 3 and VYr coefficient 15. The VYr coefficient precludes a PE, which requires 3, 8, 13, or 18.

Our reconstruction of two lost rows below the CR is based on the relationship between front and back designs of St. 1. In this missing area there is sufficient room for a lost PE. Thus, St. 2 is not dated by surviving calendrics. One possible CR survives,

apparently not a PE, and the possibilities of an opening or a closing DD are available.

According to Proskouriakoff's 1950 study, the style-date estimate for St. 2 is three and a half katuns later than that for St. 1, though their ranges of average error overlap. While this is a surprisingly large gap between two such similar stelae, there are other examples at Tikal of monuments modeled after much older ones (e.g., St. 31 and 29, St. 22 and 21).

Although traces of many of the glyphs survive and heads, brackets, and other signs can be recognized at least by outline, we have not yet been able to identify any dynastic information on St. 2.

TIKAL STELA 3

ILLUSTRATIONS: Fig. 4a-c (drawings); Fig. 84c-e (photographs). **LOCATION:** North Terrace in front of Str. 5D-34, possibly reset with Ca. 53; no paired altar (TR. 14). **DEDICATORY DATE:** 9.2.13.0.0 4 Ahau 13 Kayab (IS). **STYLE DATE:** 9.4.0.0.0 \pm 2 katuns (Proskouriakoff 1950:196). **CARVED SURFACES:** front,

THE MONUMENTS AND INSCRIPTIONS OF TIKAL: THE CARVED MONUMENTS

left (glyphic), right (glyphic); Class 3 (Morley Class 3).
NUMBER OF GLYPHS: 34. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 1.78 m,* W 0.61 m, T 0.40 m, HA 1.65 m, relief 1.2 cm (front). **DRAWINGS:** Maler 1911:Pl. 15; Morley 1915:Pl. 10. **DRAWINGS:** Bowditch 1910:Pls. 10, 13, 14, 19; Morley 1916:Pl. 1, 7; Coe 1967:111. **REFERENCES:** Morley 1937-38, I:301-4; TR. 4:116-33; Coe 1967:111; Bailey 1972:118-53.

*Reconstructed

GENERAL REMARKS

Stela 3 was found in an upright position by Maler. Excavations by the Project under the stela butt uncovered Ca. 53, which is compatible with the date of the stela (TR. 14). Coe notes, however, a misalignment between the cache pit and the stela and suggests that the latter might have been reset after it or another stela had been removed from a position central to the cache. Further evidence of resetting is the unusually short butt of the monument, which appears to be broken and reworked.

Stela 3 is one of eight at Tikal that depict a vertical staff held by a standing profile figure, display the text on the sides (Class 3), and are composed of compact limestone (St. 3, 6, 7, 8, 9, 13, 15, 27). Dated members of this group range from 9.2.0.0.0 (St. 9) to 9.4.0.0.0 (St. 6).

The staff itself is of two types. On St. 9 and 13, probably the two earliest of the group, it resembles a spear with a wavy or flame-like upper end. The lower end, where shown (St. 9), has a right-angle projection or a bend, as though made of flexible material. The shaft is segmented, divided by three thickened sections that might be made of another material and secured to it. The other representations (St. 3, 6, 7, 8, 15, 27) are of a straight shaft that likewise has three dividing elements and is held vertically above the center one. These dividers, clearly bound as they are to the staff, are nevertheless far more elaborate: they include serpent-head ornaments and probably *Spondylus* shells, knotted to the shaft in the same fashion used to secure ankle and wrist ornaments. In addition,

the knots apparently tie to the staff at least two out-curving bands with round attachments. This type of staff is not pointed but seems to terminate in a knob.

The openwork, segmented staff reappears later, beginning with St. 30 at 9.13.0.0.0 and continuing on St. 11, 16, 19, 21, 22 and 24. Held horizontally or diagonally, the later form is shorter and lacks either point or knob, while the bands that stand out from it between the bindings are angular rather than curved.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in double column. Number of blocks: 18 + 16 = 34. Number of glyphs: same.

Right side

- A1 ISIG (damaged, variable lost)
- B1-B3 9 baktuns, 2 katuns, 13 tuns, 0 uinals, 0 kins (head-variant period glyphs)
- A4 Date A, 9.2.13.0.0: 4 Ahau (interior details of notched symbolic day sign lost; projecting elements at upper right as well as upper left)
- B4-A7 Glyphs G9, 17D, 3C, 4X, A9 (head-variant G9; coefficient of Glyph D a Maya mistake for 7?; MN 3; MT 29)
- A7 13 Kayab
- B7 Non-calendrical glyph (with affix and coefficient 1)
- A8 Bracket, hand-and-tassel glyph with suffix (ending sign)
- B8 Bracket, 13 tuns (restoring lost interior of horseshoe frame by position; cf. preserved example at C3 of St. 12)
- A9-B9 Two non-calendricals (possible 9 *ben-ich hel* and manikin-head with Venus variant jawless head: ancestor name? as on St. 31 at B17-E18)

Left side

- C1-D8 Sixteen non-calendricals (Jaguar Paw Skull name at D1 without TEG; decorated ahau father glyph at D6; Kan Boar name at C8)

TIKAL STELA 3: SUMMARY OF CHRONOLOGY

A1-A7	Date A	IS	9. 2.13. 0. 0	ISIG, G9, MA 7? (written 17), MN 3, 4X, MT 29, 13 Kayab End 13 tuns
A8-B8				

COMMENT ON THE INSCRIPTION

The text of St. 3 is complete and well-preserved. Our block designations follow those of Morley, except that we correct his mistaken count of only eight rows on the right side. The bases of the glyph panels on the sides are at significantly higher levels than the base of carving on the front, a disparity also to be noted on St. 27 and to a lesser degree on St. 7 and 15. As no blocks appear to be divided and the ISIG takes up only one block, the number of glyphs (34) equals the number of blocks.

The new drawings serve to confirm Morley's confident reading of the IS date on the right side as 9.2.13.0.0 4 Ahau 13 Kayab. The ISIG month-patron variable still cannot be discerned, but all the period coefficients are clear, as is the coefficient of the SR. At B4, after the SR, we see a head-variant form of Glyph G9, representing the ninth in the cycle of nine consecutive "Lords of the Night" (Thompson 1950:208-12). This form is expected here, since the 360 days of the tun period are divisible by nine and therefore all PE's must carry Glyph G9.

In TR. 4 (128) it was suggested that the recorded moon age (MA) of 17, written with Glyph D and coefficient 17 in block A5, should probably be considered a Maya mistake for MA 7, as originally suggested by Teeple (1930:53). Counted from an arbitrary MA of 13.26 days at the 4 Ahau 8 Cumku base of the Long Count (TR. 4:127-28), the MA on St. 3 should be 7.50 days, much too large a deviation from 17 for that number to be considered correct.

The moon number (MN), which records the number of the current lunation within a series of six, is given at block B5 as Glyph C with a coefficient of 3. The fourth form of Glyph X, which follows, is appropriate for Glyph 3C. Teeple (1930:54-55) recognized a uniform system of moon-numbering adopted generally by the Maya by 9.12.15.0.0. This Uniformity System projected back to 9.2.13.0.0 would result in MN 2 rather than the MN 3 on the monument. Satterthwaite (TR. 4:132-33) speculated that there was an early shift at Tikal from a non-Uniformity system on St. 3 and 6 to a precocious local Uniformity System expressed on St. 23, 12, and 17. Since St. 23 was probably carved several tuns later than its 9.3.9.13.3 IS date, this shift seems to have occurred at Tikal between 9.4.0.0.0 (St. 6) and 9.4.13.0.0 (St. 12). Stela 31 and possibly St. 4, earlier than St. 3 and 6, should be added to the list of stelae in TR. 4 with non-Uniformity moon numbers.

Following Glyph X is Glyph A9 at block B6,

recording moon type (MT) 29, a current lunation counted as 29 rather than 30 days in length. The month position 13 Kayab is at A7. At block B7 is a sign with a pedestal suffix and coefficient 1, of unknown meaning, followed by a PE notation, "end 13 tuns." Completing the text on the right side is an eroded but clearly outlined 9 *ben-ich hel* notation together with the same manikin-head over Venus-variant glyph and jawless head seen on St. 31 at B17-B18. These are probably references to a ninth Tikal ruler (Riese 1979) who preceded Stormy Sky of St. 31.

On the left side of St. 3 (at D1) is the name glyph of Jaguar Paw Skull, identified first by Coggins (1975:256) on St. 26. The TEG is not present, however, to designate him as ruler. A long series of undeciphered glyphs leads to the decorated ahau glyph (at D6), identified as a male parent indicator by Jones (1977:41-42) and by Schele, Mathews, and Lounsbury (1977). Within the four non-calendrical glyphs that end the inscription is found the name glyph of the ruler Kan Boar. This also appears on St. 26. Unless we are overlooking other names or important information, the text seems to name Jaguar Paw Skull as ruler and Kan Boar as his father. Stela 7, erected only seven tuns later at 9.3.0.0.0, refers to these two rulers in the same order and contexts. Stelae 15 and 27, also at 9.3.0.0.0, give only the name of Jaguar Paw Skull; the name Kan Boar appears alone on St. 9, probably at 9.2.0.0.0. Therefore, the sequence of dates and names has internal consistency, and it is likely that Jaguar Paw Skull acceded to rule between 9.2.0.0.0 and 9.2.13.0.0, succeeding his father Kan Boar.

TIKAL STELA 4 / ALTAR 1

ILLUSTRATIONS: Fig. 5a-b, 6a-c (drawings); 85a-b (photographs). **LOCATION:** North Terrace before Str. 5D-34; *stela* reset upside down; *altar* Frag. 1 (top half) aligned roughly with St. 4; Frag. 2 (bottom half) aligned with St. P2 (TR. 14). **DEDICATORY DATE:** 8.17.2.16.17? **STYLE/DATE:** Early Classic, late Baktun 8 (Proskouriakoff 1950:196, and see below). **CARVED SURFACES:** *stela* front, back (glyphic); Class 2 (Morley Class 1); *altar* top, periphery. **NUMBER OF GLYPHS:** *stela* 18; *altar* 16*; total 34*. **MATERIAL:** *stela* limestone, compact; *altar* limestone, bedded. **DIMENSIONS:** *stela* H 1.66 m, W 0.85 m, T 0.36 m, HA 1.37 m, relief 1.2 cm (front), 0.4 cm (back); *altar* max. W 1.23 m, T 0.50 m, relief 1 cm. **PHOTOGRAPHS:** Maler 1911:Pl. 16, 1, 2; Greene, Rands, and Graham 1972:Pl. 121 (rubbing, front). **DRAWINGS:** Morley

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1937-38, V:Pl. 7f; Proskouriakoff 1968:Fig. 3a; Kelley 1976:Fig. 79 (B5). REFERENCES: Maler 1911:71-72; Morley 1937-38, I:271, 280, 292-95, 304, 374; TR. 4:116-24; Proskouriakoff 1960:469; 1968:249-50; Bailey 1972:109-12, 163-77; Coggins 1975:140-46; Kelley 1976:231.

*Reconstructed

GENERAL REMARKS

Stela 4 was found by Maler (1911:70-72) erect but upside down in front of Str. 5D-34 to the left of its axis. Altar 1, apparently plain, was in rough alignment before the stela. The Project's investigations, however, showed it to be only the top half of the altar (Frag. 1), set face down; the bottom portion (Frag. 2) was located in front of the uncarved St. P2 just to the west of St. 4 (TR. 14). It is possible that the altar originally lay complete in front of St. P2 and that the top half was later split off, turned over, and placed in front of St. 4. On the other hand, perhaps the sculptured altar and stela were at some time reset upside down as a pair and the largely uncarved lower half of the altar subsequently placed in front of the plain stela. Ca. 25, found deep within the apparent stela pit of St. 4, is transitional between early and late offertory assemblages, and might be contemporaneous with the resetting.

We cannot prove from the present proximity of stela and altar that the two were a unit on the order of the later Tikal monument pairs. Nevertheless, the altar is made of a crumbling bedded stone similar to that of St. 36 (of early stylistic date) and shares with St. 4, 18 and 36 the irregular elipsoidal form, seated figure motif, and blunt-ended featherwork (Bailey 1972:163-77).

The altar, unlike any other at Tikal, bears four panels of glyphs that quarter the periphery. The probable axes of the eroded altar-top relief are not oriented

to the panels but to the approximate centers of the blank spaces between them. This orientation was used on the early Alt. 13 and 19 but not on Alt. 3 and 12, or the later Alt. 6 at 9.18.0.0.0. One panel is completely eroded but traces of glyphs can be seen on the other three. What survives indicates that the panels were divided at least into right and left halves and probably into fourths as well. On this basis we estimate a total of sixteen glyphs for the inscription. It is clear, incidentally, that the surviving glyphs are not repetitious like those on Alt. 3, 12, 13, and 19.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in double column with divided block modification; altar in panels of four. Number of blocks: 14 + 16*=30.* Number of glyphs: same.

Stela

- A1-B2 ISIG (symbolic month patron variable suitable for Yaxkin)
- A3 Date A, (8.17.2.16.17)?; 5, day sign cartouche and supports (lost day glyph reconstructed as Ik, Manik, Eb or Caban on basis of VYr coefficient 10)
- B3 Glyph G4 (G7 possible but unlikely)
- A4 10 Yaxkin (coefficient and Yax affix clear; month sign agrees with ISIG variable)
- B4a Glyph with possible coefficient 3 (Morley saw resemblance to 3C of the LS)
- B4b-B7 Thirteen blocks, probably all non-calendrical (inaugural glyph at A5; Curl Nose name at B5b; uinal title at A6; coefficient 18 at A7b; coefficient? at B7b, l.h.)

Altar

- wA1-zB2 Sixteen blocks
- *Reconstructed

TIKAL STELA 4: SUMMARY OF CHRONOLOGY

A1-A4	Date A	CR	(8.17.2.16.17)?	ISIG (Yaxkin), 5 Caban?, G4, 10 Yaxkin
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COMMENT ON THE INSCRIPTION

The unusual layout of the St. 4 text was probably dictated at least partially by the stone's irregular shape. We have retained Morley's two-column letter designations, which seem justified by the two equal-

sized glyphs of row 3, by the well-maintained division line between the two columns, and by the fact that column B, though wider than column A, is less than twice as wide.

The order of reading down to block A4 is established by the chronology. From there on, it is less

TIKAL STELAE AND STELA/ALTAR PAIRS

certain, but one would surmise that the left-right-and-downward, double-column order was maintained throughout the text. Our block count is 14 and the glyph count 18. Both Maler and Morley counted 15 glyphs, probably regarding block A7b and the upper halves of B7a and B7b as separate glyphs (as we do) but not B4b, B5b, and B6b. Morley, citing Maler, speaks of badly weathered glyphs on the sides, yet states elsewhere that the sides are plain. No trace of carving is now evident on the sides.

Morley speculated that St. 4 might record a tun end with either the coefficient 7 at block B3 fixing the date at 8.14.7.0.0 5 Ahau 8 Zotz or the coefficient 10 at block A4 placing it at 9.1.10.0.0 5 Ahau 3 Zec. He presented each of these possibilities with three question marks, pointing out that the ISIG variable supports neither Zotz nor Zec as the month, and that neither of his possible PEs can be restored as a tun sign.

The uncommon opening on St. 4 is comparable with those on Copan St. 16 (Morley 1920:84-85; 1937-38, I:292-95; V:Pl. 7f) and Tikal St. 10:

Tikal St. 4	Copan St. 16	Tikal St. 10
ISIG	ISIG	ISIG
5 (day sign)	8 Yaxkin	8 Manik
Glyph G4	5 Ahau	Glyph G8
10 Yaxkin	Glyph G5	non-calendrical?
Glyph 3C?	Glyph C?	10 Yaxkin?

Copan St. 16, though much later than Tikal St. 4, has a clear example of an ISIG without the IS period glyphs. There, the CR itself is stated in reverse order. The ISIG month variable agrees with the VYr sign Yaxkin. With Glyph G5 present, the LC position can only be 9.9.15.7.0 (two CRs later than Morley's 9.4.9.17.0). On Tikal St. 10, similar IS period suppression in the opening date suggests a new reading based on the St. 4 pattern.

The SR on St. 4 has a coefficient 5 and an eroded main sign. All that remains of the ISIG variable is an arched framing element suitable for the month Yaxkin and around it a larger element with two notches that resembles the frame of the Yaxkin variable on the Copan stela. On this basis, Yaxkin must be chosen over the only possible alternative, Yax. Furthermore, the fully framed cartouche of the VYr month sign at A4 is properly that for Yaxkin, not for Yax. With VYr coefficient 10, the day sign must be one of four: Ik, Manik, Eb, or Caban.

At block B3, which by its position between the SR and VYr should contain Glyph G, is a head with

coefficient 7 that matches several representations of Glyph G4 (Thompson 1950:Fig. 34). Another (unlikely) possibility is Glyph G7, illustrated once with the coefficient 7.

Proskouriakoff's published style date (1950:196) is simply "Early Classic?" but in correspondence (1958) she supplied the following comment:

An estimate of the date of this stela must rest on general considerations, since none of its characteristic traits is elsewhere associated with a datable inscription. At Tikal its closest affiliate in style is Stela 18, and the two monuments are sufficiently similar that we can infer they were carved within two or three katuns of each other. Since neither resembles very closely the monuments in any other group, they must be placed within the existing gaps of the known sequences: before 9.2.0.0.0 or in the interval between 9.5.0.0.0 and 9.8.0.0.0. In view of your recent discoveries and decipherments that tend to narrow or eliminate the transitional hiatus, I think a date after 9.5.0.0.0 must now be ruled out. Moreover, if Stelae 1 and 2 were erected near the turn of the cycle, Cycle 8 remains the only logical place for Stelae 4 and 18....Although the stylistic indications are not entirely conclusive, I think a date in Cycle 8 is entirely consistent with them, and certainly more probable than a date after 9.2.0.0.0.

Between 8.12.0.0.0 and 9.5.0.0.0, there are only four LC positions suitable for the date of St. 4 with Glyph G4 or G7 present:

8.15.3.7.2	5 Ik	Glyph G7	10 Yaxkin
8.17.2.16.17	5 Caban	Glyph G4	10 Yaxkin
9.1.2.0.7	5 Manik	Glyph G7	10 Yaxkin
9.3.1.10.2	5 Ik	Glyph G4	10 Yaxkin

In other correspondence (1960) Proskouriakoff pointed out that the St. 4 date is similar to Date G on St. 31 (F8-F9), recorded as 10 Caban, Glyph G4 (possibly G7), 10 Yaxkin. Since this date occurs on St. 31 between the PE dates 8.17.0.0.0 and 8.18.0.0.0 (Dates D and H) and since it can be positioned as recorded only at 8.6.3.16.17 or 9.2.0.4.17 (see St. 31 discussion), she suggested that the carvers of St. 31 had made an error and had meant to repeat the 5 Caban date on St. 4. She therefore postulated a placement of St. 4 at 8.17.2.16.17 5 Caban 10 Yaxkin. This interpretation is greatly to be preferred for several reasons: Glyph G is best read as G4; the signs are arranged in a similar way on the two stelae; and, as

Proskouriakoff pointed out even then, the peccary glyph (B5b) occurs after both dates, probably as the name of the ruler. She also identified the "toothache" inaugural glyph at A5 of St. 4 (1960:469). Coggins (1975:140-46) has illustrated how the succession of dates and rulers' names on St. 31 supports the identification of 8.17.2.16.17 as the inaugural date of the important ruler Curl Nose (or Peccary). Further validation of the 8.17.2.16.17 date is the stylistic similarity of St. 4 to St. 18, which probably marks the succeeding katun end, 8.18.0.0.0.

Immediately following the VYr is a glyph compound at block B4a composed of an open hand surmounted by a possible coefficient 3, an inverted T-shaped sign with three scrolls, and a scroll or lunar postfix. The compound resembles Glyph C of the LS, although the inverted T-shaped sign is not found among Thompson's examples (1950:Figs. 36,37), and there is no room for other LS glyphs on the stela. For these reasons we are cautious about accepting this as an early notation of the moon number. If a MN is recorded here, it is one lunation less than would have been recorded in the later Uniformity System of moon numbering used at Tikal by 9.4.13.0.0 on St. 23, 12, and 17 and adopted generally by all Maya sites by 9.12.15.0.0 (Satterthwaite 1958b:132-33). This record of one lunation back from that of the Uniformity System is not in accord with moon numbers on St. 31 at 9.0.10.0.0 and St. 3 at 9.2.13.0.0 (one lunation forward) or with St. 6 at 9.4.0.0.0 (two lunations back).

Proskouriakoff (1968:249) discussed the rodent head sign at B4b as an introductory glyph to the inaugural phrase that follows it and states at B5b the name of the ruler Curl Nose. At block A6, the shapes of the superfix, suffix, and two postfixes are those of the common uinal title with *mah k'ina* postfix (Lounsbury 1974). This compound accompanies name glyphs in several later Tikal inscriptions (St. 16:C2, St. 5:A8, St. 22:B7, and Temple IV, Li. 3:G1) and occurs without the postfix on St. 31 (G19). An open-mouth glyph at block B6a resembles the grotesque head that peers down upon the ruler on the front. Block B6b is probably the *mah cuch* title compound (Schele 1976). The inverted skull with scrolls at A7a seems to be the same as in the last block of St. 18. A main sign with full cartouche, scroll suffix, and coefficient 18 at A7b might make reference to the end of the current Katun 18. Another coefficient, possibly 13, appears in the final block of the text, again above a main sign with a cartouche, but without a suffix. Neither coefficient assures the presence of a Date B,

however, so it appears that the opening non-tun-ending date is the DD.

TIKAL STELA 5 / ALTAR 2

ILLUSTRATIONS: Figs. 7a-b, 8a-d, (drawings); Fig. 86a (photograph). **LOCATION:** North Terrace in front of Str. 5D-33-1st, W of stairway, erect in original position; Ca. 36 under butt; Alt. 2 just SE of stela (TR. 14). **DEDICATORY DATE:** 9.15.13.0.0 4 Ahau 8 Yaxkin (PE). **STYLE DATE:** 9.17.0.0.0 \pm 2 katuns (Proskouriakoff 1950:124-25, 196). **CARVED SURFACES:** stela front, left, right (all glyphic); Class 3 (Morley Class 3); altar top, periphery. **NUMBER OF GLYPHS:** stela 57. **MATERIAL:** Limestone, bedded. **DIMENSIONS:** stela H 2.79 m, W 1.13 m, T 0.45 m, HA 2.16 m, relief 5.8 cm; altar Diam 1.25 m, * T 0.35 m* (Maler gives erroneous 0.20 m), relief 0.6 cm. **PHOTOGRAPHS:** Maudslay 1889-1902, III:Pls. 81,82a,b; Maler 1911:Pl. 17; Morley 1937-38, V:Pl. 71f; Morley and Morley 1938:Pl. 2a; Greene, Rands, and Graham 1972:Pl. 122 (rubbing, front). **DRAWINGS:** Maudslay 1889-1902, III:Pl. 79; Jones 1977:Figs. 13,14. **REFERENCES:** Maudslay 1889-1902, III:49; Maler 1911:72-74; Morley 1937-38, I:342-46, V:Pl. 189; Berlin 1951:39-41, 53-55; Cerezo D. 1951:7; TR. 4:116-26; Kelley 1976:231; Marcus 1976:111-12; Jones 1977:45-53.

*Reconstructed

GENERAL REMARKS

Morley concluded that Altar 2 belonged to the nearby St. P3 rather than to St. 5. Maudslay's 1881 or 1882 photograph of the latter, however, shows the altar in the foreground, upside down and only recently moved out of the way. His brief commentary also states that the altar "is lying in front of this monument (St. 5)."

The stela fell forward in 1958, undermined considerably by the 1930 cache-hunting excavation of Robson, Jolly, and Herron (Morley 1937-38, I:346). At the same time a triangular fragment of the figure's thigh was stolen and is still missing. Several fragments of the front glyph panels and figural design recovered in Project cleaning and resetting operations were either secured to the stela or put into storage. Details of these have been included in the drawing; those of the missing piece were filled in from Maudslay's photograph.

In TR. 14, Coe identifies several probable cache

TIKAL STELAE AND STELA/ALTAR PAIRS

pieces from St. 5 illustrated by Joyce (1932:Pl. 8) and numbers this offering Ca. 36. Other pieces of the cache were found by the Project under the stela butt and in the old backdirt piles.

The peripheral design of Alt. 2, a series of leaf-like and crosshatched elements that hang down toward a plain lower border, is unique at Tikal. It does, however, follow the conventional Tikal division into quarters and thus might be a late adaptation of the florid serpent head designs of Alt. 4 and 20. One fragment (Fig. 8c8, 9) shows that a rope design formed an upper border for the periphery, analogous to that of Alt. 8 at 9.16.0.0.0. Allowing for the rope border plus a few centimeters lost from the design on the larger fragment, we can estimate an altar thickness of 0.35 m, comparable to the almost contemporary Alt. 5 and 8 and thinner than the later Alt. 10, 6, and 7, with their more pictorial periphery designs.

The top carving of the altar has largely disappeared except for a few fragments. A glyphic element (Fig. 8c8) indicates the possibility of a glyphic border, but might alternatively be part of a figural composition. One fragment (Fig. 8c5) is important for showing a knotted mass of rope from which extends a short length of thicker rope. A comparable arrangement can be seen on the arm bindings of the captive figure on Alt. 8. Since the position of the captive figure of St. 5 is not likely to have revealed the knot, it is probable that the altar top showed another captive figure, either prone or seated.

GLYPHIC IDENTIFICATION AND
DECIPHERMENT

Order of reading: left-right and downward in double column on left and right sides; possibly independent reading of two panels on front. Number of blocks: $48 + 6 + 3 = 57$. Number of glyphs: same.

Left side

- A1-B1 Date A, (9.15.3.6.8): 3 Lamat 6 Pax (restored except for day sign cartouche and month coefficient)
 A2-B12 Twenty-two non-calendrical blocks (Ruler B name at B4; 7 plus 20 *hel* at A5-B5 for 27th ruler in succession?; TEG at B6; coefficients at B7, A8, and B11; cf. Temple VI Facade Text: B9-B12)

Right side

- C1-C2 DN: 12 kins, 11 uinals (possibly 12, 13, 14), 9 tuns
 D2 Posterior date indicator
 C3-C4 Date B, (9.15.13.0.0): 4 Ahau 8 Yaxkin, end 13 tuns
 D4-D12 Seventeen non-calendrical blocks (Ruler B name at C5; batab, TEG at C6-D6; mother glyph at C7; woman's name and EG at D7-D9; father glyph at C10; Ruler A name, 4 katuns, batab, TEG at D10-D12; cf. Temple IV, Li. 3:E9-H9)

Front

- yA1-yB3 Six blocks, probably all non-calendrical
 zA1-zA3 Three non-calendrical blocks (Ruler B name at zA1-zA2?)

TIKAL STELA 5: SUMMARY OF CHRONOLOGY

A1-B1	Date A	CR	(9.15. 3. 6. 8)	3 Lamat 6 Pax
C1-C2		DN	+ 9.11.12	
C3-C4	Date B	PE	(9.15.13. 0. 0)	4 Ahau 8 Yaxkin, end 13 tuns

COMMENT ON THE INSCRIPTION

By retaining Morley's glyph numeration of the stela side texts and adding the letters *y* and *z* for the blocks of the two front panels, we avoid a fixed order of reading of the front in relation to the side panels.

The opening date on the left side, by itself undecipherable, can be linked to Date B on the right side by the distance number in blocks C1-C2 of the right side. Date B is clear as 4 Ahau 8 Yaxkin and is fixed at

9.15.13.0.0 by the "end 13 tuns" notation at C4. The DN of 12 kins, 11 uinals, and 9 tuns, as read by Morley, is confirmed by our drawing; the tun and kin coefficients are certain. Traces of a crescent filler favor a reading of 11 uinals, but coefficients of 12, 13, or 14 can be allowed for safely. For Date A, the only surviving traces are the right side of the day sign cartouche (without a pedestal base, as on St. 20), a VYr coefficient of 6 with a central dot and oval fillers, and a VYr main sign that could fit almost any month. The coeffi-

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cient of 6 necessitates a forward count for the DN coefficient of 12 kins to reach 8 Yaxkin. Allowing all three uinal possibilities, we are confined to the following choices for Date A:

9.15.3.6.8	3 Lamat 6 Pax	(11 uinals)
9.15.3.5.8	9 Lamat 6 Muan	(12 uinals)
9.15.3.4.8	2 Lamat 6 Kankin	(13 uinals)
9.15.3.3.8	8 Lamat 6 Mac	(14 uinals)

The preferred uinal coefficient of 11 leads us, as it did Morley, to the 3 Lamat 6 Pax date. The occurrence of the same date on St. 21 at 9.15.5.0.0, as read first by Berlin (1951), serves to reinforce the reading.

Proskouriakoff (1950:125) arrived at a style date of 9.17.0.0.0 ± 2 katuns and noted that the monument “exhibits unexpectedly archaic traits in its costume accessories.” Morley (1937-38, 1:343, 376, 379) had earlier hypothesized that this archaism might be a deliberate copying of the nearby St. 3 at 9.2.13.0.0 on the occasion of its 13-katun anniversary at 9.15.13.0.0. Since Morley’s writing, other 13-tun monuments have been discovered (St. 12 at 9.4.13.0.0), and a 13-katun connection between St. 31 and Li. 3 of Temple I further strengthens his hypothesis.

On the right side the rodent head “jog” glyph (T757; seen in an earlier form on St. 4:B4b) introduces the name glyphs of Ruler B at C5-D6. A woman’s name at D7-D9 and the name glyphs of Ruler A at D10-D12 were suggested as parts of a parentage statement (Jones 1977:41-42, 45), and this identification was later confirmed by a wider study of Maya texts (Schele, Mathews, and Lounsbury 1977). An almost identical parentage statement is seen on Li. 3 of Temple IV.

The left side of St. 5 records the name of Ruler B at B4 in connection with the 3 Lamat 6 Pax date stated as inaugural on St. 21. A moon-with-enclosed-dot and coefficient 7 followed by a *hel* glyph compound appears at A5-B5 between the name glyph and the TEG. Riese (1979) has proposed that these *hel* compounds with coefficients are records of a count of successive rulers of a site. If so, this notation would place Ruler B as the 27th ruler of Tikal, intermediate between Double Bird, recorded as the 21st ruler on St. 17, and Ruler C, noted as the 29th ruler on St. 22.

TIKAL STELA 6

ILLUSTRATIONS: Figs. 9a-b, 10a-c (drawings); Fig. 86b-d (photographs). LOCATION: North Terrace, axially centered in front of Str. 5D-32-1st; possibly in

secondary association with Alt. 12 (TR. 14). DEDICATORY DATE: 9.4.0.0.0 13 Ahau 18 Yax (IS). STYLE DATE: 9.3.0.0.0 ± 2 katuns (Proskouriakoff 1950:196). CARVED SURFACES: front, left (glyphic), right (glyphic); Class 3 (Morley Class 3). NUMBER OF GLYPHS: 39.* MATERIAL: limestone, compact. DIMENSIONS: H 2.40 m,* W 0.80 m, T 0.44 m, HA 1.84 m,* relief 1.5 cm (front). PHOTOGRAPHS: Morley 1937-38, V:Pl. 70c-e. DRAWINGS: Morley 1937-38, V:Pl. 8c. REFERENCES: Morley 1937-38, 1:326-28; Thompson 1950:136; TR. 4:116-35; Bailey 1972:118-53.

*Reconstructed

GENERAL REMARKS

Maler discovered St. 6 on the North Terrace, presumably in his 1904 visit. It was so completely broken up that “it was impossible to do anything with it.” In 1921 Morley searched for more fragments and found the stela base in place with its front toward the Great Plaza. Project excavations in 1959 revealed a stela pit at that location and many small fragments in the surrounding area, some of which were carved. Some pieces were partially reworked. Fragment 5 (Fig. 10c) seems to be a mano blank cut from a carved fragment with metal tools, evidently in modern times. This use of the stela is one cause of its extreme fragmentation, and we are reminded of the metate formed similarly from a carved fragment of St. 21.

During Project investigations several of the fragments fitted together to form four separate pieces that could be arranged approximately in our drawing but do not actually fit onto each other:

- Frag. 1: lower left front with staff and foot
lower left side with blocks A7-A10
- Frag. 2: upper left front with staff and blocks
Dx1-Dx2
upper left side with blocks A3-A4
- Frag. 3: upper right side with headdress
upper right side with blocks By1-Cy3
- Frag. 4: middle or lower right side with blocks
Bz1-Cz3

Maler (1911:34-35) implied that St. 6 had an altar, but Morley did not find one directly associated with the stela butt. In 1959 Coe located Alt. 12 upside down at a spot about three meters south of the stela pit. In TR. 14, he concludes that the two might once have formed a stela/altar pair, at least in a secondary setting if not a primary one. He also suggests that the pair might originally have been placed in front of Str.

TIKAL STELAE AND STELA/ALTAR PAIRS

5D-32-2nd and have been reset with the superimposed construction of Str. 5D-32-1st.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: downward in single column, then left-right and downward in double column. Number of blocks: $10 + 24* + 2 = 36*$. Number of glyphs: 39.*

Left side

A1	ISIG (missing and restored)
A2	9 baktuns (missing and restored)
A3-A4	4 katuns, 0 tuns (coefficients recovered since Morley's reading; upper portion of katun head missing; head-variant tun sign)

A5-A6	0 uinals, 0 kins (missing, restored)
A7	Date A, 9.4.0.0.0: 13 Ahau (coefficient 12 or 13 restored as 13; most of day sign missing and restored as Ahau head variant)
A8a	Glyph G9 (right-separation style; interior kin markings lost)
A8b-A9b	13D, 5C (MA 13, MN 5), Glyph 1X?
A10a-A10b	18 Yax (coefficient 8; head variant 10; head variant month sign)

Right side

By1-Cy3	Six probable non-calendrical blocks
By4-?	Approximately eighteen missing blocks (six blocks, Bz1-Cz3, seen on fragment but not positioned within columns)

Front

Dx1-Dx2	Two non-calendrical blocks
*Reconstructed	

TIKAL STELA 6: SUMMARY OF CHRONOLOGY

A1-A10b	Date A	IS	9. 4. 0. 0. 0	ISIG, 13 Ahau, G9, MA 13, MN 5, 1X?, 18 Yax
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COMMENT ON THE INSCRIPTION

As mentioned above, the reconstruction drawing of St. 6 was made without physical fits between the four principal fragments. These are positioned approximately, according to the surviving elements of the frontal design as well as the secure relationship of the katun and tun signs in blocks A3 and A4 to the SR sign at A7, as noted long ago by Morley. Our block numerations are the same as Morley's, with the three bottom rows of the left side regarded as halved blocks of a single column and the two columns of the right side as columns B and C. The drawing shows a total of 12 rows and 24 blocks on the right side, for which there is ample room in a panel with about the same base level as on the front. The reconstructed glyph total of 39 (13 + 24 + 2) seems reasonable but might be too high. The six blocks of Frag. 3 on the right side are labeled with the letter *y* because a top row might have eroded away, those of Frag. 4 with the letter *z* because their level on the right side is unknown. Both groups, however, are surely from columns B and C. The two small incised glyphs on the front are labeled column D with a small *x* prefixed to the row number to account for possible preceding blocks.

Morley read the IS of St. 6 as 9.4.0.0.0 13 Ahau 18 Yax, with one question mark. He noted the tun bird-head, the preceding katun bird-head, and the SR pedestal and cartouche with coefficient 12 or 13.

Thompson (1950:Fig. 5,53) read in blocks A10a and A10b a two-block notation of the VYr date 18 Yax, given by the coefficient 8 plus a skull head for 10, and a head glyph with the distinctively scalloped yax prefix. Morley's question mark was dropped in TR. 4 (124-25) on this basis. The katun and tun coefficients, found in 1959 and fitted onto Frag. 2, made Morley's date even more certain. By inspection alone, the month at A10b might equally well have been Yaxkin as Yax, but this choice is decided by the 4 katuns and zero tuns.

The reading of Glyph G as G9 in block A8a is by both position and outline. Morley drew the interior separated from its frame on the lower right and lower left, but in fact a gap appears only on the right, as it does on St. 8, 27, and 31 (at B7 and H13). As Morley recognized (1937-38, I:327), Glyph G9 supports a PE position for the date.

Morley also noted that Glyph D with coefficient 13 at A8b gives a moon age of 13, which corresponds with Teeple's calculated age of 13 days for 9.4.0.0.0. Calculating from an arbitrary MA base, Satterthwaite estimated an average of 11.93 days for this LC position (TR. 4:127). The deviation of only -1.07 days again supports Morley's date for the stela.

Morley read Glyph C with coefficient 5 or 6 at block A9a, allowing for a possible numerical dot to the left of the bar coefficient. (To the right is an unusual non-numerical element connecting bar and

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glyph.) Andrews (1951) lists Glyph 5C (MN 5), which is correct since there is in our view no possibility of an extra dot. The Uniformity System of moon numbering would call for MN 1 (without coefficient) at 9.4.0.0, and St. 6 is used as evidence in TR. 4 (132-33) that Tikal had not yet begun its early use of the system by this date. Stela 12 at 9.4.13.0.0, however, as well as St. 23 and 17 (9.7.0.0.0?) is in the Uniformity System, which Tikal devised and followed long before other sites (Satterthwaite 1959). Stela 23 has an IS date (9.3.9.13.3) earlier than St. 6, but non-calendric evidence suggests that the monument was carved after 9.4.0.0 rather than before. Stela 6 is therefore the last known pre-Uniformity Tikal inscription, and St. 12, only 13 tuns later, is the first one known to use the Uniformity System.

Block A9b has a moon-with-enclosed-dot prefix. Morley likened it to "Glyph A without coefficient," and Andrews entered it in his Glyph A column (1951). In TR. 4 (130-31) the whole glyph was considered as a possible new variant of Glyph 1X.

The surviving fragments of the right side text reveal neither recognizable name glyphs of rulers nor event glyphs. The incised glyphs near the face on the stela front contain a head prefix but are too eroded to read clearly. On the basis of the unclear evidence on St. 10, it seems likely that Jaguar Paw Skull was the personage depicted on St. 6.

TIKAL STELA 7

ILLUSTRATIONS: Fig. 11a-c (drawings); Fig. 87a-c (photographs). **LOCATION:** North Terrace, substantially W of Str. 5D-29, facing W, probably secondarily placed; no paired altar (TR. 14). **DEDICATORY DATE:** 9.3.0.0.0 2 Ahau 18 Muan (PE). **STYLE DATE:** 9.3.0.0.0 ± 2 katuns (Proskouriakoff 1950:196). **CARVED SURFACES:** front, left (glyphic), right (glyphic); Class 3 (Morley Class 3). **NUMBER OF GLYPHS:** 16. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 2.08 m,* W 0.63 m, T 0.45 m, HA 1.65 m,* relief 1.7 cm (front). **PHOTOGRAPHS:** Maler 1911:Pl. 18, I; Morley 1937-38, V:Pls. 69a-c; Greene, Rands, and Graham 1972:Pl.

123 (rubbing, front). **DRAWINGS:** Morley 1937-38, V:Pl. 7g,h. **REFERENCES:** Maler 1911:35, 74-75; Morley 1937-38, I:304-6; TR. 4:116-26; Bailey 1972:118-53. *Reconstructed.

GENERAL REMARKS

Maler found St. 7 "broken in pieces." He photographed only the two largest fragments, arranging them incorrectly in his Plate 18. In 1921 Morley found the base of the monument in situ at the east end of the North Terrace and noted that the stela faced west rather than south as shown on both his and Tozzer's maps. He specifically states that there was no associated altar. The discovery of a stela pit in 1959 relates the stela to the relatively small Str. 5D-29 to the east rather than to Str. 5D-32-1st to the north. In TR. 14, Coe judges, from various evidence, that this location was secondary. Stela 7 was essentially intact at the time it was reset; as our drawing shows, the Project fitted together many large and small fragments to re-create a nearly complete stela. The back shows a pecked line, probably made to facilitate breakup.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: downward in single column; spaced in pairs. Number of blocks: 8 + 8 = 16. Number of glyphs: same.

Left side

- A1 Illegible block (largely missing)
- A2-A6 Five non-calendrical blocks (TEG at A4; Jaguar Paw Skull name at A5)
- A7 PE (compound with hand-and-tassel)
- A8 Date A, (9.3.0.0.0): 2 Ahau (head variant, centipede affix; central pedestal element T-shaped)

Right side

- B1 18 Muan (head variant, partly restored; coefficient sure)
- B2-B8 Seven non-calendrical blocks (introductory glyph? at B2; father glyph at B6; Kan Boar name at B8)

TIKAL STELA 7: SUMMARY OF CHRONOLOGY

A7-B1	Date A	PE	(9 . 3 . 0 . 0)	End 2 Ahau 18 Muan
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COMMENT ON THE INSCRIPTION

Each side of St. 7 displays a single column of eight glyphs. In accordance with Morley's lettering of

columns A and B, reading starts on the left side and passes from 2 Ahau at the bottom of the left side to 18 Muan at the top of the right.

The glyphs are paired by vertical spacing, similar to

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that seen on St. 8, 13, and 27 (of close typological and probably chronological proximity). Such groupings of glyphs might reflect an intentional parallel to the glyph-block pairing that characterizes normal double-column Maya texts (see St. 13).

Stela 7 carries the single date 2 Ahau 18 Muan placed within the text following a hand-and-tassel ending sign. This day ends the katun at 9.3.0.0.0, so Morley accepted it as the DD without question. We concur, while rejecting his reading of "end of a katun" at B2. The head there is not a recognizable head-variant katun sign, but more likely the rodent compound that serves to introduce nominal and event phrases (Proskouriakoff 1968).

The hand-and-tassel sign at A7 is almost identical in its position directly before the CR date and in its three parts to a PE marker on St. 8. In our drawings, some interior details differ, but these are questionable and drawn in dotted line. The same sign, although not identical in its affixes with those on St. 7 and 8, appears on St. 9 at A1 followed by a 2-katun notation and 4 Ahau: clearly a period-ending compound.

Within the Proskouriakoff style-date limits of 9.1.0.0.0 to 9.5.0.0.0, there are seven tun ends at 2 Ahau. One of these is the katun end 9.3.0.0.0 at 2 Ahau 18 Muan; no other is at a month coefficient 18 nor in a month whose head-variant glyph resembles Muan. Thus the beaked head with coefficient 18 at B1, immediately after 2 Ahau, is most suitable as the VYr date. Morley's reading of 9.3.0.0.0 2 Ahau 18 Muan needs no question mark.

The accepted DD of St. 7 is in keeping with the presence of the name Jaguar Paw Skull at A5 identified by the TEG at A4 as that of a Tikal ruler (Coggins 1975:255-56); this name appears on the securely dated St. 15 and 27 at the same 9.3.0.0.0 katun end. Further corroboration follows from the decorated ahau glyph at B6, which, as a male parent glyph (Jones 1977:41-42; Schele, Mathews, and Lounsbury 1977), should precede the name of the ruler's father. At B8 is the name Kan Boar (Coggins 1975:255-56), cited as ruler on St. 9 at 9.2.0.0.0 and as father on St. 3 at 9.2.13.0.0. Consequently, this pattern of dynastic parentage notation confirms the 9.3.0.0.0 date of the monument.

TIKAL STELA 8

ILLUSTRATIONS: Fig. 12a-c (drawings). **LOCATION:** Great Plaza, N row of monuments near W end; probably reset; no cache; Alt. P7 found SW of St. 8 (TR. 14). **DEDICATORY DATE:** 9.3.2.0.0 7 Ahau 8 Muan? (PE). **STYLE DATE:** 9.3.10.0.0 ± 2 katuns (Proskouriakoff 1950:196). **CARVED SURFACES:** front, left (gly-

phic), right (glyphic); Class 3 (Morley Class 3). **NUMBER OF GLYPHS:** 23. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 1.85 m, W 0.53 m, T 0.44 m, HA 1.48 m, relief 1.2 cm. **PHOTOGRAPHS:** Maler 1911:Pl. 19. **DRAWINGS:** Morley 1937-38, V:Pl. 7d,e. **REFERENCES:** Morley 1937-38, I:287-90; Proskouriakoff 1950:107, 196; TR. 4:116-26; Proskouriakoff 1968:250; Bailey 1972:118-53.

GENERAL REMARKS

Maler found St. 8 standing in the Great Plaza facing south with a plain round altar (P7) positioned before it. He observed that the figure on the stela front was buried "up to the ankles" by a plaster floor (1911:76). When he returned for a second visit and took his photograph, the stela had been uprooted, but he noted that the plaster line was still visible at the level of the ankles in his photograph. However, Coe remarks from inspection (TR. 14) that this line is almost certainly a hard weathered-out flaw in the matrix of the stone itself, and not an adhering line of plaster. Project excavations in 1958 discovered a stela pit. Coe (TR. 14) concedes that the stela might be in its original position, but cites the plain altar, the lack of a sub-stela cache, and the overly deep stela pit as anomalies which suggest secondary placement at that spot.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: downward in single column, then left-right and downward in double column. Number of blocks: 8 + 8 = 16. Number of glyphs: 8 + 15 = 23.

Left side

- A1-A5 Five non-calendrical glyphs (heads; coefficient 12 at A2; Curl Head name? at A4)
- A6 End (hand-and-tassel compound)
- A7 Date A, (9.3.2.0.0): 7 Ahau (head-variant day sign, centipede affix, second affix; central element of pedestal not T-shaped)
- A8 Glyph G9 (incised details lost)

Right Side

- B1 VYr? (coefficient 8, head main sign: 8 Muan?)
- B2a End haab (hand below outline of winged cauac clear, interior of cauac sign lost, suffix)
- B2b-B8b Thirteen non-calendrical glyphs (no coefficients; Curl Head name? at B3a; female parent? at B5-B6; male parent? at B7-B8)

TIKAL STELA 8: SUMMARY OF CHRONOLOGY

A6-A8 Date A PE (9. 3. 2. 0. 0)? End, 7 Ahau,G9, VYr?, end haab

COMMENT ON THE INSCRIPTION

Morley refrained from fixing the date of Stela 8. In effect, he placed it in early Baktun 9 with an even chance (two question marks) that it was 9.0.10.0.0 7 Ahau 3 Yax, the DD of Uaxactun St. 26 (as well as Tikal St. 31). He argued that since Tikal St. 8 was “stylistically less advanced” than the Uaxactun stela, the latter site was at that early time a more important center than Tikal. We think that 9.3.2.0.0 is more likely, though our reasoning does not involve major discrepancies between Morley’s drawings and our own.

As Morley surmised, the text probably begins on the left side of the stela. The strongest evidence is that the SR day and Glyph G of the single date are at the bottom of the left side and the probable VYr and “end haab” expressions follow this near the top of the right side. Furthermore, in a fashion similar to that on St. 6, the text begins in single column and then switches to double column (labeled on the halving principle, following Morley). On St. 6 the shift to double column is made just after reaching the SR day of the opening IS. Here it occurs after reaching the block where one would expect the VYr position, and where we maintain that one indeed exists. Thus on both monuments the shift comes at a significant place in the text; in this instance, it separates the CR date from the commentary that follows.

The block count is the same as for St. 7 (16), but here, with seven divided blocks, the glyph count is significantly higher (23). As on St. 7, 13, and 27, the glyphs are separated by vertical spacing.

The only recognizable calendrics on St. 8 occur, as on St. 7, in the interior of the text. The positions of the chronological glyphs of the two stelae are compared below:

Block	St. 7	St. 8
A6	...	End
A7	End	7 Ahau
A8	2 Ahau	Glyph G9
B1	18 Muan	8 (skull)
B2a	...	End haab

It appears likely that the date of St. 8 begins one block earlier in order to relate Glyph G visually to the SR day at the bottom of column A. By outline as well as

position, the G9 identification itself appears probable, though Morley considered it unknown. The G9 form of Glyph G is required for any tun-end position of the day Ahau, here specified as such by the PE sign at A6 and end-haab glyph at B2a.

Morley noted and rejected a proposal by Blom to read 8 tuns at B1 for 9.4.8.0.0 7 Ahau, with VYr position suppressed. Morley himself, however, assumed suppression of the VYr, leaving the glyph at B1 unexplained. In view of the related textual positionings of calendrics on St. 7 and 8, it seems probable that the glyph at B1 in both was intended to record a VYr. Note that in both VYr coefficients the ends of the numerical bars are pointed, while the two other coefficients on St. 8 have normally shaped bars. The head at B1, fairly well preserved, is not a known sign for a month but does resemble some variant Muan heads pictured by Thompson (1950:Fig. 18).

Morley listed the following tun-end dates as within his widest allowable stylistic limits; the five marked with asterisks are within the Proskouriakoff style-date limits from 9.1.10.0.0 to 9.5.10.0.0:

9.0.10.0.0	7 Ahau 3 Yax
9.1.3.0.0	7 Ahau 18 Xul
*9.1.16.0.0	7 Ahau 13 Zip
*9.2.9.0.0	7 Ahau 13 Cumku
*9.3.2.0.0	7 Ahau 8 Muan
*9.3.15.0.0	7 Ahau 3 Ceh
*9.4.8.0.0	7 Ahau 18 Mol
9.5.1.0.0	7 Ahau 13 Zec
9.5.14.0.0	7 Ahau 18 Uo

If we confine ourselves to these five starred choices, as the style of the monument demands, the date must have been unusual: a tun marker, not a katun, half-katun, or 13-tun ending. Tikal recorded some 3-tun endings and a 15-tun, and one of these was in the early period (St. 25 at 9.4.3.0.0). The 9.1.3.0.0 possibility is an interesting one, since it matches a Tikal proclivity for 3-tun markers and would place St. 8 at the early end of the “staff stela” series with St. 9 and probably St 13, with which it shares the Bird Claw woman’s name glyph. Our preference for the 9.3.2.0.0 choice is based on the conviction that a VYr position with coefficient 8 and a head suitable for Muan is to be read at B1. Furthermore, this date places the stela

squarely within Proskouriakoff's style-date range and very close in time to the more similar St. 7.

The non-calendric glyphs opening the text begin with the rodent-head introductory glyph that signals a nominal or event phrase. The name glyphs of Kan Boar and Jaguar Paw Skull, which appear on other "staff stelae," do not appear on the monument. There is instead at A4 and probably again at B3a a head with a glyph in the mouth. Schele (1976) postulated that this was a name of a Tikal ruler, whom she called Curl Head and identified also on St. 12 at B5. A parentage statement might make up the rest of the stela's right side, since the bird-claw glyph at B6b occurs in a female name on St. 13 at A7. The male parentage glyph, the decorated ahau, might be identified at B7a. If so, the male parent's name is not recognizable. Interestingly, the TEG does not appear on either side of St. 8. It is possible that St. 8 marks the inauguration of a new ruler, Curl Head, but the name Jaguar Paw Skull on later stelae indicates a continuation of his reign. (More will be said about this in discussion of St. 10, 12, 17, 23, 25, and 26.)

TIKAL STELA 9

ILLUSTRATIONS: Fig. 13a-c (drawings); Fig. 88a-d (photographs). **LOCATION:** Great Plaza, N row of monuments, between St. 18 and St. 10; possibly original stela pit found, with Ca. 17; no paired altar. **DEDICATORY DATE:** 9.2.0.0.0 4 Ahau 13 Uo (PE). **STYLE DATE:** 9.3.10.0.0 ± 2 katuns (Proskouriakoff 1950:196). **CARVED SURFACES:** front, left (glyphic), right (glyphic); Class 3 (Morley Class 3). **NUMBER OF**

GLYPHS: 14. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 2.11 m, W 0.65 m, T 0.40 m, HA 1.64 m, relief 1.5 cm. **PHOTOGRAPHS:** Maudslay 1889-1902, III:Pl. 82c,d; Maler 1911:Pl. 20; Greene and Thompson 1967:Pls. 8, 9 (rubblings, front and right side). **DRAWINGS:** Schaeffer 1951:Lam. III top right; Morley 1937-38, V:Pl. 7c. **REFERENCES:** Morley 1937-38, I:300-301; TR. 4:116-26; Proskouriakoff 1968:250; Bailey 1972:118-53; Coggins 1975:221, Tables 3, 4.

GENERAL REMARKS

A drawing of St. 9 by the Méndez expedition of 1848 was reproduced in Schaeffer (cf. Coe 1967:13). First photographed by Maudslay probably in 1882, the stela was still standing on Maler's first visit but had been "thrown down" by the time of his second visit in 1904. It is complete and faced south, away from the North Terrace. No accompanying altar was found, but one might have been dragged away without disturbing the stela. In Project excavations, the stela pit yielded a whole eccentric obsidian and a possible fragment of another; these were labeled Ca. 17. Coe (TR. 14) considers it possible that the stela stands in its original setting.

Stela 9 is apparently one of the earliest of the eight known Tikal stelae that show a vertically held staff. The dated members of this group span only the two katuns from 9.2.0.0.0 to 9.4.0.0.0, and it is likely that the two insecurely dated ones, St. 8 and 13, fall within or very close to that range. Below we list these monuments in their probably chronological order to demonstrate some trends in depiction of front figure and text:

St. 13	?	faces R	?	1 column then mixed
St. 9	9.2.0.0.0	faces R	opens L	1 column
St. 3	9.2.13.0.0	faces L	opens R	2 column
St. 27	9.3.0.0.0	faces R	opens R	2 column
St. 15	9.3.0.0.0	faces L	opens R	1 column
St. 7	9.3.0.0.0	faces L	opens L	1 column
St. 8	9.3.2.0.0?	faces L	opens L	1 column then 2
St. 6	9.4.0.0.0	faces L	opens L	1 column then 2

Right-facing figures are more common on the earlier of these monuments, as are texts beginning on the right side of the stela. On the earlier stones, moreover, the texts are consistently either single-column or double-column, whereas later ones may begin single column and then shift to double column. The trend toward standardized left-starting texts and left-facing

figures continued at Tikal. Both St. 12 and St. 10, perhaps a pair dating to 9.4.13.0.0, seem to have texts beginning on the right side, but from then on texts begin on the left side (St. 5 at 9.15.13.0.0 and St. 24 at 9.19.0.0.0). Although most Tikal figures face to the left, two face front (St. 4 and 23), and seven face right (outside the staff group: St. 1, 12, 17, and 29). Of these,

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St. 17, the latest, is dated tentatively at 9.7.0.0.0, so the option of a right-facing figure seems to have died out by late times.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: downward in single column. Number of blocks: 7 + 7 = 14. Number of glyphs: same.

Left side

- A1 PE (hand-and-tassel glyph variant, damaged)
- A2 2 katuns (complete outline of katun sign, incised details lost, unusual filler below two coefficient dots)
- A3 Date A, (9.2.0.0.0): 4 Ahau or possibly 2 Ahau (head-variant day sign, T-shaped

A4

central pedestal element, centipede affix or unusual filler above coefficient, two center dots smaller than flanking ones)
DN: Prefix 5; superfix 5 or 10; uinal frog-head (DN of 5.5; possibly 10.5 or mistake for 9.5)

A5

Anterior date indicator? (Morley considered 5 tuns as a possibility, rejected here)

A6

Non-calendrical glyph

A7

Date B, (9.1.19.8.15)?: 1 Men or Chicchan? (coefficient 1, head-variant day sign other than Ahau, T-shaped central pedestal element, centipede affix)

Right side

B1-B7

Seven non-calendrical glyphs (Kan Boar name at B6; TEG at B7)

TIKAL STELA 9: SUMMARY OF CHRONOLOGY

A1-A3	Date A	PE	(9. 2. 0. 0. 0)	End 2 katuns, 4 Ahau (13 Uo)
A4			<u>- 9. 5 ?</u>	
A7	Date B	DN	(9. 1.19. 8.15)?	1 Men (13 Chen)

COMMENT ON THE INSCRIPTION

Morley read Date A in the first three blocks of the left side as "end of Katun 2 at 4 Ahau." In the coefficient at A3, the damaged topmost element is the remains of a non-numerical centipede sign. This leaves four dots below, which we read as coefficient 4, but which have also been read as 2 with fillers (see below). Though the details of the flanking scrolls of the pedestal day-sign suffix are not clear, the central element is distinctively T-shaped as on St. 31.

At block A7 a large-nosed, jawless head appears as a SR with day-sign cartouche and pedestal. Morley gave the coefficient as 2; what he took for the upper dot, however, is surely not circular like the lower. Attached to the main sign, it shows traces of possible incised centipede details, leaving one dot only for the coefficient of Date B. The day-sign head does not fit any day well, but might be suitable for Chicchan, Oc, or Men.

At block A4, immediately after the SR of Date A is a probable DN composed of a frog-head uinal main sign with prefixed and superfixed bar coefficients. Morley speculated that this recorded DN of 5.5 might be corrected to 7.5 and counted backward from 4 Ahau to 2 Men. We can modify this by changing the DN to 9.5 and counting backward to 1 Men:

Date A	(9. 2. 0. 0. 0)	4 Ahau
	<u>- 9. 5</u>	(uinal error)
Date B	(9. 1.19. 8.15)	1 Men

We can also modify it to 10.5 and count forward to 1 Chicchan, although a backward count is more likely. Another alternative would assume a reading of 5 tuns at block A5, as Morley suggested, allowing a backward count of 5.10.5 from 4 Ahau to 1 Men. This is rejected, however, on the basis of our drawing, which makes a tun glyph with coefficient improbable at A5. Schele (1976) points out that the jar glyph (A5), since it sometimes substitutes for muluc as a day sign, might serve here in place of the standard muluc sign of an anterior date indicator and necessitate a backward count. Indeed, the scroll suffix here is the form Thompson (1950:Fig. 30,37-41) considered diagnostic of the anterior date indicator, and we think this identification likely.

The following reconstruction is suggested by Coggins (1976), drawing upon a study by Proskouriakoff:

Date A	(9. 3. 0. 0. 0)	2 Ahau
	<u>- 5. 5</u>	
Date B	(9. 2.19.12.15)	1 Men

This alternative is possible on the basis of our drawing. It has the advantage of eliminating the need to

postulate a Maya error, while its later DD fits the style date more precisely. On the other hand, the Ahau coefficient would have to be read as 2, even though, as our drawing shows, 4 is preferable. Moreover, the apparent "end Katun 2" notation at A1-A2 would have to be considered a 2-katun anniversary statement rather than a PE, even though the hand-and-tassel sign at block A1 is similar to those in PE expressions on St. 3 (A8), St. 31 (H15 and H26), St. 7 (A7), and St. 8 (A6). A further argument against a 9.3.0.0.0 DD is offered by the name Kan Boar at block B6 (Coggins 1975:221) followed by the TEG, which apparently specifies Tikal rulers. Since no parentage glyphs seem to be on the monument, this ruler must be taken as the incumbent. Kan Boar is stated to be the father of a subsequent ruler, Jaguar Paw Skull, on both St. 3 (9.2.13.0.0) and St. 7 (9.3.0.0.0). Therefore, St. 9 cannot be this late (assuming, of course, that the parentage statements on Maya monuments have been read correctly). For the present, we prefer the first alternative presented above with a DD of 9.2.0.0.0.

TIKAL STELA 10

ILLUSTRATIONS: Figs. 14a-b, 15a-b (drawings); Fig. 89a-d (photographs). **LOCATION:** Great Plaza, N row, standing between St. 9 and St. 11; probably in original setting; no paired altar; Ca. 9 (TR. 14). **DEDICATORY DATE:** 9.4.13.0.0 13 Ahau 13 Yax? (PE). **STYLE DATE:** 9.8.0.0.0 ± 2 katuns (Proskouriakoff 1950:196). **CARVED SURFACES:** front, left (glyphic), right (glyphic), back (glyphic); Class 4 (Morley Class 4). **NUMBER OF GLYPHS:** 76. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 2.77 m, W 0.93 m, T 0.53 m, HA 2.10 m, relief 9.5 cm. **PHOTOGRAPHS:** Maudslay 1889-1902, III:Pl. 82e; Maler 1911:Pl. 21; Morley 1937-38, V:Pl. 70a,b (back); Morley and Morley 1938:Pl. 1b. **DRAWINGS:** Schaeffer 1951:Lam. IV left; Morley 1915:115, Fig. 60 (right side, 2nd IS); 1937-38, V:Pl. 7i (right side); I:312, Fig. 13 (four glyphs), 310 (yax prefix in text), Fig. 16c,g,l (higher order glyphs, 314). **REFERENCES:** Beyer 1936:202-4; Morley 1937-38, I:308; Morley and Morley 1938:11n; Proskouriakoff 1950:96, 113-14; Thompson 1950:314-16; TR. 4:96, 116-26; Bailey 1972:153-62; Coggins 1975:220-21.

GENERAL REMARKS

Stela 10 was evidently discovered in the Méndez expedition of 1848, for one of the drawings reproduced by Schaeffer is clearly of the front of the mon-

ument. The hieroglyphs which were drawn above the head of the figure might be from the right side, since block A2B2, 8 Manik, can be discerned. Maler at the time of his second visit saw the monument still standing after all the other stelae in the Great Plaza had been toppled. Project excavations in 1958 yielded an eccentric obsidian piece in the backdirt of a 1930 unauthorized cache-hunters' pit; from this and three similar pieces illustrated by Joyce (1932) Coe has tentatively reconstructed Ca. 9. He cites the cache material and stratigraphic evidence as indications that the stela stands in its original setting (TR. 14). Probably erected between construction of Plat. 5D-1-2nd and 1st-E, it might help to date the latter. The ruined condition of the flooring in front of St. 10 suggests removal of an altar; Coe points to Alt. 4 as a match in size.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: downward on right side; left-right and downward in double column on left side and back; probably in right-back-left order. Number of blocks: 13 + 40 + 23 = 76. Number of glyphs: same.

Right side

A1B1	First ISIG (variable possibly Yax or Chen)
A2B2-A3B3	Date A, (9.1.10.5.7)?; 8 Manik, Glyph G8 (or possibly G9)
A4B4	Non-calendrical? (Jaguar Paw Skull name?)
A5B5	10 Yax? (head variant 10?; possibly Yax or Yaxkin)
A6B6-A13B13	Expanded IS: second ISIG (with dot as central trinal element; variable for Uo or Muan "reasonable," according to Thompson); 1 kinchiltun (symbolic period glyph), 11 calabtuns (symbolic), 19 pictuns (symbolic), 9 baktuns (coefficient certain, damaged head variant), 3 katuns (symbolic), 2 uinals (head variant)

Back

E1	Coefficient 5-10?, head? (kins of expanded IS?)
F1-F2	Three probable non-calendricals (badly damaged, no coefficients)
E3-F3	Date B, (9.3.11.2.6)?; CR? (SR?, coefficient 4; VYr?, coefficient 8-9 with head)
E4-E7	Seven lost or nearly lost blocks (yax at E6)
F7	Cauac glyph with possible coefficient 2 or 7

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E8-E10	Six probable non-calendrical blocks (emblem glyph? at F8; blocks E9 and E10 mostly lost; kankin glyph at F10)	Left side	
G1-G2	Three probable non-calendricals (no prefixed coefficients)	C1	Lost or blank block
H2	Date C: SR day (coefficient 1, cartouche with pedestal, centipede affix)	D1	Date E, (9.2.11.7.8)?; Coefficient 4, SR day (restoring two dots for symmetry; day sign has pedestal and portion of cartouche; 4 Lamat reconstructed)
G3	VYr? (probable coefficient 7, two-part main sign with suffix)	C2	VYr day (coefficient greater than 5, oval month sign with oval superfix; 6 Yaxkin reconstructed)
H3	Non-calendrical (no coefficient)	D2-C8	Twelve non-calendricals (coefficient 4 at D2?; TEG at C4; Curl Head name at D5?)
G4-H5	Four lost or nearly lost blocks (lost coefficient possible)	D8	DN: Surviving dot superfixed at left, room for more: 2.8, 3.8 or 4.8
G6	Date D, (9.4.13.0.0)?; SR day? (nearly lost block)	C9-C10	Three non-calendricals
H6	VYr day? (illegible oval main sign with horseshoe frame and serrated yax superfix for Yax or Yaxkin, space for lost prefixed coefficient higher than 10)	D10-C11	Date F, (9.2.11.10.16)?; 7 Cib 14 Yax (Morley allowed Yaxkin as alternative month, but traces show cauac, not kin, as main sign)
G7	End? (hand ending sign with moon postfix?)	D11-D12	Three non-calendricals (local yax superfix and T181 event postfix at D11; Jaguar Paw Skull name at D12?)
H7	8 or 13 tuns (prefixed <i>xoc</i> fish ending sign?)		
G8-H10	Six non-calendricals (G9 has prefixed bar, possibly with two dots superimposed)		

TIKAL STELA 10: SUMMARY OF CHRONOLOGY

A1B1-A5B5	Date A		(9. 1.10. 5. 7)?	ISIG, 8 Manik, G8, 10 Yax
A6B6-A13B13				ISIG, 1.11.19.9.3.11.2?
E1				6 kins? (completes oversized number?)
E3-F3	Date B	IS	9. 3.11. 2. 6 ?	4 Cimi 9 Muan?
H2-G3	Date C			1 ... 7? ...
G6-H7	Date D	PE	(9. 4.13. 0. 0)?	13 Ahau 13 Yax?, end 13 tuns?
D1-C2	Date E		(9. 2.11. 7. 8)?	4 Lamat 6 Yaxkin?
D8		DN	+ 3. 8 ?	
D10-C11	Date F		(9. 2.11.10.16)?	7 Cib 14 Yax

COMMENT ON THE INSCRIPTION

Stela 10 is carved on all four sides, with a standing figure and prone captive on the front and glyphic texts on the sides and back. In spite of misgivings, we have followed Morley's system of glyph block labeling in order to maintain continuity with his references. He labeled the single column of glyphs on the right side oddly as a double column AB, naming blocks A1B1, A2B2, etc. While retaining these designations along with his column letters for the left side (C and D) and the back (E, F, G, and H), we nevertheless think that the back should be read before the left side.

The glyph columns on the right and left sides begin near the top of the monument. In contrast, there is a large, apparently blank space above the known top row of glyphs on the back. Careful inspection reveals no traces of carving; possibly the space was left blank because the stone was excessively pitted. Although Morley thought that block C1 at the top of the left side was also left blank, we suggest instead that a glyph had flaked off in this area. The base of carving is at the same level on all four sides of the shaft.

The inscription begins on the right side, where the glyphs are double-sized, and where two ISIGs are preserved. The opening ISIG, instead of being intro-

ductory to an IS as it normally would be, is immediately followed by a SR day (8 Manik) and three glyphs without coefficients. The inscription of Tikal St. 4 opens in a similar way. There, the ISIG is followed by a SR, Glyph G, and a VYr. Applying that pattern here, we find that the third glyph in the inscription, A3B3, is indeed best read as form 8 of Glyph G, with its characteristic yax prefix defined by scalloped outline, the postfix and subfixes also defined by outline, and the main sign carrying the shape of the worm-like cumku superfix (Thompson 1950:Fig. 34). Granted that some forms of Glyph G9 also have these affixes, the G9 main signs, either the kin sign or a head variant, have entirely different outlines. Glyph G8 is a sound reading by inspection.

The VYr might be expected to follow Glyph G as on St. 4. In block A4B4, however, the head main sign does not resemble that of a month (nor does this block appear to be Glyph F). The next block, A5B5, reads as either 10 Yax or 10 Yaxkin, with the skull variant for coefficient 10 and the distinctive scalloped-edged yax superfix. The main sign could be reconstructed either as a cauac glyph for the month Yax or as a kin sign for the month Yaxkin. The former is preferred, especially in light of similar cauac outlines at block C11 of this monument and on Uaxactun St. 26 (Thompson 1950:Fig. 17,34). An important precedent for this juxtaposition of head-variant VYr coefficient and bar-and-dot SR coefficient is provided by the nearly contemporary 13 Ahau 18 Yax date on St. 6. The variable month-patron sign in the ISIG provides additional strength to our reading of this date. As on St. 4, flanking combs are lacking. The preserved left side of the variable resembles both the Venus glyph for the month Yax and the moon glyph for the month Chen.

We suggest, then, that St. 10 opens with a recorded date 8 Manik 10 Yax, with Glyph G8. (Within Baktun 9, Glyph G9 does not occur with either element of the CR.) These three calendric positions coincided only once in Baktun 9, at 9.1.10.5.7, little more than two katuns earlier than the succeeding expanded IS. A question mark must be attached to this date, however, given the rarity of the pattern, the erosion of much interior detail, and the unexplained intrusion of block A4B4. As mentioned later, the prefixed head in this block resembles the name glyph of Jaguar Paw Skull at C12. The reference to such an early date might be explained as a birth-date notation for this ruler.

The second ISIG on St. 10, at A6B6, is followed by seven period glyphs. These were logically interpreted by Morley (1915:114-29) as an expanded IS in which

the fourth glyph of the series was the normal 9 baktuns of most Maya inscriptions, followed by 3 katuns, 6 tuns, and 2 uinals. The period glyphs themselves completely support these identifications, although Morley's drawing shows the double-cauac baktun sign where we draw traces of a head-variant. Morley read the entire number as 1.11.19.9.3.11.2.?. He thought the inscription proved that the Maya LC base 4 Ahau 8 Cumku fell on an expanded base, 1.11.19.0.0.0.0. He further discussed this idea in his 1937-38 volume (I:308-23) and was challenged by Thompson (1950:314-15). Thompson reconstructed the St. 10 inscription to read differently, as an expanded distance number:

A2B2	(0. 0. 0.)19.18. 8.15. 7	8 Manik
A7-C1	<u>1.12.19. 9. 3.11. 2.(13)</u>	(10 Mol)
D1-C2	(1.13. 0.) 9. 2. 0. 0. 0	4 Ahau 13 Uo

Objections to Thompson's reading include, firstly, that the periods of the expanded number are in the descending order proper for an IS, not in the ascending order necessary for his postulated DN. Even the expanded DN numbers cited by Thompson from the Palenque Temple of the Inscriptions, the Stone of Chiapa, and Copan St. N are all in ascending order. Secondly, it would be difficult to explain the presence of the second ISIG. According to Thompson's theory, the first ISIG would presumably have stated the fact that a suppressed expanded IS of 19.18.8.15.7 positioned the SR 8 Manik so that it, in turn, might serve as the departure date for the expanded number as DN. The second ISIG, however, is meaningless under this interpretation. It stands precisely where one would expect a DN introductory glyph, or no introductory glyph at all, but not the ISIG. Thirdly, Thompson had to assume a Maya mistake in order to make his expanded DN number connect 8 Manik with his reading of 4 Ahau 13 Uo at D1-C2. To do this, he changed the well-preserved calabtun coefficient 11 at A8B8 to 12 and thereby further weakened the case. Fourthly, Thompson's reading made 9.2.0.0.0 the DD of the monument. This is four katuns earlier than the Proskouriakoff style-date lower limit and 33 tuns earlier than the now-known 9.4.13.0.0 DD for the similar St. 12. It is also questionable in light of our reconstructions of the other dates on the stela.

In sum, Morley's fixing of the Maya LC base at 1.11.19.0.0.0.0.0 is not disproved by Tikal St. 10. Our reading lends no weight to Thompson's alternative thesis that the 0-pictun and 1-pictun fixes for the LC

at Palenque and elsewhere are compatible with the 19-pictun fix here.

Morley assumed that the second ISIG initiated an expanded IS, one which differed from the normal in having three extra periods added before the usual five. Working on that assumption, he searched the other two glyphic surfaces for evidence of the missing kins coefficient and terminal CR. He read block D1 as a SR with coefficient 4 and suggested (though without much confidence) that the expanded IS number might thereby have marked either 9.3.11.2.6 4 Cimi 9 Muan or 9.3.11.2.19 4 Cauac 2 Pax. The following glyph at C2, however, which should record the VYr position, is practically impossible for either Muan or Pax and moreover has a coefficient of six or more. Therefore, Morley had to ignore it as a possible VYr for either date.

If, on the other hand, the text is read from the right side to the back as on St. 12, a plausible coefficient 6 to 10 can be found at block E1 opening the inscription on the back, a coefficient 4 at E3, and a coefficient 8 or 9 at F3. Thus, by coefficients alone, there is a correspondence with Morley's first date possibility, 9.3.11.2.6 4 Cimi 9 Muan. The head at E1 is suitable as the head-variant kin sign; the minimal traces of a glyph at E3 at least do not disallow a day sign (even though they do not favor one); and at F3 is a single main sign like Muan, rather than a main sign with affixes like many other month glyphs. Additional support for this reconstruction comes from the month variable of the ISIG at A6B6, which Thompson himself lists, with a question mark, as an example of the Muan variable (1950:Fig. 23,15). An objection to this reading lies in the intrusion of three apparent non-calendric glyphs (F1-F2) between the kin glyph of the IS and the CR. Such a separation by at least one intervening glyph, however, can be cited on Caracol St. 6 and I6 (Beetz and Satterthwaite 1981:32, 62-63). All in all, we think the reading is likely.

At block H2 appears a SR main sign with cartouche, pedestal, and coefficient of 1. The next block, G3, has a probable coefficient 7. This full CR, Date C, because of its VYr coefficient 7, is apparently not a PE date and, without any connecting DN or identifiable day or month signs, cannot be positioned within the LC.

Morley's DD for St. 10 (9.3.13.0.0 2 Ahau 13 Ceh???) seems to have been based entirely on his reading of "end of a tun 13" for block H7. His recognition of a tun end is confirmed by the outline of a pointing hand with postfixed moon sign at G7. Where the VYr should precede it, at H6, there is room for a

bar-and-dot coefficient higher than 10, to the left of an oval main sign and superfix. The serrated outline of the superfix is that of the local yax variant encountered elsewhere on St. 10 and other Tikal monuments of this time. Since the main sign has a horseshoe-shaped frame, Yaxkin is preferred over Yax. To be safe, we can read either, but in any case Morley's Ceh must be ruled out by the serrated prefix. The postulated SR day is completely lost from block G6.

Turning again to the PE fix at H7, we find an unexpected profile head (possibly the *xoc* fish ending-sign variant) prefixed to the tun sign. The superfixed coefficient appears to be 8 rather than 13, but an incised line creating two narrow bars might have been lost. In the first half of Baktun 9, only two tun ends in Tun 8 and one in Tun 13 are found in either Yax or Yaxkin:

9.0.8.0.0	2	Ahau	13	Yax
9.4.13.0.0	13	Ahau	13	Yaxkin
9.8.8.0.0	12	Ahau	3	Yaxkin

Because the month Yaxkin and a high month coefficient are preferred, the second alternative is the best choice. The date 9.4.13.0.0 is also later than the LC positions for Dates A and B and matches the DD of the stylistically similar St. 12. The two would thus make a pair comparable to the triple commemoration of 9.3.0.0.0 by St. 7, 15, and 27 and to a possible pair at 9.4.3.0.0, St. 23 and 25. Proskouriakoff's style date of 9.8.0.0.0 \pm 2 katuns for St. 10 approximates the 9.8.0.0.0-9.13.0.0.0 for St. 12, which nevertheless bears a 9.4.13.0.0 DD. These two anomalous style dates are explicable as products of comparison with non-Tikal monuments, since the only certainly dated Tikal monument from the period between 9.4.13.0.0 and 9.13.0.0.0 is the quite different St. 17.

At D10-C11 Morley read 7 Cib 14 Yax or Yaxkin (Date F). The new drawing fixes the month as Yax. Morley was unable to connect this date with the eroded CR at D1-C2 (Date E) by means of the DN recorded between them at D8 because he thought that the CR pertained to Date B. While our drawing shows only one unquestionable dot in the superfixed coefficient of the DN, we allow for additional eroded dots: thus the DN might be 2.8, 3.8, or even 4.8. (Eliminating block C9 as a possible tun glyph for this DN confines us to these three possibilities.) Schele (1976) has pointed out that 3.8 forward would connect 4 Lamat 6 Yaxkin, (permissible by inspection at D1-C2) with 7 Cib 14 Yax. The closest LC positions for

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these two dates on either side of Dates B and D are as follows:

Date E	9. 2.11. 7. 8	9. 5. 4. 2. 8	4 Lamat 6 Yaxkin
DN	+ 3. 8	+ 3. 8	
Date F	9. 2.11.10.16	9. 5. 4. 5.16	7 Cib 14 Yax

The earlier alternative has the advantage of making Date D at 9.4.13.0.0? the latest date on the monument, as befits a period-ending DD.

Jon Simpson (1979:12-16) has called attention to the name of Jaguar Paw Skull at block D12 and the T712 glyph at D11, which Proskouriakoff (1973) associates with commemorative events and ceremonies. Observing that the first known monument of Jaguar Paw Skull's reign is St. 3 at 9.2.13.0.0, shortly after the LC positions of the earlier alternative, he proposed that Dates E and F mark the beginning of the reign. In this scheme the extended IS (Date B) might be a katun anniversary of Jaguar Paw Skull's inauguration; Date A might note the birth date of the same ruler. The question remains, notwithstanding, whether the absence of Jaguar Paw Skull's distinctive name glyph from St. 8 at 9.3.2.0.0? denotes a change of rule by that date. If it does, then he would not have been the incumbent ruler on St. 10 at 9.4.13.0.0. Furthermore, a TEG at C4, which should point to a Tikal ruler's name nearby, follows unidentified glyphs wholly unlike that of Jaguar Paw Skull and precedes the possible name Curl Head (at D5) that Schele noted on St. 8 (A4, B3) and St. 12 (B4). Thus we cannot be sure that the Jaguar Paw Skull glyph at D12 identifies the personage on St. 10. The probable event glyphs at D2 and D11, with their distinctive lunar postfixes—unfortunately visible only in outline—do not allow us to identify what took place at Dates E and F.

TIKAL STELA 11 / ALTAR 11

ILLUSTRATIONS: Fig. 16a-c (drawings); Fig. 90a-c (photographs). **LOCATION:** Great Plaza, N row, E of St. 10; stela butt in place with Ca. 15; altar in front (TR. 14). **DEDICATORY DATE:** 10.2.0.0.0 3 Ahau 3 Ceh (IS). **STYLE DATE:** 10.1.0.0.0 ± 2 katuns (Proskouriakoff 1950:196). **CARVED SURFACES:** *stela* front (glyphic); Class I (Morley Class 7); *altar* top. **NUMBER OF GLYPHS:** *stela* 39. **MATERIAL:** limestone, bedded. **DIMENSIONS:** *stela* H 3.41 m, W 1.24 m, T 0.63 m, HA 2.33 m, relief 1.5 cm; *altar* Diam 1.69 m, H 0.89 m. **PHOTOGRAPHS:** Maudslay 1889-92, III:Pl. 82c; Maler

1911:Pl. 22; Morley 1937-38, V:Pl. 72c,d; Morley and Morley 1938:Pl. 2b; Greene, Rands, and Graham 1972:Pl. 124 (rubbing, front). **DRAWINGS:** Morley 1937-38, V:Pl. 8i; Schaeffer 1951:Lam. III middle row, right. **REFERENCES:** Maler 1911:79-82; Morley 1937-38, I:370-73; Andrews 1951; TR. 4:116-35; Coggins 1975:Tables 4 and 6; Jones 1977:56-58.

GENERAL REMARKS

An unmistakable drawing of St. 11 by a member of the 1848 Méndez expedition to Tikal appears in Schaeffer 1951. Apparently the monument was standing erect at that time. Maudslay's 1882 photograph of St. 10 reveals the seemingly complete top of the adjacent St. 11, broken from the butt and fallen forward onto the plaza floor. Maler's remark, that in 1895 "the main body of the stela...was still in upright position," must be a reference to the butt fragment or an error of memory. His photograph further shows that the front slab had already split off from the thicker main body of the upper fragment.

Identical bedding planes indicate a common quarry source for stela and altar. The two monuments also share a special type of segmented border pattern slightly different from those on Alt. 6 and 10. Project excavations that identified the limits of the stela pit and unearthed Ca. 15 from within it left no doubt of the monument's primary positioning where found (TR. 14).

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: upper panel-lower panel; left-right and downward in double column. Number of blocks: 20 + 19 + 2 = 41. Number of glyphs: 17 + 19 + 2 = 38.

Upper panel

A1-B2	ISIG (damaged; outline of Ceh variable fairly clear)
A3	10 baktuns (coefficient sure, period glyph illegible; Morley draws remnant of head variant)
B3	2 katuns (traces of lower dot or filler of coefficient without bars, partial outline of head as main sign, agreeing with Morley)
A4	0 tuns (partial outline of coefficient clear though overdrawn by Morley; his symbolic tun sign dubious by inspection)

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B4	0 uinals (partial outline of coefficient survives but overdrawn by Morley; partial outline and traces suggest head variant rather than Morley's preferred symbolic uinal sign)	Lower panel
A5	0 kins (partial outline of coefficient survives; main sign illegible)	A12
B5	Date A, 10.2.0.0.0: 3 Ahau (restoring upper dot of coefficient; oval outline of main sign survives with space for suffix, restored as Ahau; Morley overdraws complete decorated cartouche and pedestal suffix)	B12
A6	Glyph G? (partial outline and traces; G9 possible but difficult)	A13
B6	Glyph F? (partial outline and traces; F possible but not indicated)	B13
A7	Glyph D or E? (traces; human head possible in D or E, possible coefficient 3 or 4)	A14
B7	Glyph C? (traces at left suggest bracket above coefficient; main sign eroded)	B14
A8	Glyph X? (almost completely eroded)	A15
A9	Glyph A? (possible moon-with-enclosed-dot, but no space for lost subfixed coefficient)	B15
B9	3 Ceh? (suggestion of upper and central dots of coefficient 1, 2 or 3; main sign completely eroded)	C12-D17
A10-A11	DN?: 18 kins, 15 uinals, 1 tun (blocks completely eroded; DN based on hypothetical 819-day cycle below)	Incised glyphs
		zA1-zA2

TIKAL STELA 11: SUMMARY OF CHRONOLOGY

A1-B1	Date A	IS	10. 2. 0. 0. 0	3 Ahau, G?, F?, MA3?, C? X?, B?, A?, 3 Ceh
A10-A11		DN?	<u>(- 1.15.18)?</u>	
A12-B12	Date B?		(10. 1.18. 2. 2)	1 Ik 15 Kankin?

COMMENT ON THE INSCRIPTION

Our count of glyphs differs slightly from Morley's, which did not recognize blocks A10 and A11 at the base of the upper panel or the incised blocks zA1 and zA2 above the shoulder of the recumbent figure. He evidently mistook the former two for an object in the outstretched hand of the central figure, but subsequent discovery of several Tikal "corn sowing" figures make such an object unlikely.

The new drawing of the upper panel of glyphs is more cautious than Morley's, yet confirms his reading of the IS date as 10.2.0.0.0 3 Ahau 3 Ceh. In the ISIG at A1-B2 are traces of the main sign with cartouche

and dotted superfix for the month Ceh patron. The 10 baktun coefficient is certain; zero signs are acceptable as prefixes to the tun, uinal, and kin signs, with no alternatives likely. The two well-preserved lower dots of the day sign coefficient at B5 make the day 3 Ahau necessary. This reading agrees with Ceh as the ISIG patron for 10.2.0.0.0. Some confirmation is provided by the trace of a lower dot at the katun position at B3, which permits only Katuns 2 to 4. There are also traces of head-variant glyphs for all periods, including the tun, which Morley saw as the symbolic form.

Morley cautiously suggested the presence of a LS following the IS date. The drawing permits Glyph 3D at A7, agreeing with the arbitrary average moon age

of 2.17 days. At B9, enough remains of two dots to allow for the VYr position 3 Ceh. Both Glyph D and the VYr fall in the correct LS positions. A problem is created in block A9, however, where remnants of a moon-with-enclosed-dot (proper in that position for Glyph A) do not allow space for a required numerical postfix or subfix. What survives in blocks A6 and B6 does not resemble the expected superfixes of Glyphs G9 and F. In all, these objections are not sufficient to disallow the presence of a proper LS of Glyphs G, F, D, C, X, B, and A from A6 to A9, and a VYr at B9; in view of what follows, very likely it was indeed there.

Unfortunately, the moon number cannot be read, so we do not know whether Tikal continued the old Uniformity System after other sites had abandoned it. Andrews (1951) listed for this inscription only the presence of Glyphs B and A, without specifying a coefficient for the latter. Only one other LS from the Central Area is listed for Baktun 10 (Oxpemul St. 7 at 10.0.0.0.0).

In a 1975 memo, Simpson pointed out in detail the presence of an 819-day clause in the lower panel of St. 11 in blocks A13-B15 following a CR date. This possibility had not been mentioned in the discussion of 819-day clauses by Berlin and Kelley (1961). Support for the clause is provided by the remnant of a day-sign cartouche in block A12, a head and prefix for the "north" world direction of the 819-day clause at B13, a head with a possible *zac* prefix for the expected color white at A14, an unmistakable turtle glyph at B14, and finally the expected flame prefix at A15. In support of this idea, the closest date in the 819-day cycle before 10.2.0.0.0 falls at 10.1.18.2.2 1 Ik 15 Kankin, and carries the direction north and the color white. On the other hand, some objections can be raised by inspection of the drawing. At block A12, the coefficient of the SR day looks more like a bar than the required one dot. In block B12, the left boundary line of the prefix is curved, not straight like the left bar of the coefficient 15, and the main sign does not have the two-part subfix of the month Kankin. Finally, in block A13, where one expects a split-top main sign, the drawing indicates an unbroken top.

Most of these difficulties, like those presented by the LS, involve dotted-line traces rather than clear-cut presence of conflicting elements. For both we conclude that, on the basis of our drawing and set of photographs, the positive indications outweigh the negative ones: the clear turtle glyph and flame prefix, the probable "north" and "white" glyphs, the CR date, and the few traces of a LS. Nevertheless, in view of the late date of the monument, we feel obligated to be

cautious in accepting the identification without reservation. The point is important to the understanding of the Tikal collapse, for the LS and 819-day clause are two highly specialized elements of Maya calendrics. Their presence on a 10.2.0.0.0 monument, following three katuns (60 years) of inactivity in monument carving, argues that even the most esoteric of Classic modes continued in Tikal to that time at least. This belief is supported by the traditional composition and type of the cache under the stela (Ca. 15), by the pose and costume of the standing figure, and by the TEG at block D16. Coe (1962c:487; TR. 14) has proposed that these continuities might be paralleled by a continuity in the Imix ceramic traditions, and that the intrusive modeled, carved wares of the Eznab Complex might not have entered the picture until after 10.2.0.0.0.

The six 819-day count dates from Palenque and Quirigua that Berlin and Kelley list (1961) do not correspond to known inaugurations or births, so the 1 Ik 15 Kankin date on St. 11, if accepted, cannot be assumed to be one of these historical events. In fact, since the count designates dates 819 days apart, an historical event on such a date would be fortuitous. Because of parallel passages in the Dresden Codex, Berlin and Kelley suggest that 819-day cycle dates might refer rather to an act of offering or sacrifice. The figure scattering droplets or small objects from his hand is a theme found on monuments that emphasize period ends (Thompson 1950:193-94). Stela 11 might therefore commemorate two ceremonies, one at the 819-day count date and the other at the ensuing katun end less than two years later.

The TEG at D16 indicates the presence of a name, but which of the eroded preceding glyphs constitute the ruler's name is not yet clear. The two incised glyphs (seen at Tikal only here and on St. 6) are so close to the head of the recumbent figure as to suggest that they provide his name. The first glyph (zA1) has a two-part dotted scroll superfix which is seen with glyphs near bound figures on Alt. 8 and Col. Alt. 1. The second glyph carries in the superfix the ben element used in emblem glyphs, as does the last glyph above the bound figure on Alt. 9. The presence of possible names and emblem glyphs implies that the bound figures were personages of rank.

TIKAL STELA 12

ILLUSTRATIONS: Figs. 17a-b, 18a-b (drawings); Fig. 91a-d (photographs). **LOCATION:** Great Plaza, N row, W of St. 13; probably reset; paired with Alt. P14; Ca.

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16 (TR. 14). DEDICATORY DATE: 9.4.13.0.0 13 Ahau 13 Yaxkin (IS). STYLE DATE: Late Classic, Formative Phase (9.8.0.0-9.13.0.0) (Proskouriakoff 1950:196; TR. 4:125-26). CARVED SURFACES: front, left (glyphic), right (glyphic), back (glyphic); Class 4 (Morley Class 4). NUMBER OF GLYPHS: 30.* MATERIAL: limestone, compact. DIMENSIONS: surviving H 1.46 m, W 0.70 m, T 0.46 m,* HA 1.85 m,* relief 5 cm (front), 0.7 cm (sides and back). PHOTOGRAPHS: Maler 1911:Pls. 23,24 (former showing erroneous fit of two largest fragments); Morley and Morley 1938:Pl. 1a; TR. 4:Fig. 18a,b. DRAWINGS: none published. REFERENCES: Maler 1911:82; Morley 1937-38, I:328-30; Morley and Morley 1938:11n; Proskouriakoff 1950:113-14; TR. 3:78-79; TR. 4:93-96, 116-35; Bailey 1972:153-62; Coggins 1975:220-22, Table 3.

*Reconstructed

GENERAL REMARKS

Stela 12 is presently known only by its fragmented upper part. This was discovered and photographed by Maler. Although one of Lara's drawings (Schaeffer 1951:Lam. IIIId) bears some resemblance in clothing and stance to the front figural design of St. 12, it includes the feet, which were surely missing by the 19th century, and is not clear enough for positive identification as a drawing of a known Tikal stela. Morley, recognizing remains of an IS on the right side and a possible 13-tun PE on the back, suggested a reading of 9.4.13.0.0 13 Ahau 13 Yaxkin (???). His uncertainty came partly from not realizing that the two major fragments of the stela when fitted together would have two rather than four columns on the back. Joining the pieces properly demonstrated that Morley's guess was the correct LC position and provided further control through a lunar series (TR. 3:78-79; TR. 4).

Excavation subsequent to TR. 4 revealed no trace of the large lower fragment of the shaft; therefore it is probable that the upper portion was reset, as was clearly the case with St. 23 (TR. 14). While Maler does not state definitely that he found the St. 12 stone erect, his photographs show it standing. A stela pit was found by Project excavations, and Ca. 16 within it.

Coe concludes that since the cache is most likely too late in composition to have been made at 9.4.13.0.0, there is no way of knowing whether or not the stela originally stood at this location. Altar P14, found in a formal position in front of the stela, is of the early type of stone with conchoidal fractures. An additional fragment of St. 12 might be MS. 11 from the surface debris of Str. 5D-34 nearby. The fragment shows a hanging tassel like the one just above knee level on the similar St. 10.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: right-back-left; downward in single column on sides; left-right and downward in double column on the back. Number of blocks: 8* + 14* + 8* = 30.* Number of glyphs: same.

Right side

- A1-A2 ISIG, 9 baktuns (restored; both blocks missing)
- A3-A4 4 katuns, 13 tuns (head variants; coefficients entirely missing and restored)
- A5-A6 0 uinals, 0 kins (head variants)
- A7 Date A, 9.4.13.0.0: 13 Ahau (entirely restored; only top of day sign survives)

Back

- B1 Glyph G9? (block entirely missing)
- C1 5, Glyph E (head variant coefficient: MA 25 days)
- B2 Glyph D? (missing block)
- C2 3, Glyph C (MN 3)
- B3 13 Yaxkin (two upper dots missing and restored, two bars certain; scalloped yax form)
- C3-B4 Eroded prefix, 13 tuns; completion of haab
- C4-C6 Five non-chronological blocks (Curl Head? name at B5; woman's name at B6; male parent glyph at C6)
- B7-C7 Two missing glyphs

Left side

- D1-D6 Five non-chronological blocks (coefficient 19 at D6)
- D7-D8 Two missing blocks

*Reconstructed

TIKAL STELA 12: SUMMARY OF CHRONOLOGY

A1-B3	Date A	IS	9. 4.13. 0. 0	13 Ahau, (G9?, F?), MA 25,
C3b-B4				MN 3, 13 Yaxkin 13 tuns, haab completed

TIKAL STELAE AND STELA/ALTAR PAIRS

COMMENT ON THE INSCRIPTION

Stela 12 was discussed at length in TR. 4. Our revised drawings suggest eight rows for the text of each side instead of seven. Shown in broken line, these extra rows are to be regarded as reasonable but not proven. They affect the chronology in a minor way, since they place two blocks instead of one between the SR day at block A7 and Glyph E of the LS at block C1. With this reconstruction, one may assume that Glyph G was at A8 and Glyph F at B1.

Although much of the right side is missing, enough survives to be sure of an IS. Four head-variant period glyphs are unmistakable as katun (surviving comb superfix), tun (distinctive headdress and head), uinal (the frog head), and kin (the sun monkey head). Coefficients of zero are certain for the last two, making the date a period end. Traces of a day sign cartouche can be seen at A7.

The chronology continues on the stela back in double column. In block C1 is the moon-with-enclosed-dot which characterizes Glyph E of the LS. A head prefix has the profile and tun headdress of the numeral 5, so the block reads $5 + 20 = 25$ days for the moon age. Satterthwaite has shown how this MA confirms the 9.4.13.0.0 placement of the DD, for which the average MA was calculated as 26.10 (TR. 4). Block B2 was probably occupied by Glyph D. At C2 is a well-preserved Glyph C, with coefficient 3. This moon number is the primary basis for Satterthwaite's demonstration that Tikal at this time began numbering its lunations in the Uniformity System, which was adopted across the Maya area around 9.12.15.0.0 (TR. 4:132-33). Stelae 17 (ca. 9.7.0.0.0) and 23 (9.4.3.0.0?) carry Uniformity numbers as well, whereas the earlier St. 31 (9.0.10.0.0), St. 3 (9.2.13.0.0), and St. 6 (9.4.0.0.0) do not.

Schele (1976) has called attention to the presence of a head glyph at B5 similar to a possible ruler's name, "Curl Head," on St. 10 (D5) and St. 8 (A4, B3). As she points out, the identification as a nominal glyph is supported by the familiar title compound at C5b—possibly part of a woman's name at B6—and a male-parent indicator at C6. Unfortunately, the father's name has broken away from the bottom of the back inscription. The well-preserved blocks on the left side continue to defy decipherment.

TIKAL STELA 13

ILLUSTRATIONS: Fig. 19a-c (drawings); Fig. 92a (photograph). **LOCATION:** Great Plaza, N row, E of St. 12; possibly original stela pit with Ca. 23; no paired

altar (TR. 14). **DEDICATORY DATE:** no date recorded. **STYLE DATE:** 9.2.10.0.0 \pm 2 katuns (Proskouriakoff 1950:196). **CARVED SURFACES:** front, left (glyphic), right (glyphic); Class 3 (Morley Class 3). **NUMBER OF GLYPHS:** 19. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 1.92 m, W 0.60 m, T 0.37 m, HA 1.38 m, relief 1.3 cm. **PHOTOGRAPHS:** Maler 1911:Pl. 25, 1-3; Greene, Rands, and Graham 1972:Pl. 125 (rubbing, front). **DRAWINGS:** Morley 1937-38, V:Pl. 7b; Schaeffer 1951:Lam. III center. **REFERENCES:** Maler 1911:83-84; Morley 1937-38, I:290-92; TR. 4:116-26; Bailey 1972:153-62; Coggins 1975:Table 3.

GENERAL REMARKS

Stela 13 was probably first viewed by the members of Méndez's expedition to Tikal in 1848, for a drawing of its front appears in Schaeffer's edition of Méndez's account. The cloak, necklace, and staff of the front figure are accurately portrayed. The sixth glyph in the inscription at the top of his drawing resembles slightly the inverted vase of A6, and the glyphs might be a rendering of the right-side carving. Maler found the monument erect and facing south in 1895 but discovered that it had been thrown down by 1904. A stela pit containing Ca. 23 was found by the Project. Since this appears to be an early cache assemblage suitable for the stela, Coe finds no reason to doubt the stela setting as original (TR. 14). No altar, either plain or carved, stood in front of the stela.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in single column. Number of blocks: $7 + 8 = 15$. Number of glyphs: 19 (A1, A3, A8, and B4 each contain two glyphs).

Left side

B1-B7 Seven non-chronological blocks (introductory glyph at B1; Kan Boar name at B5; father glyph at B7)

Right side

A1-A8 Eight non-chronological blocks (possible name of Stormy Sky as male parent at A1a; woman's name indicator and title at A5-A6, Bird Claw name at A7)

COMMENT ON THE INSCRIPTION

On the basis of our new drawings, we must reject Morley's suggestion that the right side opened with

two dates including a PE (6 Ahau, end 1 katun) as well as his placement of the monument at 9.1.0.0 with two question marks. Morley's supposed "head-variant coefficient" for the SR at A1a is not a head; his "notched day sign" at A1b is not notched but has a clear superfix not allowable in a day sign; the "coefficient 5" at A2 is not a coefficient but a bracket prefix; the "head-variant coefficient" at A3a is not a head by outline; the "notched day sign" for 6 Ahau at A3b is not notched; and finally the "coefficient with katun head" at A4 is not a coefficient, but scrolls, and there is no room for an ending-sign bracket prefix. Although the glyph at A3b does look like a day sign, we can see no place for a coefficient and conclude that the text is a rare case of a completely non-calendric inscription.

Morley felt that both figural and glyphic carving dated St. 13 between St. 18 (ca. 8.18.0.0) and St. 9 (9.2.0.0). By a style date of 9.2.10.0 \pm 2 katuns, Proskouriakoff (1950:107) placed St. 13 near the beginning of the vertical-staff stela group, whose known dates range from 9.2.0.0 on St. 9 to 9.4.0.0 on St. 6. In an exhaustive comparative study of the iconography of this stela group, Bailey (1972:137-52) pointed out that St. 9 and 13 share a similar beaded staff, pose, plaited pendant, necklace, collar pendant, earplug, headdress type, and cape, and are probably the earliest within the group.

At block B5 on the left side of St. 13 appears the ruler's name, Kan Boar, identified by Proskouriakoff on St. 9, 26, and others (Coggin 1975:255-56). Here the name comes just before a probable uinal title with postfixed *ma k'ina* followed by the decorated ahau male-parent indicator. The presence of the decorated ahau at the bottom of column B indicates that the text should continue in column A, and thus determines the order of reading. Although erosion prevents a confident reading of Block A1a, it looks like the name glyph of Stormy Sky in outline. The decorated ahau glyph also serves to designate Kan Boar, because he is cited earlier in the text, as incumbent ruler rather than father. This supports the temporal placement of St. 13 with St. 9, on which the name of Kan Boar is the only one in the text and furthermore carries the TEG. On St. 3 and 7 at 9.2.13.0 and 9.3.0.0, the Kan Boar name comes after the decorated ahau, indicating him as father of the then ruler, Jaguar Paw Skull. Thus dynastic, stylistic and iconographic considerations show that St. 13 should fall around 9.2.0.0 and precede St. 3 at 9.2.13.0. Nevertheless, much of the information preserved in this text and in others of this period is not yet fully understood, and more compar-

ative work will be necessary to be sure of these ruler identifications.

Schele (1976) points to a probable reference to a woman at A5-A8, with the God C female indicator at A5, the inverted vase and woman's head glyph at A6, and the name Bird Claw at A7, as seen on Tikal St. 8 (B6b) and El Encanto St. 1 (Fig. 77a:B14). With this woman's name, St. 13 seems to carry a complete nominal phrase, beginning with the rodent-head introductory glyph at B1, the ruler's name at B5, the male parent indicator at B7, presumably followed by the father's name at A1- A4, and finally the mother's name at A5-A8. Incidentally, the muluc glyph with coefficient 4 at A8 is also found on Uolantun St. 1 (Fig. 76b:A22b).

TIKAL STELA 14

ILLUSTRATIONS: Fig. 20a-c (drawings). **LOCATION:** Great Plaza; at W end of N row; lower portion reset backward and intruded through floors apparently later than the style date; no associated altar (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** 9.5.0.0 \pm 3 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front, left, right, back (glyphic); Class 4 (Morley Class 6). **NUMBER OF GLYPHS:** 72.* **MATERIAL:** limestone, compact. **DIMENSIONS:** surviving H 1.08 m, W 0.73 m, T ca. 0.50 m,* HA unknown, relief 1.5 cm (sides). **PHOTOGRAPHS:** Morley 1937-38, V:Pl. 72a; TR. 4:Fig. 19. **DRAWINGS:** none published. **REFERENCES:** Maler 1911:33, 75-76, 84; Morley 1937-38, I:330-32; TR. 3:71-76, 79-80; TR. 4:97-98, 116-26; Bailey 1972:153-62.

*Reconstructed

GENERAL REMARKS

Stela 14 is known only by a large butt fragment discovered in place by Maler and examined by Morley. Both men reported fruitless searches for other fragments, the absence of which was eventually confirmed by Project excavation (TR. 14). The side facing the plaza carries four columns of glyphs, and the butt fragment being apparently undisturbed, Morley not unnaturally assumed that this was the front and that the sides and back were plain (his Class 5). Initial probing, however, revealed the remains of a carved human foot on either side at base level (TR. 3:79-80). Both feet pointed north, undoubtedly toward the original front corners of the stela. With St. 23, 25, and 31 as models, the carved-surface pattern is seen to be

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Class 4; with the original front face of the stela entirely chipped off, it is the back that carries the inscription. Thus, we have a reversed setting for this butt fragment; a secondary locus would explain the absence here of a large portion of the original stela.

Excavation in 1958 revealed a shallow stela pit, with no trace of an offering. In TR. 14, Coe concludes that the positioning of the stela is secondary, not only because of the backward orientation but because the stela pit intrudes into the final terrace stairway and is too shallow to have properly sustained the whole monument. Thus the fragment was reset here, without offering or altar, after its detachment from the as yet undiscovered upper portion.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in two double columns on back. Number of blocks: 72.*
Number of glyphs: same.

Back

Thirty or more missing blocks

Az1-Bz1 Two mostly destroyed blocks

Az2-Bz2 DN? (kins coefficient 10-15; uinal coefficient missing; tun coefficient 8)

Bz3 SR? (coefficient 11, day sign eroded)

Thirty or more missing blocks

Cz1-Dz3 Six eroded blocks

*Reconstructed

COMMENT ON THE INSCRIPTION

The bottom three glyph rows on the back of St. 14 were numbered 11 through 13 by Morley on the assumption that ten rows were lost above them. In TR. 4 the numbers were put in quotes to indicate doubt concerning the number of lost rows. Here we make another change and label the blocks Az1, etc. in conformity with the system generally followed in this report. A minimum of fifteen rows and a maximum of eighteen were suggested in TR. 4, based on the comparability of foot lengths on the front of St. 7 and the side of St. 14. Since the width of St. 14 is greater than that of St. 7, the monument might have been taller, and eighteen rows seems the better estimate, producing a text of 72 blocks.

Morley listed the DD as 9.5.0.0.0 11 Ahau 18 Zec??, the two question marks signifying that it was as likely to be wrong as right. He also considered 9.5.13.0.0 11 Ahau. His basis was the following reading of four blocks:

Az2-Bz2	10 (kins), ? uinals, 8 tuns (DN)
Az3	non-calendrical
Bz3	11 Ahau (at 9.5.0.0.0??)

Our drawing would allow for this reconstruction but does not support Morley's positive identification of the Ahau day sign at Bz3. Any other day could have been represented, and in the absence of any indication of a PE we must regard the DD of the stela as unknown. Proskouriakoff's style-date estimate of 9.5.0.0.0 ± 3 katuns is based solely on the sandals of the left-side figure (personal correspondence 1969).

Stelae 14 and 25 share striking similarities in the presence of standing figures on the sides, in the size of the glyphs, and in the number of glyph rows on the back. These similarities led Project staff members to question whether the two could be simply the upper and lower parts of one monument, and the idea was raised independently by Coggins in personal communication (1974). At first the hypothesis was rejected for two reasons: the width and thickness of St. 14 exceed by too much those of St. 25, and there is a relatively wide gap between columns B and C on St. 14. The width (actually 0.73 m as opposed to the 0.83 m published by error in TR. 4) is nevertheless close to the 0.70 m of St. 25. While St. 14 is thicker than St. 25 by 0.15 m (0.50 and 0.35 m respectively), other Tikal stelae decrease in thickness considerably from the base of carving to the upper part of the stone (i.e., St. 6, 7, 10). Moreover, changes in glyph spacing within a text can readily be noted on other Tikal stelae (i.e., St. 2, 6, 10, 12, 17). Thus, we feel that we cannot reject the idea on either of these grounds.

Calendric information in the two fragmentary texts does not serve to prove or disprove a connection. If the two formed one inscription, then the DN on St. 14 would probably connect Date A of St. 25 (9.4.3.0.0 1 Ahau 3 Yax) to the SR with coefficient 11 on St. 14 at Bz3. Unfortunately the lack of a uinal coefficient in the DN prevents us from demonstrating this. One point against a connection is block C1 on St. 25, where a head with prefix is difficult to restore as the VYr notation that should follow the SR of St. 14. On the other hand, the date could be marked by the SR alone, as in several dates on St. 31. In conclusion, we find the idea a viable one, although as yet unproven.

TIKAL STELA 15

ILLUSTRATIONS: Fig. 21a-c (drawings); Fig. 92b-d (photographs). **LOCATION:** West Plaza, S of Str. 5D-13, E of Str. 5D-12; Ca. 122 of suitable date, but stela

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might have been reset through Late Classic floors; no paired altar (TR.15). **DEDICATORY DATE:** 9.3.0.0.0 2 Ahau 18 Muan (IS). **STYLE DATE:** 9.3.0.0.0 ? (Proskouriakoff 1950:107, 196). **CARVED SURFACES:** front, left (glyphic), right (glyphic); Class 3 (Morley Class 3). **NUMBER OF GLYPHS:** 14. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 1.90 m, W 0.58 m, T 0.43 m, HA 1.32 m, relief 1.0 cm (front), 0.6 cm (left). **PHOTOGRAPHS:** Morley 1937-38, V:Pl. 69d-f. **DRAWINGS:** Morley 1937-38, V:Pl. 8a,b. **REFERENCES:** Maler 1911:36, 84; Morley 1937-38, I:306-8; TR. 4:116-26; Bailey 1972:118-53.

GENERAL REMARKS

Maler discovered St. 15 in the West Plaza but did not photograph it in its severely broken condition. In 1928 Morley photographed the three large fragments which fit together to form the full stela height. When the area was cleared for excavation in 1959, eleven small additional fragments were found and fitted. Eight others (without carving) remain unfitted. Ca. 22 was uncovered in 1962 within what looked like the stela pit. Its composition is suitable for the 9.3.0.0.0 stela date and thus suggests that the stela setting was original. Coe noted, nevertheless, that the stone might have been reset through the two Late Classic plaza floors (1963:48). Morley remarked on the absence of

the portion that had displayed all five IS period coefficients; this fragment is still missing.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: downward in single column; right side to left side. Number of blocks: 7 + 7 = 14. Number of glyphs: same.

Right side

- A1 ISIG (partly missing left side; variable damaged but restorable as a beaked head for Muan)
- A2-A4 Baktuns; katuns; tuns (head variants by inspection and position; coefficients missing)
- A5 Uinals (by position, almost entirely missing)
- A6 Kins (head variant by inspection and position, coefficient lost)
- A7 Date A, (9.3.0.0.0): 2 Ahau (head variant, one-line frame, centipede affix, T-shaped central pedestal element)

Left side

- B1 18 Muan (reading certain by inspection and position)
- B2-B7 Six non-chronological glyphs (probable nominal introductory glyph at B2; possible coefficient 1 at B3; TEG at B5; Jaguar Paw Skull name at B7)

TIKAL STELA 15: SUMMARY OF CHRONOLOGY

A1-B1	Date A	IS	9. 3. 0. 0. 0	2 Ahau 18 Muan
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COMMENT ON THE INSCRIPTION

Morley read the IS of St. 15 as 9.3.0.0.0 2 Ahau 18 Muan (with one question mark). Since the appearance of TR. 4, in which the question mark was retained, a fragment containing the main sign of block B1 has been found and fitted in place, leaving no doubt that the block records a VYr position 18 Muan. Following directly after the clear 2 Ahau at A7, this makes the CR certain. The ISIG month variable is an eroded head which would suit the beaked bird-head patron of the month Muan. Except for a trace of the kin coefficient consistent with zero, none of the period coefficients of the IS survive.

Although Morley speculated that block B2 carried an end-katun statement, the glyph looks more like Proskouriakoff's rodent-head-with-bracket introduc-

tory glyph (1968). Block B7 contains the name glyph of the ruler Jaguar Paw Skull, first identified on St. 26 by Proskouriakoff (Coggins 1975:207). Since this name appears alone on St. 27 of the same date (9.3.0.0.0), it would seem to be that of the current ruler. On St. 3 at 9.2.13.0.0 and on St. 7 at 9.3.0.0.0, its appearance is followed by the decorated ahau male-parent indicator and the name of the prior ruler, Kan Boar. A TEG at block B5, two blocks before the name glyph, directly follows a head with a projecting square scroll. This pattern is repeated in Jaguar Paw Skull's name on St. 3, and these two texts are the only instances at Tikal of an emblem glyph preceding a name. Either Jaguar Paw Skull was deviating from the ordinary rule of TEG placement after a name (as we think likely) or the square-scroll head is the name of another ruler.

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In sum, the full CR of 2 Ahau 18 Muan can be read, and, since this falls on 9.3.0.0.0 directly in the middle of the known time span of similar staff stelae, we are confident of the stela date in spite of the loss of the period coefficients in the IS.

TIKAL STELA 16 / ALTAR 5

ILLUSTRATIONS: Figs. 22, 23 (drawings); Figs. 93, 94a-c (photographs). **LOCATION:** Twin Pyramid Gp. 5C-1 (Complex N of TR. 11) within Str. 5C-17, the enclosure; Ca. 32 (TR. 18). **DEDICATORY DATE:** 9.14.0.0.0 6 Ahau 13 Muan (PE). **STYLE DATE:** *stela* 9.15.0.0.0 ± 2 katuns; *altar* "Late Classic" (Proskouriakoff 1950:124, 196). **CARVED SURFACES:** *stela* front (glyphic); Class 1 (Morley Class 7); *altar* top (glyphic). **NUMBER OF GLYPHS:** *stela* 12; *altar* 37; total 49. **MATERIAL:** limestone, bedded. **DIMENSIONS:** *stela* H 3.52 m, W 1.28 m, T 0.35 m, HA 2.24 m, relief 1.6 cm; *altar* Diam 1.67 m, T 0.35 m, relief 1.5 cm. **PHOTOGRAPHS:** Maler 1911:Pls. 26,28; Morley 1915:Pl. 25; 1937-38, V:Pl. 73c,d; Coe 1967:78,79; Greene and Thompson 1967:Pls. 10,11 (rubblings, stela and altar); Greene, Rands, and Graham 1972:Pl. 126 (rubbing, front of stela). **DRAWINGS:** Morley 1937-38, V:Pl. 8f; Thompson 1950:Fig. 4,36; TR. 4:116-26; Coe 1967:79; Jones 1977:Fig. 7, 10. **REFERENCES:** Maler 1911:84-90; Spinden 1924:213-14; Morley 1937-38, I:336-41; Thompson 1950:Fig. 4; Jones 1969:23-25, 111-113; Coggins 1975:454-56; 548-55; Kelley 1976:231; Jones 1977:39, 42.

GENERAL REMARKS

Maler discovered St. 16 (still standing) and Alt. 5 during the last days of his 1904 visit. Although time was at a premium, he was able to clear both stones and take excellent photographs. He raised the altar on edge for photography after widening an excavation around it. The photograph of the stela had apparently been taken before this excavation and altar-raising, so the fact that it shows the whole of the stela carving but not the altar indicates that the altar top was at a lower level than the base of the stela design. Maler did not note the distance between stela and altar, nor whether the scene on the altar top lay with its base to the north (as the Project found it) or to the south, the direction the stela faces.

In 1931, Ledyard Smith sifted through the backdirt of a cache hunter's excavation of the same year and found an overlooked incised obsidian piece. This allowed Coe (TR. 27) to reconstruct much of what is

now called Ca. 32 from the pieces excavated by Eduardo Hay and illustrated by A. V. Kidder (1947:Fig. 70). Further excavation by Jones in 1963 penetrated deeper under the stela butt and uncovered a human skull and bones as additional cache elements (as well as a beer bottle in the cache hunter's pit).

Bedding lines on the edges of the two stones indicate that they derive from the same quarry strata (cf. St. 11/Alt. 11). Both are complete, except that a small top fragment photographed in place by Maler is now missing. Its details were added to our drawing from his photograph.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: downward through panels A B C in that order, then clockwise in glyphic border of Altar 5 beginning at top of scene; presumably independent panels labeled *y* (row of four glyphs) and *z* (column of two glyphs). Number of blocks: 4 + 4 + 4 + 31 + 4 + 2 = 49. Number of glyphs: same.

Stela

- A1-A4 Date A, (9.14.0.0.0): 6 Ahau 13 Muan, end 14 katuns (by inspection SR day coefficient could be 6-8)
- B1 End haab (or end tun)
- B2-C4 Seven non-calendrical glyphs (Ruler A at B3-B4; TEG at C1, uinal title at C2; 3 batab katuns at C3-C4)

Altar, border

- 1-2 Date B, (9.12.19.12.9): 1 Muluc 2 Muan
- 3-7 Five non-calendrical glyphs (female name at 5)
- 8-9 DN 1: 18 (kins), 11 uinals, 11 tuns
- 10-11 Date C, (9.13.11.6.7): 3 Manik 0 Xul
- 12-21 Ten non-calendrical glyphs (skull glyph, "death?" at 12; female name at 13; Glyphs 1 and 20 have coefficients)
- 22-23 DN 2: 19 (kins), 9 uinals, 8 tuns
- 24-25 Date D, (9.13.19.16.6): 11 Cimi 19 Mac
- 26 Non-calendrical glyph (event?)
- 27-28 Date E, (9.13.19.16.9): 1 Muluc 2 Kankin (1.0.4.0 after Date B)
- 29 Ending sign (calendrical?)
- 30-31 Two non-calendrical glyphs (Glyph 31 is batab, closing main text)

Panel *y*

- yA1-yD1 Four non-calendrical glyphs (skull, meaning death? at yA1; woman's name and title at yB1-yC1)

Panel *z*

- zA1-zA2 Two non-calendrical glyphs (coefficient 4 with head at zA2, same as Glyph 20?)

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TIKAL STELA 16 / ALTAR 5: SUMMARY OF CHRONOLOGY

A1-B1	Date A	PE	(9.14. 0. 0. 0) <u>(- 1. 0. 5.11)</u>	6 Ahau 13 Muan, end 14 katuns, end haab (suppressed DN, backward)
1-2 8-9	Date B	CR DN 1	(9.12.19.12. 9) <u>+ 11.11.18</u>	1 Muluc 2 Muan
10-11 22-23	Date C	CR DN 2	(9.13.11. 6. 7) <u>+ 8. 9.19</u>	13 Manik 0 Xul
24-25	Date D	CR	(9.13.19.16. 6) <u>(+ 3)</u>	11 Cimi 19 Mac (suppressed DN)
27-28	Date E	CR	(9.13.19.16. 9)	1 Muluc 2 Kankin

COMMENT ON THE INSCRIPTION

As Morley recognized, the stela and altar inscriptions are not connected by a distance number or by other indications, and thus we cannot be sure whether the text was read from stela to altar (or the reverse) or was treated as two independent entities. Given the text patterns of other stelae in twin pyramid groups (19 and 22), the katun-ending PE date should probably be read before the earlier, non-tun-ending dates. Instead of restoring Morley's small DN (1.11) forward from the latest date on the altar to the stela PE date, we restore a longer DN (1.0.5.11) counted back from the PE to the first altar date. Appropriate to the context of a katun-marking twin pyramid group, the implied backward count is only a little more than a katun in length.

We have retained Morley's rather unusual block designations for the separate panels of the stela text. On the altar, the blocks of the glyphic border are numbered 1 through 31 starting with the earliest of the four CR dates. The two separate, interior glyph panels on the altar are given the letters *y* (for the centered row of four glyphs) and *z* (for the column of two glyphs).

On the stela, blocks A1-A4 give a clear notation of 6-8 Ahau 13 Muan, end of 14 katuns. The SR coefficient 6 is suggested by the smaller size of the central dot. The glyph at B1 can be read as "end haab," with a beaked head replacing the normal cauac glyph as on St. 12 (B4); Thompson (1950:Fig. 4,36) drew this head with interior cauac marking that we do not see. Following the "end haab" are seven non-calendrical glyphs. While the first is of unknown meaning, the name glyphs of Ruler A appear at B3-B4, the TEG at C1, the uinal-*ma k'ina* title at C2, and a notation of 3 batab katuns at C3-C4, thought to be a reference to the ruler's age between 40 and 60 years (Jones 1977:36-39).

On Altar 5, four CR dates are linked to one another either by unequivocal DNs or, in one case, by an advance of three days unmarked by a DN. We agree with Morley that the dates probably fell just before the stela PE, rather than in the succeeding CR as Spinden (1924:213-14) thought. In Spinden's scheme, using his 12.9.0.0.0 correlation, the final date of the series falls on the winter solstice, thus seeming to add support to the correlation. Spinden suggested that the altar was carved and installed long after the stela, but, as we have mentioned, the two were quarried from the same strata. Furthermore, other inscriptions in twin pyramid groups have the katun-ending DD as the latest date.

The glyph panel at the base of the altar-top scene shows a death-head glyph, the kin-and-inverted-vase woman's title (Proskouriakoff 1961b:89), a woman's name, and a jaguar glyph. In Coggins's interpretation (1975:454-56) the complete altar text might recount events in the life of a consort of Ruler A (including the birth of an heir) and the final phrase tell of her death. On the other hand, the bird-head and jaguar-head glyphs of this woman's name do not reappear in the parentage statements of Ruler B on St. 5 and Li. 3 of Temple IV (Jones 1977).

TIKAL STELA 17

ILLUSTRATIONS: Figs. 24a-b, 25a-b (drawings); Fig. 95a-d (photographs). **LOCATION:** an unpaved area N of the East Plaza, possibly erect but, if so, reset (TR. 11 for location, TR. 8 and TR. 16 for excavation). **DEDICATORY DATE:** ca. 9.7.0.0.0 (after 9.6.3.9.15). **STYLE/DATE:** "...featherwork... of an early phase of the Late Classic Period," placed in Hiatus Period (Proskouriakoff 1950:111-12). **CARVED SURFACES:** front, left (glyphic), right (glyphic), back (glyphic); Class 4 (Morley Class 4). **NUMBER OF GLYPHS:** 108.* **MATERIAL:** limestone, compact. **DIMENSIONS:** surviv-

TIKAL STELAE AND STELA/ALTAR PAIRS

ing H 1.35 m,* W 0.70 m,* T 0.56 m, HA 1.28 m (back), relief 0.8 cm (front), 0.4 cm (back). **PHOTOGRAPHS:** Maler 1911:Pl. 27; Morley 1937-38, V:Pl. 68c. **DRAWINGS:** Morley 1937-38, V:Pl. 8d,e. **REFERENCES:** Maler 1911:90; Morley 1937-38, I:332-36; Andrews 1951; TR. 3:71-76, 80-81; TR. 4:116-35; TR. 8:153-60; Bailey 1972:153-62; Coggins 1975:234-35, 256-57, 339-42, 382, Tables 3, 4, 5.

*Reconstructed

GENERAL REMARKS

By specifying that St. 17 faced south, Maler implied that it was discovered in an erect position. If so, the stone must have been re-erected as an upper fragment only. Excavations in the vicinity by the Project located neither the missing butt, an accompanying altar, evidence of a stela pit, traces of a cache offering, nor even any sizable flake fragments of the stela (TR. 3:80-81; TR. 8:153-60). Nevertheless, fragments of other monuments (St. P34, MS. 25, and two fragments of uncarved monument stone) were found near the stela, which was lying in a leveled space behind Str. 5D-40 on the East Plaza (TR. 8; Fig. 44). Plaza excavations in 1965 uncovered a stairway (built in Late Classic times and later blocked off) leading down from the east side of the Maler Causeway (TR. 16); St. 17 lay at the base of this stairway. Approximate alignment on its central axis suggests formal placement, although in that case one would expect the stela to face toward the stair or away from it, rather than to the south. All in all, it is likely that the stela had been unceremoniously abandoned like St. 29 and 28. Certainly the breakage of the shaft near the base of carving, the absence of several large flakes from the upper surfaces, and the considerable abrasion in several areas indicate rough treatment.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in double column on possibly independent back, left and right sides (sequence uncertain). Number of blocks: $36 + 40 + 32^* = 108$. * Number of glyphs: same.

Back

- | | |
|----|--|
| E1 | ISIG (by position and traces of tun sign; month patron lost) |
| F1 | 9 baktuns (one dot of coefficient survives by traces only; damaged head-variant baktun sign) |
| E2 | 5-10 katuns (head-variant period glyph; coefficient range by space limitation and one bar partially surviving) |

- | | |
|-------|--|
| F2 | 3 tuns (head-variant tun sign, coefficient certain) |
| E3 | Uinals (head variant, lost coefficient 0-17) |
| F3 | 15 kins (head-variant, damaged, coefficient certain) |
| E4 | Date A, 9.5.3.9.15?: SR (day sign Men same as at A4, coefficient completely lost) |
| F4 | 18 Kankin? (month sign by position and by sure coefficient 18 as allowed by day sign Men; Kankin with <i>ak</i> and wing affixes best by inspection) |
| E5 | Probable non-calendrical (inaugural or seating glyph?) |
| F5-F9 | Nine non-calendrical blocks (TEG main sign at F5; Double Bird ruler at F8; TEG at F9) |
| G1-H9 | Eighteen non-calendrical blocks (21 <i>hel?</i> at G1-H1; female parent glyphs and name at H5-H6; male parent glyph at H7; Jaguar Paw Skull name? at G9) |

Left side

- | | |
|--------|---|
| A1-A4 | Date B, 9.6.3.9.15: ISIG, 9 baktuns, 6 katuns, 3 tuns, 9 uinals, 15 kins, 10 Men (damaged month patron of ISIG probably not a head; head-variant period glyphs) |
| B4 | Badly damaged glyph with coefficient 9 (mistake for Glyph G6?) |
| A5 | Glyph F (damaged; outline clear) |
| B5-B6 | Lunar Series (badly damaged; Glyph 4C at A6, Glyph A at B6) |
| A7-C3 | Thirteen badly damaged or lost blocks (lost calendrics possible; two head glyphs with coefficient 7 at C2, 8? at D2) |
| D3-D4 | DN 1: Illegible oval sign with coefficients 5 and 7 at D3 (kins and uinals of a DN?), trace of 2 bars at C4 (10 tuns?), katun sign likely at D4, coefficient 0 (or 1) |
| C5-D10 | Date C?, (9.6.13.17.0)?: Twelve blocks, completely lost in column C, traces only in column D |

Right side

- | | |
|-------|---|
| I1-K5 | Date D?: Twenty-seven blocks completely lost except for traces at L1, L2, L4 (lost IS date?) |
| L5-L6 | DN 2: 5 kins, 15 uinals? (damaged block with 5 prefix and 15 superfix) at L5, tun sign outline at K6, coefficient 1 and likely katun sign at L6 |
| K7 | Damaged block (non-calendrical?) |
| L7 | Ending sign or anniversary? (hand) |
| K8-L8 | Date E: CR (illegible SR; VYr coefficient 10) |

*Reconstructed

TIKAL STELA 17:
SUMMARY OF CHRONOLOGY

E1-F4	Date A	IS	9.5. 3. 9.15 ?	12 Men 18 Kankin?
A1-B6	Date B	IS	9.6. 3. 9.15 ?	10 Men, G?, F, MA?, MN 4, A?
D3-C4		DN 1	+ 10. 7. 5 ?	
(lost)	Date C?		(9.6.13.17. 0)?	11 Ahau 18 Kankin?
(lost?)	Date D?	IS?		
L5-L6		DN 2	+ 1. ?15. 5	
L7				Period end or anniversary?
K8-L8	Date E	CR		SR, VYr (coefficient 10)

COMMENT ON THE INSCRIPTION

Stela 17 opens two of its three panels of glyphs with IS dates. Since these are not linked by distance numbers, it is not obvious which panel is to be read first. Comparison of St. 17 with other Tikal monuments with glyphic inscriptions on three surfaces shows that some begin their main text on the back (St. 31, 25, and the Temple of the Inscriptions facade text) while others begin it on one of the sides (St. 10 and 12); neither model is clearly preferred. Stela 17 resembles several Quirigua monuments (St. D, E, and F) on which the two side texts begin with IS statements and appear to be independent of each other. In the absence of clear indications of a proper order of reading, therefore, we have retained Morley's column lettering but present the text in the probable chronological order of its dates.

Our new drawings have clarified the question of the number of glyphs in each panel, which differs slightly from Morley's estimates. For the back there can be no doubt that there are nine rows of glyphs. Traces of ten rows appear on the left side, the bottom surviving row based at approximately the same level as that on the back. On the right side, traces of only eight rows survive. Assuming that the panel limits are about what they are on the back, or at least no greater, an additional row is not possible. Thus we count 36 + 40 + 32 = 108 blocks, totaling the same as Morley's 36 + 36 + 36.

The back of St. 17 opens with an IS. The tun sign of the ISIG is clear, but the month patron variable completely eroded. Baktuns are 9, katuns 5 to 10, with 5 preferred for lack of space for another row of dots or bar; tuns are 3; uinals could be any number from 0 to 17, and kins are 15. The day sign at E4 is the same Men glyph as at A4; the coefficient could be anything from 1 to 13. The coefficient 18 at F4 is surely that of the VYr. Using these limits, we are confined to the following set of alternatives:

9.5.3.9.15	12 Men 18 Kankin
9.6.3.7.15	9 Men 18 Yaxkin
9.6.3.9.15	10 Men 18 Chen
9.6.3.14.15	6 Men 18 Kankin
9.7.3.7.15	7 Men 18 Uo
9.7.3.9.15	8 Men 18 Zotz

Morley did not consider the first or fourth alternatives, because he thought that the katun coefficient must be greater than 5 and the uinal coefficient less than 11. He preferred the third alternative and allowed the second. Nevertheless, the best reading of the VYr sign in F4—with a two-part suffix (T130), a wing postfix (T116) and no superfix—is Kankin. None of the other month signs are at all suitable to the evidence shown by our drawing. This leaves us with only the Kankin alternatives. Since there is less space available for the uinal coefficient than for the day number below it, 9 uinals and 12 Men is preferable to 14 uinals and 6 Men. This choice (the first in the list) is also exactly one katun earlier than Date B, and katun anniversaries of non-tun-ending dates are common on Maya monuments. Coggins (1975:256-57) notes that Proskouriakoff has also interpreted the IS on the right side of St. 17 as the one katun anniversary of the IS on the back.

Following Date A at E5 is an eroded glyph with the lunar postfix common to event glyphs. The main sign itself cannot be read. At F5 is a TEG main sign (without *ben-ich* or water affixes), and at F9 another. Coggins identifies the sign at F8 as the probable nominal, labeling the ruler "Double Bird." She also points out the name Jaguar Paw Skull at G9. Schele (1976) identified this passage as a parentage statement, and this interpretation is followed by Schele, Mathews, and Lounsbury (1977). The female-parent indicator is at H5, with the name following; the male-parent indicator is the decorated ahau compound at H7, the male parent being Jaguar Paw Skull at G9. As the authors point out, this father could be the individ-

ual named on St. 3, 7, 15, and 27 but could also be a second personage bearing the same name. The woman's name glyph resembles in outline that of Woman of Tikal, who is mentioned on St. 26, and whose birth is recorded on St. 23 at 9.3.9.13.3. If this identification is correct, and if this Jaguar Paw Skull is the one we know from St. 3 and others, then the mother was considerably younger than the father.

In blocks G1 and H1, a moon-with-enclosed-dot with superfixed coefficient 1 is followed by a *hel* glyph compound. As noted in our discussions of St. 3, 5, 22, and 31, Riese (1979) has recently hypothesized that these *hel* glyphs mark numbered successions of rule in several sites. The moon-with-enclosed-dot stands for the value of 20, as it does in distance numbers and in Glyph A of the LS. Double Bird, as 21st in the Tikal line of succession, is thus placed between the 9th *hel* ruler recorded on St. 31 and 3 and the 27th and 29th *hel* rulers designated on St. 5 and 22. Along these same lines, David Stuart (personal communication 1979) has pointed out the record of a 22nd *hel* ruler on a plate from Bu. 195 under Str. 5D-32 (MT. 217; Coe 1967:104; TR. 25:Fig. 50). Schele, Mathews, and Lounsbury (1977) note that the plate also bears a parentage statement for this 22nd ruler. If so, his father does not seem to be Double Bird himself, although we cannot be sure that the double-bird glyph is the correct or the only characteristic nominal glyph for the person on St. 17.

The series of period coefficients that open the left side are well preserved and read as 9.6.3.9.15. Also clear at A4 is the day coefficient 10, in agreement with this LC position. The day sign, with 15 kins in the IS, should be Men and indeed has the large eye and thin mouth of that day glyph. Glyph F appears at A5, so the preceding block should record Glyph G. Morley (1937-38) and Andrews (1951) accept Glyph F, while Andrews lists Glyph G with a question, without specifying its form. An IS date ending in 9 uinals and 15 kins would take Glyph G6. The compound in block B4 actually carries the coefficient 9 of the Glyph G1 form, but the rest of the compound bears no resemblance to the Glyph G1 open hand and God C head. Thompson (1950:Fig. 34) illustrates only one example of Glyph G6; here we might have either a new variant of that form or a Maya mistake.

We concur with Morley and Andrews that glyph 4C is reco A6. The lunar postfix partially survives at upper right over an oval main sign with possible traces of the circle of the Glyph C hand sign, similar to that on St. 23 (C3). The variable element of the compound resembles one illustrated by Thompson (1950:Fig.

37,47). The next block (B6) carries the large-scale moon sign of Glyph A with space for a head-variant number 9 or 10 to the right of it, as proper for Glyph A. Morley questions Glyph A here; Andrews considers it as present. Although he also lists the possibility of a Glyph X, that is not likely: block B5, almost entirely eroded, leaves space for Glyph D but not for an additional Glyph E or X. The low average moon age at this date (6.19 days) makes Glyph D without Glyph E suitable. Satterthwaite (TR. 4:132-33) used the Glyph 4C record on St. 17, along with the readings on St. 23 and 12, as indications that Tikal had instituted the Uniformity System of lunations before it had been adopted generally by other Maya centers (see St. 12).

Little can be distinguished in the remainder of columns A and B. A clear DN appears at D3, which Morley read as 5 kins and 8 uinals but which is better read as 5 kins and 7 uinals. The following block (C4) shows the upper portion of a probable coefficient 10, which Morley thought was 9. Block D4, with a katun-like main sign, might read zero katuns (preferable by inspection) or 1 katun. We have, then, two alternatives for this DN and for the lost Date C, assuming that the DN counts forward from Date B:

10.7.5 to 9.6.13.17.0	11 Ahau	13 Kankin
1.10.7.5 to 9.7.13.17.0	9 Ahau	13 Chen

Morley read the DN as 9.8.5, carrying forward to 9.6.13.0.0, a likely tun end for the dedicatory date of a Tikal monument. On the basis of our drawing of the uinal coefficient, this reading must be rejected.

Since we have clear IS statements on the left side and back of the stela, another IS might have opened the right side as well. Unfortunately these blocks are completely eroded; we have, however, reserved the label Date D for this possibility. Block L5 has the outlines of a two-coefficient DN uinal glyph recording 5 kins as a prefixed bar and 15 uinals as a superfix; a tun coefficient at K6, if it was present, is completely lost; a clear coefficient 1, with a probable katun sign, is at L6. Thus it is possible that we have a DN reading 1.?.15.5. The final two blocks of this side (K8 and L8), possibly the end of the text itself, recorded a CR. Most detail is lost, but the VYr coefficient of 10 prevents our suggesting that this final date might be a PE and the DD.

If, as hypothesized, Date B is the katun anniversary of Date A, then the latter was surely the more important of the two. Katun anniversaries of odd dates are usually (but not always) referent to inaugural dates,

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as, for example, at Piedras Negras (Proskouriakoff 1960:Fig. 1). It is likely, therefore, that 9.5.3.9.15 is the inaugural date of Double Bird, who celebrated the first katun anniversary of his reign at 9.6.3.9.15.

At Piedras Negras anniversaries usually fall within the hotun to whose ending day the monument is dedicated. We have rejected Morley's evidence that DN 1 led forward to a DD of 9.6.13.0.0 in favor of a preferred position for Date C which overruns that date by 17 uinals. Nevertheless, given the unequivocal 13-tun marker on St. 12 at 9.4.13.0.0 and the possibly paired St. 10 at the same date, we still consider 9.6.13.0.0 an option for the DD of St. 17. Another possibility, of course, is 9.7.0.0.0 at the end of the katun. A third choice is that the stela carried no PE date at all, as seems to be true of St. 4 and 29. In TR. 4 (296) Satterthwaite argued against Morley's 9.6.13.0.0 DD and concluded that the monument was probably dedicated to a tun end later than 9.6.3.9.15, the latest certain date. This still seems to be the best course, and we offer a DD of ca. 9.7.0.0.0.

TIKAL STELA 18

ILLUSTRATIONS: Fig. 26a-b (drawings). **LOCATION:** Great Plaza; N row of monuments, probably reset in front of Str. 5D-34-1st; stela pit and Ca. 22 found by Project; no paired altar (TR. 3 and TR. 14). **DEDICATORY DATE:** 8.18.0.0.0 12 Ahau 8 Zotz? (IS). **STYLE DATE:** 9.0.0.0.0 ± 2 katuns (Proskouriakoff 1950:105, 196). **CARVED SURFACES:** front, back (glyphic); Class 2 (Morley Class 1). **NUMBER OF GLYPHS:** 19.* **MATERIAL:** limestone, compact. **DIMENSIONS:** H 1.54 m,* W 0.65 m,* T 0.50 m, HA 1.26 m,* relief 1.5 cm. **PHOTOGRAPHS:** Morley 1937-38, V:Pl. 68a,b. **DRAWINGS:** Morley 1937-38, V:Pl. 7j. **REFERENCES:** Morley 1937-38, I:283-86; TR. 3:71-76, 81-82; TR.26; Bakley 1972:112-14; Coggins 1975:Table 4; 1980:734.

*Reconstructed

GENERAL REMARKS

The lower portion of St. 18 was discovered by Morley and A. K. Rutherford in 1921. The butt frag-

ment was in place in the north row of Great Plaza monuments, facing to the south. Subsequent Project investigations (TR. 3:81-82) recovered additional pieces (the upper fragment and most of row B11) and, from the stela pit, the single eccentric flint that comprises Ca. 22. In TR. 14 Coe says that the flint is probably of an "Intermediate Classic" composition and that therefore the stela might have been set secondarily in its present location. The stela is badly fractured, not only by transverse breaks but also by vertical splitting; major areas are still missing from both front and back. All of the lower fragments are secured by positive physical fits, but the exact orientation of the upper piece has not been verified by a fit to the rest of the stone. The estimated width is based on comparison with St. 4 and 36. It depends principally on the assumption of a full face and left ear ornament on the Tlaloc shield.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in double column. Number of blocks: 22. Number of glyphs: 19.*

Back	
A1-B2	ISIG (oversized, partly lost; variable best as Zip)
A3	Baktun (coefficient lost)
B3	Katun (main sign lost, coefficient 8, 13, or 18)
A4	Tun (main sign mostly lost, coefficient lost)
B4	Uinal (coefficient best as zero)
A5	Kins (coefficient mostly lost)
B5	Date A, 8.18.0.0.0?: SR day (merged pedestal, cartouche, tab in upper right corner, coefficient 12)
A6-B8	Six completely lost blocks
A9-B11	Six probably non-calendrical blocks (B9 and B10 completely lost; A11-B11 glyphs possibly on St. 4)

*Reconstructed

TIKAL STELA 18: SUMMARY OF CHRONOLOGY

A1-B5	Date A	IS	8.18.0.0.0(?)	ISIG, 12 Ahau 8 Zotz? (or 8.18.13.0.0 or any position from 8.17.0.0.0 to 8.19.0.0.0)
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COMMENT ON THE INSCRIPTION

We have retained Morley's block designations from A1 to B5 because he correctly inferred that: (1) an IS was present, (2) the ISIG was oversized, requiring two rows of the basic grid, and (3) the day sign at block B5 was the terminal date for the IS and thus the seventh glyph (counting the ISIG as one). His inferences were validated by the discovery of the upper fragment. In our drawing, the amount of space between rows 5 and 9 is determined by the physical fitting of the fragments. (Morley evidently was not able to make these fits.) Clearly three rows have been lost, and no more. We restore a total of 22 blocks and 19 individual glyphs.

The month variable in the ISIG survives in part: a head with an elongated eye, a scroll issuing from the right end of the eye, and probably an earplug. The long eye in a general way resembles that of the head variable for the month Zip, and there is space for the upturned snout of that sign. The long eye does not appear in Thompson's examples for other month patrons (1950:Fig. 22). The best reading is Zip, although a new form of another patron cannot be ruled out.

The overlapping oval signs at A3 are as expected for the symbolic form of the baktun glyph, with ample space for restoring a coefficient 8, 9, or 10. In the next block, the main sign is completely lost. The coefficient has an upper dot, traces of central and lower dots, one sure bar, and space for one or two additional bars. Early Tikal stelae (1, 3, 4, 8, 29, 31) lack fillers between dots, so we prefer Katun 8, 13, or 18. For the tuns, a small portion of an oval main sign survives at block A4 without any traces of the coefficient. The uinal glyph at B4 has an oval cartouche; the curved dotted line at the base of the prefix suggests a zero coefficient. At A5 the glyph is again an oval sign with cartouche, the coefficient completely lost; this sign might have had a pedestal base. Our drawing corrects a mistake by Morley in drawing the kin glyph too close to the coefficient of block B5. He evidently mistook the lower dot of the SR coefficient as a pedestal of the kin cartouche. Block B5 is a sure SR day with a completely eroded interior. The cartouche and pedestal base are of the type that merge, and there is a projecting affix at the upper right. Two prefixed bars of a coefficient are certain; there are traces of an upper and a lower dot. From an on-site inspection Satterthwaite concluded that, there being no evidence of scaling-off between the dots, the correct reading is 12 rather than 13. Morley's coefficient of 10 is not possible.

Proskouriakoff's style-date limits are from 8.18.0.0.0 to 9.2.0.0.0. Dates in early Baktun 9 are eliminated from consideration because the bar and surviving dot in the katun coefficient preclude a katun lower than 7. While a date in Katun 7 or 8 of Baktun 8 seems highly unlikely, Katuns 12 and 13 are possible; style dating of early monuments is based on a limited number of examples, and Tikal St. 29 is indeed that early. We do not know that the date is a tun end at all, but, assuming for the moment that it is, we find the following tun ends as the possibilities for 12 Ahau within Katuns 12, 13, 17, and 18 of Baktun 9:

8.12.3.0.0	12 Ahau 8 Muan
8.12.16.0.0	12 Ahau 3 Ceh
8.13.9.0.0	12 Ahau 18 Mol
8.17.7.0.0	12 Ahau 13 Yaxkin
8.18.0.0.0	12 Ahau 8 Zotz
8.18.13.0.0	12 Ahau 3 Pop

Although none of these dates occurs in the month Zip, which is suggested by the long eye of the ISIG variable, the most attractive choice is 8.18.0.0.0 because it is a katun end and Katuns 13 and 18 the preferred readings. A second choice is, however, 8.18.13.0.0, since Tikal displays a special interest in Tun 13 endings as early as 9.2.13.0.0 on St. 3. A third option, of course, is not to assume a period ending, so that almost any 12 Ahau date would be possible.

Stela 18 was proposed as a monument of the ruler Curl Nose (or Curl Snout) by Coggins (1975:Table 4; 1980:734) on the basis of its similarity to St. 4, his inaugural monument. The resemblances between the two stelae are indeed striking. Both show a seated human figure on the front, with the same bent arm and profile monster-head throne. The ISIG main signs are similarly short and broad, and without supports. Specific glyphs of St. 18, such as the inverted skull-like glyph at B11 and the main sign with scrolls and probable *ben-ich* superfix at A11, are found near the end of both texts. The date of St. 4 having been read as 8.17.2.16.17(?) with the help of the St. 31 text, this close similarity of text supports the Katun 18 alternatives listed; of these, the katun end 8.18.0.0.0 seems more likely.

TIKAL STELA 19 / ALTAR 6

ILLUSTRATIONS: Figs. 27, 28a-b (drawings); Fig. 96a-c (photographs). LOCATION: Twin Pyramid Gp. 4E-3 (Complex R of TR. 11) within Str. 4E-43, the

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enclosure; stela fallen backward in place, altar split and moved (TR. 18). **DEDICATORY DATE:** 9.18.0.0.0 11 Ahau 18 Mac (PE). **STYLE DATE:** 9.18.10.0.0 ± 2 katuns (Proskouriakoff 1950:139, 196). **CARVED SURFACES:** *stela* front (glyphic); Class 1 (Morley Class 7); *altar* top, periphery (glyphic). **NUMBER OF GLYPHS:** *stela* 26; *altar* 4; total 30. **MATERIAL:** limestone, bedded. **DIMENSIONS:** *stela* H 2.55 m, W 1.17 m, T 0.55 m, HA 1.85 m, relief 3.5 cm (front); *altar* Diam 1.22 m, T 0.47 m, relief 0.5 cm. **PHOTOGRAPHS:** *stela:* Proskouriakoff 1950:Fig. 60b; Satterthwaite 1956a:Fig. 35; TR. 4:Fig. 24 (glyph panels only); *altar:* Satterthwaite 1956a:Fig. 35. **DRAWINGS:** *stela:* Jones 1977:Fig. 20; *altar:* Satterthwaite 1956a:Fig. 39a-d. **REFERENCES:** Maler 1911:91, 130; Morley 1937-38, I:275-77, 366-69; Shook 1951:17, Fig. 1 (map); Satterthwaite 1956:25-40; TR. 4:99-103, 116-26; Jones 1969:27-28, 117- 19; Jones 1977:56.

GENERAL REMARKS

The discovery of St. 19 and Alt. 6 was unusual in that the altar was seen first (by Maler in 1904) long before the stela was uncovered by Shook in 1937. Maler saw the altar intact and in the center of the enclosure, but by Shook's time it had been split into upper and lower halves, both of which had been moved aside to dig a large pit under the stela butt. The lower half of the altar was then thought to be a separate plain altar (Morley 1937-38, I:275). In 1956, the first year of the Project, Satterthwaite cleared the enclosure in which the monuments lay and discovered that the supposedly plain altar had carving on its sides and was in fact the lower half of Alt. 6 (Satterthwaite 1956a and TR. 4).

The original orientation of the altar-top scene is not known. Axis A-A' of our drawing is roughly perpendicular to the horizontal position of the recumbent figure and passes through the center of a seated figure (1b) on the periphery. We suggest that the former was depicted belly-down like the bound figures on other

altar tops, including the similar and undisturbed Alt. 10. The grotesque head at right is upside down in this view, as are similar heads on Alt. 10.

It is surprising that the usually alert Maler had missed St. 19 simply because it had fallen backward without breaking and been covered with debris from the enclosure walls. The front carving, exposed to the full force of weathering, is severely eroded as well as spalled in some areas of the upper border and headdress.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: upper to lower panel, left-right and down in double column. Number of blocks: 10 + 16 + 4 = 30. Number of glyphs: same.

Stela, upper panel

- A1-B1 Date A, (9.18.0.0.0): 11 Ahau 18 Mac (largely restored)
- A2 End 18 katuns (partly restored)
- B2 Badly eroded block (haab completed?)
- A3-B5 Six non-calendrical blocks (eroded)

Lower panel

- A6-A9 Seven non-calendrical blocks (Ruler C name at A6?; TEG at B6; batab at A7?; male-parent glyph at B7; Ruler B name at A8; TEG at B8; 4 batab katuns at A9)
- B9-B10 DN: 19 kins, 14 uinals, 1 tun (kin sign eroded, others surely head variants)
- A11-B11 Date B, (9.17.18.3.1): 2 Imix 9 Kayab
- A12 Completion sign (hand-and-tassel, affixes)
- B12 End 1 katun (bracket prefix, death eye postfix, dot coefficient above symbolic katun sign flanked by crescents)
- A13-B13 Two non-calendrical blocks (batab with locative *ti* prefix at A13; scattering glyph at B13)

Altar, periphery

- 1-4 Four probable non-calendrical blocks

TIKAL STELA 19: SUMMARY OF CHRONOLOGY

A1-B1	Date A	PE	(9.18. 0. 0. 0)	11 Ahau 18 Mac
A2-B2				18 katuns, haab completed?
B9-B10		DN	<u>- 1.14.19</u>	
A11-B11	Date B		(9.17.18. 3.1)	2 Imix 9 Kayab
A12-B12				End 1 katun

COMMENT ON THE INSCRIPTION

Chronological data on St. 19, thoroughly described in TR. 4, are summarized here on the basis of the new drawing. The SR coefficient at A1 has at least one bar (probably two) and room for numerical dots, for a number greater than 5. The VYr coefficient at B1 is surely 18. The katun coefficient at A2 (conforming to the dating pattern of St. 16, 20, and 22) is best as 18, with 17 the only other possibility. Preference for 18 as the katun coefficient makes 9.18.0.0.0 11 Ahau 18 Mac a better choice than 9.17.0.0.0 13 Ahau 18 Cumku. Morley left both possibilities open, but since his time the earlier katun end has been pre-empted by St. 22 and Alt. 10. The later reading is confirmed by the DN and Date B below.

At B9-B10 the DN is certain in our drawing as 19 kins, 14 uinals, and 1 tun. Date B at A11-B11, unmistakably 1 or 2 Imix 9 Kayab, eliminates the possibility of either 4 Imix (allowed in TR. 4) or Morley's 5 Imix to go with a 9.17.0.0.0 PE. Thus the chronology given here is the only one possible.

Thompson first pointed out an "end 1 katun" notation at B12 (TR. 4:99-102), based on Project photographs. Morley had previously read the block as a DN of 6.12.0, with kins suppressed and both coefficients attached to a tun sign. This possibility must now be rejected. At A12 a hand-and-tassel glyph common to anniversary notations implies that Date B was a katun anniversary of an unrecorded 4 Imix 4 Zotz date at 9.16.18.3.1, just 97 days prior to the inaugural date of Ruler C stated on St. 22. The katun notation is followed by the same two hieroglyphs as on St. 22, a batab head with *ti* prefix (probably the inaugural affix cluster) and the scattering glyph found in association with PE dates (Thompson 1950:Fig.33,4-8) and with figures in the act of scattering grains or some other substance. The presence of the scattering glyph might connect the katun anniversary statement to the PE date at the beginning of the text (the first completed katun within the reign) rather than to the nearby Date B.

The non-calendrical glyphs between Dates A and B resemble those on St. 22. At A6 is an animal head with prefix and superfix similar in outline to the Ruler C name at B3 of that stela. This glyph is followed by the TEG, a probable batab glyph, the decorated-ahau parent glyph, the name of Ruler B, TEG, and 4 batab katuns. It would appear from this that Ruler C was still the incumbent at 9.18.0.0.0. Even so, the upper panel is severely eroded, and it is thus possible that

another name was recorded there as ruler. In either case, the decorated ahau glyph identifies him as a son of Ruler B.

On the periphery of Alt. 6 are four hieroglyphs in separate panels between four seated deity figures. The glyphs might provide the names of the figures; they are certainly non-repetitive. One has a prefixed coefficient 13 and two others have postfixed coefficients (3 and 10 or above).

TIKAL STELA 20 / ALTAR 8

ILLUSTRATIONS: Figs. 29,30 (drawings); Fig. 97a,c (photographs). **LOCATION:** Twin Pyramid Gp. 3D-2 (Complex P of TR. 11) within Str. 3D-47, the enclosure; altar in normal orientation in front of stela; no cache (TR. 18). **DEDICATORY DATE:** 9.16.0.0.0 2 Ahau 13 Zec (PE). **STYLE DATE:** 9.15.10.0.0 \pm 2 katuns (Proskouriakoff 1950:196). **CARVED SURFACES:** *stela* front (glyphic); Class 1 (Morley Class 7); *altar* top (glyphic). **NUMBER OF GLYPHS:** *stela* 9; *altar* 4; total 13. **MATERIAL:** limestone, bedded. **DIMENSIONS:** *stela* H 3.03 m, W 1.17 m, T 0.37 m, HA 2.24 m, relief 2.3 cm; *altar* Diam. 1.02 m, H 0.35 m, relief 1.5 cm. **PHOTOGRAPHS:** *altar:* Coe 1965c:48; 1967:83; Greene, Rands and Graham 1972:Pl. 140 (rubbing, top). **DRAWINGS:** *stela:* Tozzer 1911:Pl. 29; Morley 1937-38, I:Fig. 17a,18; Jones 1977:Fig. 15; *altar:* Morley 1937-38, I:Fig. 19; Jones 1977:Fig. 16. **REFERENCES:** Morley 1937-38, I:278, 362-66; Shook 1951:16-17; TR. 4:116-26; Proskouriakoff 1968:250; Jones 1969:25-27, 115-16; Coggins 1975:Tables 4, 6; Jones 1977:45, 53.

GENERAL REMARKS

Stela 20 and Alt. 8 were discovered by Shook in 1937, on a journey from Tikal to Uaxactun (Shook 1951:12-18). The stela lay fallen on its back (apparently without human disturbance) and intact, with the altar in place in front of it in normal orientation. Some erosion had occurred on both. Within a year of their discovery, Morley published the monuments and a map of the new "North Zone" of the site (1937-38, I:278, 362-66, Fig. 14). Excavations around the stela in 1957 yielded no cache material from the apparently undisturbed stela pit. In 1963 the entire twin pyramid group was excavated (Jones 1969; TR. 11 for location); a full report will appear in TR. 18.

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GLYPHIC IDENTIFICATION AND
DECIPHERMENT

Order of reading: downward in column A of stela;
probably downward in columns A and B on altar.
Number of blocks: 9 + 2 + 2 = 13.

Stela

A1 Date A, (9.16.0.0.0): 2 Ahau (2 dots of
coefficient sure, upper and lower fillers
restored, but 4 dots possible; SR day
surely a damaged Ahau)

A2 13 Zec (restored upper dot of coefficient
for symmetry; damaged oval main sign
with *ak* subfix and eroded superfix)
A3-A4 16 katuns, end haab
A5-A9 Five damaged blocks probably all non-
calendrical (Ruler B name possible at
A6-A8; TEG at A9)

Altar

A1-A2 Two non-calendrical blocks
B1-B2 Two non-calendrical blocks (captive
name? at B1)

TIKAL STELA 20: SUMMARY OF CHRONOLOGY

A1-A5	Date A	PE	(9.16.0.0.0)	2 Ahau 13 Zec, 16 katuns, end haab
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COMMENT ON THE INSCRIPTION

Only nine glyphs in length, the main text of St. 20 occupies a single column directly in front of a long staff held by the standing figure. The staff, the jaguar throne, the short text, and the single date make this stela unusual, if not unique, among Tikal monuments of its time. Nevertheless, the chronological fix of the PE date is secure.

The SR date beginning the text at A1 is clearly Ahau with a coefficient of at least 2 dots and no bars. Coefficient 2 is preferred, because of the trace of an in-turning lower crescent, but 4 is also possible. The VYr at A2 has an unequivocal coefficient 13. Its main sign has an *ak* subfix, found with the months Pop, Zec, Mol, Kankin, and Kayab (Thompson 1950:Fig. 16,9); among these five, its superfix is found only with Zec. A well-preserved notation of 16 katuns in the next block leaves no doubt that the CR date falls at 9.16.0.0.0 2 Ahau 13 Zec. At A4 is a cauac-hand-wing sign indicating "end haab" (Thompson 1950:Fig. 32,24-29). The cauac glyph, though fully recognizable, has an unusual row of circlets touching its typical three-quarters cartouche and is shown as if held in the palm of the hand, as on Naranjo St. 24 (E15).

After these four calendric glyphs comes a phrase of five presumably non-calendrical blocks. The last is a clear TEG with proper affixes that indicates the name of a Tikal ruler in the preceding blocks. At A6 is a "sky" sign common to Rulers A and B (Jones 1977). It is difficult to detect the normal forms of either name at A7-A8, but the glyphs are possibly a variant of the Ruler B name. Statements on St. 5 that Ruler B is the 27th ruler in succession and on St. 22 that Ruler C is the 29th (Riese 1979) alert us to the alternative possi-

bility that another ruler is represented and named here: the missing 28th in succession. The standing figure carries on his back shield the same bent-leg motif as does Ruler B on St. 5 although the personage on the later Ixlu St. 1 (not likely Ruler B) also carries this symbol (Fig. 80).

On Alt. 8, four glyphs appear in two panels. We label these A1, A2, B1, B2 and read them in that order so that the two glyphs of column B occur in the same sequence as those in the comparable phrase and arrangement on Col. Alt. 1. The similarity between the superfix at B1 and the pair of "beaded circlets" in the bound figure's headdress leads us to think that the text refers to him by name.

TIKAL STELA 21 / ALTAR 9

ILLUSTRATIONS: Figs. 31a-b,32 (drawings); Fig. 97b,d (photographs). **LOCATION:** in front of Str. 6F-27 (Temple VI, Temple of the Inscriptions), on axis; stela fallen forward, large butt fragment in semi-erect position; altar undisturbed and normally oriented; Ca. 29 in stela pit (TR. 23B). **DEDICATORY DATE:** 9.15.5.0.0 10 Ahau 8 Chen (PE). **STYLE DATE:** 9.17.10.0.0 ± 2 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** *stela* front (glyphic); Class 1 (Morley class 7); *altar* top (glyphic). **NUMBER OF GLYPHS:** *stela* 22;* *altar* 5; total 27.* **MATERIAL:** limestone, bedded. **DIMENSIONS:** *stela* H 3.18 m,* W 1.11 m, T 0.37 m, HA 2.30 m,* relief 4 cm; *altar* Diam 1.60 m, T 0.67 m, relief 12 cm. **PHOTOGRAPHS:** *stela:* Berlin 1951:Figs. 8,22 (stela), 11,13 (cache); 1953:85 (lower glyph panel); Coe 1965b:49 and 1967:88 (lower glyphs, labeled St. 20); *altar:* Berlin 1953:84; Greene, Rands, and Graham 1972:Pl. 127 (rubbing, stela). **DRAW-**

TIKAL STELAE AND STELA/ALTAR PAIRS

INGS: *stela*: Berlin 1951:Figs. 9,21; 1953:85; Jones 1977:Fig. 2 (Coe drawing); *altar*: Berlin 1951:Figs. 1 (plan), 10 (top of altar). REFERENCES: Berlin 1951:33-54; 1953:82-86; TR. 4:116-26; Kelley 1976:231; Jones 1977:34-35, 45.

*Reconstructed

GENERAL REMARKS

Stela 21, Alt. 9, and the Temple of the Inscriptions itself were discovered in 1951. In the same year Berlin published a report of the investigative expedition of the Instituto de Antropología e Historia de Guatemala, with drawings of the stela and altar by G. Grajeda Mena. Excavating around and under the fallen and much fragmented stela, the expedition found several additional fragments of carving and a substela cache now numbered Ca. 29 in the Tikal Project series. The carved fragments of stela and altar were reburied and later retrieved by the Project.

In 1963 Satterthwaite supervised restoration of the monuments and further search for the missing fragments of sculpture. The amount of missing carving is surprising, since the stela had merely fallen forward, apparently from natural causes. Most of the thin flaked-off fragments of the front and several of the interior pieces could not be refitted. Three large interior fragments fit together to extend the right-side reconstruction almost to the stela top, with only 2-3 cm of leeway in its fit with the rest of the carving. In the drawing the solid-line elements are on positively fitted fragments; the dotted-line profile of the face follows a rise from the smooth background; and the broken-line reconstructions are based on unfitted fragments and analogy with St. 22. A large central portion of the top had to be filled in with cement in the field; the curve used might be somewhat erroneous. Our reconstructed height of 3.18 m is probably a minimum figure.

Block A5 survives as a fitted fragment that indicates incidentally the extreme thinness of the missing fragments and, more importantly, proves the existence of the upper panel with glyph blocks of comparable size to those below. It also establishes the veracity of the (solid-line) bottom of the upper glyph panel which extends under two columns of glyphs. We have

reconstructed six rows in the upper panel as there does not seem to be room for more.

Few of the unfitted carved fragments are glyphic—evidently some selective factor operated in their disappearance. Miscellaneous Stone 65, which turned up in camp without provenience, is probably an additional fragment from this stela. Another piece showing the lower right raised border and feather ends was found reshaped for use as a corn-grinding metate in the occupation zone of the 18th and 19th century village about one km away. This was fitted to the monument and photographed in place.

Altar 9 rests on a plaster floor and apparently has not been disturbed. Its thickness and diameter combine to make it the largest of the Tikal altars, while the deep relief of the top carving adds to the impression of massiveness. The front-to-rear diameter is about 0.10 m shorter than that from side to side. A unique feature is the inset around the edge of the top. Although the carving has suffered extensive erosion and spalling, a few flaked-off fragments fitted well enough to be cemented back into position.

GLYPHIC IDENTIFICATION AND
DECIPHERMENT

Order of reading: stela, left-right and downward in double column; altar, across single row. Number of blocks: 12* + 10 + 5 = 27.* Number of glyphs: same.

Stela

- A1-A2 Date A, (9.15.5.0.0): 10 Ahau 8 Chen, 5 tuns (lost, reconstructed)
- B2-B6 Nine blocks presumably non-calendrical (lost except for head at A5b)
- A7-A8 Three non-calendrical blocks (TEG; 4 katuns, batab)
- B8-A9 DN: 12 (kins), 11 uinals, 1 tun (head-variant tun sign)
- B9-A10 Date B, (9.15.3.6.8): 3 Lamat 6 Pax (head-variant month sign)
- B10-B11 Three non-calendrical blocks (seating glyph at B10; batab head with *ti* prefix as a possible affix cluster at A11; scattering glyph at B11)

Altar

- A1-E1 Five non-calendrical blocks (nominal introductory glyph at A1, EG at E1)

*Reconstructed

TIKAL STELA 21: SUMMARY OF CHRONOLOGY

A1-A2	Date A	PE	(9.15. 5. 0. 0	10 Ahau 8 Chen, 5 tuns)
		DN	- 1.11.12	
B9-A10	Date B	CR	(9.15. 3. 6. 8)	3 Lamat 6 Pax

THE MONUMENTS AND INSCRIPTIONS OF TIKAL: THE CARVED MONUMENTS

COMMENT ON THE INSCRIPTION

We have changed the block designations originated by Berlin, retained and referred to in TR. 6(61). Berlin (1951:Fig. 21) numbered the rows of the lower panel as if either there were no upper one or the two were to be read independently of each other. The new labeling is in conformity with that of other similar Tikal monuments such as St. 19 and 22.

A CR date well preserved in the lower panel at A9-B10 reads 3 Lamat 6 Pax, with a head-variant Pax month sign. The equally unequivocal DN above this date is 12 kins, 11 uinals, and 1 tun, which counts backward to 10 Ahau 8 Chen. Assuming that an opening date has been lost from the upper panel and is a PE date as on the similar St. 19 and 22, there can be only one position for this within Baktuns 8, 9, and 10: 9.15.5.0.0. All doubt disappears when it is recalled that the 3 Lamat 6 Pax date is recorded on St. 5 and fixed to the 9.15.3.6.8 LC position by a DN and the PE 9.15.13.0.0. Moreover, the high degree of textual conformity among St. 19, 21, and 22 support this position strongly. When Berlin arrived at this reading, St. 22 had not yet been discovered; he rested his reading on the St. 5 connection, arguing that two records of the same non-tun-ending CR at one site must mark a single date even though the succeeding non-calendric glyphs are not identical.

An unfitted fragment (Fig. 31*b*,1) apparently shows a coefficient of at least two bars in front of a human profile head. While it could be interpreted as a profile Ahau head in a day-sign cartouche, Satterthwaite noted in the field that the fragment cannot fit in block A1 because of excessive thickness and is therefore not the opening SR date 10 Ahau. This is consistent with the expectation that the symbolic form of the Ahau day would be used at A1, as it is on other Late Classic stelae which open with the DD (St. 16, 19, 20, 22). The fragment probably comes from a non-calendrical portion of the text, farther down the upper panel.

We suggest that the lost PE statement was "5 tuns" rather than "5 haab," since the nearby Temple of the Inscriptions roofcomb text used the notation "15 tuns" rather than "5 haab lacking" (Jones 1977:Fig. 19). The "end haab" glyph appears in katun-ending PEs on St. 22 and possibly on 19 and 20, and in the facade text it appears with baktun- and katun-ending dates but not with the 15-tun ending. It therefore might be confined in this period to katun-ending PEs.

Stela 21 has been identified as the inaugural monument of Ruler B (Jones 1977:34-35). By analogy with St. 22, the inaugural stela of his successor, the name of

Ruler B should have appeared together with that of Ruler A in the upper panel and in the first blocks of the lower one. If so, then the TEG and 4 batab katun statement in blocks A7-A8 should refer to Ruler A rather than to Ruler B. Subsequent usage of the 4 batab katun statement in posthumous reference to Ruler A on other monuments (St. 5, Li. 3 of Temple IV) confirms this.

The DD of the facade text on the temple behind St. 21 reads 9.16.15.0.0 (Berlin 1951; Satterthwaite and Jones 1965; Jones 1977:53). This is 30 tuns later than the DD of the stela. Possibly the stela was erected on the axis of the anticipated temple, or on the axis of an earlier one yet to be discovered. On the other hand, a plaster floor under the roofcomb and the filling of the building's rear room indicate that the stela and temple might be contemporary and the roofcomb and text added later (TR. 23B).

The top of Alt. 9 is deeply carved with a figure lying flat on his chest, his arms extended onto his back as if his hands were tied. This is the first of the Late Classic series of bound-prisoner motifs, seen on earlier Tikal stelae (10, 28, 33) and continued on later monuments (Alt. 6, 8, 10, St. 5, Col. Alt. 1, 2, 3). A horizontal panel above the figure contains space for five glyph blocks, the first and last two of which are partially preserved. The first is the jog or rodent glyph thought to introduce names or events, while the last has the *ben-ich* superfix and dotted prefix of emblem glyphs. Its eroded main sign shows the same outline and mouth as the emblem glyph of an unknown site that appears on Li. 3 of Tikal Temple I (block B5) and as one of four on Copan St. A (9.15.0.0.0). The site in question may be Calakmul (Marcus 1976:51-53; J. Miller 1974:160) or Piedras Negras. Both the first and last glyphs thus suggest the presence of the name of the figure, possibly identifying him as a conquered ruler of that other site.

TIKAL STELA 22 / ALTAR 10

ILLUSTRATIONS: Figs. 33,34a-b (drawings); Figs. 98,99a-c (photographs). **LOCATION:** Twin Pyramid Gp. 4E-4 (Complex Q of TR. 11) within Str. 4E-39, the enclosure; stela/altar pair in place on N-S axis; altar in front of stela (TR. 18). **DEDICATORY DATE:** 9.17.0.0.0 13 Ahau 18 Cumku (PE). **STYLE DATE:** 9.16.0.0.0 ± 2 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** *stela* front (glyphic); Class 1 (Morley Class 7); *altar* top, periphery. **NUMBER OF GLYPHS:** *stela* 24. **MATERIAL:** limestone, bedded. **DIMENSIONS:** *stela* H 2.84 m, W

TIKAL STELAE AND STELA/ALTAR PAIRS

1.16 m, T 0.54 m, HA 2.04 m, relief 2.2 cm (front); *altar* Diam 1.27 m, T 0.50 m, relief 1.5 cm. **PHOTOGRAPHS:** *stela*: Satterthwaite 1956a:Fig. 29-34; TR. 4:Fig. 25 (glyph panels only); Coe 1965b:48 (oblique); 1967:35 (oblique), 88 (glyph panels only); Greene, Rands, and Graham 1972:Pl. 128 (rubbing); *altar*: Satterthwaite 1956a:Fig. 29-31; Coe 1965b:48 (partial, of periphery). **DRAWINGS:** *stela*: Jones 1977:Fig. 3. **REFERENCES:** Satterthwaite 1956a:25-40; TR. 4:103-6, 116-26; Jones 1969:27, 116-17; Coggins 1975:Tables 4, 6; Kelley 1976:231; Jones 1977:34-35, 53-56.

GENERAL REMARKS

Stela 22 and Alt. 10 were the first new monuments discovered by the Tikal Project. They were illustrated and described in a paper by Satterthwaite (1956a) and more formally in TR. 4. The stela was standing erect in the center of the enclosure of Twin Pyramid Gp. 4E-4 with the altar directly in front of it, oriented to be viewed from the south as are other such stela/altar pairs. The altar periphery is carved as though encircled by a thick double rope and is approximately quartered by four repeated units, each composed of a mat design and a panel depicting a bound figure. Seated with arms bound behind them, the figures resemble those on Tikal Col. Alt. 1, 2, and 3, as well as Jimbal Alt. 1 (Fig. 79a). The vertical axis of the altar-top composition approximately bisects the panel labeled *1b* in our drawing (although it fails to do so exactly by 0.10 m). On the altar top another bound figure is shown belly down (cf. Alt. 6, 8, and 9). In this

scene, as on the eroded but similar top of Alt. 6, the figure seems to lie upon a framework of poles or spears, perhaps a carrying frame. The framework and figure are in turn on top of a quatrefoil shield-like design with feather or petal fringe.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in double column, upper panel to lower panel. Number of blocks: 12 + 12 = 24. Number of glyphs: same.

Upper panel

A1-B1 Date A, (9.17.0.0.0): 13 Ahau 18 Cumku (details of month sign gone)
 A2 17th katun (bracket prefix)
 B2 Haab completed (cauac sign, hand, wing)
 A3-B6 Eight non-calendrical blocks (Ruler C name at A3-B3; TEG at A4; 29th ruler at A5-B5; male-parent glyph at B6)

Lower panel

A7-A9 Five non-calendrical blocks (Ruler B name at A7; TEG at A8; 4 batab katuns at B8-A9)
 B9-A10 DN: 16 (kins); moon-with-enclosed-dot for 1 uinal; 2 tuns (tun sign is head variant; note distance number postfixes)
 B10-A11 Date B, (9.16.17.16.4): 11 Kan 12 Kayab
 B11-B12 Three non-calendrical blocks (seating glyph at B11; batab with *ti* locative prefix at A12; scattering glyph at B12)

TIKAL STELA 22: SUMMARY OF CHRONOLOGY

A1-B1	Date A	PE	(9.17. 0. 0. 0)	13 Ahau 18 Cumku
A2-B2				17th katun, haab completed
B9-A10		DN	- 2. 1.16	
B10-A11	Date B		(9.16.17.16. 4)	11 Kan 12 Kayab

COMMENT ON THE INSCRIPTION

For the most part, the text of St. 22 is free from erosion and completely legible; its completeness aids considerably in the decipherment of the inscriptions on the similarly patterned St. 19 and 21. The CR 13 Ahau 18 Cumku is clear at A1-B1, although details of the month sign are eroded. Following at A2 is 17 katuns and at B2 the cauac-and-hand PE sign. Near the end of the text the DN of 2.1.16 is also unambigu-

ous, as long as one recognizes that the moon-with-enclosed dot at B9 stands for 1 uinal, as Thompson has documented (1950:167). Although Thompson noted that the moon sign did not occur in DNs of more than 39 days, this Tikal example would be a logical extension of the usage. Finally the second date (B10-A11) is 11 Kan 12 Kayab, which at 9.16.17.16.4 is the stated number of days back from Date A.

At B11-A12 is the seating glyph followed by a batab head with a *ti* prefix. This phrase signals the inaugura-

tion at Date B of a new Tikal ruler, Ruler C (Jones 1977:34-35). The principal name glyph of this personage is probably at B3, a peccary head with prefix that recalls and perhaps repeats the name of the earlier Tikal ruler Kan Boar (on St. 9 and others). The TEG follows immediately.

A moon-with-enclosed-dot glyph with coefficient 9 precedes the *hel* compound at A5-B5. As we have mentioned, Riese (1979) suggested that this phrase and other similar ones record a numbered succession at Tikal, with Ruler C being the 29th ruler in the succession. Other numbered *hel* phrases appear on St. 3, 5, 17, and 31. In TR. 4 (104-5) this same 9 moon-with-enclosed-dot was offered tentatively as an abbreviated lunar count of 29 days, which agrees almost perfectly with the calculated arbitrary moon age of 29.49 days at 9.17.0.0.0. One problem with this hypothesis, however, is that the similarly phrased count of 27 *hel* after Date A on St. 5 does not come close to matching the arbitrary moon age of 8.14 days at 9.15.3.6.8.

At B6 is the decorated ahau glyph, the male-parent indicator postulated as such by Jones (1977) and Schele, Mathews, and Lounsbury (1977). Following it at A7 is the name glyph of Ruler B as father, a TEG, and 4 *batab katuns* signifying that he attained the age of 60 years. It seems worth noting that almost all the glyphs in this long text are now understood, and that they predominantly refer to the ruler.

TIKAL STELA 23

ILLUSTRATIONS: Figs. 35a-c, 36a-b (drawings). **LOCATION:** reset axially in front of Str. 7F-30; no paired altar; Ca. 1 (TR. 2, 22). **DEDICATORY DATE:** 9.4.3.0.0? (after 9.3.16.8.4). **STYLE DATE:** 9.6.0.0.0 ± 4 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front, left, right, back (glyphic); Class 4 (Morley Class 6). **NUMBER OF GLYPHS:** 24.* **MATERIAL:** limestone, compact. **DIMENSIONS:** H unknown, W 0.75 m, T 0.42 m, HA 1.33 m,* relief 8 cm (front), 2 cm (sides). **PHOTOGRAPHS:** TR. 2: Figs. 4, 7; TR. 4: Figs. 20a-c, 21a. **DRAWINGS:** TR. 2: Figs. 1-3 (plan and section of locus); TR. 4: Figs. 20d-f, 21b; Kelley 1976: Fig. 79(C4). **REFERENCES:** TR. 1: 13, 16-20; TR. 2: 27-60; TR. 3: 71-76; TR. 4: 107-11, 116-35; Proskouriakoff 1961b: 98; Lowe 1966: 463 (1965 excavations); J. Graham 1972: 112-13; Bailey 1972: 153-62; Coggins 1975: 218-22, 255-57, Tables 3, 4; Kelley 1976: 231; Marcus 1976: 158; Haviland 1977: 61-66.

*Reconstructed

GENERAL REMARKS

Stela 23, discovered in late 1956, consists at present of a large upper fragment and nine small carved pieces. In addition, MS. 133, 134, 145, and 147 might pertain to the monument as well. Excavation of the stela, Ca. 1, and the area immediately surrounding the stone was published as TR. 2. The chronology is discussed in TR. 4, and the later excavations of Gp. 7F-1 described in TR. 22. Coggins (1975) and Haviland (1977) deal with the dynastic implications of the stela's carving and its remote yet formalized setting within this group.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward by rows of three. Number of blocks: 24.* Number of glyphs: same.

Back	
A1	ISIG (eroded, partly missing, variable gone)
B1-C1	9 baktuns, 3 katuns (head variants)
A2	9 tuns (head variant; coefficient is one bar with available space for dots)
B2	13 uinals (head variant; coefficient is two bars and two dots, with available space for third dot)
C2	3 kins (head variant; coefficient is two dots, with available space for third dot)
A3	Date A, 9.3.9.13.3: 8, day sign (faint traces of incised detail make Akbal preferred reading)
B3	6, Glyph D (by position; unusual form with shell? instead of hand)
C3	2, Glyph C
A4	11, month sign (all traces of incised detail lost; restored as 11 Mol)
B4-C4	Two non-calendrical glyphs (initial glyph at B4, Woman of Tikal name at C4)
A5-B5	DN: 1 (kin), 13 uinals, 6 tuns (no DNIG; kin coefficient is thumb; trace of incised detail of symbolic uinal sign, none of tun sign; "horseshoe" border of latter extends to bottom of glyph)
C5-A6	Date B, (9.3.16.8.4): 11 Kan 17 Pop (upper filler of coefficient of Kan is cross-hatched; lower one has incised circlet and half-circle of dots)
B6	Non-calendrical glyph (bottom missing)
C6	Glyph with coefficient of 15 or more (all but top missing; kin term of DN, presumably, with kin term not suppressed)
A7-C8	Six missing blocks? (room for DD)

*Reconstructed

TIKAL STELA 23: SUMMARY OF CHRONOLOGY

A1-A4	Date A	IS	9. 3. 9.13. 3	8 Akbal, MA 6, MN 2, 11 Mol
A5-B5		DN	+ 6.13. 1	
C5-A6	Date B		(9. 3.16. 8. 4)	11 Kan 17 Pop
C6-?		DN?		
A7-C8 (missing)		DD?		

COMMENT ON THE INSCRIPTION

The present drawing is slightly revised from that published in TR. 4. Besides adding and changing much interior detail, we reconstruct missing glyphs on the back as well as lower limbs on the sides. These changes, however, have not contradicted the TR. 4 chronology or the eight-row reconstruction. The following discussion touches only upon the major points of decipherment, without repeating their arguments at length.

The unusual order of reading across all three columns is amply established by the position of the SR at A3 after five IS coefficients. It is reconfirmed further on in the text by the VYr of Date B at A6, which thus directly follows the SR at C5.

As demonstrated in TR. 4 (108-11), the DN at A5-B5 must count forward from a CR with coefficients 8 and 11 (at A3 and A4) to 11 Kan 17 Pop at C5-A6 even if one allows for the possibility of dot-shaped fillers in its uinal coefficient. The required 8 Akbal 11 Mol also falls on the best reading of the IS coefficients, that is, at 9.3.9.13.3. The rounded VYr glyph at A4 can be Mol, even though its unusual L-shaped triple superfix is not expected, and the standard Mol circlets are not visible within the main sign cartouche.

Glyph D at block B3 records a moon age of 6, which coincides with the arbitrary average age of 6.25 days for 9.3.9.13.3. The moon number 2 in block C3, along with those on St. 12 and 17, have been cited as evidence that Tikal utilized the Uniformity System of counting lunations long before it was generally adopted by other Maya sites (Satterthwaite 1959; TR. 4:132-33). From the non-calendric evidence discussed below, it seems clear that St. 23 was carved several years after the initial date in the opening IS. Assuming that the monument dates from about the same time as St. 25 at 9.4.3.0.0 and at least before St. 12 at 9.4.13.0.0, it probably states the earliest Uniformity System moon number at Tikal. Stela 3 at 9.2.13.0.0 and St. 6 at 9.4.0.0.0 record non-Uniformity numbers, so the transition at Tikal seems to have taken place

between 9.4.0.0.0 and 9.4.13.0.0, possibly at the 9.4.3.0.0 date itself, which happens to be almost precisely at a zero moon age (TR. 4:115).

The last surviving block of the text (C6) seems to carry a three-bar prefixed coefficient. In TR. 4 it is suggested that this might record the 16 kins of a DN which would carry the chronology forward from Date B at 9.3.16.8.4 to a period-ending DD. Presence of a kin glyph in a DN is rare for Tikal but has a local early precedent in St. 31 (DN 5). The space limitations for this DN were thought to rule out a katun term and consequently limit the lost Date C to a position before 9.4.16.0.0. However, this cannot be a certainty and we would rather not thus confine the DD possibilities by this principle. Proskouriakoff (personal communication 1969) supplied style date limits of 9.6.0.0.0 ± 4 katuns. In addition, she noted her earlier identification of the up-ended frog "birth" glyph at B4(1960:469) and the female name glyph at C4 (1961b:Fig. 7) as evidence that Date A referred back in time to the birth of a woman and that the stela was therefore probably carved anywhere from one to three katuns after 9.3.9.13.3 (i.e., between 9.4.9.13.3 and 9.7.9.13.3). Coggins (1975:218-19) considered the figure on the stela front a woman because of the shell necklace and female name (although a shell necklace is worn by Curl Nose on St. 4). Marcus (1976:158) agreed and pointed out that the 9.4.16.0.0 limit in TR. 4 is too early, if, as Coggins had suggested, the woman's grown son is portrayed on the stela side. She postulated a DD of around 9.5.10.0.0.

The dynastic sequence is still sketchy for this period, and we cannot determine the DD exactly by estimating an age in years between the birth at Date A and the DD. Nevertheless, St. 23 is linked by composition to St. 25, with its firm DD of 9.4.3.0.0, and probably precedes St. 12 and its likely twin St. 10 at 9.4.13.0.0. All four monuments are Class 4, and each pair has a strong unity in style and design that supports the idea of their having been dedicated as pairs at two proximate period endings. For this reason, a DD of 9.4.3.0.0 is a likely possibility.

TIKAL STELA 24 / ALTAR 7

ILLUSTRATIONS: Figs. 37a,b,38a-c,39,40a,b,41a,b (drawings); Fig. 100a-d (photographs). **LOCATION:** Str. 5D-3 (Temple III) on axis of stairway; altar moved SE from axial position; Ca. 123 (TR. 23B). **DEDICATORY DATE:** 9.19.0.0.0 9 Ahau 18 Mol (PE). **STYLE DATE:** 9.19.0.0.0 ± 6 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** *stela* front, left, right (all glyphic); Class 3 (Morley Class 3); *altar* top (glyphic), periphery. **NUMBER OF GLYPHS:** *stela* 136;* *altar* 48;* total 184.* **MATERIAL:** limestone, bedded. **DIMENSIONS:** *stela* H 2.70 m, W 1.16 m, T 0.64 m, HA 1.86 m, relief 2.7 cm (front), 0.7 cm (sides); *altar* Diam 1.13 m, H 0.64 m. **PHOTOGRAPHS:** *stela*: TR. 4:Fig. 26; *altar*: Morley 1937-38, V:Pl. 71g. **DRAWINGS:** none published. **REFERENCES:** Morley 1937-38, I:273, 373-74; TR. 1:16; TR. 4:111-12, 116-26; Coe 1963b:54-55; Jones 1977:56.

*Reconstructed

GENERAL REMARKS

Altar 7 was discovered in 1928 by the Carnegie Institution of Washington in front of the stairway of Temple III. The broken stela lying behind the altar was considered plain until Shook in 1957 noticed traces of glyphs on the sides. Investigation by Satterthwaite and Coe that year established the existence of additional glyphs on both stela sides and of glyphic fragments presumably from the front of the monument, as well as of a human figure only hinted at by a foot fragment (TR. 4:111-12). In 1962 Jones's more intensive excavation around the monuments disclosed a substela cache (Ca. 123), four columns of glyphs on the right side, toes of a second foot for the front figure (Fig. 39,35), and glyphic fragments which carry the DD of 9.19.0.0.0. Much of the front carving is missing, a loss that involves sizable masses of stone and suggests human activity such as appropriation of fragments for grinding stones (an apparent cause of damage to St. 6 and 21 as well).

Altar 7 is also badly fractured, with many glyph blocks lost. Its shape is almost perfectly circular rather than oval like Alt. 14. Glyphic borders like those of Alt. 5 and 14 encircle the top, while the quartered periphery design is like the more closely contemporary Alt. 6 and 10.

Miscellaneous Stone 77, which derives from a midden-like deposit (PD. 121) in the nearby Str. 5D-75, is probably a rim fragment of the altar, and MS. 76, a plain piece of similar composition and from the

same deposit, might be from the monument as well. Deposition in the midden implies breakup by the time of the Eznab Ceramic Complex (TR. 23E).

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: *stela* probably left side, right side, front, in double column; *altar* circularly in single rows, starting point unknown. Number of blocks on stela and altar: 56* + 64* + 6* + 10 + 27* + 21* = 184.* Number of glyphs: same.

Stela, left side

A1	ISIG (month patron variable eroded)
B1	9 baktuns (coefficient 9 or 14)
A2	17 katuns (three bars and central crescent certain, main sign a good katun bird head)
B2	1, 6, 11, or 16 tuns
A3	0 or 2 uinals (2 is preferred, main sign a possible uinal frog head)
B3	kins (0 kins preferred, but anything possible)
A4	Date A, 9.17.???: SR (coefficient 1 with centipede affix, day sign eroded)
B4	Glyph G or VYr
A5	Glyph G or F (superfix of G2, G3, G8, G9 or F; other elements suitable for G3, G9 or F)
B5-A13	Sixteen lost or badly damaged glyphs
B13-B14	Three non-calendrical glyphs (two in Fig. 39,3)
C1-D12	Twenty-four non-calendrical glyphs (Dark Sun name and TEG in D10 and D11, Fig. 39,29 left)
C13-C14	DN 1: introductory glyph at C13; 1 (kin), 10 uinals, 11 tuns (all coefficients clear, Fig. 39,3 and 5)
D14	One lost glyph (either katun, or posterior or anterior date indicator)

Right side

E1-F1	Date B: CR (SR coefficient lost, car-touche and base visible, VYr 19 Yax)
E2-F12	Twenty-two lost glyphs
E13-E14	Three non-calendrical glyphs
F14-F15	DN 2: kins, 11 uinals, 6-10 tuns (introductory glyph subfix at F14; kin coefficient unfamiliar, possibly zero; tun coefficient one bar plus dots or second bar)
E16	Non-calendrical block (up-ended frog, "since birth?")
F16	Posterior date indicator

TIKAL STELAE AND STELA/ALTAR PAIRS

G1-H1	Date C?: CR? (terminal date of DN 2; coefficient 5 or 10 at G1; main sign at H1 (Fig. 39,4) is cauc head as in Yax month at F1, but with unexpected <i>ben-ich</i> superfix)	yB2-yB3	Three blocks lost, except possible 19 katun (Fig. 39,9) and top of yA3 (Fig. 39,1)
G2-H14	Twenty-six lost blocks	zA1-zB5	Ten non-calendrical blocks (TEG implying continuation from upper panel; Dark Sun name at zB2; 12 or 13 tuns; TEG; deity pair as at G16-H16)
G15-H16	Four non-calendrical blocks (deity pair at G16-H16 similar to zA4-zB5)		
Front			
yA1-yA2	Date D, (9.19.0.0.0): 9 Ahau 18 Mol, 19 katuns (SR at yA1, cartouche and supports, numerical bar and room for dots or second bar; VYr at yB1, Mol main sign and three numerical bars and upper dot for 17, 18, or 19; 19 katuns certain at yA2)	Altar 1-27	Twenty-seven blocks? (none identified as calendrical)
		1'-21'	Twenty-one blocks? (none identified as calendrical)
			*Reconstructed

TIKAL STELA 24: SUMMARY OF CHRONOLOGY

A1-A5	Date A	IS	9.17. ? . ? . ?	ISIG, 9 baktuns, 17 katuns, 1, 6, 11, or 16 tuns; 0 or 2 uinals; ? kins; SR (1); Glyph G or VYr; Glyph F or G.
D13-C14		DN 1	<u>+ 11.10. 1</u>	(on fragments, Fig. 39, 3 and 5)
E1-F1	Date B	CR		SR, 19 Yax
E15-F15		DN 2	<u>+ 6-10.11. 0?</u>	
G1-H1?	Date C?	CR?		(VYr? on fragment, Fig. 39, 4)
yA1-yA2	Date D	PE	9.19. 0. 0. 0	9Ahau 18 Mol, 19 katuns

COMMENT ON THE INSCRIPTION

Even though large portions of the side texts are lost, fitting together of the large upper and lower stela pieces gave the total panel height for the right side. The row heights at the bottom of this side are smaller than at the top. For our reconstruction of 16 rows of glyphs, we have assumed the lesser height for the missing rows, but it is possible that they were larger and that there were only 14 or 15 rows. On the left side traces of glyphs appear down to row 10, so if one assumes that the side panel bases were even, there must have been 14 rows. The plain areas beside the glyph columns appear clearly on the left side and on a fragment of the right side (Fig. 39,4).

Although our drawing (Fig. 37) does not show them, several glyph blocks on unfitted fragments (Fig. 39,3-5,29 left) can be positioned with some precision within the columns of the stela sides. These blocks supply important information and are discussed at their appropriate places in the text.

Much of the front figure has been reconstructed in broken line, utilizing elements seen on unfitted fragments. Two text fragments that made a tenuous fit in the laboratory (Fig. 39,29,30) form a single panel of glyphs smaller than those on the sides (Fig. 38c). It is positioned securely at the lower left front by droplets or seeds just above it that resemble those falling from the hands of "scattering" or "corn-sowing" figures on other Tikal stelae. Five rows are probable for this panel, since three of the last four glyphs are similar to the final three of columns G and H, and there is no space for an additional row above the figure's sandal tassel. Two other fragments with glyphs of comparable size to those on the sides (Fig. 39,1,2) probably come instead—as bedding planes indicate—from a panel at the upper left front (Fig. 38b). Calendrics specify only two columns. Without space for more than three rows, our drawing therefore shows a panel of six blocks, completing St. 24's reconstructed total of 136.

The double circle of glyphs bordering Alt. 7 forms

two separate and independent series of blocks that are not arranged to be read two by two. We have labeled the blocks 1 to 27 and 1' to 21' to distinguish one series from the other. (The starting points of our numbering system were picked arbitrarily on the basis of selective preservation.) The total of 48 blocks is probably fairly accurate. In Fig. 41a are illustrated four fragments that surely derive from the altar periphery and in 41b those additional fragments that might come from either monument.

The left side of the stela text opens with an ISIG and full IS date. Although the ISIG (block A1) is eroded, it retains traces of the tripod base and the oval outline of the tun sign with horizontal interior markings. Weathering has eradicated the upper part, including the ISIG variable for the month. The bak-tun coefficient is 9, although there is a trace of what might appear to be a second bar for 14. The katun coefficient is almost certainly 17, with a middle crescent filler; the main sign is a head suitable for the katun. Two crescents and a dot for the tun coefficient are visible in block B2, allowing equal possibilities for 1, 6, 11, or 16. At A3, a glyph vaguely suitable for the uinal frog head carries a coefficient that has a clear center crescent and must be either 0 or 2. The kins coefficient at B3, though eroded enough to be anything, reads best as a zero sign. At A4 is the SR day, with cartouche and pedestal but no remnants of interior detail; the coefficient is 1, with a centipede prefix at upper left. A straight-line edge to the upper left margin of block B4 suggests a coefficient 5, 10, or 15, but this need not be trusted. If block A5 is Glyph F, as we suspect, then B4 might be Glyph G. On the other hand, if A5 is itself Glyph G (resembling G3 or G9), then B4 would probably be the VYr date. The glyphs that follow A5 are too eroded to help decide whether or not a LS follows the IS.

The controls narrow the possibilities for Date A to the following:

9.17.1.0.5	1 Chicchan 18 Cumku
9.17.1.0.18	1 Etnab 6 Pop
9.17.1.2.4	1 Kan 12 Uo
9.17.6.0.12	1 Eb 0 Cumku
9.17.6.2.11	1 Chuen 14 Pop
9.17.11.0.6	1 Cimi 9 Pax
9.17.11.0.19	1 Cauac 2 Kayab
9.17.11.2.5	1 Chicchan 8 Cumku
9.17.16.0.0	1 Ahau 18 Kankin
9.17.16.0.13	1 Ben 11 Muan
9.17.16.2.12	1 Eb 10 Kayab

Although the 1 Ahau position is a period end, the Tun 16 end is rarely observed in Maya texts, and the DD of

St. 24 is recorded on the stela front as 9.19.0.0.0. A non-period-ending historical date (birth or inaugural?) would be more likely for Date A, especially as it falls more than twenty years earlier than the DD. Two uinals is preferable to zero, but out of those four choices we see no favorite.

Two fragments (Fig. 39,3,5) preserve evidence for a DN at the bottom of columns C and D. The first shows by a plain background space below the glyphs that it comes from the bottom of the left side. Its lower right block has a coefficient 11 and a probable tun sign. The other has background space to the right of its glyph and a surface curvature that places it at the right edge of the stela's left side. Coefficients 1 and 10 on the front and top of the main sign, plus the DN suffix, are characteristics of DNs. The evidence thus suggests that these fragments contain the parts of a single DN at the base of the columns, blocks D13-C14, stated in the usual reversed order as 1 kin, 10 uinals, 11 tuns. Support for the reconstruction is added by the glyph at C13 above the tun record (Fig. 39,3), which carries the u-bracket and the proper main sign and suffix outlines for the DN introducing glyph, the *hel* compound at C13. The DN may have had a katun term at D14, the last block of the panel, but the presence of a posterior or anterior date indicator is more likely.

On the basis of the stela-front carving on another fragment (Fig. 39,29 left), we can securely position three other glyphs on that fragment within column D, probably at D9, D10, and D11. The middle block of the three shows crosshatching and a postfix of tiny crescents; the third has a *ben-ich* superfix and a "water" prefix with an infixed inverted ahau sign. These signs are duplicated in blocks zB2 and zB3 of the lower front glyph panel (Fig. 38c,39,30), where it is clear that the lower glyph is the TEG compound. The same two-glyph combination appears a third time on a fragment from an unknown place on one of the stela sides (Fig. 39,13). The consistent association of the crosshatched glyph with the TEG suggests that it is the name of a Tikal ruler, whom we label Dark Sun on the basis of the crosshatching and infixed dot. The frequent occurrence of the name on St. 24 might suggest that Dark Sun is the figure on the stela front. There is, however, another interpretation. The pattern on two preceding stelae (22 and 19) is to name the present ruler first, with TEG, then almost immediately give the name of his father, also with TEG. If this pattern was followed here, the crosshatched name should be that of the father instead.

On the right side of the stela the text begins with a

CR date, of which only a portion of the SR cartouche and base and the VYr date 19 Yax survives. Since we are confident that the text opens with the IS on the left side and that DN 1 closes that side text, it is probable that this Date B is the terminal date for the DN. The supposition cannot be proven by the count of days, however, for the DN of 11.10.1 counts backward from 19 Yax to 13 Mac and forward to 5 Cumku, neither of which is represented in the list of Date A possibilities above. Either (1) a Maya mistake is involved, (2) we have misread the limitations for Date A, or (3) an intermediate date was lost between Date A and the DN.

At the base of columns E and F a second DN is preserved at E15-F15. Above the uinal sign is the coefficient 11 and beside it a prefix which is not a recognized coefficient or variant. The tun coefficient is largely missing but seems limited to a number greater than 5 and less than 11, that is 6 to 10. No DN combinations within the inspectional limits can be used to count from the 19 Yax of Date B to the 18 Mol of the DD on the stela front, so we suggest that DN 2 counts forward to a lost date in columns G and H. An up-ended frog glyph at E16 might signify that the DN counts from a birth date.

Top and right-side background margins make it clear that yet another fragment (Fig. 39,4) can be positioned at the top of column H on the right side. The main sign of block H1 is a head with cauc markings almost exactly like that of the Yax month sign at F1. Here, however, a *ben-ich* superfix prevents us from identifying the glyph as a VYr sign.

At the base of columns G and H are four non-calendrical glyphs. The last two are deity heads, preceded at H15 by a complex sign resembling zA4 of the lower front panel. Together the three blocks seem to duplicate the three preserved at the bottom of the front panel after the name glyph of Dark Sun and TEG. The unfitted fragment that also bears his nominal glyphs (Fig. 39,13) might supply the missing name above the four final blocks in columns G and H.

The front text of the stela probably begins on an upper panel (Fig. 38b) with the date 9 Ahau 18 Mol, 19 katuns. The evidence exists on two pieces (Fig. 39,1,2) which do not fit together without question but whose diagonally sloping bedding planes meet each other perfectly. These planes also make it clear that the pieces belong to the stela front rather than to the sides. The 19 katuns, the VYr sign Mol, and the upper dot and three bars of the VYr coefficient are unmistakable. The Ahau main sign and the dots of the coefficient are eroded away, but the combination of

katun and VYr coefficients plus the Mol sign do not allow any other position for the date. As a DD opening the upper panel on the stela front, this date would conform to a long-established opening PE pattern at Tikal beginning with St. 16 at 9.14.0.0 and continuing with St. 21, 20, 22, and 19. In this case, however, additional chronological statements are made on the stela sides. The combination of front PE and side IS would appear to make the front and side texts independent and separate, without a necessary order of reading between them. A parallel situation might exist between the side and front texts of St. 5, although there is no chronology on the front to demonstrate it. A small fragment (Fig. 39,9) shows part of a hand "ending" sign in front of a coefficient which can be restored as 4, 9, 14, or 19. This might be a second PE reference to the end of Katun 19 and belong on the upper front panel.

The lower front panel of glyphs is made up from two fragments (Fig. 39,29 right,30) that go together with a semi-secure physical fit to form a single panel (Fig. 38c). It begins with a TEG, which implies a lost nominal glyph at the end of the upper panel. Following at zB2 is the crosshatched Dark Sun glyph, 12 tuns with a water prefix, and the second TEG. The tun entry is of unknown meaning.

As mentioned earlier, the three that remain of the final four blocks share major elements with the final three blocks of the right side text. They might be titles associated with the ruler's name. The set of two deity heads also occurs after the TEG on Ixlu Alt. 1 at 10.2.0.0.0 (Fig. 81c:D3-C4), and on Jimbal St. 2 at 10.3.0.0.0 (Fig. 79b:A5-B5). On Jimbal St. 1 at 10.2.10.0.0 these heads occur as probable name glyphs for the two deity figures that float above the head of the central figure, one with a jaguar ear and the other with an up-curved headdress (Fig. 78:wA2, xA2). Thus the heads appear to be representations of a widespread late Late Classic motif, perhaps connecting the ruler with deity or ancestor figures.

TIKAL STELA 25

ILLUSTRATIONS: Figs. 42a-c,43a-c (drawings); Fig. 101a (photograph). **LOCATION:** on surface near Str. 7F-85 and 7F-86 (TR. 3, 8, 11, 20). **DEDICATORY DATE:** 9.4.3.0.0 1 Ahau 3 Yax (IS). **STYLE DATE:** 9.7.0.0.0 \pm 4 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front, left (glyphic), right (glyphic), back (glyphic); Class 4 (Morley Class 6). **NUMBER OF GLYPHS:** 94.* **MATERIAL:** limestone, compact. **DIMENSIONS:** surviving H

THE MONUMENTS AND INSCRIPTIONS OF TIKAL: THE CARVED MONUMENTS

1.12 m, W 0.70 m, T 0.35 m (corrected from TR. 4), HA 1.56 m,* relief 5.0 cm (front), 2.0 cm (sides). **PHOTOGRAPHS:** Shook 1957:Fig. 31; TR. 4:Figs. 22a-c,23a,c; Greene, Rands, and Graham 1972:Pl. 129 (rubbing, left side). **DRAWINGS:** TR. 4:Figs. 22d-h,23b. **REFERENCES:** Shook 1957:45; TR. 1:13, 17; TR. 3:71-76, 82; TR. 4:113-33; Satterthwaite 1959:209; TR. 8:161-62; Bailey 1972:153-62; Coggins 1975:214-22, Tables 3, 4; Haviland 1977:61-66.

*Reconstructed

GENERAL REMARKS

The discovery and excavation of this surviving upper fragment of St. 25 have been described by Shook (1957), who found it lying face down in no apparent orientation to nearby mounds; Broman's later excavation did not reveal a stela pit or cache (TR. 3, 8, and 20). Broken and badly damaged by flaking, the stone may have been intentionally mutilated as well. Certainly one can say that it was reshaped and smoothed by grinding, a process which resulted in the loss of much of the main text in the center of the back, where hollowed-out portions might suggest secondary use as an altar. In discussing the lower fragment designated St. 14, we question whether it and this upper fragment called St. 25 are in fact parts of the same monument. Despite similarity in dimensions, style, and epigraphy, we are still obliged to leave the question open. Another possible fragment of St. 25 is listed as MS. 147.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right in double column; main inscription opens on back; side panels possibly independent. Number of blocks: 80* + 8 + 6 = 94.* Number of glyphs: same.

Back

- A1 ISIG (variable is complete Venus sign for patron of month Yax)
- B1-B3 9 baktuns, 4 katuns, 3 tuns, 0 uinals, 0 kins (head-variant period glyphs)
- A4 Date A, 9.4.3.0.0: 1 Ahau (day sign eroded but must be Ahau with 0 kins)
- B4 Glyph G9 (eroded and partly missing, but identifiable by outline form)
- A5 Glyph E variant without coefficient?
- B5 Glyph D without coefficient? (0 moon age?)
- A6-B14 Eighteen missing or illegible blocks
- B15-? Other missing blocks (estimated maximum is twelve)
- C1-C2 Three non-calendrical blocks
- D2 DN?:5 kins and 3 uinals? (details of possible uinal sign lost; note postfix and subfix; latter is T130, neither the usual DN postfix nor the variant used on St. 23)
- C3 Double cauac sign with yax prefix and ISIG superfix (indicating "end 3 tuns?" as on Li. 3 of Temple I)
- D3 Non-calendrical block
- C4 8, moon-with-enclosed-dot
- D4-D14 Twenty-one blocks, destroyed or largely illegible
- C15-? Other missing blocks? (estimated maximum is twelve)
- Right side
- E1-F1 Date B?: CR (coefficients 5 and 8, details of glyphs lost)
- E2-F4 Six non-calendrical blocks (father glyph? at F3, Kan Boar name at E4, TEG? at F4)
- Left side
- G1-H3 Six non-calendrical blocks (if figure is female, there should be a woman's name in this panel)

*Reconstructed

TIKAL STELA 25: SUMMARY OF CHRONOLOGY

A1-B5	Date A	IS	9.4.3.0.0	1 Ahau, G9, MA 0?
A6				Remainder of LS and 3 Yax?
D2		DN?		Possible DN of 3.5
E1-F1	Date B			Probable CR, coefficients 5 and 7

COMMENT ON THE INSCRIPTION

The IS of St. 25 was read as 9.4.3.0.0 1 Ahau 3 Yax without question mark (TR. 4). Because such third-

tun DDs are rare, the evidence is reviewed here in the light of revised drawings and new non-chronological information. The ISIG in the opening block carries a clear Venus sign for the month Yax. The baktun

coefficient is 9 and the katun 3 or 4; the tun coefficient at B2 shows traces of three dots with no bars; uinals and kins coefficients of zero at A3 and B3 leave no doubt of a period-ending date. The SR day sign is eroded but, with zero kins, must be Ahau; its coefficient is 1. Glyph G9, appropriate with PEs, is unmistakable in outline at B4. Even without knowing the tun coefficient or the ISIG variable, we are left with only three possibilities in Katuns 3 and 4:

9.3.10.0.0	1 Ahau 8 Mac
9.4.3.0.0	1 Ahau 3 Yax
9.4.16.0.0	1 Ahau 18 Xul

We must eliminate the first and third choices because of the lack of bar coefficients in the tun block. Furthermore, the ISIG variable is suitable for Yax and not for either Mac or Xul. This date is apparently the DD, and Proskouriakoff's 9.7.0.0.0 style-date median somewhat too late.

Block A5 is clearly not Glyph F by outline, nor can it be the VYr date 3 Yax; there appears to be no coefficient. Thompson (1950:240) cites records of 0 MA made by Glyphs E and D without coefficients. As mentioned in TR. 4, this main sign might be the shell glyph seen for Glyph E in Thompson's Fig. 36,29. Satterthwaite's arbitrary average MA for 9.4.3.0.0 is given in TR. 4 (115, 127) as 28.83 days, only 0.70 days from 0 MA. It is unfortunate that the blocks following A5 are completely lost, for we would have liked to know whether St. 25 did indeed record a moon number at 9.4.3.0.0 and at 0 MA in the Uniformity System. Stela 23, probably dedicated near or at the same date, St. 12 at 9.4.13.0.0, and St. 17 at around 9.7.0.0.0, have early Uniformity System moon numbers, whereas St. 31 at 9.0.10.0.0, St. 3 at 9.2.13.0.0, and St. 6 at 9.4.0.0.0 do not (TR. 4:132).

A possible DN in block D2 has a kins coefficient of 5 and uinals of 3. The postfix and suffix, however, are not those of a DN, so this identification should remain in doubt. Following this block at C3 is the outline of the double cauac with yax prefix and ISIG superfix, which follows three-tun DDs on Temple I, Li. 3 and Naranjo St. 29 (TR. 6:68-69).

The small panel of glyphs above the figure on the right side opens with a possible CR whose coefficients are 5 and 8. The day sign is lost and the month sign can be made out only in outline. The possible DN of 3.5, incidentally, will not lead forward or backward from the IS to this set of CR coefficients.

In her trial reconstruction of this difficult period in Tikal dynastic history, Coggins (1975:217-18) suggested that St. 25 and 23—much alike and unusual for

Tikal in depicting three figures—were monuments to members of a branch of the Tikal ruling family. She surmised that the main figure of St. 25 might be the husband of the same Woman of Tikal whose name, birth date, and possible portrait are on St. 23. Noting the name glyph of Kan Boar above the right figure on St. 25 (at E4), she speculated that he might have been that woman's father. Noting also that the left figure wears the short cape with network of beads characteristic of feminine dress (Proskouriakoff 1961b:98), she tentatively identified the left figure as that of the woman herself. Parentage clauses on St. 3 and 7 now inform us, however, that Kan Boar was the father of Jaguar Paw Skull, while a similar but eroded clause on St. 17 appears to record Jaguar Paw Skull and Woman of Tikal as parents of the later ruler Double Bird, who acceded at 9.5.3.9.15. This line of evidence shows the principal subject of St. 25 to be Jaguar Paw Skull, about 30 years after his inauguration around 9.3.13.0.0. The right flanking figure might be his father, the deceased Kan Boar, as Coggins suggested. The woman on the left side, however, would more logically be Kan Boar's wife, the mother of Jaguar Paw Skull.

In our discussion of St. 23, we point out that its DD must have been considerably later than the 9.3.9.13.3 birth-date IS and might well have been contemporary with that of St. 25 at 9.4.3.0.0. As a pair, these two monuments would memorialize husband and wife and would presumably have been set up near each other. Similar sets of monuments with the same date (but not of husband and wife) might be seen in St. 10 and 12 and in St. 7, 15, and 27.

TIKAL STELA 26

ILLUSTRATIONS: Figs. 44a,b,45a,b (drawings); Fig. 101b-d (photographs). **LOCATION:** Str. 5D-34-1st, lower portions secondarily set within masonry bench of rear room; fragments on floor and in bench (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** 9.7.10.0.0 ± 2½ katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front, left (glyphic), right (glyphic); Class 3 (Morley Class 3). **NUMBER OF GLYPHS:** 60.* **MATERIAL:** limestone, compact. **DIMENSIONS:** H 2.29 m,* surviving H 1.60 m, W 0.80 m, T 0.48 m, HA 1.91 m, relief 4 cm (front), 0.5 cm (sides). **PHOTOGRAPHS:** Shook 1958b:26,29,30 (left side); Greene, Rands, and Graham 1972:Pl. 130 (rubbing, left side). **DRAWINGS:** Coe 1967:45. **REFERENCES:** Shook 1958b:26-33; Bailey 1972:72-83; Cog-

gins 1975:214-22, 255-57, Table 4; Marcus 1976:39, 115-20; Haviland 1977:61-66.

*Reconstructed

GENERAL REMARKS

Stela 26, the "Red Stela," was discovered in 1958 in the rear room of Str. 5D-34-1st (Shook 1958b). The massive basal fragment, which retains large areas of carved surface with traces of red pigment, was set into the floor of the room and enclosed within a specially built masonry bench. Many large and small fragments were found on the floor of the room and within the fill of the bench, which appears to have been broken into at a later time. Besides the recognized fragments of the stone, other pieces now listed among the miscellaneous stones might also belong to it (MS. 2 and 137 from the room debris, MS. 6 from under the butt of St. P2, MS. 85 from Str. 5D-22-1st). Coe suggests in TR. 14 that St. P1 might be the upper portion of the stela, completely divested of its carving.

Proskouriakoff's style-date estimate of 9.7.10.0.0 ± 2½ katuns was accompanied by the note "incomplete, late position of feet, early detail." Bailey (1972:72-83) concluded from her style analysis that this date is probably too late and that the monument compares best with Caracol St. 16 at 9.5.0.0.0. In its Class 3 design with front figure and side texts, St. 26 follows the tradition of the Tikal segmented-staff stelae (see St. 9).

GLYPH IDENTIFICATION AND DECIPHERMENT

Order of reading: downward in double column; opening side undetermined. Number of blocks: 30* + 30* = 60.* Number of glyphs: same.

Right side

Twenty-six missing blocks?

yA2-yB3 Four non-calendricals (Jaguar Paw Skull at yB3)

Left side

Twelve missing blocks?

zA1-zB9 Eighteen non-calendricals (names: Stormy Sky at zA4; Jaguar Paw Skull at zB4; Kan Boar at zB6; Woman of Tikal at zB9)

*Reconstructed

COMMENT ON THE INSCRIPTION

We arrive at an estimate of the number of glyphs in the text on the basis of figural proportions. From the ground line under the feet to the top of the belt

pendant on the left is 0.96 m, halfway between comparable measurements on St. 27 (0.84 m) and St. 10 (1.08 m). Assuming St. 26 to have been similar to these complete early stelae in figural proportions and their relationship to stela height, we approximate its original HA as 1.91 m, or halfway between the 1.72 and 2.10 m for St. 27 and 10 respectively. Eight fully preserved glyph rows on the left side of St. 26 average 0.115 m in height. Taking into account the usual one or two row heights of blank area above the first row of glyphs, we estimate 15 rows for each side, making 30 rows (60 blocks) altogether. This count is noticeably higher than that for the segmented-staff stelae (from 9.2.0.0.0 to 9.4.0.0.0) but is comparable to the slightly later St. 14, 25, 10, and 17 and El Encanto St. 1.

Glyph blocks in the side texts have been labeled groups y (right side) and z (left side) to reflect that we know neither the original number of rows nor which side opened the text.

The surviving glyphs are all non-calendrical. Coggins (1975:255-57) points out the name of the Tikal ruler Jaguar Paw Skull at the bottom of the right side (yB3) and probably on the left side (zB4), although there without the characteristic three-part superfix. On the left side appear the name glyphs of several other Tikal personages: Stormy Sky (zA4), Kan Boar (zB6), and Woman of Tikal (zB9). The first of these is prominent on St. 31 and 1, the second on St. 9 and 13, and the third on St. 23. Jaguar Paw Skull himself is first mentioned as ruler on St. 3 at 9.2.13.0.0 and again on St. 7, 15, and 27 at 9.3.0.0.0. He receives mention in an unknown context on St. 10 at 9.4.13.0.0? and as father of the incumbent on St. 17 around 9.7.0.0.0. Here on St. 26, although he might be cited as an ancestor, he is more likely the incumbent.

TIKAL STELA 27

ILLUSTRATIONS: Figs. 46a-b, 47 (drawings); Fig. 102a-c (photographs). **LOCATION:** Square 2F (TR. 11); possibly reset; not associated with an altar or noticeable architecture; Ca. 51 found under stela butt (TR. 8). **DEDICATORY DATE:** 9.3.0.0.0 2 Ahau 18 Muan (IS). **STYLE DATE:** 9.3.10.0.0 ± 2½ katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front, left (glyphic); right (glyphic); Class 3 (Morley Class 3). **NUMBER OF GLYPHS:** 12. **MATERIAL:** limestone, compact. **DIMENSIONS:** H 2.33 m, W 0.84 m, T 0.55 m, HA 1.72 m, relief 1.9 cm (front), 0.5 cm (side). **PHOTOGRAPHS:** TR. 8:Fig. 27. **DRAWINGS:** TR. 8:Fig. 46. **REFERENCES:** TR. 8:163-65; Bailey 1972:118-52.

TIKAL STELAE AND STELA/ALTAR PAIRS

GENERAL REMARKS

Stela 27 was found by chance in 1958 approximately 1.6 km northeast of the Great Plaza (TR. 11: Sq. 2F), semi-erect and complete, facing north (TR. 8: 163-65). Cache 51, found under the stela butt, is transitional between early and late caches, certainly earlier than 9.14.0.0.0 but apparently late for the 9.3.0.0.0 date of the stela (Coe, personal communication). There was no altar and no visible relationship to mounds or to other monuments, plain or carved.

Stela 27 was the sixth stela found at Tikal that depicts an openwork segmented staff held vertically (St. 3, 6, 7, 8, 15, and 27); it is similar to two others that show solid segmented staffs (St. 13 and 9). The chronological dates of these stelae, where known, fall within a short span of time, from 9.2.0.0.0 to 9.4.0.0.0, and three of them (St. 7, 15, and 27) mark the same katun end, 9.3.0.0.0. Since it may well be that the locations of St. 7 and 15 are secondary settings, it is fair to wonder whether the isolated position of St. 27, a kilometer and a half distant, might be even more likely secondary. Its bulk was considerably greater than that of either of the other two, but doubtless it could have been dragged for as long a distance as desired. The human figure on the front faces right, and therefore the monument might originally have stood paired with either St. 7 or 15, on which the figures face left.

GLYPHIC IDENTIFICATION AND
DECIPHERMENT

Right side

- A1 ISIG (damaged, right trinal superfix element survives above earplug of presumed head as Muan variable)
- B1 9 baktuns (right portion of coefficient restored in drawing for symmetry following irregularity of the stone; traces of head-variant period glyph)
- A2 3 katuns (head-variant period glyph survives in part below sure coefficient)
- B2-B3 0 tuns, 0 uinals, 0 kins (damaged grotesque heads below possible zeros; no bar-dot coefficients)

Left side

- C1 Date A, (9.3.0.0.0): 2 Ahau (coefficient certain above a damaged profile head in cartouche with pedestal subfix, restored as Ahau)
- D1 Glyph G9 (damaged head with 3 rounded superfix elements)
- C2 18 Muan (coefficient certain above damaged bird-head, restoring the beak)
- D2 Completion of count of haab
- C3-D3 Non-calendrical glyphs (Jaguar Paw Skull name at D3)

TIKAL STELA 27: SUMMARY OF CHRONOLOGY

A1-D2	Date A	IS	9.3.0.0.0	ISIG (Muan variable) 2 Ahau, Glyph G9, 18 Muan, end haab
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COMMENT ON THE INSCRIPTION

On four of the eight segmented-staff stelae, as we have mentioned, the single or double columns of text are interrupted by blank spaces that separate the blocks into groups (St. 7, 8, 13, and 27). This spacing cannot be attributed to irregularities in the stone and is, therefore, presumably a matter of aesthetics or phrasing. Among these four examples, spacing is most consistent on the contemporaneous St. 7 and 27. On the former there are four pairs of blocks on each side of the stela, on St. 27 only three, and on both ample space between rows for additional glyphs. On St. 15, the shortest of the three segmented-staff

9.3.0.0.0 monuments, there was apparently no room to spare. Spacing between rows appears to have been a short-lived innovation at Tikal, confined to the segmented staff stelae.

The IS reading of 9.3.0.0.0 is secure, despite considerable local damage. It is certain that we are dealing with an IS, since enough remains of the ISIG for positive identification. The period glyph coefficients are all superfixed; the baktun is most likely 9; the katun can be no other than 3, and the tun, uinal, and kins coefficients reconstruct as zeros, with no hints of bar-and-dot numerals. On the left side of the stone, the first glyph (C1) is clearly a day sign best read as a head-variant Ahau with coefficient 2. This is followed

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at D1 by the surviving outline of the Glyph G9 head variant and, at C2, an unmistakable VYr date of 18 Muan.

The three contemporaneous versions of the date 2 Ahau 18 Muan on St. 7, 15, and 27 are not absolutely identical, but are similar. In all three, Ahau is represented by a profile head with earplug, and the cartouche is defined by simple outline rather than the more common raised double-line frame. All three share the T-shaped central element of the pedestal base, as well as the projecting centipede affix at upper left (although badly eroded on St. 27). In all three cases, the Muun glyph is a beaked bird, although on St. 27 the tip of the beak is broken off. The ISIG of St. 15 and 27 differ in what survives of the variable elements. On St. 27 the variable seems to have been a head with earplug and without flanking comb elements. On St. 15 also, the outline might be that of a head, but no earplug survives and flanking comb elements are certainly present. Furthermore, the pedestal bases of the two examples are noticeably different, making one suspect that they were carved by different artists.

Following the VYr position is a probable haab-completion glyph with bracket, hand, and wing at D2, but with a head in place of the usual cauac glyph. On St. 7 and 15, similar head glyphs with brackets lack the hand sign and are more likely Proskouriakoff's rodent glyph that introduces nominal clauses. Of the two remaining non-calendrical glyphs on St. 27, the first (C3) is not recognizable, but the second (D3) was identified by Coggins (1975) as the name glyph of the ruler now called Jaguar Paw Skull. The name appears as that of incumbent ruler on St. 7 and 15 (also at 9.3.0.0.0), as well as on St. 3 at 9.2.13.0.0. Presence of the name on the three 9.3.0.0.0 monuments implies that they are all contemporary portraits of Jaguar Paw Skull himself. Bailey (1972:118-52) discusses the staff stelae fully from an iconographic and stylistic point of view. Her study helps considerably in placing these monuments in chronological sequence even though it was done before full recognition of the nominal and parentage phrases that position some of them within specific reigns.

TIKAL STELA 28

ILLUSTRATIONS: Fig. 48a-b (drawings); Fig. 102d-e (photographs). **LOCATION:** area W of West Plaza, about 40 m N of Str. 5D-8; reworked lower portion not found erect nor aligned to any mounds; no altar or cache. **DEDICATORY DATE:** none surviving. **STYLE**

DATE: 8.19.0.0.0 ± 3 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front, left, right, back (glyphic); Class 4 (Morley Class 12). **NUMBER OF GLYPHS:** 18.* **MATERIAL:** limestone, compact. **DIMENSIONS:** H 2.43 m,* W 0.66 m, T 0.39 m, HA 2.23 m,* relief 1.9 cm (front), 0.6 cm (back). **PHOTOGRAPHS:** TR. 8:Fig. 48; Coe 1962b:Fig. 9 (detail); Greene, Rands, and Graham 1972:Pl. 131 (rubbing, front and sides). **DRAWINGS:** none published. **REFERENCES:** TR. 8:166-67; Bailey 1972:53-72; Coggins 1975:186, 255-56.

*Reconstructed

GENERAL REMARKS

The large lower fragment of St. 28 was found lying on the ground surface in the apparently undeveloped and unpaved area to the west of the West Plaza, approximately 80 m northwest of the location of St. 29 and Alt. 13 (TR. 8:166-67). Neither placement is related to any mounds or mapped structures. Since the upper portion of the stone has never been found and a sizable part of the butt (including some of the carving) is also gone, it would seem that the stela had been broken up elsewhere and only the surviving fragment brought to the location where found. A chip-line is evident across the front of the stone, probably made to facilitate the initial breakup of the shaft. The broken top of the fragment seems to have been smoothed by secondary work. In this regard the stone was treated similarly to the nearby St. 29 and Alt. 13, allowing us to speculate that the three stones were brought to the area under similar circumstances. The original location of St. 28 is unknown; similarity to St. 1 and 2 (also reset) suggests that it once stood near them.

COMMENT ON THE INSCRIPTION

Carving survives on all four sides of the stela and is sufficient to show that the stela was similar in composition and style to the "wrap-around" St. 1 and 2. Since we do not know how many rows of glyphs preceded the three surviving ones on the stela back, we have labeled these rows z1, z2, and z3. As on St. 1 and 2, there are clearly two columns only. Our reconstruction of 9 rows and 18 blocks is based on the assumption that the proportions of the three front figures were more or less alike and that the back inscription began approximately as far down from the top as did that of St. 2. The glyph blocks on St. 28 are slightly taller than those on St. 1 or 2, so we

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estimate a shorter text than the 20 to 22 blocks estimated for them.

Enough remains of the five closing blocks of St. 28 to indicate that they were probably non-calendrical like those of St. 1, although no dynastic information can yet be discerned. In both instances there is space for a lost opening IS or CR date, presumably within the style-date limits from 8.16.0.0.0 to 9.2.0.0.0. Glyph Az2 is the only one to retain detail. With the bracket prefix, it might record a period-ending or anniversary statement similar to that of St. 1 at Az6.

Miscellaneous Stone 94, from the fills of Str. 5D-33-1st, is conceivably a fragment of St. 28. One surface shows elements analogous to those on the upper left side of St. 1; the other surface has a well preserved portion of a glyph block which, if the piece does come from St. 28, would belong in an upper row of column B. Although the block resembles a head-variant period glyph, the identification with St. 28 is not sure enough to use as an indication that the stela had an opening IS rather than a PE.

TIKAL STELA 29

ILLUSTRATIONS: Fig. 49a-b (drawings); Fig. 103a-b (photograph). **LOCATION:** area W of West Plaza, about 12 m E of Str. 5D-9, on ground surface, with Alt. 13 (TR. 23F). **DEDICATORY DATE:** 8.12.14.8.15 13 Men 3 Zip? (IS). **STYLE DATE:** 8.15.0.0.0 ± 6 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front, back (glyphic); Class 2 (Morley Class 1). **NUMBER OF GLYPHS:** 12.* **MATERIAL:** limestone, compact. **DIMENSIONS:** H 2.05 m,* W 0.64 m, T 0.32 m, HA 1.75 m,* relief 1.1 cm (front), 1.1 cm (back). **PHOTOGRAPHS:** Coe 1959:11; Shook 1960:32-33; Coe 1962a:48; 1962b:Figs. 5,6; 1967:95; Green, Rands, and Graham 1972:Pl. 132 (rubbing, front and back). **DRAWINGS:** Shook 1960:32-33; Coe 1962c:Fig. 5a-b. **REFERENCES:** Coe 1962c:488, 495; Bailey 1972:91-92; Coggins 1975:138, Table 3.

*Reconstructed

GENERAL REMARKS

The discovery of St. 29, which pushed the beginning of the Maya "Classic" back almost thirty years before the date of the Leyden Plate, was published by

Shook (1960) with a drawing, a photograph, and a discussion of the date by Satterthwaite. The stela as known consists of a large upper fragment only, discovered lying face up on uneven ground to the west of the West Plaza and north of Temple III. The locus has no observable relationship to architectural features and seems to be a dumping ground comparable to the area where St. 17 was found (TR. 8:154; Coe 1967:92). Both are unpaved areas at the bases of formalized platforms just off causeway ends. The lower half of the monument was never located, despite a careful search. Minor flakes that fitted onto the upper half were found lying beside it, the result of spalling that occurred after it was abandoned there.

Altar 13 was nearby. The condition of the two stones is similar, that is, each consists of a single large battered and weathered fragment comprising around half the original bulk. Thus the stela and altar might have been brought to this area together and might well have been set up originally elsewhere as a stela/altar pair. Nevertheless, Alt. 13 is not described here with St. 29 but with the separately found altars.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: downward in single column, then probably left-right and downward in double column. Number of blocks: 12.* Number of glyphs: same.

Back

- A1 ISIG (month patron suitable for Zip; flanking elements and tun-sign supports lacking; traces of circlets on tun sign)
- A2-A6 8 baktuns, 12 katuns, 14 tuns, 8 uinals, 15 kins (head-variant period glyphs; kins head largely restored by position and very widely separated from uinals; damaged central dot of baktun coefficient restored)
- A7a Date A, 8.12.14.8.15: 13 Men (terminal SR day restored except for surviving upper dot of coefficient; glyph somewhat separated from A6 and displaced leftward)
- A7b-A9b Five hypothetically restored standard-sized blocks as in drawing, probably non-calendrical except possible VYr

*Reconstructed

TIKAL STELA 29: SUMMARY OF CHRONOLOGY

A1-A7a	Date A	IS	8.12.14.8.15	ISIG 13 Men (3 Zip)
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COMMENT ON THE INSCRIPTION

The present drawings of St. 29 differ from versions published earlier (Shook 1960; Coe 1962c) in their reconstruction of the lower half. On the front the base of carving has been estimated on the basis of figural proportions; that of the back then follows. The surviving dot of block A7a indicates that the single column of glyphs changes to double column at the SR, as in the texts of the Leyden Plate and St. 6. We have accordingly reconstructed a text of 12 blocks, which might be increased by postulating on the front a basal panel or an underlying captive figure like that on St. 28, or decreased by assuming more vertical spacing or a higher base level than on the front. In our estimate of total height, we have arbitrarily added 0.30 m below the base of carving, drawing from St. 1, 2, and 28.

At the time of discovery, Shook read the IS number as 8.12.14.8.15, and Guillemin calculated 13 Men 3 Zip as the terminal CR date (Shook 1960). The damaged baktun coefficient could have been read as 7 with a central filler, rather than 8. This possibility, however, can be rejected because it calls for a CR of 1 Men 18 Zac, impossible for block A7a, where the upper dot and room for others below it allows a SR coefficient 2, 3, or 4 (plus bars) but not 1. No trace of coefficient bars in the area to the right of the dot can be discerned; nevertheless, we cannot avoid restoring bars here if the baktun coefficient is 8, since all the other period numbers are clear and lead to the day number 13. The 13 Men 3 Zip date is confirmed by the ISIG variable. Although its large framed lower element is not seen in any of Thompson's examples (1950:Fig. 22-23), we recognize above it a simplified full-figure version of the Zip patron animal with long eye and upturned snout. The head of this patron probably appears in the ISIG of St. 18, also of late Baktun 8 date.

Proskouriakoff (personal communication 1969) supplied a style date of 8.15.0.0.0 \pm 6 katuns, thus allowing a wide range of possible error because there is so little comparative material for Baktun 8.

While the IS of St. 29 is the only surviving date, it is possible that a second date once existed in the missing lower portion of the text. Nevertheless, as Morley pointed out (1920:577-80; 1937-38, I:157-58), several of the earliest Maya monuments carry single non-tun-ending dates. The Leyden Plate (8.14.3.1.12), Uaxactun St. 9 (8.14.10.13.15) and St. 5 (8.16.1.0.12), and Uolantun St. 1 (8.18.13.5.11) are listed by Morley as Baktun 8 non-tun-ending monuments (1937-38, I:Ta-

ble 2), and to this can certainly be added Tikal St. 4 (8.17.2.16.17?). With the exception of the Uolantun stela, these monuments carry no dates other than the opening ones. Tikal St. 4 is now recognized as an inaugural monument that probably marks the historical event itself rather than any subsequent tun or katun end. Since the same may be true for St. 29 as well, we list the single date of St. 29 as its probable DD, with one question mark to allow for the possibility of a second date.

TIKAL STELA 30 / ALTAR 14

ILLUSTRATIONS: Fig. 50a-b (drawings); Fig. 103c-d (photographs). **LOCATION:** Twin Pyramid Gp. 3D-1 (Complex M of TR. 11) within Str. 3D-99, the enclosure; large butt fragment of stela substantially in situ, upper fragments fallen; altar in front of stela but rotated and displaced; Ca. 115 found in stela pit (TR. 18). **DEDICATORY DATE:** 9.13.0.0.0 8 Ahau 8 Uo (IS on altar). **STYLE DATE:** 9.16.0.0.0 \pm 5 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** *stela* front; Class 1 (Morley Class 7); *altar* top (glyphic). **NUMBER OF GLYPHS:** *altar* 16. **MATERIAL:** *stela* limestone, bedded; *altar* limestone, compact. **DIMENSIONS:** *stela* H 2.44 m, W 0.85 m, T 0.37 m, HA 1.59 m, relief 1.0 cm; *altar* Diam 0.83 m, T 0.52 m, relief 0.5 cm. **PHOTOGRAPHS:** *altar:* Coe 1962c:Fig. 11; 1967:114 (labeled Altar 13). **DRAWINGS:** *stela:* Jones 1977:Fig. 6a; *altar:* Jones 1977:Fig. 6b. **REFERENCES:** *stela:* Coe 1962c:492; Jones 1969:22-23, 110-11; J. Graham 1972:103-05; Jones 1977:36; *altar:* Coe 1962c:492, Fig. 11.

GENERAL REMARKS

Altar 14 was found in 1959, face up and approximately level. A bottom portion of the periphery was hidden by soil washed down from the low mound to the south (Str. 3D-99). Subsequent exploratory excavations, first by Satterthwaite in the same year, and later by Satterthwaite, Coe, and Jones, revealed St. 30 nearby to the north and led to identification of the intentionally destroyed twin pyramid group. In the group were found remains of an enclosure around St. 30 and Alt. 14, two partially dismantled pyramids, and three plain monuments in a row before the eastern pyramid (Jones 1969, TR. 18).

Evidence is satisfactory that St. 30 is in its original location. Fifteen fragments, found closely grouped, account for the complete monument, which has since been consolidated and re-erected. The large butt

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fragment was in nearly vertical position facing approximate south, with Ca. 115 buried at the base. The completeness of the monument might imply natural rather than intentional breakage even though the butt fragment deviates 15 from a perpendicular axis with the enclosure.

Altar 14 is surely associated with St. 30, since it was found in front of the erect butt. Although the stela is of bedded limestone and the altar of the early compact stone, the altar and stela designs complement each other in that St. 30 lacks glyphs entirely while Alt. 14 is all-glyphic. The stela is a narrow one; evidently the inscription with the DD was shifted to the altar from its normal place on the stela partly because of space limitations.

Accepting that St. 30 and Alt. 14 were designed as a pair we can nevertheless see evidence that the altar was disturbed in ancient times. The two stones are slightly misaligned; the space between them is an excessive 1.15 m, and the altar-top design faces toward the stela. These anomalies are best explained by supposing that the altar had been dragged a short distance from its original position and, in the process, rotated approximately 180°. Stela 11/Altar 19 at Caracol have a similar and also probably secondary relationship (Satterthwaite 1954:38, 45; Beetz and Satterthwaite 1981:44). The altar as found rested directly on a remnant of plastered floor, so the disturbance probably occurred before the floor plaster disappeared from the areas not protected by the altar. Thus, the moving of the altar might have been part of

the general destruction of the complex, which preceded construction of the Maudslay Causeway around 9.16.0.0.0, the date of the nearby Twin Pyramid Gp. 3D-2 (Complex P) as recorded on St. 20 (Jones 1969).

GLYPHIC IDENTIFICATION AND
DECIPHERMENT

Order of reading on altar: giant center glyph possibly first, then clockwise, starting with ISIG at top on the vertical axis. Number of blocks: 15 + 1 = 16. Number of glyphs: same.

Altar, top	
Center	Date A, (9.13.0.0.0): 8 Ahau (at giant scale; certain inspection; this position in the reading order hypothetical; no other SR day in the text)
1	ISIG (by position and surviving outlines; variable lost, no pedestal suffix, uncertain but possible traces of tun-sign markings in main sign)
2-6	9 baktuns, 12-13 katuns, 0 tuns, 0 uinals, 0 kins (coefficients certain except for katuns; symbolic period glyphs restored by position)
7	8 Uo (coefficient certain; main sign with crossed bands as in Zip or Uo, distinguishing superfix lost)
8	Glyph G9?
9-15	Seven non-calendrical glyphs (Ruler A name at 13-14; TEG at 15)

TIKAL ALTAR 14: SUMMARY OF CHRONOLOGY

Center, 1-7	Date A	IS	9.13.0.0.0	8 Ahau 8 Uo, G9?
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COMMENT ON THE INSCRIPTION

A striking feature of the text on Alt. 14 is the giant SR day 8 Ahau filling the center of the altar top within a hieroglyphic border. Such oversized SR days have a sparse but wide distribution at a few other sites, notably Caracol, Belize, where 14 are known (Beetz and Satterthwaite 1981:Table 2). Satterthwaite (1951, 1954) proposed that in all cases the giant day sign was an Ahau which, with its coefficient, named the katun in the Short Count cycle of 13 named katuns. John Graham reviewed this interpretation (1972:103), and found it valid. The blocks of the border have been numbered 1-15, following Morley's designations for Alt. 5.

The IS date is quite clear in spite of the eroded condition of some of the blocks. Granted that the month patron variable cannot be read within the ISIG at block 1, the five period coefficients are plainly 9, 13, 0, 0, and 0. The only alternative reading possible is 12 katuns, with a central filler instead of a dot. This would conflict, however, with the VYr month Uo or Zip at block 7, which is suitable for 9.13.0.0.0 8 Ahau 8 Uo, not for 9.12.0.0.0 10 Ahau 8 Yaxkin. There being no other dates on the stone, 9.13.0.0.0 can be accepted as the DD for the stela/altar pair. By outline, block 8 could be Glyph G9.

There is a question where the giant 8 Ahau in the center of the altar top might fit within the sequence of 16 blocks. Three alternatives might be considered:

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8 AHAU ISIG 9.13.0.0.0 (8 Ahau) 8 Uo
 ISIG 9.13.0.0.0 (8 Ahau) 8 Uo 8 AHAU
 ISIG 9.13.0.0.0 8 AHAU 8 Uo

Because of the emphasis on the katun-ending SR day in other twin pyramid groups (St. 16, 19, 20, 22), the first of these possibilities seems the most attractive at present: the SR is pulled from its normal position in the IS to stand alone as a semi-independent statement and suppressed (yet assumed) between blocks 6 and 7. A somewhat similar instance is Caracol Stela 1/Altar 1 (Beetz and Satterthwaite 1981:7-10). There the altar bears a giant 5 Ahau alone, while the stela carries a full IS (9.8.0.0.0 5 Ahau 3 Chen) without suppression of the SR day 5 Ahau; there it is clear that the texts are to be read independently.

Among the remaining severely eroded blocks of the border inscription, the outlines of the moon-double-comb and sky-god glyphs of Ruler A's name can be made out, followed by the closing TEG (Jones 1977:36). His first monuments are therefore these two diminutive stones erected ten years after his inauguration, which is not recorded on them but on Li. 3 of Temple I. For the subsequent katun end he raised a much grander pair of monuments and twin pyramid group, St. 16/Alt. 5 in Gp. 5C-1.

TIKAL STELA 31

ILLUSTRATIONS: Figs. 51a-f, 52a-b, 53a-b, 54a-b (drawings); Figs. 104a-c, 105a-g, 106a-f (photographs). **LOCATION:** North Acropolis, in rear room of Str. 5D-33-2nd, sealed by Str. 5D-33-1st fill (Gp. 5D- 2:TS. 5); Frag. 2 (formerly MS. 116) from debris behind Str. 5D-32-1st; Frag. 3 (formerly MS. 132) from Str. 5D-33-1st fill; Alt. 19 also from Str. 5D-33-1st fill (TR. 14). **DEDICATORY DATE:** 9.0.10.0.0 7 Ahau 3 Yax (IS). **STYLE DATE:** no style date determined, but 9.0.10.0.0 preferred as DD (Proskouriakoff, personal communication 1964). **CARVED SURFACES:** front, left (glyphic), right (glyphic), back (glyphic); Class 4 (Morley Class 6). **NUMBER OF GLYPHS:** 229.* **MATERIAL:** limestone, compact. **DIMENSIONS:** Surviving H 2.30 m, W 0.70 m, T 0.53 m, HA 2.45 m,* relief 1.5 cm (front), 0.3 cm (back). **PHOTOGRAPHS:** Coe 1962a:49 (front), 52 (right side); 1962b:Figs. 4 (front), 8 (right side); 1962c:Fig. 6 (front); Thompson 1962:Pl. 2 (cast of back); Coe 1967:49 (detail of front); Greene and Thompson 1967:Pls. 6, 7 (rubblings, front and right side); Greene, Rands, and Graham 1972:Pls. 133-36 (rubblings, front, sides, and back). **DRAWINGS:** Coe 1962c:Figs. 7a-b, 8a-b; 1965b:33 (all four sides); 1967:49 (front and sides); Kelley 1976:Pl. 6, Fig. 109. **REFERENCES:** Coe 1962c:488-92, 495; 1965b:33-34;

Proskouriakoff 1968; Riese and Schaumann 1972; Bailey 1972:97-107; Coggins 1975:140-46, 184-87, 448; 1976; 1979; 1980; Marcus 1976:39-41, 115-20; Haviland 1977:61-66; Kelley 1976:230, 278, Pl. 6, Fig. 109.

*Reconstructed

GENERAL REMARKS

The richly decorated and well preserved St. 31 was discovered in 1960, when a tunnel into the rear of Str. 5D-33-1st penetrated the buried rear room of Str. 5D-33-2nd. The large upper portion of the stela was found reset more or less upright in a shallow pit, charred by burning at the base, surrounded with broken pottery incense burners strewn about the floors, and buried by the fill for the new temple (Coe 1962c:495; 1967:48; TR. 14). Traces of red pigment were found still adhering to the surface of depressions on the stela back. Although the lower part of the shaft has never been located and some important information therefore remains lost, the burial of the major portion preserved in almost mint condition most of the hieroglyphic text, easily the longest and most important of any stela inscription at Tikal. Coe speculates that the stela once stood on or in front of Str. 5D-33-2nd.

For this stela we present two sets of drawings. One shows the principal compositions on the four surfaces as units, even when the carving laps around onto adjacent surfaces. The other set of drawings shows outline only, to demonstrate the relationship between the carving and the shape of the shaft.

Two small fragments of the stela identified among the miscellaneous stones have been illustrated with the stela and labeled Frag. 2 and Frag. 3. They were recovered from debris behind Str. 5D-32-1st and from the sealed fills of 33-1st (TR. 14).

In our discussion of Alt. 19, a case is made for pairing that monument with St. 31, since both stones were broken and buried in the construction of Str. 5D-33-1st.

GLYPHIC IDENTIFICATION AND DECIPHERMENT

Order of reading: left-right and downward in double column, on back, left and right sides. Number of blocks: 232* + 16 + 12 = 260.* Number of glyphs: 201* + 16 + 12 = 229.*

Back
 B1-G4 ISIG (head-variant Yax patron without flanking combs, inverted U in trinal superfix, three circlets in tun sign, pedestal)
 A5-A7 9 baktuns, 0 katuns, 10 tuns, 0 uinals, 0 kins (symbolic period glyphs)

TIKAL STELAE AND STELA/ALTAR PAIRS

B7-A9	Date A, 9.0.10.0.0: 7 Ahau, Glyph G9, Glyph F, 3 Yax (yax element prefixed)	F20-E21	F19; Curl Nose name at E20) DN 3: 5 (kins), 2 uinals, 5 tuns, 1 katun (Date I suppressed?)
B9-B11	Glyph 1D?, E?, 0C, 6X, 9A	F21-F23	Five non-calendricals (<i>hel</i> Y at E23; up-ended frog and <i>ma k'ina</i> at F23)
A12-B12	Two non-calendricals	E24-E26	Date J, (8.18.10.0.0): 11 Ahau, half period, 1 baktun, "sky," caban
A13-B14	Half period, 1 baktun, "sky," caban	F26-F27	Three non-calendricals (coefficient 2 at E27a)
A15-B26	Twenty-four non-calendricals (manikin-head Venus name at B17- A18; 9 <i>hel</i> X—ninth successor—at B18; Stormy Sky name and TEG at B20-A21; father glyph at B21; Curl Nose name at A23; possible mother glyph at B23; Ahau-and-bar glyph as on Bu. 48 wall at A24; <i>hel</i> Y at A26, possibly indicating a lost PE Date B)	E28-F28 E29-F29	DN 4: 0 (kins), 11 uinals, 5 tuns Two non-calendrical blocks (badly damaged; possible katun of DN at E29) (Date K?): Two missing blocks (restoring row 30; lost or suppressed Date K?)
A27-B30	(Date B?): Eight missing blocks (restoring row 30; possibly including Date B?)	E30-F30	Four non-calendricals (<i>hel</i> Z at H6) Date L, (8.19.10.0.0): 9 Ahau, half period, 1 baktun, "sky"
C5-D8	Seven non-calendricals (jaguar head at C5; <i>hel</i> Y at D7)	G5-H6 G7-G8	Three non-calendricals (possible accession glyph at H8; Stormy Sky name at G9; <i>hel</i> Z at H9)
C9-D10	Date C, (8.14.0.0.0): Ahau, end haab, end 14 katuns	H8-H9	ISIG (Ceh variable without flanking combs; inverted U in trinal superfix, 3 circlets in tun sign, unusual subfix) 9 baktuns, 0 katuns, 0 tuns, 0 uinals, 0 kins
C11-C14	Seven non-calendricals (<i>hel</i> Y at C12; Jaguar Paw name? at C14)	G10	Date M, 9.0.0.0.0: 12 Ahau, Glyph G9, Glyph F, 13 Ceh
D14	Date D, (8.17.0.0.0): 1 Ahau (decorated and elongated dot coefficient and centipede prefix)	H10-H12	Non-calendrical End 9 baktuns
C15	Incomplete glyph partly in depression; U-shaped sign in bottom of depression	G13-H14	Seventeen non-calendricals (Stormy Sky name at G17; jaguar baby at H18; uinal title at G19; <i>ma cuch</i> title at H20; Cauac Shield name at G21; 9 <i>hel</i> X—ninth successor—at G22; manikin-head Venus name at H22; TEG at G24; <i>hel</i> Z at H24)
D15-C16	End 17 katuns (no katun superfix in depression above tun sign)	G15 H15-G16 H16-H24	DN 5: 18 kins, 9 uinals, 3 tuns (specialized kin sign) End 9 baktuns (refers to Date M) Date N (9.0.3.5.18): Etnab (unusual form for Etnab)
D16-C17	Two non-calendricals	G25-G26	Two non-calendricals (quincunx event glyph at G28; Cauac Shield name at H28)
D17-C18	DN 1: 12 (kins), 4 uinals, 1 tun	H26-G27 H27	DN 6: 17-19 (kins), 5 uinals, 11 tuns (lower portions missing; uinal sign restored by position; definite traces of tun sign)
D18	End haab (reference to Date D)	G28-H28	(Date O?): Two lost blocks (restoring row 30; may have contained katun term of DN 6 and/or Date O)
D19	Date E, (8.17.1.4.12?): 11 Eb	G29-H29	
C20	Two non-calendricals in divided block		
D20-C24	Eight non-calendricals (initial glyph at C22; Jaguar Paw name? at C24)	G30-H30	
D24-C25	DN 2: 12 (kins), 10 uinals, 17 tuns (reading superfixed coefficient as kin)	Left side I1-L4	Sixteen non-calendricals (Curl Nose name and TEG at I3-I4; father glyph at K4; Cauac Shield name at L4)
D25-D28	Seven non-calendricals, some damaged		
C29-D30	Four missing blocks (restoring lost row 30)	Right side M1-P3	Twelve non-calendricals (Curl Nose name at N2; Cauac Shield name at N3; TEG at P3)
E5-F6	Four non-calendricals (Curl Nose name at F6)		
E7	Date F: 8 Eb (unusual variant of day sign)		
F7-E8	Two non-calendricals		
F8-F9	Date G, (8.17.2.16.17?): 10 Caban (mistake for 5?), Glyph G4 or G7, 10 Yaxkin		
E10-F15	Twelve non-calendricals (Curl Nose name at F11; accession event at E10; initial glyph at E14; <i>hel</i> Z at F15)		
E16-F16	Date H, (8.18.0.0.0): 12 Ahau, end haab		
E17-F17	Two non-calendricals (coefficient 7 at E17)		
E18-F18	End 18 katuns		
E19-E20	Three non-calendricals (<i>ben-ich</i> katun at		

THE MONUMENTS AND INSCRIPTIONS OF TIKAL: THE CARVED MONUMENTS

TIKAL STELA 31: SUMMARY OF CHRONOLOGY

B1-G4		First ISIG	(Yax variable)	
A5-B13	Date A	IS	9. 0.10. 0. 0	7 Ahau, G9, F, 3 Yax, MA1?, MN1, 6X, A9, half period, 1 cycle
	(Date B)	(PE?)		Possibly missing or suppressed
C9-D10	Date C	PE	(8.14. 0. 0. 0)	7 Ahau, end haab, end 14 katuns
D14-C16	Date D	PE	(8.17. 0. 0. 0)	1 Ahau, end 17 katuns? End haab
D17-C18		DN 1	+ 1. 4.12	
D 9	Date E		(8.17. 1. 4.12)	11 Eb
D24-C25		DN 2	+ 17.10.12	Forward count from Date A or Date C?
E7	Date F	SR	(8.14.17.10.12)?	8 Eb
F8-F9	Date G	CR, G	(8.17. 2.16.17)?	10 Caban (probable mistake for 5 Caban), G4, 10 Yaxkin
E16-F18	Date H	PE	(8.18. 0. 0. 0)	12 Ahau, end haab, end 18 katuns
F20-F21		DN 3	1. 5. 2. 5	Forward or backward to suppressed Date I from Date H?
	(Date I)		(8.19. 5. 2. 5)?	Suppressed
E24-E25	Date J	PE	(8.18.10. 0. 0)	11 Ahau, half period, 1 cycle
E28-F28		DN 4	5.11. 0	Forward or backward to lost or suppressed Date K from Date J?; katun value possible
	(Date K)	SR?	(8.18.15.11. 0)?	Lost or suppressed
G7-G8	Date L	PE	(8.19.10. 0. 0)	9 Ahau, half period, 1 cycle
G10			Second ISIG	(Ceh variable)
H10-G16	Date M	IS	9. 0. 0. 0. 0	8 Ahau, G9, F, 13 Ceh, end 9 baktuns
G25-G27		DN 5	+ 3. 9.18	End 9 baktuns
H27	Date N	SR	(9. 0. 3. 9.18)	12 Etnab (11 Zip)
G29-H29		DN 6	+ 11. 5.17 ?	Katun term lost or non-existent
G30-H30	(Date O)	SR?	(9. 0.14.15.15)?	Lost or suppressed 7 Men 13 Xul? (or possibly 9.0.11.5.17 3 Caban 15 Muan)

*Reconstructed

COMMENT ON THE INSCRIPTION

Block designations for the hieroglyphic text on the back and sides are straightforward. The text begins on the back with the huge ISIG; the side passages contain no chronology and might have been read as independent passages. Our labeling of the left side as preceding the right is arbitrary.

In the outline drawings, we reconstruct 30 rows even though no traces of the thirtieth row can be seen on the main fragment or on Frag. 3. Row 30 is mandated by the presence of a DN at row 29 in the final columns of the text in order to allow room for a Date O or non-calendrical glyphs following this DN. A row 30 would also make the rear text end at the reconstructed level of the feet of the side figures. It is less likely that a row 31 existed, since inscriptions on

the backs of intact Tikal stelae are always based at the levels of the front and side carving or higher (cf. St. 1, 4, 10, 14, 17, 18, 28). With 30 rows, there was a total of 260 blocks. A total of only 229 glyphs results, the opening ISIG being counted as one glyph even though it and the blank spaces at either side occupy the top 32 blocks of the labeling grid.

DATE A

Although the long upturned snout of the month-variable head in the enormous ISIG looks much like the patron for the month Zip, the Venus glyph within its eye identifies it as the similar head of the patron for Yax, appropriate for the date that follows.

The five period glyphs and coefficients of the IS are clearly read as 9.0.10.0.0 and fit with the succeeding SR day 7 Ahau at B7. Following this at blocks A8 and

B8 are Glyphs G and F, with the half-darkened kin sign in Glyph G identifying the ninth in the series of nine underworld deities, the Night Sun (Thompson 1950:210). At block A9 the VYr position 3 Yax leaves no doubt that Date A records 7 Ahau 3 Yax at 9.0.10.0.0.

The next five blocks from B9 to B11 are taken up by a difficult lunar series. The last glyph is the moon-sign-with-enclosed-dot and subfixed coefficient 9 (aberrantly inverted). As Glyph A, this indicates that the current lunar month is to be counted as 29 days in length.

Block B10 is probably a rare form of Glyph C without coefficient. A similar spiral sign with three lobes is seen on Pusilha St. O and the Palenque Temple of the Foliated Cross (Thompson 1950:Fig. 37,47,37)—the usual hand sign of Glyph C being absent, as it seems to be on the newly discovered Quirigua Monument 26 (Jones 1982). The lack of a coefficient indicates that the lunar month is the first of the series of six (MN 1).

Moon number 1 at 9.0.10.0.0 does not fall within the projected Uniformity System of moon numbering observed by Satterthwaite (1958b:132-33) for Tikal St. 23, 12, and 17 from 9.4.13.0.0 to around 9.7.0.0.0. It is interesting, however, that the St. 31 MN is one ahead of the projected Uniformity System count, as is that on St. 3 at 9.2.13.0.0. This raises the possibility that an early system of numbering existed at Tikal and shifted backward by one number to the system on St. 23, 12, and 17, which apparently was adopted by the entire Maya area around 9.12.15.0.0. The MN on St. 6 at 9.4.0.0.0, on the other hand, is two behind the Uniformity System and thus does not support this hypothesis of an early systematic numbering of the lunar months. Stela 31, incidentally, does not record the first known MN, which is seen on Uaxactun St. 18 at 8.16.0.0.0 (Morley 1937-38, I:160-63); this lunation count (MN 1) is also one ahead of the Uniformity System. Curiously, the MN 4 on Balakbal St. 5 (questioned in Andrews 1951) at the date 8.18.9.17.18, conforms with the Uniformity System.

In block A11 is a record of Glyph X in form 6a of Roys's numbering system (Thompson 1950:241-42, Fig. 37,47,50). According to Thompson, Glyph X in form 6a is known only with MN 6. In its other forms, however, it can accompany either the corresponding Glyph C number or the one preceding it, so the St. 31 example might simply be the first known in which form 6 goes with Glyph 1C.

With block B10 identified as Glyph C, the preceding two blocks should be Glyphs E and D, recording

the count of days within the current lunar month. The first block (B9) has an apparent coefficient of one dot over a kin sign, the combination prefixing a possible variant lunar sign. The second block (A10) has a bracket prefix and a main sign that is unfamiliar in lunar series. By Teeple's rules (1930), a moon age of zero (MA 0) is expressed by Glyphs E and D without coefficients; MA 1 through 19 by Glyph D with coefficient; and MA 20 through 29 by Glyph D preceded by Glyph E (moon-with-enclosed-dot), with or without a coefficient of 1 through 9. Block B9 has a moon sign and coefficient 1, but, since it lacks the enclosed dot, it is apparently not Glyph E for MA 21. It might be Glyph D, to be read as a record of MA 1; the unusual addition of a kin sign might logically signify "day," that is, one day of the lunar month. The glyph at A10 might be an extraneous glyph, one of those that Andrews (1938) labeled as Glyph Y and Z and noted as occasionally interrupting the normal LS sequence. The main sign is T848. Thompson (1962:394) suggests that it "perhaps indicates new moon or disappearance of old moon." Another possible reading of B9-A10 would be Glyph E and D without coefficients, MA 0. The calculated MA from 13.26 days at the Initial Series base date 4 Ahau 8 Cumku (Satterthwaite 1958b:132) gives a MA of 1.52, an almost perfect match for MA 1 or 0, but not for 21.

Date A is written in a remarkably similar way to the same IS date on Uaxactun St. 26 (Morley 1937-38, II:frontispiece). Both show the ISIG comparably oversized, with a flat oval tun sign, no flanking comb signs, and an almost identical Yax month-patron head. The period glyphs are in their symbolic rather than head-variant forms, and the coefficients bar-and-dot. The Uaxactun example omits Glyph F and the lunar series but duplicates the order of the SR, Glyph G, and VYr signs. In view of the probable duplication of the 11 Eb date as well (see Date E) on Uaxactun St. 5, this likeness is probably not fortuitous.

At block A13 we note a half-period glyph followed by a baktun sign with coefficient 1, the same combination of glyphs that occurs after two other half-katun dates on the stela, at F24-E25 after Date J (8.18.10.0.0) and at H7-G8 following Date L (8.19.10.0.0). The half-period positions of these three dates force us to reject readings such as "half of 1 baktun" (as a DN) or "half of Baktun 1" (as a PE position). For Date L one could hypothetically read "9 Ahau at half period of Baktun 1" (1.10.0.0.0), but the same method would place the 7 Ahau of Date A impossibly in Baktun 3 (3.10.0.0.0), when in fact it is written as a Baktun 9 IS

date. It is possible that these three 1-baktun glyphs on St. 31 are anniversary statements which lead back from their respective half-katun dates one baktun into the past (8.0.10.0.0 for Date A, 7.18.10.0.0 for Date J, and 7.19.10.0.0 for Date L). A somewhat similar set of long-distance katun and baktun anniversary statements, counted back into the past from three evenly spaced dates, was suggested for the inscription on an incised bone (MT. 26) from Bu. 116 in Temple I (Satterthwaite 1964). Schele (1976) makes the alternative suggestion that, since the double-cauac baktun glyph might be read phonetically as *cu-c(u)* or *cuc*, meaning "round" or "cycle" in general (Kelley 1976:175), these half-period 1-baktun phrases might simply mean "end of a half period (of) a round" and be no more than parts of the PE notations. This seems the most likely explanation for their presence.

The glyphs that follow the half-period 1-baktun phrases indicate that a similar statement is made concerning each of them. Those for Dates A and J are followed by two God C heads surmounted by "sky" and "earth" glyphs and prefixed by water-group circlets. That for Date L is followed by a single God C head with water prefix but without the "earth" and "sky" glyphs.

Date A, 9.0.10.0.0, now appears to be the DD of St. 31. In his 1970 draft of the present chronological analysis, Satterthwaite proposed that a suppressed 9.3.13.0.0 or 9.4.0.0.0 be considered a likely alternative, in order to allow for possible late positions of Dates D, E, F, and G. Proskouriakoff's decipherment of non-calendrical information in the text (as described by Coggins 1975, 1976, 1979) has helped clarify the chronology by demonstrating that the text commences with information concerning the ruler Stormy Sky, at the date 9.0.10.0.0, then refers back in time to the earlier rulers Jaguar Paw and Curl Nose, and ends by mentioning Stormy Sky again in about the same time context as in the beginning. For each of the four dates the preferred alternative is the one compatible with Proskouriakoff's pattern. In addition, St. 31 stylistically fits the 9.0.10.0.0 date better than 9.4.0.0.0, as Proskouriakoff noted in a 1964 personal communication.

After the two God C heads with glyphic head-dresses at A14-B14 come five deity heads, the first the jaguar god of the number seven. At block B17 is a Venus-like glyph (like that in the eye of the ISIG variable) superfixed by a manikin-head-and-hands glyph different from the Stormy Sky superfix, followed by a jawless long-nosed head with uinal head-dress and coefficient 1. Next appears a 9 *hel* com-

pound, which occurs again on St. 31 at G22 with a similar jawless head, as well as on St. 3 (A9) immediately after an "end 13 tuns" notation (9.2.13.0.0) and followed by the same jawless head surmounted by what looks like the Venus-variant glyph and the manikin superfix. The 9 *hel* glyph also appears on pottery from Bu. 10 (MT. 4 and MT. 5: TR. 25:Fig. 19a,b) and Bu. 22 (MT. 14: TR. 25:Fig. 26c). Coggins (1975:184 ff.; 1976) concludes on ceramic evidence that both burials antedate Bu. 48 and cites additional evidence that Bu. 48 is that of Stormy Sky himself, Bu. 10 that of his predecessor Curl Nose, and Bu. 22 that of the still earlier ruler Jaguar Paw. If we accept these tentative tomb identifications and Riese's hypothesis that the numbered *hel* glyphs signify a numbered succession, then it follows that the 9 *hel* notations probably do not refer to Stormy Sky or even Curl Nose but to a previous ruler. A Manik Complex carved-ware cache vessel (MT. 140: Coe 1965b:30; TR. 25:Fig. 108d) gives the 9 *hel* notation six glyphs before the name Jaguar Paw, suggesting that Jaguar Paw is the 9 *hel* ruler. Alternatively, the phrases on St. 31 and 3 may indicate that the 9 *hel* ruler is named by the jawless head with manikin-Venus glyph.

At block B20 is the name Stormy Sky, followed by (1) a full TEG, which identifies the name glyph as a ruler's, (2) a decorated ahau male-parent indicator (Schele, Mathews, and Lounsbury 1977), (3) two unknown glyphs, and (4) the name Curl Nose at A23. The passage thus establishes a father-son relationship between the two rulers. Next is a female-parent indicator at B23, and at A24 the ahau-and-bar glyph compound, which might be part of the mother's name or titles and which also occurs on the wall of Bu. 48 and on a bowl from Uaxactun (Morley 1937-38, I:202).

DATE B? (missing or suppressed)

In analyzing the St. 31 chronology, Riese and Schaumann (1972) postulated a lost Date B at the bottom of columns A and B, its existence implied by the distribution within this text of the *hel* glyph, read by Thompson as "count" (1950:160-62). They distinguished three types of *hel* glyph compounds, which we label *hel* X, *hel* Y, and *hel* Z:

<i>hel</i> X	TIX.168:21.573	(B18, G22)
<i>hel</i> Y	T1:21.573.88	(A26, D7, C12, E23)
<i>hel</i> Z	T1:573:12	(F25, H6, H9, H24)

Hel X occurs apart from calendric notations. Its compounds, with coefficients, were later identified by

Riese (1979) as numbered positions in counts of ruler succession (see St. 3, 5, 17, 22). *Hel Z* functions as a normal DN introductory glyph at H24, immediately before DN 5, but no other *hel* glyph in this text is associated with a DN. The three other appearances of *hel Z*, without DN, are immediately before the PE Dates H, L, and M. *Hel Y*, similarly without DN, falls before the PE Dates C, D, and J, but with anywhere from one to four intervening non-calendric glyphs. This distribution suggested to Riese and Schaumann that the Maya used *hel Y* and *Z* compounds in this text to indicate suppressed DN's leading to PE dates and that the *hel Y* glyph at A26, just before four lost blocks, would indicate that a PE date was once recorded there. They did not speculate on the LC position of this lost date, which they labeled Date B as we do. The six PE dates on the stela (aside from the opening IS) are indeed preceded by *hel Y* or *Z* glyphs and no DN's. On the other hand, all of the six DN's in the text (only one of which is introduced by a *hel* glyph) lead forward to non-tun-ending dates. Although these high correlations of *hel* glyphs with PE dates and of DN's with non-PE dates do not necessarily mean that the glyph has the specific function of indicating a count to a PE, as Riese and Schaumann imply, they do establish a pattern that makes a lost PE date likely.

A hypothetical Date B might be expected to mark a PE between Date A (9.0.10.0.0) and Date C (8.14.0.0.0). Alternatively, it might precede Date C, since the chronology of St. 31 begins at 9.0.10.0.0 and then leaps far back in time with Date C in order to progress more or less steadily forward to the closing date, shortly beyond the opening date. Katun-end 8.12.0.0.0 or 8.13.0.0.0 would connect the text with St. 29, which St. 31 seems to have copied in its figural design.

DATE C

The chronology of St. 31 continues in columns C and D with a PE date 7 Ahau, end haab, end 14 katuns (C9-D10). Since there can be no doubt of either coefficient, this PE must be accepted as certain at 8.14.0.0.0. The name Jaguar Paw is seen at C14, just prior to Date D and apparently associated with Date C.

DATE D

At block D14 appears the SR 1 Ahau (with a projecting centipede prefix at its upper left, clearly not part of the coefficient). Following this are an almost entirely missing block dominated by a large pit in the

otherwise smooth stela surface (C15), a hand-and-tassel ending sign like that of Date C (D15), and a tun sign with coefficient 17 surmounted by a bracket ending prefix (C16). The space above the tun main sign is taken up by the lower portion of the same pit. It would be logical to read this date as a katun-end PE, since 1 Ahau is the ending day at 8.17.0.0.0, between Date C and the following katun end, Date H. To justify this reading, one could assume that the katun superfix above the tun sign either had eroded away, not been carved because of the obstructing pit, or been carved on a plaster plug which has since fallen out.

Three sizable pits in the otherwise smooth back surface of St. 31 occur in the areas of blocks B8, C9, and C15. Extension of carving into these pits seems good evidence that they existed when the text was carved (as with St. 4 and 10) and that plaster plugs were not used to fill the pits. This is especially indicated at block C15, where a U-shaped element at the lower right of the block is carved in the bottom of the pit. A katun superfix was probably never carved in the shallower part of the pit below the U-shaped element. An alternative Date D position at 9.2.17.0.0, the end of 17 tuns, was proposed on this basis in Satterthwaite's earlier versions of this manuscript. However, in view of the forward progression of the PE dates beginning with Date C, and given the similarity in presentation between Date D and the other two katun-ending dates (C and H), and finally, given that the missing katun sign could have been suppressed or even placed on a plaster plug over the U-shaped element, we now think that the 8.17.0.0.0 position is reasonably well established.

DATE E

After only two non-calendric blocks is a DN at D17-C18 reading 12 days, 4 uinals, and 1 tun (1.4.12). From Date D at 8.17.0.0.0 this leads forward to 8.17.1.4.12 11 Eb. An "end haab" glyph, probably referring to Date D, follows at D18, with a non-calendric at C19, and finally the SR day 11 Eb at D19. Marcus (1976:56-57), citing personal communication from Proskouriakoff, notes that this 11 Eb date can be read as the IS of Uaxactun St. 5 and is implied on the later Uaxactun St. 22 by a DN of 1.4.12 which leads forward to the sixth katun anniversary. Proskouriakoff is also cited by Coggins (1975:142) as suggesting that the date marks the arrival of foreigners in the central Peten. The non-calendric passage following Date E includes the up-ended frog initial glyph at C22 and the name Jaguar Paw at C24.

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DATE F

A clear DN is set forth in blocks D24-C25, leading either to a lost date at the fractured bottom of the columns or to Date F, the SR at block E7. This DN should probably be read as 12 days, 10 uinals, 17 tuns (17.10.12), following a rule of Berlin's (cited by Riese and Schaumann 1972) that the DN kin coefficient overlaps the uinal coefficient when the two appear together on the uinal main sign. The SR day sign at E7, with a coefficient 8, is a head that does not match well with any known variant. The DN, read as 17.10.12, can connect the SR coefficient 8 with Date A or Date C at 7 Ahau by counting forward, but cannot connect it forward or backward with Date D at 1 Ahau or Date E at 11 Eb. Thus, the assumption that the DN is 17.10.12 and connects the date at E7 with some previously mentioned date presents two possibilities:

Date A	9. 0.10. 0. 0	7 Ahau
DN 2	17.10.12	
Date F	(9. 1. 7.10.12)	8 Eb
	or	
Date C	(8.14. 0. 0. 0)	7 Ahau
DN 2	17.10.12	
Date F	(8.14.17.10.12)	8 Eb

Because Date C is the more immediately preceding date, we have entered the second alternative in the summary. A weakness is that this choice (as well as the other) interrupts the forward progression of the chronology. Schele (1976) suggests the following:

Date E	(8.17. 1. 4.12)	11 Eb
	17.12.10	
Date F	(8.17.18.17. 2)	11 Ik)

With the preferred alternative DN of 17.10.12 Date F would be instead 12 Kan at 8.17.18.15.4. Both of these possibilities would preserve the forward flow of the text but leave the SR date at E7 unexplained. Repetition of the name Curl Nose three times in columns E and F, and the absence of other names, suggests that this personage is the subject of the entire passage. In contrast, Columns C and D seem to mention Jaguar Paw exclusively. If Date F is at 8.14.17.10.12, as we surmise, it is possible that it records an event early in the life of Curl Nose, before the inauguration that apparently is noted next.

DATE G

An unequivocal CR and interposed Glyph G at F8-F9 reads 10 Caban, Glyph G4 (or Glyph G7), 10 Yaxkin. The Glyph G4 reading is far preferable to G7 because of the clear coefficient and the form of the large-lipped head. Either calendric combination can occur only once within Baktun 8 and the first half of Baktun 9:

(8.6.3.16.17)	10 Caban	Glyph G4	10 Yaxkin
(9.2.0.4.17)	10 Caban	Glyph G7	10 Yaxkin

Both of these positions are problematical; the first is much earlier than other dates on the stela, the second considerably later.

As we have said (see St. 4), Proskouriakoff observed that Date G of St. 31 is identical to Date A of St. 4 except for its SR coefficient, which is 10 rather than 5. On both stelae the date is followed by the name Curl Nose (F11). Our readings of the St. 4 date were limited by Glyph G to:

(8.15.3.7.2)	5 Ik	Glyph G7	10 Yaxkin
(8.17.2.16.17)	5 Caban	Glyph G4	10 Yaxkin

Of these, the second was preferable by the form of Glyph G, by style, and by the similarity of St. 4 to St. 18 in Katun 18. If a carving error of 10 Caban in place of 5 Caban is assumed in Date G of St. 31, then the dates would be precisely identical in content and in form. A further parallel lies in block E10 immediately following the date, where a vulture head with *ben-ich* superfix found frequently in inaugural event glyphs recalls the bound vulture head on St. 4 (A5). Date G would thus be a retrospective mention of the 5 Caban inaugural date more than 67 tuns in the past. The non-calendrical blocks that follow the event glyph and Curl Nose name do not particularly resemble those of St. 4, except that the up-ended frog glyph with scrolls at E14 might perhaps be identified with the inverted head with scrolls on St. 4 (A7a).

DATE H

A coefficient 12 and a notched Ahau day sign with cartouche and pedestal state the SR day at block E16, followed by a hand-and-cauac glyph reading "end haab." After these come two apparently non-calendrical blocks E17-F17 (although the first of these carries the coefficient 7), a hand-and-tassel period-ending sign at E18, and a clear 18 katuns at block F18. The PE is written similarly to that of Date C, and there can be no doubt that it records the katun end

TIKAL STELAE AND STELA/ALTAR PAIRS

8.18.0.0.0 12 Ahau 8 Zotz. Temporal proximity of this date to Date G confirms the latter's position, and the name Curl Nose again follows.

DATE I (suppressed)

Date I is not actually recorded on the monument but is implied by DN 3 at F20-E21, which reads 5 days, 2 uinals, 5 tuns, and 1 katun (1.5.3.5). This number cannot connect Date H with Date J. It seems logical to us—and Schele (1976) arrived at the same idea—that the DN would read forward from Date H:

Date H	(8.18.0.0.0)	12 Ahau
DN 3	<u>1.5.2.5</u>	
(Date I	8.19.5.2.5	9 Chicchan)

There is also the much less likely possibility that the DN is to be counted backward, but such a turn-around would ordinarily have been marked by an anterior date indicator. Some other possibilities are discussed with Date L. Among the non-calendricals that follow the DN are a *hel* Y glyph at E23, possibly standing in place of a DN leading to Date J. The up-ended frog appears over a "sky" glyph with a *ma k'ina* postfix at F23. Schele (1976) points out that the usual meaning of "birth" is difficult to apply to this glyph in its other two occurrences on St. 31 (C22 and E14) in reference to the rulers Jaguar Paw and Curl Nose, so perhaps some other meaning should be sought here, such as "since birth."

DATE J

The SR 11 Ahau at E24 is followed by a half-period glyph, 1 baktun notation, and "earth" and "sky" heads—as seen after Dates A and L. Since the day 11 Ahau recurs at a half-katun ending once every 13 katuns, the position 8.18.10.0.0 11 Ahau 18 Pop is the only possibility that can be considered conformable to the other dates in the text. One of the glyphs (E27a) following Date J might read 2 haab, yet the meaning of such an entry is a mystery.

DATE K (suppressed or missing)

Almost at the end of columns E and F, just before the break, is DN 4, which consists of 0 days, 11 uinals, and 5 tuns (5.11.0). The block following the tun sign is almost completely gone except for a small element at upper right that might be part of a katun superfix. What remains of the next block is clearly non-calendrical, and two additional blocks are missing at the base of the columns in row 30. It is possible that a katun value (similar to the 1 katun of DN 3) and the

terminal date for DN 4 were recorded in the missing blocks. Again, as with Date I, the most logical interpretation for this DN is to read its count forward from the preceding date, also a PE:

Date J	(8.18.10. 0.0)	11 Ahau (18 Pop)
DN 4	<u>5.11.0</u>	
(Date K	8.18.15.11.0	3 Ahau 13 Zac)

Other possibilities are discussed with Date L.

Continuing the text after the break, columns G and H begin with a clause of non-calendricals similar to those at blocks D16-C17, F26-F27, and H21-H23. The common features are the skull with infixed chuen thought by Thompson (1962:393-94) to have calendric connotations, a "sky" sign, and an up-ended bone glyph. In two of the cited examples, the clause stands between a PE and a following DN, but in this case it immediately precedes a PE.

DATE L

At block G7 appears the last of the long series of PE dates expressed by the SR position without the VYr. Here it is 9 Ahau, followed by the half-period glyph, 1 baktun glyph, and God C head found after the half-period dates A and J. The "earth" and "sky" signs do not appear here with the head, however. Since 9 Ahau recurs at a half-katun end only once in 13 katuns, the position 8.19.10.0.0 9 Ahau 3 Muan seems the only one available. (We might hypothetically read here "9 Ahau at half-period of Baktun 1" and place the date in the distant past at 1.10.0.0.0; as we have said, however, this method would put Date A at 3.10.0.0.0 even though it is firmly fixed at 9.0.10.0.0 by its IS.) Block H8 is suggested by Schele (1976) as at least part of an accession glyph seen in Palenque and elsewhere (Mathews and Schele 1974:Fig. 5). The subject is Stormy Sky at block G9.

From Date H through Date L we have an interesting yet difficult series of dates to interpret. As far as we can see, there exist three sequent PE fixes separated by two DN's that do not connect these PEs. We have preferred what we consider to be the most straightforward interpretation for these two DN's: that they are simply to be counted forward to suppressed or lost dates from the preceding PEs. Nevertheless, the nonconforming late position of unstated Date I at 8.19.5.2.5 relative to Date J at 8.18.10.0.0 leads to suspicion that other readings might be better.

Since the postulated Dates I and K were possibly suppressed in favor of the DN's themselves, the important information chronicled here may have been the

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span of time between dates rather than the dates themselves. Reasons for stressing a DN might be to state the ruler's age, the span of time within a reign since inauguration, or the count back from the current-time DD of the monument. The latter scheme is seen on Quirigua Stela J, on which the two side texts open with DNs that relate two different historical events (an inauguration and a probable battle or killing of the ruler of Copan) in terms of the distances back in time from the DD written as an IS on the stela back. Applying that hypothesis to Tikal St. 31 would produce the following reading:

Date A	9.0.10. 0. 0	DD
DN 3	<u>- 1. 5. 2. 5</u>	"it was 25 years and 45 days ago"
(Date I	8.19. 4.16.15)	"that he was born" (up-ended frog at F23)
DN 4	<u>- 5.11. 0</u>	"and it was 5 years and 220 days ago" (also counted from Date A)
(Date K	9. 0. 4. 7. 0)	"that some other event occurred."

This possibility is weakened by the fact that it does not take into account the progression of the intervening PE dates, and assumes reference to a DD separated from them by other dates.

Another possibility is that the first DN refers to a time span within the reign (counting forward to a birth from the inaugural date of Curl Nose) and that the second DN continues from that date as a statement of age:

Date G	(8.17. 2.16.17)	Inauguration of Curl Nose (E10-F11)
Date H	(8.18. 0. 0. 0)	"12 Ahau ended the katun"
DN 3	<u>1. 5. 2. 5</u>	"it was 25 years and 45 days within the reign" (counted from Date G)
(Date I	8.18. 8. 0. 2)	"that he was born" (up-ended frog at F23, referring to birth of Stormy Sky)
Date J	(8.18.10. 0. 0)	"11 Ahau ended the half-period"
DN 4	<u>5.11. 0</u>	"at 5 years and 220 days of age" (counted from Date I)
(Date K	8.18.13.11. 2.)	"[some other event] occurred"
Date L	(8.19.10. 0. 0)	"9 Ahau ended the half-period" (after accession of Stormy Sky?).

In this reconstruction, the postulated Dates I and K fall temporally between the PE markers that precede

and follow each of them. The three PE markers are divorced from the event-marking chain of DNs, yet specify transitions from one important calendrical period to the next and note the SR days alone in the same way as do the katun-ending Ahau days of colonial Maya chronicles (Roys 1933:57-62).

DATE M

Immediately after the name glyph of Stormy Sky (G9) comes a *hel* Z compound (H9), followed by a dramatic emphasis of the day 9.0.0.0.0 when Baktun 8 changed to Baktun 9. This is written with a second IS, complete with ISIG, all period glyphs and coefficients, the SR 8 Ahau, Glyph G in its ninth form, Glyph F, and the VYr position I3 Ceh. Directly afterward is a glyph (G15) that also appears after the opening IS (A12), then the hand-and-tassel period-ending sign, and finally the notation of 9 baktuns (G16). The ISIG variable is unmistakably the patron of the month Ceh; thus nothing in this elaborate and perfectly preserved date contradicts its 9.0.0.0.0 position. The statement "end of the period of 9 baktuns" appears again in H26-G27 between DN 5 and Date N.

Following Date M is a long passage that begins with the *u-cab* glyph common in ruler's name phrases (H16), the name of Stormy Sky again (G17), the uinal title compound (G19), Schele's *ma cuch* title compound (H20), and the first of four occurrences in the text of the cauac-shield glyph (G21, H28, L4, N3; see Date N). Within a chuen-skull-"sky"-bone clause (H21-H23) like those noted after Date K is the 9 *hel* compound observed at B18 and finally the TEG without a water-group prefix (G24). Although the appearance of the 9 *hel* notation not long after the name of Stormy Sky implies again that this ruler was the ninth in the count of succession at Tikal, there are two other possible names in the passage, and the number might instead refer to an ancestor (see Date A).

DATE N

A DN at blocks G25-G26 counts 18 days, 9 uinals, and 3 tuns (3.9.18), which from 9.0.0.0.0 8 Ahau should lead forward to 9.0.3.9.18 12 Etznab 11 Zip. After the DN is a hand-and-tassel period-ending sign and 9 baktuns, apparently signifying that the count is from Date M, then at block H27 a day sign with cartouche and pedestal and a coefficient 12. According to the DN, this should be the SR 12 Etznab, but the cauac-and-postfix day sign has not been recognized as an Etznab variant. Schele (1976) proposes that the cauac sign is here used in its sense of *tun*, or "stone," thus substituting for the flint knife of the day

sign Etnab, while the postfix may represent an eccentric flint. (Such variations in well determined calendric glyphs are becoming valuable clues to phonetic identifications of signs.)

After the date is a hand-with-knife superfix over a quincunx glyph with the moon postfix identifying the compound as an event glyph (G28). The nature of this quincunx event is unknown, although quincunx with different affixes apparently refers to death at Palenque (Lounsbury 1974:18). The next glyph ends the short phrase and may be a name. It is the cauac shield with a superfix that depicts a hand holding an atl-atl, axe, or club. It appears earlier in the text at G21 in the long phrase following the Stormy Sky name. Schele (1976) observes that in the left-side text at L4, the glyph follows the decorated ahau male-parent indicator and the name Curl Nose; this phrasing suggests that the cauac-shield-weapon glyph names a person, whom we could call Cauac Shield after the distinctive main sign. Recognizing a Cauac Shield, rather than Jaguar Paw, as father of Curl Nose would lend support to Proskouriakoff's suggestion that dynastic intrusion or displacement took place at Tikal after the reign of Jaguar Paw (Coggins 1975:140-46; 1976). Proskouriakoff herself, however, considered the cauac-shield glyph a tribal rather than a personal name.

Date N is important in Tikal because, as Coggins has pointed out (1975:448), it is apparently referred to by a 13-katun anniversary on Li. 3 of Temple I (Date C) at 9.13.3.9.18 12 Etnab. She further suggested that both dates are inaugural; however, the later one certainly is not the inauguration of Ruler A (Jones 1977:35-45) and, as we have observed above, the 12 Etnab date here is probably not the inauguration of Stormy Sky. Nevertheless, if Stormy Sky was inaugurated around 8.19.10.0.0 (as implied by Date L) and Ruler A at 9.12.9.17.16, then the inaugurations were around 13 katuns apart and the Etnab dates are approximately 13 tuns into the two reigns.

DATE O (missing or suppressed)

An unmistakable DN at G29-H29 leaves only two missing blocks in row 30 at the end of the text. These two blocks might have been occupied by (1) non-calendricals, (2) a katun entry for the DN plus a non-calendrical or an SR date, (3) an SR plus a non-calendrical, or (4) a full CR. Fragment 2 (Fig. 51b) does not help, since it provides only the right side of block H29 and the heel ornament of the side figure.

In block G29, the prefixed coefficient overlaps the superfixes one and is thus likely to be the kins number

of the DN. Seventeen days is the preferred reading, because there seems to be uncarved background below the upper dot of the coefficient. (Crescents or other fillers are not the rule in this or the other early Tikal texts.) The superfixes uinal coefficient is a thick single bar for 5, with interior decoration that stops short of the bar ends and does not imply multiple bars. The tun coefficient in block H29 is 11. Taking the DN for the moment as 17 days, 5 uinals, and 11 tuns (11.5.17), considering an additional katun value as unlikely so close in time to the DD, and assuming that the count was forward from the preceding Date N, we obtain the following reading:

Date N	(9.0. 3. 9.18)	12 Etnab
DN 6	<u>11. 5.17</u>	
(Date O	9.0.14.15.15	7 Men 13 Xul)

If the DN were counted instead from Date M, the terminal date would be 9.0.11.5.17 3 Caban 15 Muan. The possibility of a backward count from Date M or N to 8.19.8.12.3 13 Akbal or 8.19.12.4.1 4 Imix respectively should also be kept in mind, especially as these positions are close to the implied inaugural date for Stormy Sky, perhaps referred to at the close of the text (as on St. 21 and 22). This backward count would eliminate the overshooting of the DD.

The side texts of St. 31 are probably to be read as separate and independent passages, much like the separate panels that appear in figural scenes on ceramic vessels and carved monuments from other sites. Each begins with a rodent-head introductory glyph and old man's head, but following these the statements diverge. At blocks I3-J3 is a two-block version of the name Curl Nose, with the yax and knot affixes placed apart from the animal head. Next is a TEG, identifying him perhaps as a Tikal ruler, although the water group prefix is absent. The *macuch* title appears at L3, and (as noted above) the passage ends with a male-parent glyph and the cauac-shield compound. The right side also carries the name Curl Nose near the beginning and a similar set of titles ending with the TEG. (On the latter, the left element of the superfix is the same TEG prefix used in block A21.) It is likely that the side texts refer to the accompanying figures—given the later doubled portraiture on the lintels of Temples I and IV at Tikal (Kubler 1973; Jones 1977) and on Quirigua stelae, it would not be surprising if both the figures were portraits of Curl Nose. Alternatively, they might be retainers or relatives who are identified by their association with Curl Nose.

In sum, there seems to be sufficient calendric data to accept without question the 9.0.10.0.0 IS as the DD for St. 31 and to reject the previously proposed alternative DD around 9.4.0.0.0. The most telling new evidence is the recognition that Date G is a slightly miswritten repetition of Date A on St. 4: 5 Caban 10 Yaxkin with Glyph G4. This places the date at 8.17.2.16.17 between the katun-ending Dates D and H instead of in a later position within Katun 2 of Baktun 9. In addition, the basic similarity of Date D to the other katun-ending Dates C and H is evidence that it marks the end of Katun 17 and not a Tun 17 (9.2.17.0.0). These two dates (G and D) formed the mainstay of the late alternative DD proposition. The other dates in the text are either well fixed before 9.1.0.0.0 by PE expressions or are too abbreviated to constitute arguments in favor of late positions. The resultant dating pattern (an opening DD followed by earlier historical material), though not found elsewhere on early Tikal monuments, becomes common on later ones (cf. St. 16/Alt. 5; St. 19, 21, 22).

TIKAL STELA 32

ILLUSTRATIONS: Fig. 55a (drawing); Fig. 107b (photograph). **LOCATION:** within PD. 22, intruded into stair of Str. 5D-26-1st, and probably sealed; Gp. 5D-2:TS. 5 (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** none. **CARVED SURFACES:** front (back unknown). **NUMBER OF GLYPHS:** none known. **MATERIAL:** limestone, bedded. **DIMENSIONS:** surviving H 0.70 m, surviving W 0.72 m, W 0.79 m, * surviving T 0.22 m, relief 1.0 cm (center hole of earplug 1.5 cm). **PHOTOGRAPHS:** Coe 1962a:50, 1962b:Fig. 7, 1962c:Fig. 15; Moholy-Nagy 1962; Coe 1963a:418, 1965b:35 (labeled Stela 4), 1967:93; Greene, Rands, and Graham 1972:Pl. 137 (rubbing). **DRAWINGS:** none published. **REFERENCES:** Coe 1962c:499; Moholy-Nagy 1962; Coe 1965b:37; Bailey 1972:15-16; Coe 1967:95.

*Reconstructed

GENERAL REMARKS

Bailey (1972:115-16) questions whether St. 32 was ever completed, basing her argument on the lack of incised line detail on the right carspool. This places doubt on our identification of the stone as a true stela fragment. Traces of red paint adhere to some of the deeper relief surfaces. That the stone was once of greater height than at present is clear from the upper

part of a bird head that survives at the bottom of the fragment. The shaped surfaces of the left side and top conform roughly to the outline of an early Tikal stela top. The size of the principal head, the distance from the face to the top of the stone, and the width are all close to those on St. 4 and consequently suggest a roughly similar estimated height (around 1.66 m). The thickness (0.22 m), however, is considerably less than that of St. 4 (0.36 m) or St. 18 (0.50 m) and, judging from the even curve of the left side toward the rear surface, might have been the original thickness. If so, and if the stone was a stela as we believe it might have been, then it was unusually thin and had no inscription on the back, unlike St. 4 and 18. One must, nevertheless, allow for the possibility of the back having been split off or of the presence originally of a glyphic text lower on the front, after the pattern of St. 36.

TIKAL STELA 33

ILLUSTRATIONS: Fig. 55b (drawing). **LOCATION:** Frag. 1 (formerly MS. 135) within fill of Str. 5D-33-2nd; Gp. 5D-2:TS. 7; Frag. 2 (formerly MS. 37) within PD. 30, the repository of which had been intruded into Str. 5D-23-1st middle room floor and later disturbed; Frag. 3 (formerly MS. 47) within PD. 22 (with St. 32), intruded into stair of Str. 5D-26-1st and probably sealed; Gp. 5D-2:TS. 5; Frag. 4 (formerly MS. 56) recovered from the back-dirt of the Acropolis excavations (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** 8.15.0.0.0 ± 10 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front (back unknown). **NUMBER OF GLYPHS:** none known. **MATERIAL:** limestone, compact. **DIMENSIONS:** surviving H 0.55 m, surviving W 0.16 m, relief 1.5 cm. **PHOTOGRAPHS/DRAWINGS:** none published. **REFERENCES:** Bailey 1972:83-86.

GENERAL REMARKS

Fragments of carved stone that now constitute the single piece known as St. 33 were discovered in a variety of depositional circumstances (TR. 14). The gradual fitting together of the stone was the result of laboratory trial and error by Jones in 1965 and 1969. Discovery of Frag. 1 in the fill of Str. 5D-33-2nd indicates that the stela had suffered at least partial breakup or spalling during Early Classic times. Both Bailey (1972) and Coe (TR. 14) identify the grotesque head at the top as part of a small figure hanging from the belt (seen on St. 2, 28, and 35). Below this are legs

with knees bent and feet raised, soles upward, doubtless belonging to a prone figure similar to that on St. 28.

The absence of carving on the side is puzzling, given the similarity of design to the "wrap-around" Class 4 St. 28. Total defacement is possible, but the surviving surface of the side is worked smooth in the same way as the edge of the front, implying that it must always have been plain. There might have been glyphs on the back of the stone, though, putting the stela in Class 2 with St. 4, 18, 29, and Uolantun St. 1.

TIKAL STELA 34

ILLUSTRATIONS: Fig. 55c (drawing); Fig. 107a (photograph). **LOCATION:** Frag. 1 (formerly MS. 129) and Frag. 2 from opposing inside corners of stairway of Str. 5D-2-1st (Temple II), on or near plaza pavement (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** 9.13.0.0.0 ± 6 katuns (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front, left (right side unknown, back unknown). **NUMBER OF GLYPHS:** none known. **MATERIAL:** shale. **DIMENSIONS:** surviving H 0.88 m, surviving W 0.28 m, W 0.45 m,* surviving T 8 cm, H of standing figure 1.20 m,* relief 1.0 cm. **PHOTOGRAPHS/DRAWINGS/REFERENCES:** none published.

*Reconstructed

GENERAL REMARKS

This large fragment of a carved stela is unusual at Tikal in that its material is shale rather than limestone. The principal piece was found in the collapse debris at the base of Str. 5D-2-1st (Temple II), near the northern corner of the projecting stairway and the front terrace, almost at the surface of the plaza. Another large fragment (Frag. 2), apparently part of the uncarved butt, came from the opposite stairway corner. Miscellaneous Stone 148, which appears to be a fragment from the monument's right edge (unfitted) was recovered from high on the collapsed debris of the substructure. These circumstances suggest that the original location of the stone was not at plaza level but on the substructure, perhaps on the small masonry platform at the top of the substructure stairway.

Fragments 1 and 2 were fitted together in 1969. The latter carried no carving nor indeed any outer surfaces, however, and would have added little to the drawing, which therefore shows only Frag. 1. Other small pieces of carved shale monument were found scattered on the floor of the Great Plaza and North

Terrace not far from the temple. Some of these display the incision style of St. 34 and might derive from it (MS. 22, 23, 24, 128, 143, 144, and 152). Nevertheless, it is clear that St. 34 was not the only shale stela at Tikal, for at least two carved shale fragments come from earlier contexts than the style of this monument: MS. 84 from Protoclassic fills and MS. 64 from Early Classic fills.

What remains of St. 34 denotes a standing figure with the feet turned outward. One foot, shod with a sandal-back like that on Li. 3 of Temple I but without a sole, defines the groundline. Below this is a basal panel, the only recognizable element of which is a profile grotesque head like that on Alt. 8. A feathered garment hangs down almost to the ankles, while more featherwork extends around onto the right side of the stela. Similar feathered garments are seen on stelae from Naranjo, east of Tikal. On St. 11 from that site, dating perhaps to 9.11.0.0.0 (Maler 1911:Pl. 30; Morley 1937-38, II:62-63), the figure wears a long feathered cloak hanging from the shoulders, tied under the arms and overlying a long skirt similar to that on the Tikal stela. Kubler (1969:14) identified the Naranjo figure as female on the basis of the skirt. On Naranjo St. 21 at 9.13.15.0.0, another figure, termed male by Proskouriakoff (1960:465), wears an abbreviated feathered garment over a diagonally hung apron or loin cloth (Maler 1911:Pl. 35; Morley 1937-38, II:85-88). Style dates place both these stelae close to Tikal St. 34 within Proskouriakoff's necessarily broad estimate for it of 9.13.0.0.0 ± 6 katuns.

Not only the unusual costume but the uncommon material of St. 34 suggest strong eastern influence at Tikal: shale stelae are relatively common in Caracol, Belize (St. 4, 15, and 21; Beetz and Satterthwaite 1981). It is possible that the stela, being presently very thin and (judging from the figure) not very tall, might have been carried from that area to Tikal already carved.

TIKAL STELA 35

ILLUSTRATIONS: Fig. 55d (drawing); Fig. 107f (photograph). **LOCATION:** Frag. 1 and 2 (formerly MS. 89 and 83) recovered separately in 1965 in the wall and vault hearting of Str. 5D-22-1st; Gp. 5D-2:TS. 6 (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** none. **CARVED SURFACES:** front (back unknown). **NUMBER OF GLYPHS:** none known. **MATERIAL:** limestone, compact. **DIMENSIONS:** surviving H 0.34 m, surviving W 0.42 m, surviving T 0.20 m, relief 1.6 cm. **PHOTOGRAPHS:** Bailey 1972:Fig. 72. **DRAWINGS:** Bailey 1972:Fig. 71. **REFERENCES:** Bailey 1972:89-117.

GENERAL REMARKS

In TR. 14 Coe describes the archaeological context of the two fragments of St. 35, as well as their material and design. The unequivocal positioning in the hearting of Str. 5D-22-1st with late Manik ceramics is significant, for it not only indicates a fairly early breakage and disposal date for the stela but also places construction after the carving date, which would appear to be around the end of Baktun 8. Coe mentions that many elements (arrangement of legs, skirt fringe, manikin-with-arm-in-a-ring) recall Tikal St. 2, 28, and 33 and Uolantun St. 1 (Fig. 76). Bailey (1972:108) classifies the stone in "Early Classic Sculpture, Group IIA: Profile figure with arm raised (Uolantun St. 1, Tikal St. 29, 31, 35, MS. 110)."

TIKAL STELA 36

ILLUSTRATIONS: Fig. 56a (drawing); Fig. 107e (photograph). **LOCATION:** (formerly St. 34 and then MS. 131) from small group of mounds now called Santa Fé, ca. 3.5 km ENE of the Great Plaza, on rear slope of the principal mound of the group (TR. 12, 13 for location of group; TR. 24D for investigation). **DEDICATORY DATE:** none surviving. **STYLE DATE:** "certainly very early" (Proskouriakoff, personal communication 1969). **CARVED SURFACES:** front (glyphic); Class 1 (Morley Class 7). **NUMBER OF GLYPHS:** 14. **MATERIAL:** limestone, bedded. **DIMENSIONS:** H 1.08 m, W 0.82 m, T 0.38 m, HA 0.81 m. **PHOTOGRAPHS:** none published. **DRAWINGS:** Bailey 1972:Fig. 79. **REFERENCES:** Lowe 1968:419 (called Stela 34); Bailey 1972:109-17.

GENERAL REMARKS

Stela 36 was discovered by Santiago Cifuentes in 1967 and reported by Puleston that year (Lowe 1968:419). The stone was lying on its back halfway down the rear slope of the eastern mound of a plaza located at the far end of the Tikal airstrip. About 3.5 km northeast of the center of Tikal, this group is now called Santa Fé after the adjacent swamp, the Bajo Santa Fé (TR. 12, 13). Puleston speculated that the stela stood originally in the room of the structure and had fallen backward when the rear wall collapsed. More recently, as reported in the *Newsletter* of the Miami Museum of Science (Vol. 6, No. 6, 1977), Miguel Orrego C. of the Instituto de Antropología e Historia de Guatemala excavated within the mound a Manik Ceramic Complex tomb. The mound had been entered by looters, who had robbed two tombs of their contents but missed this third one.

COMMENT ON THE INSCRIPTION

The stela is carved on the front only. A single personage is depicted in profile, seated, as on St. 4. The lower left corner of the front carries an eroded and illegible inscription. The first two columns of the text apparently contain five glyph blocks each and the third only four, making a total of fourteen. No numerical coefficients can be made out; it is not certain that any portions of the text were chronological in content.

Proskouriakoff judged the carving to be "very early." Bailey (1972:114-15) placed it in a group with St. 4, 18, and 32, the first two of which carry glyphic dates probably within Katun 18 of Baktun 8. Bailey also likened St. 36 to Uolantun St. 1 (8.19.0.0.0?) in the treatment of the large head at the left surmounted by the TEG (cf. St. 31) and of the arm at the right holding another head. The squat irregular shape of the stela is comparable to that of St. 4 and 18. This rounded outline is no longer seen at Tikal after these three stelae.

Another stone with which St. 36 should be compared is Alt. 1 (paired with St. 4). It too is made of bedded limestone, with an irregular rounded outline, and carved with a strikingly similar scene. For a long time the classification of St. 36 as a stela was questioned because of its altar-like appearance, and therefore its original designation as St. 34 was changed to MS. 131. Eventually, however, the presence of the groundline and of substantial uncarved space under the central figure led to its reclassification as a stela.

TIKAL STELA 37

ILLUSTRATIONS: Fig. 56b (drawing); Fig. 107c-d (photographs). **LOCATION:** (formerly MS. 41) Str. 5D-33-1st fill, in rear room of Str. 5D-33-2nd, partially sustaining the reset upper fragment of St. 31; Gp. 5D-2:TS. 5 (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** none. **CARVED SURFACES:** front, left (glyphic), or left, back (glyphic). **NUMBER OF GLYPHS:** unknown. **MATERIAL:** limestone, compact. **DIMENSIONS:** surviving H 0.18 m, relief 1.4 cm (front). **PHOTOGRAPHS:** Bailey 1972:Figs. 44, 45. **DRAWINGS:** Bailey 1972:Fig. 43. **REFERENCES:** Bailey 1972:72-88.

GENERAL REMARKS

The single surviving fragment of St. 37 was discovered within the pit in the back room of Str. 5D-33-2nd into which the upper fragment of St. 31 had been placed upright. The pit, stela, and room had subse-

TIKAL STELAE AND STELA/ALTAR PAIRS

quently been covered by the fills for Str. 5D-33-1st. According to Coe (TR. 14), one cannot be certain whether the St. 37 fragment was placed in the pit with St. 31 or had been part of the pre-intrusive fills of the building proper, even though the former possibility is the more likely one.

Bailey (1972:83) compares the carving on the presumed front surface to the headdresses seen on Caracol St. 16 at 9.5.0.0.0 (Beetz and Satterthwaite 1981:62-65) and on a wooden lintel of unknown provenience in the Peten (Mayer 1977). Possibly, however, the figural design is from the left side of a wrap-around stela such as St. 1, 2, and 28. In that case, the glyphs on the adjacent surface would derive from the stela back.

COMMENT ON THE INSCRIPTION

The remains of two incised glyph blocks are preserved within a deeply inset panel. Presumably the panel originally contained more than one column of glyphs; if this was the stela's left side rather than the back, a similar panel of glyphs would probably have balanced it on the right side. Both the deep panel and the incising of glyphs in a side or back text are unique for Tikal. The upper of the two glyphs has an affix with close-set curved filler incisions similar to those on St. 23, 28, and 31, ranging in date from 9.0.10.0.0 to ca. 9.4.3.0.0.

TIKAL STELA 38

ILLUSTRATIONS: Fig. 56c (drawing). **LOCATION:** (formerly MS. 5) Str. 5D-34-1st surface debris overlying

ing E upper terrace of substructure (TR. 14). **DEDICATORY DATE:** none surviving. **STYLE DATE:** none. **CARVED SURFACES:** front, left (glyphic). **NUMBER OF GLYPHS:** unknown. **MATERIAL:** limestone, compact. **DIMENSIONS:** surviving H 0.28 m, surviving W 8 cm, relief 0.8 cm. **PHOTOGRAPHS:** Bailey 1972:Fig. 46. **DRAWINGS:** Bailey 1972:Fig. 47. **REFERENCES:** Bailey 1972:72-88.

GENERAL REMARKS

This stela fragment probably weathered out from construction fills of Str. 5D-34-1st, since it was recovered from the collapse debris on top of the substructure. Caution is due in assigning an early redeposition date for the fragment, however, since it and others from the flanking debris of the structure might have been placed long after the building had been finished (TR. 14).

The carving can be oriented by means of the ear-plug on the most completely preserved of the glyphs, which can occur only on the right side of a glyph. Evidently the monument was a Class 3 or Class 4 stela, with a front figural design, side glyph panels, and possibly a glyph panel on the back. Bailey (1972:83-84) points out that the carving in the center of the surviving front surface is the top of an ankle protector like that on St. 2 and others, that the element to its right is a hanging belt tassel, and that the raised and battered area to the extreme left is part of a manikin-with-arm-in-ring like those on St. 2, 28, 33, 35, and Uolantun St. 1 (Fig. 76). The glyphs are too incomplete for identification.