

THE SIGNIFICANCE OF THE "LOOPED CORD" YEAR SYMBOL IN PRE-HISPANIC MEXICO: AN HYPOTHESIS

By H. B. NICHOLSON

Various symbols for the year were utilized in Mesoamerican iconography. Most of them appear to have been variations of devices symbolizing the intimately interconnected concepts: "precious stone" ("turquoise," "jade"), "blue-green," "rain," "rain deity," "water," etc. (Caso, 1928: 45-64; 1947: 28-29; Garcia Payon, 1939; Thompson, 1950: 144-145, 252, 275-276; 1951: 31-35). In western Mesoamerica the broad outlines of various evolutionary changes in a basic year symbol, which is best known in its interlaced A-O form (centered in late pre-Hispanic western Oaxaca), can clearly be discerned (Caso, 1962: 68-71). In eastern Mesoamerica (Lowland Maya Area), on the other hand, the year (i.e., the *tun-baab*) symbol exhibited no substantial changes through time.

A different year symbol, apparently derived from a distinct concept, has recently been identified and discussed by Caso (1962: 71-73; Figs. 2-4, 7-8). The writer had independently arrived at the same conclusion and had also formed the hypothesis that this symbol, which Caso termed "una cuerda" and which appears to represent a cord or band usually configured as a loop, might well represent a stylization of the tumpline (Nahuatl: *mecapalli*). The evidence supporting this hypothesis is assembled in the following note.*

This "looped cord" is usually represented smooth but occasionally exhibits hatching (Fig. 2: a, b); in these cases its cordlike nature is thus clearly indicated. The cord, *mecatl* in Nahuatl, was often employed as a symbol of genealogical linkage in western Mesoamerican pictorials (e.g., Figs. 14, 15), but another significance must obviously be sought here. Another kind of "cord," the *mecapalli*, the tumpline, the standard device for carrying heavy loads throughout Mesoamerica (except in the far northwest,

* This hypothesis was first suggested verbally during a discussion period following the presentation by Caso of his paper at the XXXV International Congress of Americanists, Mexico City, August 22, 1962.

where it was supplanted by the "coolie yoke"), also comes to mind in this connection—especially in view of the usual loop (fig. 1).

But, assuming this hypothesis has some cogency, why the tump-line? Why should this utilitarian object serve as a symbol for the year? The answer would seem to lie in the concept of the year bearer. This concept is best known from the Maya area. Thompson (1950: 59-61; 124-125) has discussed most of the available information concerning it in the Mayance-speaking region of eastern Mesoamerica. He summarizes the basic concept thus:

The Maya conceived of the divisions of time as burdens which were carried through all eternity by relays of bearers. During the Initial Series Period these bearers were the numbers by which the different periods were distinguished; each number carried the period with which he was associated over his allotted course.

Thompson goes on to discuss certain Classic period inscriptions which pictorially communicate the concept, especially various monuments bearing "full-figure glyphs" (e.g., Copan D, D', W'; Quirigua B, D; Yaxchilan L 48; Palenque Tablero de El Palacio). Occasionally these display the deity of the numerical coefficient carrying the glyph for the period on his back with the tump-line, thus very graphically and literally illustrating the fundamental concept (Fig. 5). There are some ambiguities in the concept (who bore whom?), especially raised by Yaxchilan L 48—which are discussed by Thompson—but the essential concept is clear. Thompson also cites various linguistic data relating to this notion of periods of time conceived as burdens carried forward in relay fashion. The most basic expression, whose literal translation is "year bearer," is found in various Mayance languages (e.g., Yucatec: *ab cuch haab*; Jacalteca: *ikum habil*; Chuh: *cuchlum haabil*; Ixil: *ih yab*). In addition, in the Yucatecan Books of Chilam Balam various relevant phrases have been noted (e.g., *u cuch u ximbal katum*. Chumayel; Roys translation: "the burden of the journey of the katun").

Although the "burden of time" concept may have been especially well developed in eastern Mesoamerica, there is a certain amount of scattered evidence that it was also widespread in western Mesoamerica, far outside Mayance territory. This evidence is both archaeological and linguistic. The former will be first considered.

In Figs. 10-12 are illustrated 3 stone carvings which portray male figures bearing date symbols (2 certainly and possibly all 3 with numerical coefficients) on their backs with tumplines. They appear to have been found in widely separated locations. Fig. 10 supposedly hails from northern Veracruz; the style is somewhat indeterminate but seems to be related to the Classic Veracruz or Tajin style (Proskouriakoff, 1954). A seated (or perhaps kneeling) figure, grasping an object resembling a staff shaped something like a shepherd's crook, with the other hand grasps what is almost certainly a tumpline. The latter is connected to the glyph for the day sign "house" (Nahuatl: *Calli*), in a

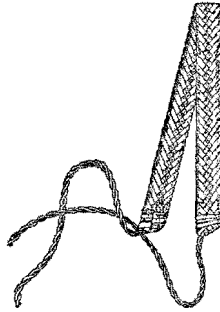


FIG. 1. Modern model of tumpline. Tajin, Veracruz (Totonac). After Kelly and Palerm.

cartouche. A portion of what may be a bar, standing for the numerical coefficient of 5, can perhaps be discerned under the cartouche.

Fig. 11, a stela from Piedra Labrada, eastern Costa Chica of Guerrero, represents a standing male figure stooping under the weight of a glyph (apparently with a numerical coefficient of one) carried on the back with a tumpline. The left hand grasps what appears to be a kind of staff. Unfortunately, the glyph itself (which could indicate the year bearer system of the carvers of this monument) cannot be clearly made out in the photograph published by Piña Chan. The figure is standing above another large glyph (in a elaborately decorated cartouche) which Caso (1962: 66) has identified with his "Glyph Z" (= water?)—also with a numerical coefficient of one.

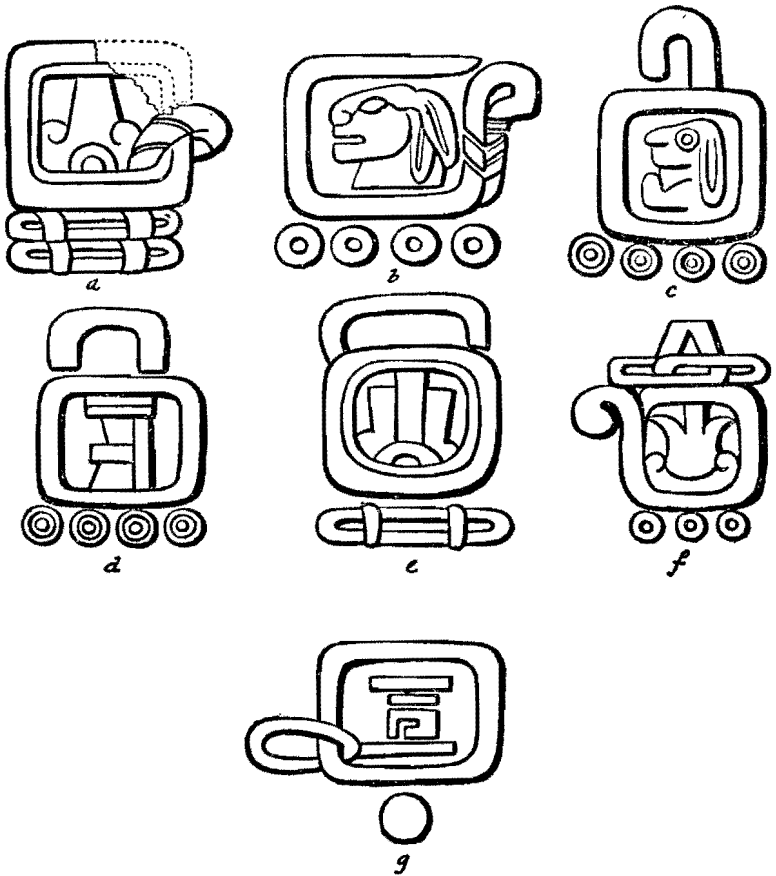


Fig. 2. Looped cord year symbol from various monuments; a: Pyramid of the Feathered Serpents, Xochicalco; b: "Stone of the 4 Glyphs," Xochicalco; c-d: "Stone of the Palace," Palacio de Cortes, Cuernavaca (probably originally from Xochicalco); e: "Seler Stone," Xochicalco; f: Lapida 1, Tomb 1, Yucuñudahui, Mixteca Alta, Oaxaca (presence of looped cord year symbol perhaps dubious); g: boulder sculpture, Maltrata, Veracruz. After Caso.

Finally, in Fig. 12, a relief on one side of a monument supposedly found in or near Mexico City, a kneeling figure—which appear to display some of the characteristics of a rabbit—carries with a tumpline a large *Calli* symbol with a numerical coefficient of 11 (represented by 11 little circles edging the top and right side). As with the representations on the 2 monuments already described, one hand grasps the tumpline; the other, what seems

to be a staff. This posture, incidentally, especially the hand upraised grasping the tumpline, is a standard one in Mesoamerican portrayals of *cargadores* bearing burdens with the tumpline, as Figs. 5: a-b, d, and 6 attest. Also it is worth noting that the 2 figures bearing the *Calli* glyph rather strikingly resemble certain depictions in the *Codex Zouche-Nuttall* (e.g., Fig. 9), but in this pictorial the stylized houses borne by the *cargadores* obviously do not represent the *Calli* date sign.

The dating of these 3 stones is somewhat problematical. The monument reportedly from the Mexico City area bears on its other face (Fig. 13) a representation of the "man-bird-serpent," which is very similar to the classic depictions of this being at Tula

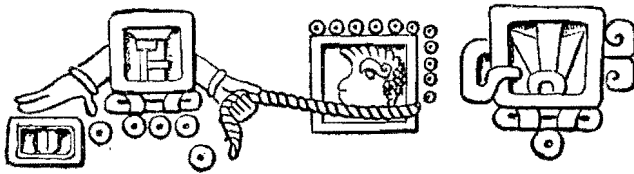


Fig. 3. Probable looped cord symbol with date 6. Reed, plus other calendric symbols which possibly commemorate a calendric shift or correction (cord being drawn across 11. Monkey date obviously distinct in meaning from looped cord year symbol). Pyramid of the Feathered Serpents, Xochicalco. After Seler.

and Chichen Itza. It is highly unlikely, therefore, that it is any earlier than the Early Postclassic (Toltec) period, and it may well date precisely to this period in spite of its supposed Mexico City area provenience (various Toltec style carvings have been found in the subsoil of Mexico City). The few indubitably Toltec carved stone dates (Acosta, 1956-1957: Figs. 22: 1, 2, 6, 7; 1960: Lam. XXI) all utilize the 5-bar. Its absence here would perhaps tend to favor a post-Toltec date for this monument (at least one date [calendric name] of a Toltec ceramic vessel [Fuhrmann, 1922: Bild 85], however, also lacks the 5-bar). Piña Chan (1960: 73) reports Monte Alban III-A ceramics at Piedra Labrada, Guerrero; Powell Rosenthal and Olson (1964: 12), on the other hand, report that "...the majority of surface finds were of Post Classic date." I would tend to favor a Late Classic or Early Postclassic date for Fig. 11. As for Fig. 10, if its Tajinoid

stylistic affinities can be accepted, a Late Classic or very Early Postclassic date for it also would seem likely.

The available evidence points to a terminal Classic-earliest Postclassic date for the occurrence of the looped cord year symbol on carved stone monuments—more or less coeval with the prime *floruit* of Xochicalco (the absence of the 5-bar in the numerical coefficient of the Tenango del Valle cliff carving of 9. *Calli* [Fig. 7] might suggest a somewhat later date for this example, although numerical coefficients at Xochicalco [e.g., Fig. 3] oc-

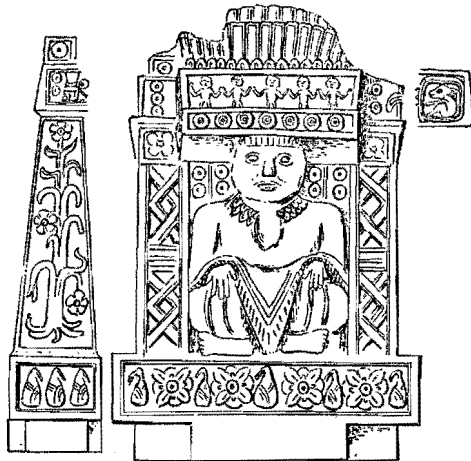


FIG. 4. "La Malinche," Palacio de Cortes, Cuernavaca (found at Xochicalco). The dates 6. Foot (Caso's "Glyph K") and 2. Rabbit are carved at the upper left and right, respectively; the latter displays the looped cord decive. After Selser.

asionally lack the 5-bar). There seems to be a general coincidence, therefore, between the temporal positions of our 3 year bearer monuments and those which display the looped cord year symbol.

It is barely possible that a version of the looped cord year symbol survived in one area until after the Conquest. Two fragments of the as yet only partially published (Burland, 1960: Fig. 2) "*Papers of Itzcuintepec*" (British Museum, Depart of Manuscripts: Egerton MSS. 2896; 2897), from the Sierra de Puebla region, depict rows of what are obviously years, in square

cartouches, with each of which is associated a drawing of a cord configured as a kind of figure-8 knot (Figs. 14, 15). There is little question that representations of cords are involved, as comparison with the cords illustrating genealogical descent in the same pictorial clearly demonstrates. In one case (Fig. 14), these knotted cords are placed just outside and adjoining the square cartouches; in the other (Fig. 15), they are placed inside the

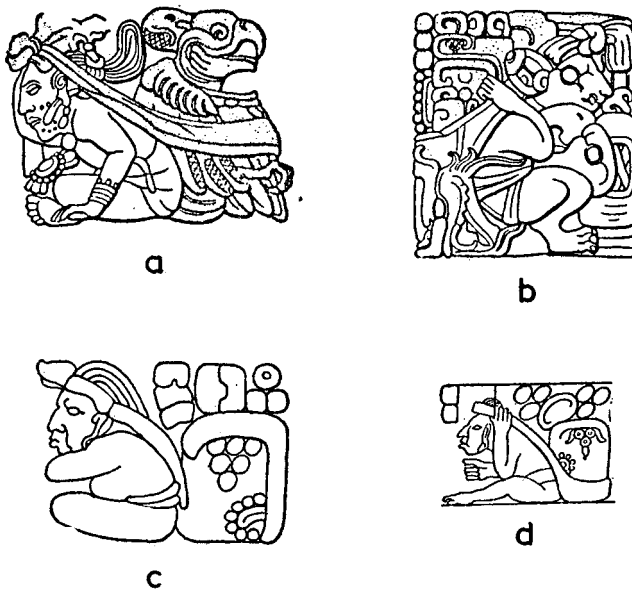


Fig. 5. Classic period Lowland Maya representations of figures carrying time periods on their backs as loads with tumplines; a: 9 Baktuns, Copan D; b: Glyph B carrying Glyph X, Quirigua B; c: numerical coefficient carrying *uinal*, Copan D'; d: numerical coefficient carrying *uinal*, Copan W'; After Thompson and Morley.

cartouches, sharing the space with the year signs. A peculiar feature of both these series is the repetition of the *same* year (3 in one case, 7 in the other [both series are probably fragmentary]) rather than sequent years in the 52 year cycle, as in the usual case.

But are these knotted cord devices really intended here as year symbols, possibly related to the looped cord symbol of earlier times? The square cartouche obviously serves this function, and

in other fragments of the same pictorial year signs in square cartouches are unaccompanied by the knotted cord symbol. Also, in this document (and in the stylistically closely related *Lienzo de Metlatoyuca*) the cross-in-circle (= "turquoise") serves as a year symbol (a series of these are actually connected to one of the cartouches in one of the series of dates in square cartouches

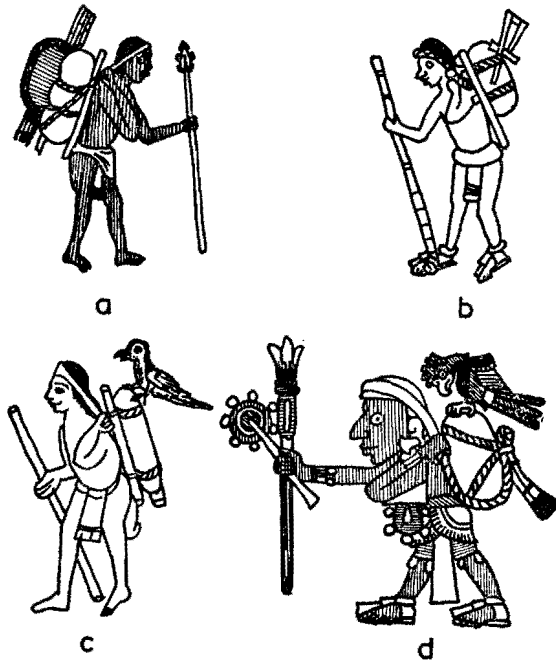


Fig. 6. Traveling *cargadores* bearing loads with tumplines. From various pictorials; a: *Codex Mendoza*, fol. 63v; b: *Codex Telleriano-Remensis*, fol. 41v; c: *Codice Azcatitlan*, Pl. XXII; d: *Codex Fejervary-Mayer*, p. 31.

which also display the knotted cord devices [Fig. 14]). Another possible interpretation of this devices is that it represents the *mecatli* element in a place-glyph, perhaps for Mecatlan, "Place of the Cord," an important Totonac town in the eastern Sierra de Puebla region (see Kelly and Palerm 1952: 253, Map 1). This community or a homonym may be represented on the *Lienzo de Metlatoyuca*—by a knotted cord (but configured

differently) on the usual stylized hill (Guzman [1939: 6] suggested either a reading of "Mecatipac" or "Cuatzontepec" for this place-glyph [it is quite similar to the place-glyph for Cuatzontepec in the *Matricula de Tributos* (p. 22) and the *Codex Mendoza* (fol. 44r)]). Conceivably, then, the knotted cord device serving as place-glyph for Mecatlan or a similarly named community was placed near each of these year symbols because of some association of these dates with this community (however, a number of clear-cut place-glyphs are depicted in this pictorial, and none of them appear to be that of Mecatlan).

Finally, a third possibility is that this knotted cord stands for the well-known symbol for the "binding of the years," the *xiuhmolpilli*, for a knotted cord was often used to designate the year the "New Fire Ceremony" (*toxiuhmolpilia*) was celebrated, at the expiration of one 52 year cycle and the beginning of another (Caso, 1927: 11-12; Nicholson, 1959: 402-407). However, in late pre-Hispanic times in the Valley of Mexico and areas strongly under its influence this year, of course was 2. *Acatl*; here this knotted cord device is associated with the years 5. *Tecpatl* and 13. *Tecpatl*. Even if the New Fire Ceremony was celebrated in a *Tecpatl* rather than an *Acatl* year in this area, it would be unprecedented for this event to have occurred in *different Tecpatl* years. This explanation, therefore, would appear to be even less likely than the others.

Admittedly, the presence of this knotted cord symbol with only these 2 series of repeated dates in the "*Papers of Itzcuintepac*" poses a difficult problem of interpretation. It seems possible that it was employed in these cases as an additional year symbol. However, various other explanations are perhaps just as likely, and I would not particularly urge this interpretation. It should only be regarded as a possibility to be further explored (the survival of the cross-in-circle year symbol in this region *might* slightly strengthen the case for this interpretation since both devices were concurrently employed in the Xochicalco glyphic system).

Whether the looped cord year symbol as an iconographic device survived until contact, the concept of periods of time as burdens carried as on a journey certainly was extant in Central Mexico at this time—as is evidenced by various passages collected by Sahagun. Three of these (Nahuatl modified to a more current orthography) are:

Ce Tochli. motenehua huitzlampa	xiuhtonalli, xiuhtlapo- hualli:	One Rabbit (year) it is said (this was) the year sign, the year counter (of the) South thirteen years
matlaxihuitl omei tlahuica, tlaotlatoctia, tlatqui tlamama...		it carries it it conveys it it bears it it bears its burden... (Sahagun, 1953: 21)
Auh niman ic huitzlampa tonalli. In ihcuac, y, moquetza, in quipehualtia itequiuh, inic ce xihuitl tlahuicaz, tlaotlatoctiz:...	in ce tochtli:	And then One Rabbit (year) rises up the sign of the South when (this occurred) and it rises it begins its office to carry the first year to convey it... (Sahagun, 1953: 21-22)
in ihcuac onhuetz intequiuh in in ontequicauhque in oconmotlaxi(ni?)lique in tlanene- mitiaya in izquilhuitl oncan tlaotlatoctia niman hualmoquetza, ontiquiana (In ce ehecatl):...		when fell (i.e., were put down) left their office dissolved that which they were maintaining? the different days (then) there conveys it then rises up assumes its office (One Wind [day])... (Sahagun, 1957: 100)

As has been demonstrated by both archaeological and linguistic evidence, the 4 of the 20 day signs which could serve as designations for the year were commonly conceived in various parts of western Mesoamerica to have been borne as burdens, often with the tumpline, in their passage through time. The tumpline, *mecapalli*, would then have served as a logical and understandable symbol for these year bearers. No other explanation for the looped cord device would appear to be more satisfactory. Although I do not feel that it can be conclusively demonstrated, with available evidence that this identification is correct, enough evidence exists in its favor that it can be presented as a working hypothesis—perhaps to be definitely proved or disproved when more data become available.

Acknowledgments: I would like to thank the Museo Nacional



Fig. 7. Dare 9. House with looped cord year symbol. Tenango del Valle cliff carving. Photo Nicholson.



Fig. 8. Date 3. House with looped cord year symbol (plus upper portion of a second glyph [probably "Reptile's Eye"]). Monument in Museo Nacional de Antropología, Mexico. Photo Nicholson.



Fig. 9. Twelve Wind carrying house on back with tumpline. *Codex Zouche-Nuttall*, p. 19.



Fig. 10. Relief carving reportedly from northern Veracruz. After Medioni and Pinto.



Fig. 11. Stela, Piedra Labrada, Guerrero. After Piña Chan.



Fig. 12. Carved monument, reportedly from Mexico City area. Los Angeles County Museum. Photo Nicholson.



Fig. 13. Other side of monument of Fig. 12 ("man-bird-serpent").

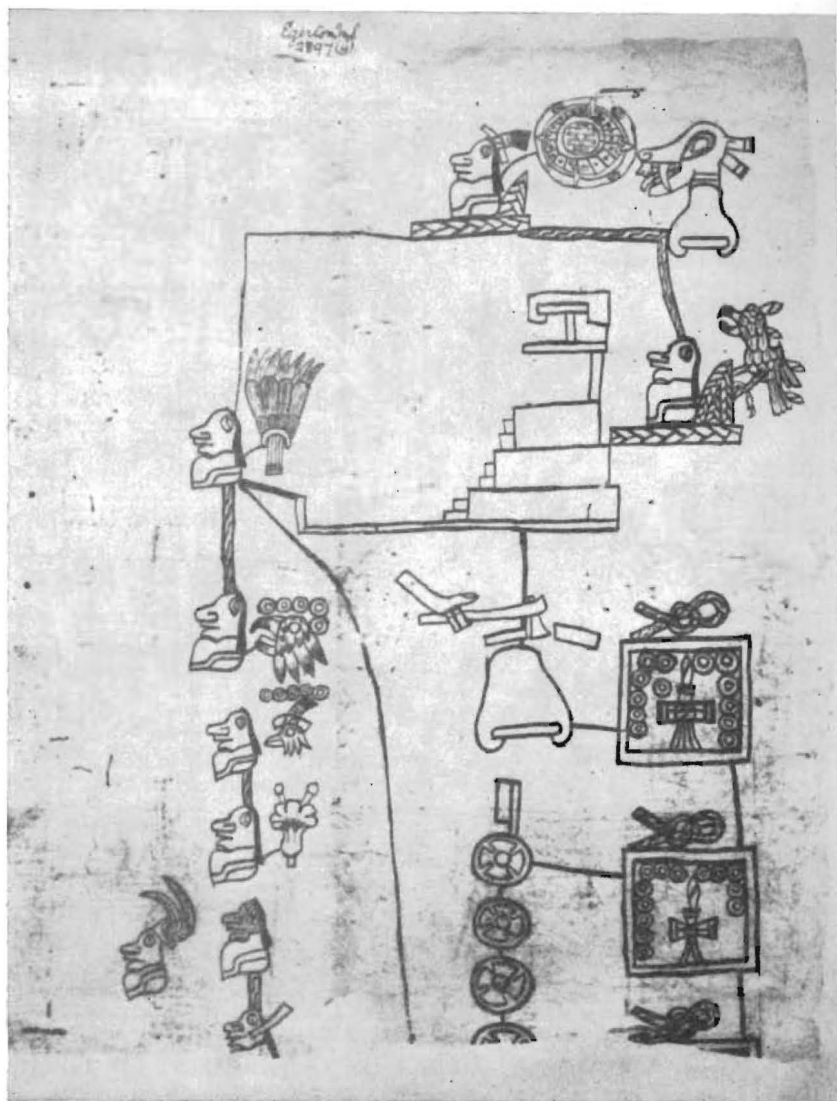


Fig. 14. Fragment of "Papers of Itzcuintepec" (Egerton 2897 [4], British Museum).

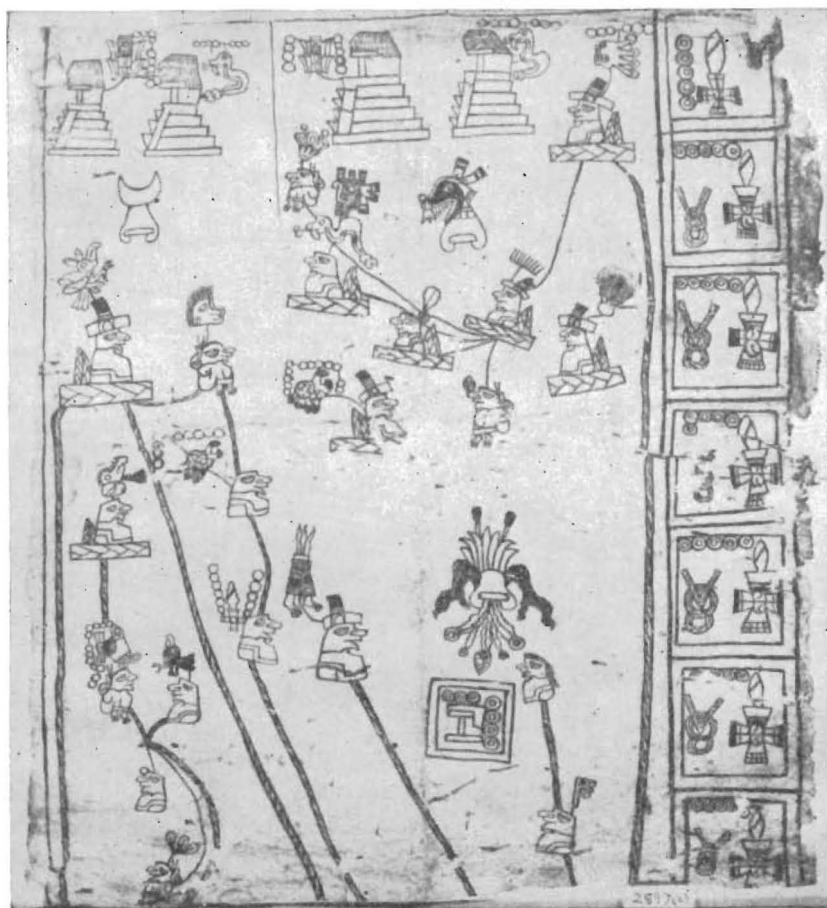


Fig. 15. Fragment of "*Paper of Itzuintepic*" (Egerton 2897 [2], British Museum).

de Antropología, Mexico, for permission to publish Fig. 8, the Los Angeles County Museum for permission to publish Figs. 12 and 13, and the British Museum, London, for permission to publish Figs. 14 and 15. I would also like to express my thanks to Dr. William Bright, Department of Anthropology, University of California, Los Angeles, for aid in the translation of the Nahuatl passages from Sahagun.

REFERENCES CITED

ACOSTA, JORGE R.

- 1956- "Interpretación de algunos de los datos obtenidos en Tula relativos
1957 a la época Tolteca", *Revista Mexicana de Estudios Antropológicos*,
XIV (Segunda parte), 75-110.
- 1960 "Las exploraciones en Tula, Hidalgo, durante la XI temporada,
1955", *Anales del Instituto Nacional de Antropología e Historia*,
XI, 39-72.

BURLAND, COTTIE

- 1960 "The map as a vehicle of Mexican history," *Imago Mundi*, xv,
11-18.

CASO, ALFONSO

- 1927 *El Teocalli de la Guerra Sagrada (descripción y estudio del monolito encontrado en los cimientos del Palacio Nacional)*, México, Publicaciones de la Secretaría de Educación Pública (Monografías del Museo Nacional de Arqueología, Historia y Etnografía).
- 1928 *Las estelas zapotecas*, México, Publicaciones de la Secretaría de Educación Pública (Monografías del Museo Nacional de Arqueología, Historia y Etnografía).
- 1947 "Calendario y escritura de las antiguas culturas de Monte Albán".
In Othón de Mendizábal, Miguel, *Obras completas*, I, 113-143, México.
- 1962 "Calendario y escritura en Xochicalco", *Revista Mexicana de Estudios Antropológicos*, XVIII, 49-79.

CÓDICICES (LIENZOS, MAPAS, etc.)

AZCATITLAN

- 1949 Barlow, Robert, "El Códice Azcatitlan", *Journal de la Société des Américanistes*, n.s. XXXVIII, 101-135 (Láminas I-XXIX).

FEJÉRVÁRY-MAYER

- 1901 *Codex Fejérváry-Mayer, manuscrit mexicain précolombien du Free Public Museums de Liverpool (M 12014), Paris, Monrocq.*

MATRÍCULA DE TRIBUTOS

- 1890 Peñafiel, Antonio (ed.), *Monumentos del arte mexicano antiguo*, Plates, II, Láminas 228-259.

METLALTOYUCA, LIENZO DE

- 1920 Bretón, Adela, "An ancient Mexican picture-map," *Man*, XX, 17-20 (Pl. B: 1-2; copy); photo of original in Guzmán, 1939, 2.

MENDOZA

- 1938 Clark, James Cooper (ed. and trans.), *Codex Mendoza, the Mexican manuscript known as the Collection of Mendoza and preserved in the Bodleian Library, Oxford*, London, Waterlow and Sons.

TELLERIANO-REMENSIS

- 1899 *Codex Telleriano-Remensis; manuscrit mexicain du cabinet de Ch. M. Le Tellier, archeveque de Reims, aujourd'hui à la Bibliothèque Nationale (Ms. Mexicain n° 385)... précédé d'une introduction contenant la transcription complète des anciens commentaires hispano-américains par E.-T. Hamy, Paris, Monrocq.*

ZOUCHE-NUTTALL

- 1902 *Codex Nuttall; facsimile of an ancient Mexican codex belonging to Lord Zouche of Harynworth, England, with an introduction by Zelia Nuttall*, Cambridge, Massachusetts, Peabody Museum of American Archaeology and Ethnology, Harvard University.

FUHRMANN, ERNST

- 1922 *Mexiko. Schriftenreihe: Kulturen der Erde. Material zur Kultur- und Kunstgeschichte aller Völker*, Band 13, Mexiko, Vol. 3. Hagen-Darmstadt.

GARCÍA PAYÓN, JOSÉ

- 1939 "El símbolo del año en el México antiguo", *El México Antiguo*, IV, núms. 7-8, 241-253.

GUZMÁN, EULALIA

- 1939 "The art of map-making among the ancient Mexicans," *Imago Mundi*, III, 1-6.

KELLY, ISABEL and ÁNGEL PALERM

- 1952 *The Tain Totonac. Part. 1. History, subsistence, shelter and technology*, Smithsonian Institution, Institute of Social Anthropology, Publication 13, Washington, D.C.

MEDIONI, GILBERT and MARIE-THERESE PINTO

- 1941 *Art in ancient Mexico (collection of Diego Rivera)*, New York.

MORLEY, SYLVANUS G.

- 1920 *The inscriptions at Copan*, Carnegie Institution of Washington, Publication 219, Washington, D.C.

NICHOLSON, H. B.

- 1959 "The Chapultepec cliff sculpture of Motecuhzoma Xocoyotzin," *El México Antiguo*, IX, 379-444.

PIÑA CHAN, ROMÁN

- 1960 "Algunos sitios arqueológicos de Oaxaca y Guerrero", *Revista Mexicana de Estudios Antropológicos*, XVI, 65-76.

POWELL ROSENTHAL, JANE and ALAN P. OLSON

- 1964 "Survey and stratigraphic testing in southern Guerrero, Mexico." Paper delivered at the Twenty-Ninth Annual Meeting of the Society of American Archaeology, The University of North Carolina at Chapel Hill, May 7-9, 1964. Ms.

PROSKOURIAKOFF, TATIANA

- 1954 *Varieties of Classic Central Veracruz sculpture*, Carnegie Institution of Washington, Publication 606, 61-121, Washington, D.C.

SAHAGÚN, FRAY BERNARDINO DE

- 1953 *Florentine Codex: General history of the things of New Spain. Book 7—The sun, moon, and stars, and the binding of the years.* Translated from the Aztec into English, with notes and illustrations by Arthur J. O. Anderson and Charles E. Dibble, Monographs of The School of American Research, Santa Fe, New Mexico (Published by The School of American Research and The University of Utah), Number 14, Part VIII, Salt Lake City, University of Utah Press.

- 1957 *Florentine Codex: General history of the things of New Spain. Book 4—The soothsayers and Book 5—The omens.* Translated from the Aztec into English, with notes and illustrations by Charles E. Dibble and Arthur J. O. Anderson, Monographs of The School of American Research and Museum of New Mexico, Santa Fe, New Mexico (Published by The School of American Research and The University of Utah), Number 14, Parts V and VI, Salt Lake City, University of Utah Press.

SELER, EDUARD

- 1888 "Die Ruinen von Xochicalco," *Zeitschrift für Ethnologie*, XX, 94-111 (reprinted: *Gesammelte Abhandlungen zur Amerikanischen Sprach- und Altertumskunde*, II, 128-167, 1904).

THOMPSON, J. ERIC S.

- 1950 *Maya hieroglyphic writing: introduction*, Carnegie Institution of Washington, Publication 589, Washington, D.C.

- 1951 "Aquatic symbols common to various centers of the classic period in Meso-America," *The Civilizations of Ancient America: Selected Papers of the XXIXth International Congress of Americanists* (Sol Tax, ed.), 31-36, Chicago, The University of Chicago, Press.