

The Writing System of Ancient Teotihuacan

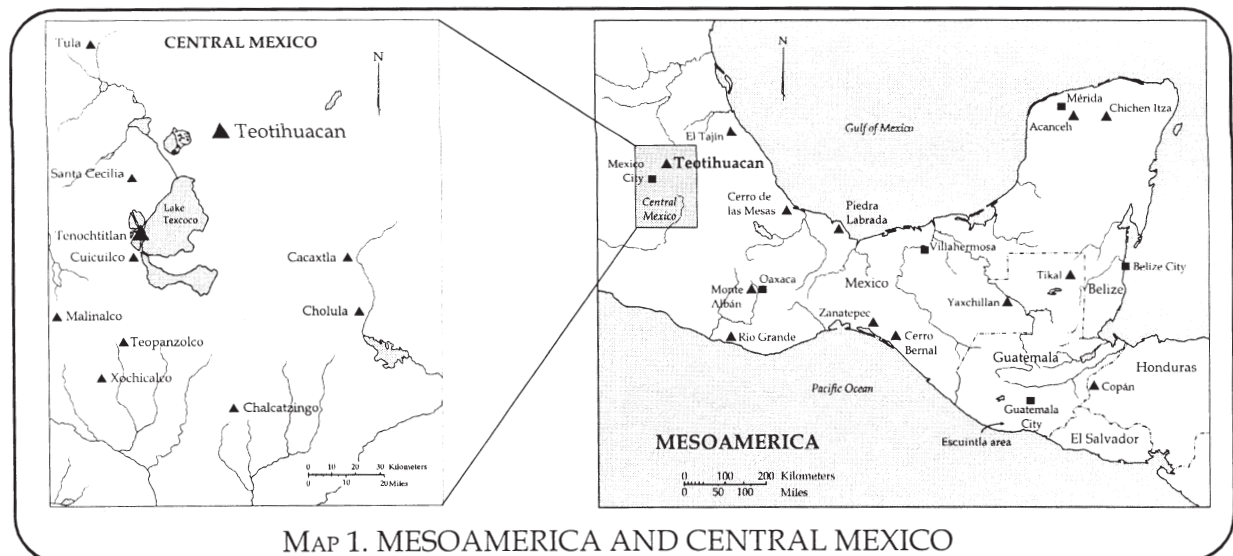
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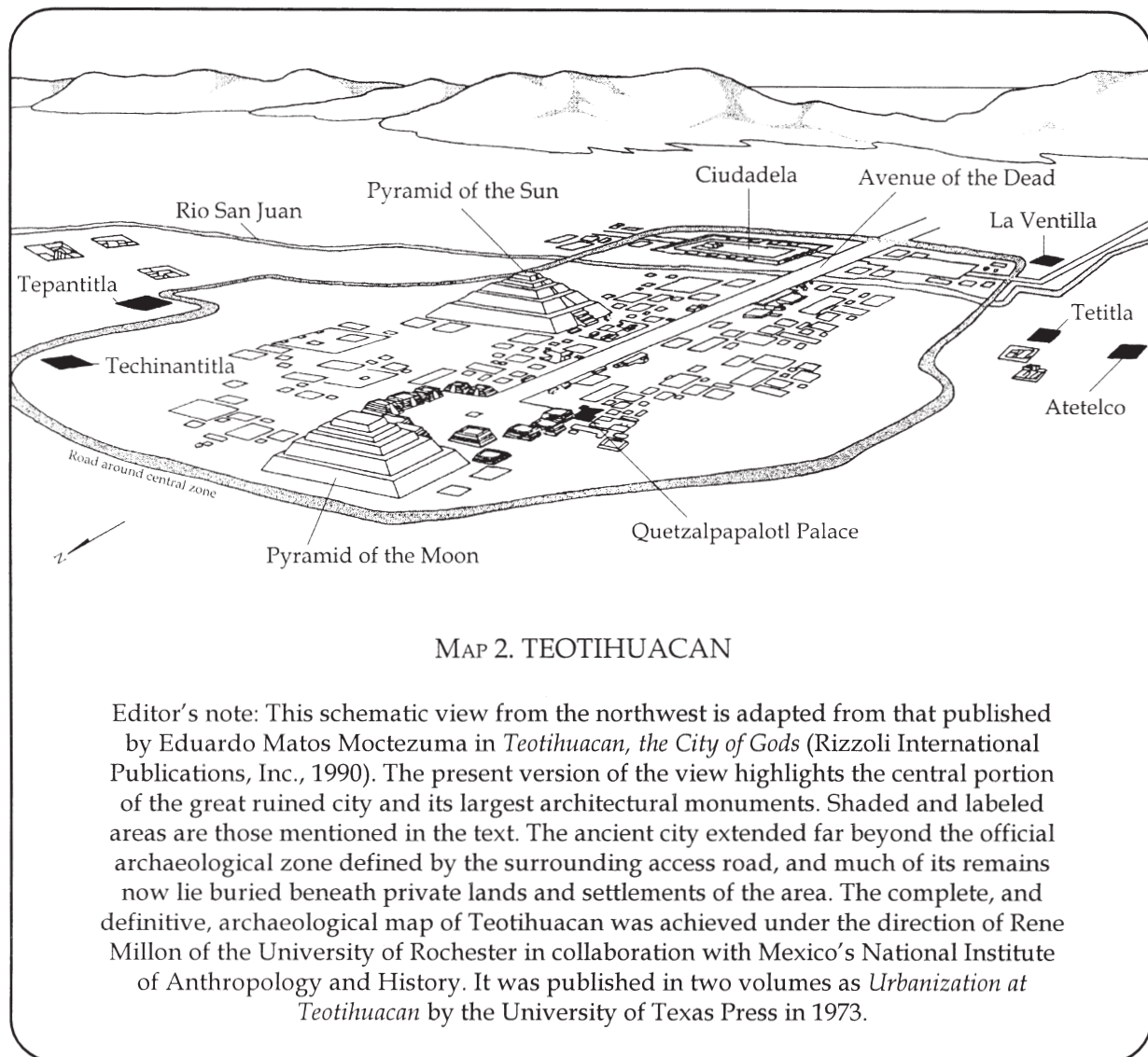
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INTRODUCTION

During much of the Classic Period, Teotihuacan was the great metropolis of Central Mexico (Map 1), with perhaps as many as 150,000 inhabitants dwelling in intricate apartment compounds (Map 2). In addition to its obvious size and social complexity, Teotihuacan was in direct contact with such distant areas as Oaxaca, West Mexico, and the Maya region. Moreover, Teotihuacan clearly was a multi-ethnic city, including foreign populations from Oaxaca, the Gulf Coast, and Michoacan (Rattray 1987, Spence 1992, Gómez Chávez 1999). A stone monument from the Oaxacan Barrio even bore Zapotec writing, here as the date 9 "L" (R. Millon 1973:41-2).¹ Aside from the presence of Zapotec and Gulf Coast peoples, there were also literate Maya at Teotihuacan (Taube 1999a). Along with Maya-style figures and iconography, the "Realistic Paintings" from Tetitla contain fragments of phonetically written Early Classic Mayan texts.²

Despite the presence of foreign scripts and the obvious need for record keeping, there is surprisingly little discussion of writing at Teotihuacan. In an important study of early Central Mexican scripts, Janet Berlo first poses the presence of writing at Teotihuacan, not as





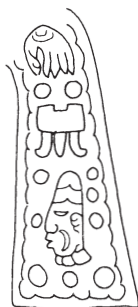
a statement, but as a question (Berlo 1989:20). In a more recent analysis of Mesoamerican writing systems, Joyce Marcus (1992:3) asserts that writing was absent at Teotihuacan. In the present study, however, it will be argued that Teotihuacan indeed possessed a complex system of hieroglyphic writing, which appears not only on small portable objects but also in elaborate murals in many regions of the city. Although an important and distinct writing system, in many ways Teotihuacan writing was a precursor to the later writing systems of Xochicalco, Tula, and the Aztec.

Any discussion of the extent of writing at Teotihuacan obviously depends upon the specific criteria used for defining the presence of writing. For example, Thomas Barthel (1982) interpreted the varied signs appearing in speech scrolls and streams falling from hands as "graphemes" joined to form Teotihuacan texts (Figure 1a-c). This approach, however, has not received wide acceptance (see Berlo 1989:21; Marcus 1992:17). In his detailed and extensive studies of symbolic notation and imagery at Teotihuacan, James Langley (1986, 1991, 1992, 1994) is more cautious, and avoids identifying glyphs and texts at Teotihuacan:

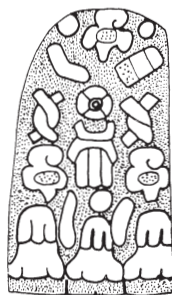
FIGURE 1. COMPARISON OF ELEMENTS FOUND IN SOUND SCROLLS AND HAND-SCATTERING STREAMS WITH TEOTIHUACAN WRITING.



a



b



c



d

- a: STRIDING FIGURE WITH SOUND SCROLLS CONTAINING SHELLS, CARVED JADE, AND OTHER ELEMENTS (FROM A. MILLER 1973:FIG. 173)
 b: CARVED JADES FALLING FROM PAW OF NETTED JAGUAR (FROM A. MILLER 1973:FIG. 324)
 c: FLOWERS AND OTHER MOTIFS IN A HAND SCATTER MOTIF (FROM LANGLEY 1993:FIG. 7)
 d: TEOTIHUACAN GLYPHIC COMPOUND FORMED ON HEADRESS KNOT AND COYOTE HEAD (FROM LANGLEY 1993:FIG. 3)

A term such as “glyphic,” which has a precise technical meaning and provides criteria for distinguishing between classes of symbol, is so specific that it would be premature and ultimately misleading to use it for signs as little known as those of Teotihuacan (Langley 1986:12).

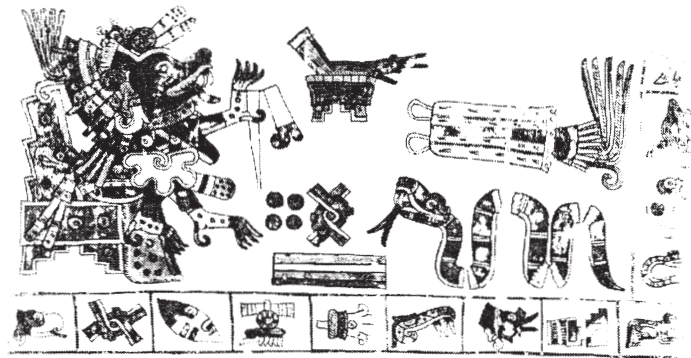
In another study, Langley is noncommittal concerning the presence of writing at Teotihuacan: “The question how far the Teotihuacanos had progressed towards a writing system in the traditional sense remains open” (Langley 1992:248). Rather than distinguishing between texts and iconography, Langley prefers to consider Teotihuacan complex symbolic imagery as signs forming larger clusters. Thus, no inherent distinction is made between the signs in falling streams and speech scrolls and what I would consider as glyphic texts, such as a compound first identified by Evelyn Rattray and Clara Millon (Figure 1d).

In order to consider Teotihuacan writing, it is necessary to define and describe the nature of writing and how it differs from complex visual art, which clearly also abounds in this ancient city. Writing is visually recorded speech; that is, it is directly tied to the spoken

word (Coe 1992:13; Marcus 1992:17). There is a great deal of specificity in the signs used in writing, so that various individuals can read and utter a particular text in very similar if not identical ways. Whether a writing system is alphabetic, syllabic, or strongly logographic, it is still expressing specific terms of speech. Take, for example, one of our own logographic signs, the Arabic numeral "3." Although this sign is not written alphabetically, one immediately reads it as the word "three," and not "one and one and one," or "one less than four." In addition, as part of a larger system of varied elements, particular signs will reappear in a variety of contexts and combinations. The consistent reduplication of signs is a prerequisite for recognition and reading.

In the strongly pictorial books of Postclassic Central Mexico, the difference between writing and iconography may seem blurred. However, it is readily possible to point out clear examples of writing. Aside from the logographic signs for numbers, there are the twenty day names. The difference between writing and pictorial scenes can be illustrated by one of the *trecena* sections in the Codex Borgia. Take for example, the *trecena* 1 Vulture on Borgia page 65 (Figure 2a). The day signs bordering two sides of the scene are true writing, as they have

FIGURE. 2. COMPARISON OF MESOAMERICAN WRITING AND ART IN LATE POSTCLASSIC CENTRAL MEXICO AND THE CLASSIC MAYA REGION.



a



b

- a: SCENE OF XOLOTL ACCOMPANIED BY 1 VULTURE *TRECENA* SERIES (FROM CODEx BORGIA, p. 65)
 b: SCENE OF RULER BIRD JAGUAR AND ASSISTANT TAKING CAPTIVES, LINTEL 8, YAXCHILAN (FROM GRAHAM AND VON EUW 1977:27)

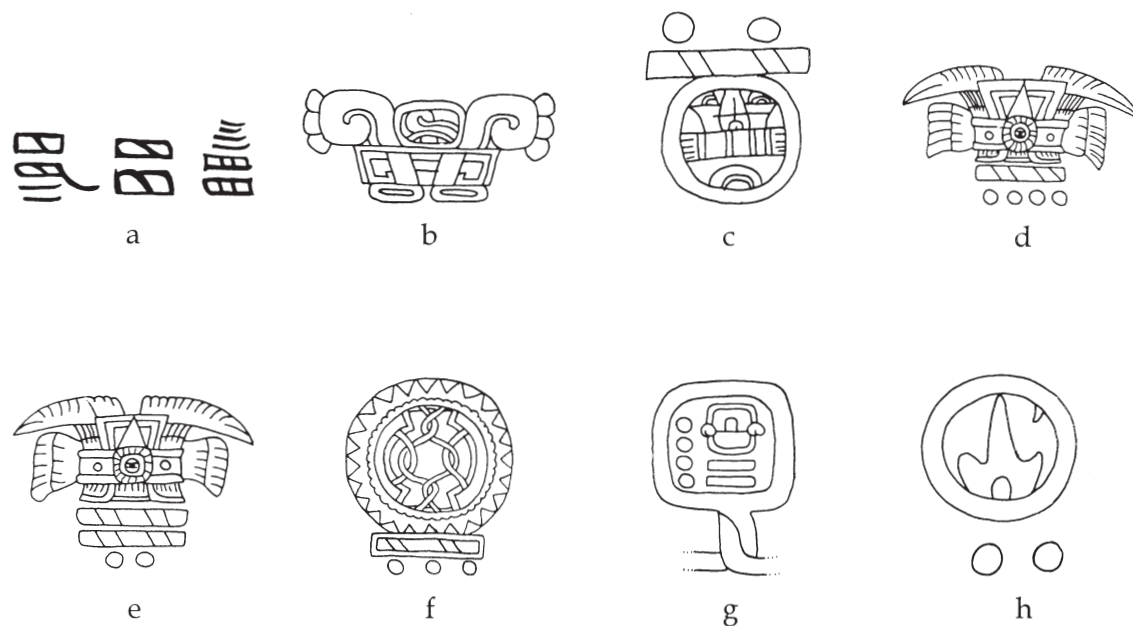
very specific names according to the language in use. Moreover, as they occur in a set pattern, the accompanying coefficient is also inferred. Thus in Nahuatl, the series would read *Ce Cozcacuauhtli, Ome Ollin, Yei Tecpatl*, and so on. Although the accompanying scene presents a rich *tableaux* of iconographic imagery, this could be expressed differently by equally informed viewers speaking the same language. In other words, although the 1 Vulture trecena scene conveys a great deal of information, it is not writing. A still sharper contrast between writing and symbolic imagery can be seen on Classic Maya monuments, such as Lintel 8 of Yaxchilan (Figure 2b). In the highly narrative scene, it is readily apparent that conquest is taking place, but even if the viewer recognizes the protagonists and captives, this event could be described orally in a variety of ways. The text, however, presents no such ambiguity, and closely adheres to specific Mayan words and grammatical construction. The concept of writing as visually recorded language is perhaps more restrictive than definitions of writing adopted by others (see Gelb 1963:12; Sampson 1985:26-30; Boone 1994:15). Nonetheless, even with the relatively narrow definition of script adopted in this study, it is readily apparent that writing was fully present at Teotihuacan.

HISTORY OF RESEARCH

The first systematic study of Teotihuacan writing concerned numeral coefficients, which employ the same bar-and-dot system known for the Maya, Zapotec, and other cultures of southeastern Mesoamerica. As logographs expressing specific numerical terms, these coefficients do constitute writing. José María Arreola (1922) and Hermann Beyer (1921) called attention to a series of painted signs found on slate slabs discovered during the 1917 excavations by Manuel Gamio at the Templo de Tlaloc.³ Both authors interpreted the signs as numbers, with the thin lines representing units of one and the larger broad bar as five (Figure 3a). For none of the nine examples are the series of thinner lines larger than four. Although the use of lines rather than dots for units of one is unusual at Teotihuacan and other cultures of ancient Mesoamerica, it is present in contact period and early colonial texts from the region of Tezcoco, that is, in the general vicinity of Teotihuacan (Figures 13d). It is quite possible that at Teotihuacan, this convention was for more freehand tallying or computations, as if the thin lines for units of one were rapidly slashed across a surface.

In addition to the texts from the Templo de Tlaloc, Beyer (1921; 1922) also called attention to two other examples of Teotihuacan numbers, one from the Ixtapaluca plaque and the other, a ceramic vessel (Figures 3b, c; 30c). For these examples, the unit of one is not denoted by the thin line, but by the far more conventional dot. In several subsequent studies, Alfonso Caso (1937, 1960, 1966) further documented the presence of coefficients in Teotihuacan writing (Figure 3d-h). The title of the first study, “¿Tenían los Teotihuacanos conocimiento del tonalpohualli?” is somewhat misleading, as Caso devotes almost all of his analysis to the coefficients, not the twenty day names. For this study and following publications, Caso notes the presence of numerical signs and accompanying glyphs in Teotihuacan murals, demonstrating that these texts were locally made (Figures 3f, g). In his final study, Caso (1966:275, fig. 42) called attention to other Teotihuacan glyphs with numbers, including a *tecalli* serpent displaying three signs with coefficients. Comparing one of the signs to the day name Flint appearing at Xochicalco, Caso (1966) identified this compound as the day 2 Flint (Figure 3h). It is also noteworthy that the trefoil form of this day sign corresponds to Teotihuacan representations of projectile points (Langley 1986:246). The day name is framed by an entirely circular rim, a common convention with day names and other Teotihuacan glyphs (Figures 3c, f, h; 30d; 33; 34a, c, d).⁴

FIGURE 3. EXAMPLES OF TEOTIHUACAN GLYPHS AND NUMERICAL COEFFICIENTS.



- a:** PROBABLE UNITS OF ONE AND FIVE ON PAINTED SLABS FROM THE TEMPLO DE TLALOC, TEOTIHUACAN (FROM ARREOLA 1922:209)
- b:** REPTILE EYE GLYPH WITH COEFFICIENT OF 7, DETAIL OF IXTAPALUCA PLAQUE (AFTER BEYER 1922:FIG. 1)
- c:** REPTILE EYE GLYPH WITH COEFFICIENT OF 7, CARVED VESSEL (AFTER CASO 1937:FIG. 3)
- d-e:** HEADADDRESSES WITH COEFFICIENTS OF NINE AND TWELVE ON PAINTED CONCH (AFTER CASO 1937:FIGS. 4B, 4C)
- f:** CIRCULAR NETTED SIGN WITH COEFFICIENT OF EIGHT (AFTER CASO 1937:FIG. 9)
- g:** CARTOUCHE CONTAINING COEFFICIENTS AND GLYPHIC SIGN (AFTER LIZARDI RAMOS 1955:219)
- h:** DAY 2 FLINT INCISED ON STONE SERPENT (AFTER CASO 1967:FIG. 2B)

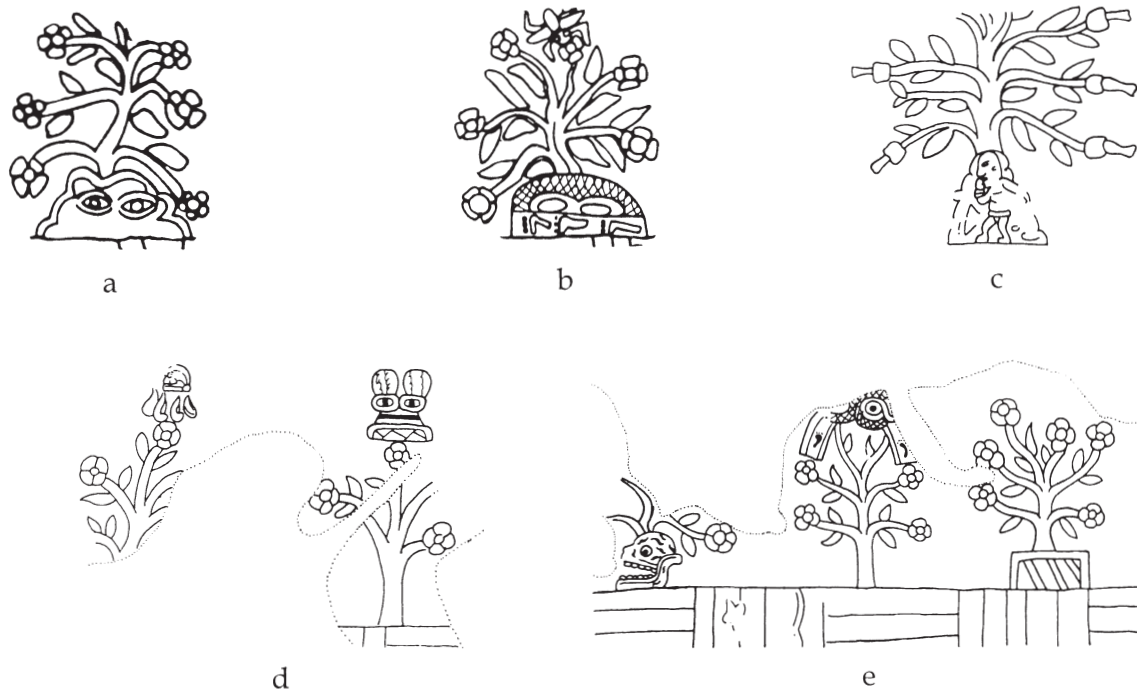
In Teotihuacan writing, numerical coefficients are usually below day names and other glyphs, with the dots denoting 1 to 4 being underneath the horizontal bars denoting units of five (Figures 3b, d-f, h; 16c; 23d, e; 29c; 30c, d; 32g; 34d, e). According to Cesar Lizardi Ramos (1955), one mural fragment from Tetitla represents the coefficient 14, indicating the presence of the 365-day calendar, or *xihuitl* in Nahuatl (Figure 3g). In contrast to the 260-day calendar, which has no numbers higher than 13, there are 20 day positions in each of the 18 months of the 365-day calendar. Nonetheless, it is by no means certain that the Tetitla fragment refers to one of the 20-day months of the 365-day calendar. Despite the efforts of Lizardi Ramos and Caso, Teotihuacan calendrics—including even the series of 20 day names—remain poorly documented at the site. Nonetheless, the bar-and-dot numeration provides a context for writing; that is, elements appearing with these numbers can be considered as glyphs (see Figure 3b-h).

The history of the documentation and study of Teotihuacan writing closely follows the discovery of particular murals at the site. In 1942, excavations at Tepantitla uncovered a remarkable series of paintings on the lower sloping *talud* walls in the interior of Portico 2. In

addition to portraying scores of simply clad people frenetically engaged in various acts, the scenes contain many examples of hieroglyphic writing. Jorge Angulo (1972:50; 1996:88-89) identified two probable toponymic signs from the basal region of Mural 4, and suggested that the two glyphs could be read as “*cerro arbolado*” and “*cerro florido*” (Figure 4a-b). Hills constitute a common form of place name in Mesoamerica, including the Maya region as well as highland Mexico (see Stuart and Houston 1994). In addition, specific forms of plants are commonly used as Aztec toponyms (see Berdan and Anawalt 1992, v. 1:167-238).

Esther Pasztory (1976:186-7) called attention to other probable toponymic signs with flowering plants in the basal portions of the Portico 2 murals, including a human skull, a rectangular element with diagonal lines, and a standing human figure before a curving form, quite probably a hill (Figure 4c, d, e). In the Tepantitla murals, there are other likely place names composed of flowing plants and glyphic elements. Frequently, the glyphic signs are not below the plants, but above (Figure 4d, e). Thus between two of the Mural 4 place names discussed by Pasztory, there is a glyphic compound formed of a pair of eyes and a probable crossed-roads sign (Figure 4e). With its crosshatching, the pair of eyes are notably like the

FIGURE 4. HIEROGLYPHIC TEXTS FROM TEPANTITLA PORTICO 2 MURALS.

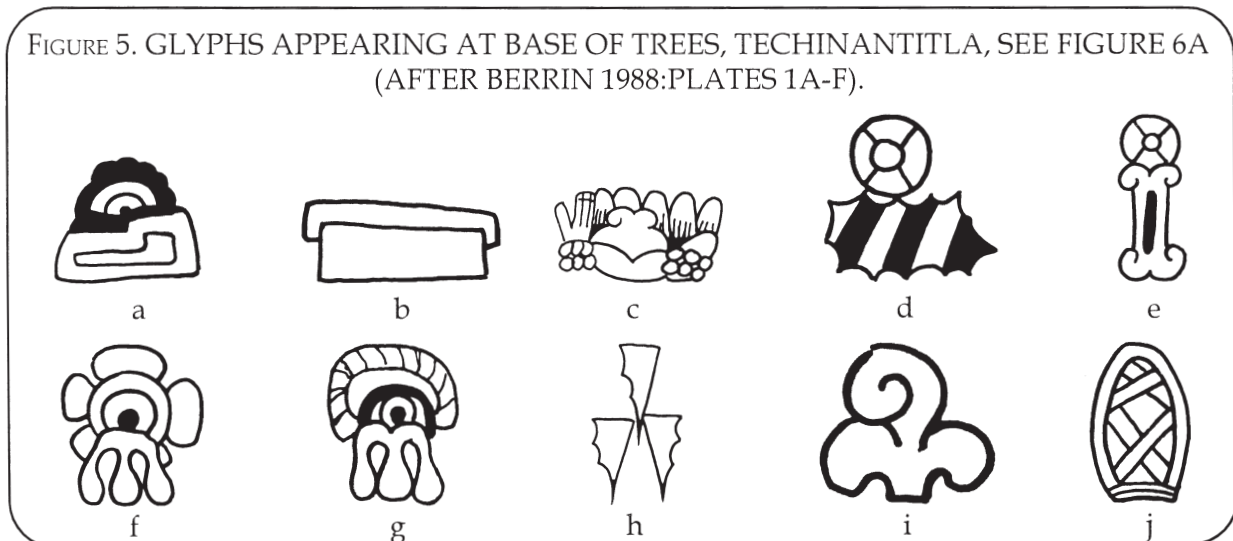


- a-b:** PLANTS AND HILLS SERVING AS PROBABLE TOPONYMIC SIGNS (FROM PASZTORY 1976:315)
c: FLOWERING PLANT WITH HILL MARKED BY HUMAN FIGURE (DRAWING BY AUTHOR)
d: PORTION OF MURAL WITH PLANTS MARKED WITH SKULL AND FLAMES SIGN AND COMPOUND CONTAINING MAT AND PAIR OF EYES (DRAWING BY AUTHOR)
e: SERIES OF PLANTS MARKED WITH SKULL, CROSSED ROADS AND PROBABLE CROCODILIAN EYES, AND RECTANGLE WITH DIAGONAL BANDS (DRAWING BY AUTHOR)

crocodilians appearing in the Mythological Animals mural (see de la Fuente 1995:100, lám. 5), and it may well be that the Tepantitla element does represent crocodilian eyes. Aside from the toponymic signs, Pasztory (1976:198-9) called attention to particular glyphs with the speech scrolls of the Patio 2 figures; this convention will be discussed in detail below.

Pasztory (1976:186) compared the flowering Tepantitla place names to two Teotihuacan mural fragments at the American Museum of Natural History and the Milwaukee Public Museum. Pasztory noted that each plant illustrated in these murals displays a “glyph or symbol” at the base of the trunk (Figures 5, 6a). Subsequent field research by René Millon (1988:84) demonstrated that these and other related mural fragments were originally from the great Techinantitla compound, located some 550 meters east of the Pyramid of the Moon. The many fragments originally seem to have composed four murals featuring the same scene, a plumed serpent showering rain upon nine flowering plants (Pasztory 1988). Although of generally equivalent form, each plant has a specific type of flower distinguished by color and shape. In all cases, the glyphs on the trunks consistently correspond to the type of flower (Pasztory 1988:158). A subtle variation with one plant displaying four-petalled red flowers with blue centers is also reflected in the accompanying glyphs. Whereas blue drops of

FIGURE 5. GLYPHS APPEARING AT BASE OF TREES, TECHINANTITLA, SEE FIGURE 6A (AFTER BERRIN 1988:PLATES 1A-F).



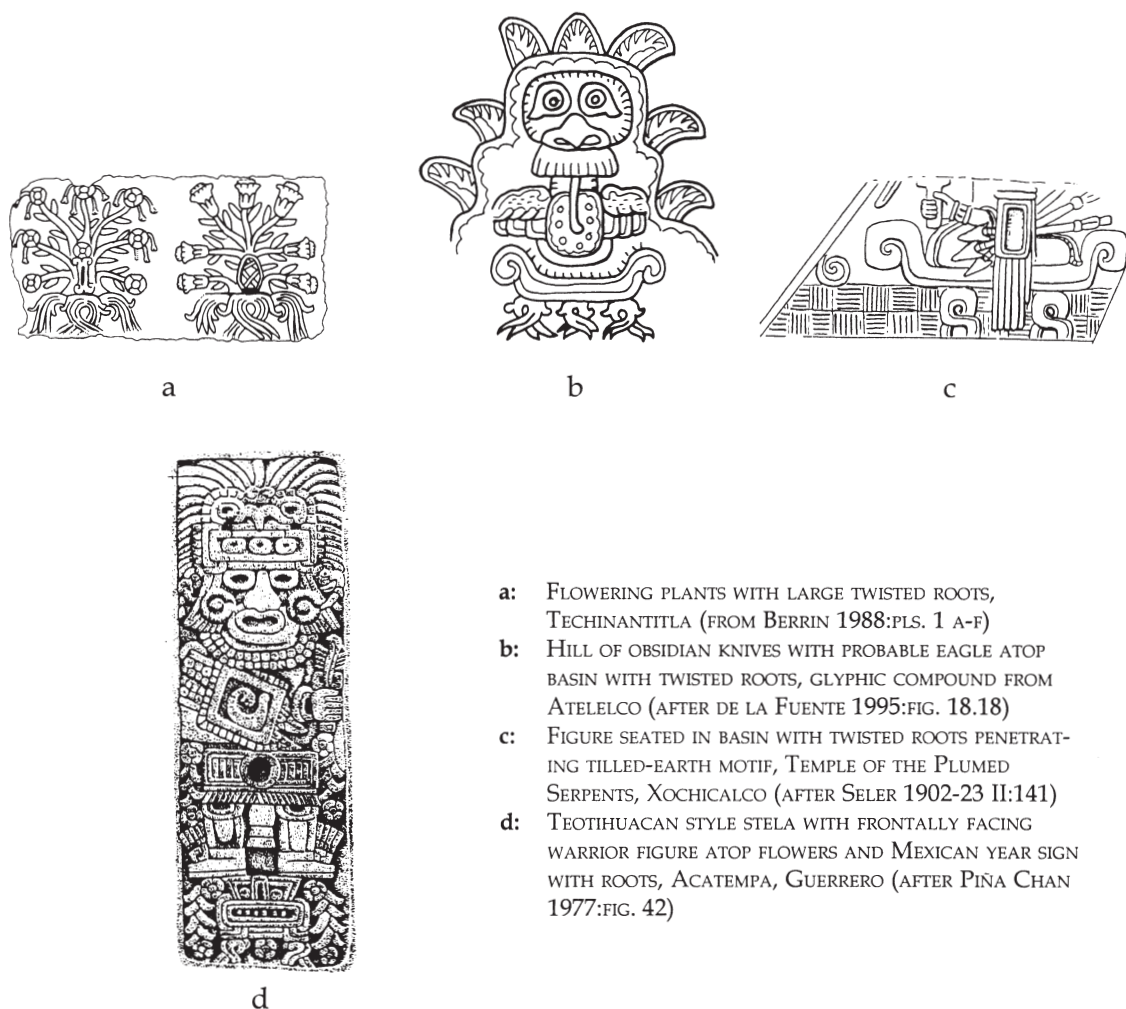
water fall from the flower in two instances, another example lacks the water drops. In contrast to the glyph of the dripping flower, composed of a blue-petalled eye exuding a trilobed water drop (Figure 5f), the glyph of the other plant has a green-feathered eye replacing the petalled form (Figure 5g).

A number of researchers have suggested that the glyphically labeled plants at Techinantitla served as place names (Berlo 1989:22; Pasztory 1988:159, 161; Cowgill 1992:233). According to Berlo (1989:22), the glyphic compounds are much like Aztec writing, including the use of toponyms:

It seems likely that in these [Techinantitla] murals, Teotihuacan scribes were employing a mixed phonetic, pictographic, and ideographic system of recording names or places much like that used by their Aztec descendants.

But although Berlo (1989) compares the Techinantitla glyphs to place names in the Aztec Codex Mendoza, the Teotihuacan examples lack any form of locative affix, such as are commonly found with Aztec toponyms.

FIGURE 6. THE TWISTED ROOTS MOTIF IN CLASSIC MESOAMERICA.



The prominent twisted roots appearing with the Techinantitla trees may have a locative function, roots being an especially firm marker of a fixed place (Figure 6a).⁵ A mural from Atetelco portrays the twisted root motif at the base of a stepped mountain ornamented with obsidian blades and a probable eagle head – a combination of signs probably referring to a particular hill or place (Figure 6b). The twisted roots are affixed to a shallow basin, a combination also appearing in a hieroglyphic sign from the Temple of the Plumed Serpents at Xochicalco (Figure 6c).⁶ In the Teotihuacan-style stucco facade at Acanceh, Yucatan, a series of tufted plants appear within similar shallow basins (Figure 19a, e). According to David Stuart (1999), these Acanceh signs refer to rushes, and by extension, the city of Tollan. A Teotihuacan stela from Acatempa, Guerrero, portrays a warrior standing on a basal register containing a pair of twisted roots (Figure 6d). In Mesoamerica, basal registers frequently contain toponymic references, a convention widely found in ancient Maya writing and art (see Stuart and Houston 1994:57-68).

Both Esther Pasztory (1988:159) and George Cowgill (1992:233) note that, while the Techinantitla plants may be place names, the glyphs on the trunks appear to refer specifically

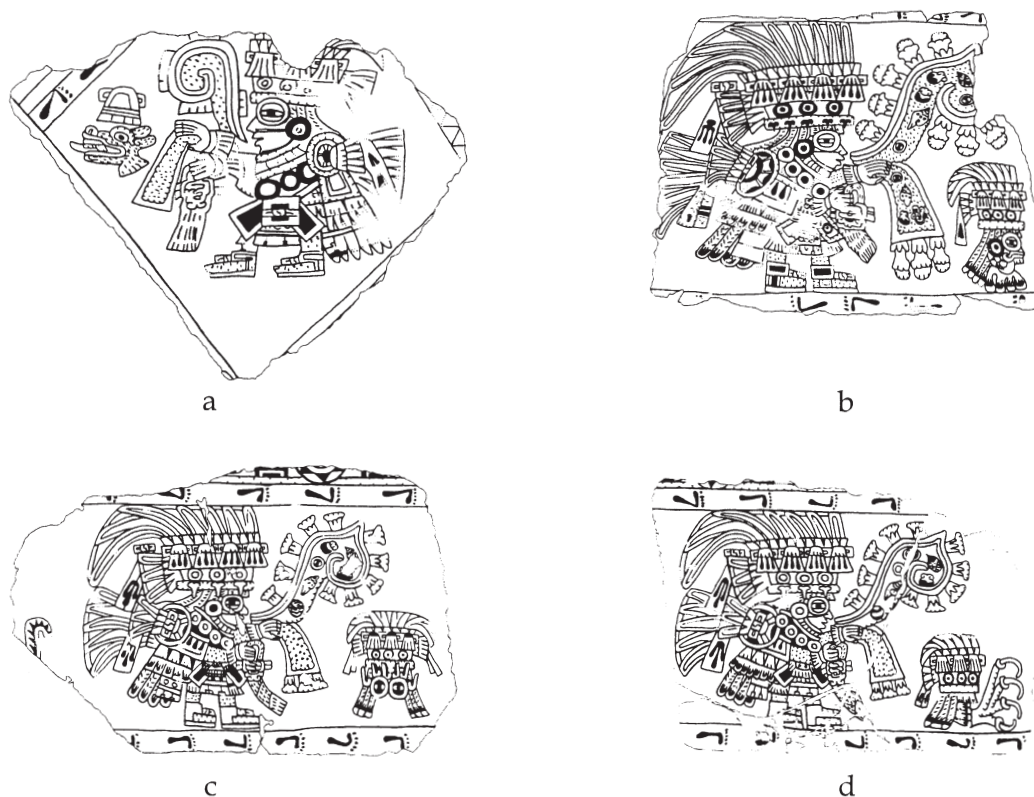
to the flowering plants. Thus for one example, the glyphic sign is simply the same trilobed device appearing in the flowers above (Figure 5i). In another case, the three maguey spine sign refers to the maguey spines piercing the flowers (Figure 5h). For one of the most complex signs – a disembodied arm, shell, and petalled form – both the color and patterning of the shell and petalled form are present in the accompanying flowers (Figure 5c). Moreover, two of the glyphic compounds contain a four-petalled flower sign, one affixed to a banded-flint blade and the other to a red bone (Figure 5d-e). Cowgill (1992:236-38) notes that the flower and red bone compound closely corresponds to a Nahuatl flower name, *tlapalomixochitl*, meaning “red bone flower” (Figures 5e, 6a). Cowgill (1992:238-40) also notes that another Techinantitla plant glyph, resembling an inverted, loosely woven red basket, may refer to the flower known in Nahuatl as *tlapaluacalxochitl*, or “red basket flower.” The close correspondence between the Techinantitla signs and the 16th-century flower terms suggests that the inhabitants of Teotihuacan may have spoken an ancestral form of Nahuatl (Cowgill 1992:241).

In a ground-breaking study devoted to Teotihuacan writing and art, Clara Millon (1973) called attention to an extremely important pattern in Teotihuacan glyphic presentation. Her identification was partly based on a Teotihuacan mural fragment in the Museum of Art and Archaeology of the University of Missouri at Columbia, which features a figure striding before a two-part element (Figure 7a). In 1971, Evelyn Rattray first noticed that the two-part sign constitutes a glyphic compound, quite like examples known for later Postclassic manuscripts (Millon and Rattray 1972). Clara Millon compared this scene to a second mural fragment portraying a striding individual before another element, in this case the head of the Teotihuacan Tlaloc (Figure 7b). Noting the similarity in style and costume, she suggested that the two fragments were from different regions of the same mural (C. Millon 1973:300). According to Millon, both fragments employ the same system of glyphic notation, with the glyphs serving to distinguish and qualify the virtually identical human figures. Field reconnaissance by René Millon (1988:88-89) revealed that the two fragments derive from Techinantitla, the same compound of the glyphically labeled, flowering plants (Figure 5). It is now known that the figure with the Tlaloc glyph formed part of a procession of at least eight individuals, each epigraphically described by a tasseled headdress containing varying signs (R. Millon 1988:90).

According to Clara Millon (1988:120-21), the fragment containing the two-part glyphic compound derived from the upper portion of the mural (Figures 1d, 7a). Although Millon (*ibid.*:figs. V.9-10) has identified three other figures from this upper section, only one bears a portion of a glyphic text. Millon (*ibid.*:121) notes that the intact example containing the tassel-and-coyote (Figure 7a) head is an abbreviated form of the tasseled headdress and accompanying glyphs appearing with the larger figures in the lower mural region. Given the constricted space, the tassel serves as a *pars pro toto* form of the more elaborate tasseled headdress sign appearing below it. It subsequently will be noted that the form of Teotihuacan glyphs can vary widely according to the amount of space available, with some glyphic signs appearing in very large and elaborate forms.

Along with the Techinantitla fragments of striding figures wearing a tasseled headdress, Clara Millon (1988:124) called attention to a similar pattern on the famed Teotihuacan style bowl from Las Colinas, Tlaxcala (Figure 8). In this case, each of the four striding figures faces towards a particular qualifying sign. The three individuals wearing shell-platelet helmets are marked by specific animals: a coyote, the plumed serpent, and an eagle devouring a bleeding heart (Figure 8c-e). However, a very different element appears before the single figure with the tasseled headdress, this being the same headdress within a V-shaped form, probably denoting a stony wall or enclosure (Figure 8b). In the 16th-century Codex Xolotl, the

FIGURE 7. STRIDING FIGURES WITH ACCOMPANYING GLYPHIC SIGNS.



- a: FIGURE WITH GLYPH OF HEADDRESS KNOT AND COYOTE HEAD, TECHINANTITLA (FROM BERRIN 1988:FIG. V.2)
 b: FIGURE WITH ACCOMPANYING GLYPH OF KNOTTED HEADDRESS WITH HEAD OF TLALOC, TECHINANTITLA (FROM BERRIN 1988:FIG. V.1)
 c: FIGURE WITH GLYPH OF KNOTTED HEADDRESS AND FLAMING EYES (FROM BERRIN 1988:FIG. V.3)
 d: FIGURE WITH KNOTTED HEADDRESS AND EAGLE CLAW GLYPH (FROM BERRIN 1988:FIG. V.4)

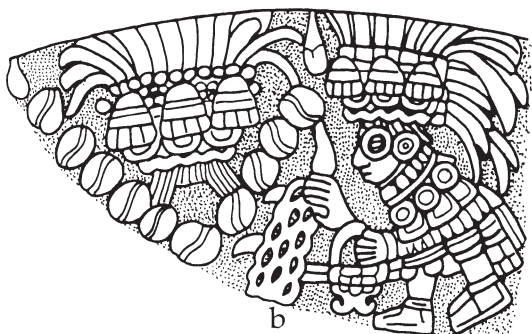
place names Temilotzin and Tepolocan have stones represented in virtually identical fashion (see McGowan and van Nice 1984:64-69). Clearly enough, the stone-and-headdress sign refers specifically to the single figure wearing the tasseled headdress. According to Clara Millon (1988:124), the headdress sign and three animal figures are glyphs, and “constitute a form of naming.” It will be subsequently noted that this convention of placing associative glyphs before figures is extremely prevalent at Teotihuacan, in both mural paintings and pottery vessel scenes.

Aside from the Techinantitla and Las Colinas examples, the same pattern of glyphically labeling series of figures also occurs in another group of murals from Tlacuilapaxco, a compound adjacent to Techinantitla (R. Millon 1986:85, 88). In the murals, richly dressed figures stand below an elaborate textile featuring a bicephalic serpent and other motifs (Figure 9a). In front of each figure, there is a long bound element with five, or more rarely four, vertically placed maguey leaves or *pencas*, similar to examples known in other glyphic contexts at Teotihuacan (Figure 9b, for examples, see Figures 5h, 10b, top right). The repeating element in front of the figures constitutes a glyphic element, although here

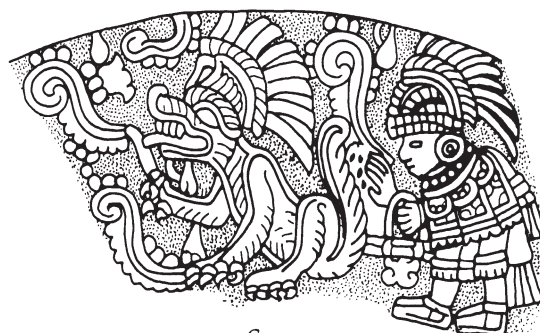
FIGURE 8. FOUR FIGURES WITH PROBABLE GLYPHIC TITLES,
FROM CERAMIC BOWL, LAS COLINAS, TLAXCALA.



a



b



c



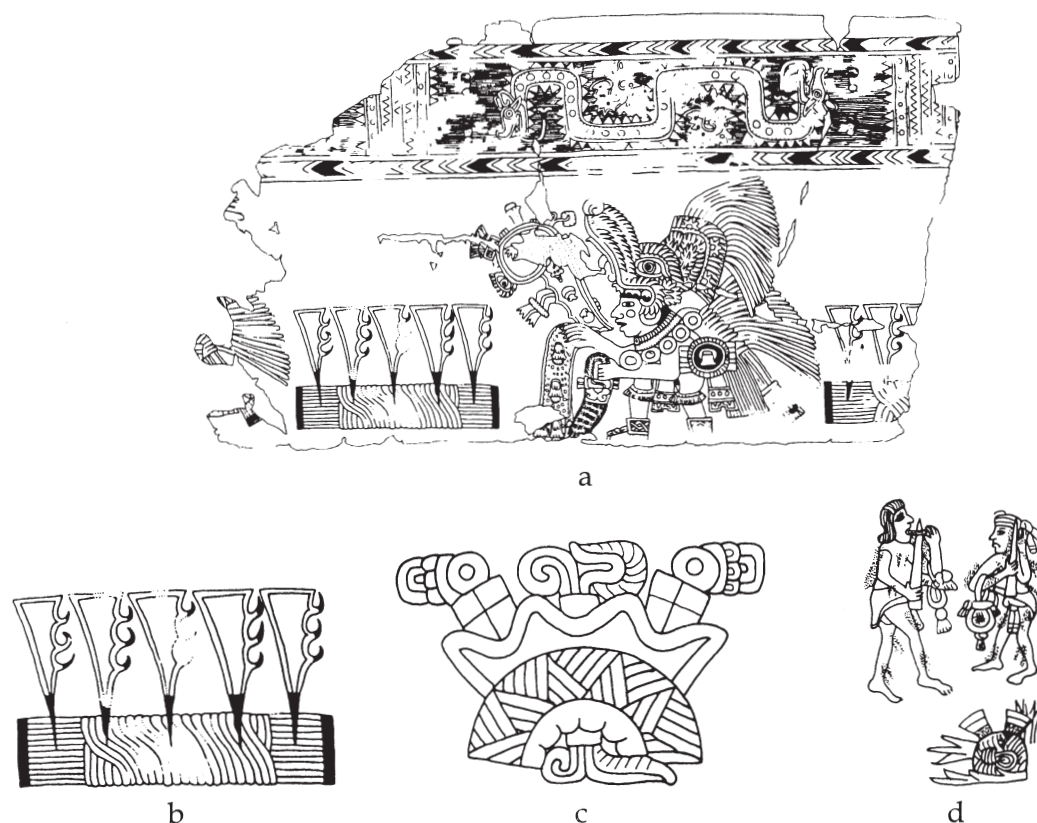
d



e

a: FROM LINNÉ 1942:FIG. 128
b-e: AFTER LINNÉ 1942:FIG. 128

FIGURE 9. TEOTIHUACAN AND AZTEC FORMS OF PENITENTIAL GRASS BUNDLE.

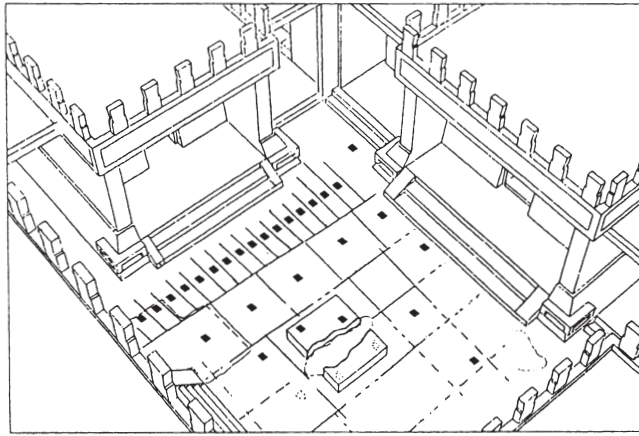


- a: TEOTIHUACAN MURAL FRAGMENT OF SERIES OF FIGURES WITH PENITENTIAL GRASS BUNDLE GLYPH, TLACUILAPAXCO (FROM BERRIN 1988:FIG. VI.21)
- b: DETAIL OF TLACUILAPAXCO SIGN WITH PENETRATING MAGUEY SPINES (FROM BERRIN 1988:FIG. VI.21)
- c: AZTEC ZACATL PAYOLLI BUNDLE WITH JEWELLED MAGUEY SPINES, DETAIL OF CARVED STONE BOX (AFTER GUTIÉRREZ SOLANA 1983:NO. 21)
- d: AZTEC BLOODLETTING SCENE WITH ZACATL PAYOLLI BUNDLE (AFTER CODEX MAGLIABECHIANO, 79R)

qualifying not particular individuals, but the group as a whole. This sign is almost surely an early form of the Aztec *zacatl payolli*, a bound grass bundle used to hold the maguey spines administered during penitential bloodletting (Figure 9c, d). This sign in the Tlacuilapaxco murals may denote the priestly office of the individuals, the verbal action of bloodletting, or perhaps the place of bloodletting.

From the findings at Tepantitla, Techinantitla, and other areas of the site, it has become increasingly evident that a system of hieroglyphic writing indeed was present at Teotihuacan. However, the recent discovery of the Plaza de los Glifos has totally transformed our understanding of the nature and extent of Teotihuacan writing (Figure 10). Discovered during the 1992 to 1994 excavations by Rubén Cabrera Castro at La Ventilla, the Plaza de los Glifos contains some 42 hieroglyphs appearing as individual signs or as compounds (Cabrera Castro 1996a, 1996b; Cabrera Castro and Padilla 1997). Aside from a few examples on adjoining walls, the red-painted glyphs occur on the central patio floor, with each text in a quadrangle delineated by red lines. Although the texts look suspiciously like later writing of Late Classic and Postclassic Central Mexico, they are contemporaneous with the florescence of

FIGURE 10. TEOTIHUACAN WRITING FROM THE PLAZA DE LOS GLIFOS, LA VENTILLA, TEOTIHUACAN.



a



b

a: SCHEMATIC DRAWING OF THE PLAZA DE LOS GLIFOS ILLUSTRATING LAYOUT OF GLYPHS AND RED LINES (FROM CABRERA CASTRO 1996B:FIG. 8)
 b: GLYPHIC SIGNS FROM THE PLAZA DE LOS GLIFOS (FROM CABRERA CASTRO 1996B:33)

Teotihuacan. According to Cabrera Castro (1996b:39) the Plaza de los Glifos dates to Late Tlamimilolpa or early Xolalpan, approximately A.D. 300-450. Moreover, many of the conventions appearing in the glyphs, such as the flame scrolls, Tlaloc heads, and priestly copal bags, can be readily compared to imagery in Teotihuacan art. It will also be noted that signs appearing in the Plaza de los Glifos appear in other Teotihuacan texts, not only at Teotihuacan, but in regions as distant as the Escuintla area of Guatemala.

THEMATIC CONTEXTS OF TEOTIHUACAN WRITING

Despite almost a hundred years of research, the decipherment of Teotihuacan writing remains at the most elementary level, the identification of hieroglyphic signs. Thematic context serves as an essential means by which to identify Teotihuacan texts. The presence of numerical coefficients is one such context, with the coefficients indicating the glyphic nature of the accompanying signs. Another example is the presence of hieroglyphic signs with plants, which probably serve as place names. In the following discussion, I elaborate on three other important thematic contexts: the glyphic labeling or naming of individuals, glyphs in speech scrolls, and linear texts.

GLYPHIC LABELING OF INDIVIDUALS AT TEOTIHUACAN

One of the most prevalent contexts of hieroglyphic writing occurs with portrayals of people or gods, typically with the text before the figure. For the Techinantitla and Las Colinas bowl examples first identified by Clara Millon (1973, 1988), a series of figures are individually labeled with hieroglyphic signs (Figures 7, 8). However, a single, isolated individual can also be accompanied by a glyphic text. This is an especially common occurrence on ceramic vessels, where a single individual and text are often repeated. The precise meaning of the texts that accompany the Techinantitla figures have been the source of some debate. Clara Millon (1973:309) first suggested that the two-part text accompanying the upper Techinantitla figure might serve as a place name or a personal name or title, such as "Lord Coyote" (Figure 7a). In her subsequent discussion of the lower figure, Millon (1988:199) suggested that the associative glyphs probably refer to individuals, family names, or public offices.

Rather than serving as toponymic references, most Teotihuacan texts accompanying figures are probably personal names and titles. For the aforementioned Techinantitla procession of men wearing tasseled headdresses, all of the accompanying glyphs display the same headdress (Figure 7). Clara Millon (1988:120) notes that the tasseled headdress denotes an office of high rank, which strongly suggests that the glyphic headdresses serve as a form of title. The variable glyphs appearing within the headdress signs are probably personal names, as they occupy the region of the head and essentially "wear" the headdress sign as an office. Over much of Mesoamerica, the head and face are closely identified with individual personality (see Houston and Stuart 1998). Among the Classic Maya and other peoples of ancient Mesoamerica, glyphs commonly appear in headdresses (Houston and Stuart 1998:83; Kelley 1982).

Although common at Teotihuacan, the convention of representing a series of virtually identical people with distinct appellatives is rare in Classic Maya art. One noteworthy exception is Lintel 2 of Late Classic Piedras Negras, which depicts a line of kneeling individuals in virtually identical, Teotihuacan-style military dress, including platelet helmets capped with Mexican year signs (Figure 11).⁷ Each of the six figures in Teotihuacan costume is accompanied by a text of six blocks, and it is likely that this unusual Classic Maya naming pattern

FIGURE 11. PRESENTATION OF MAYA INDIVIDUALS IN TEOTIHUACAN-STYLE WARRIOR REGALIA WITH ACCOMPANYING GLYPHIC TEXTS, PIEDRAS NEGRAS LINTEL 2 (DRAWING COURTESY OF DAVID STUART).

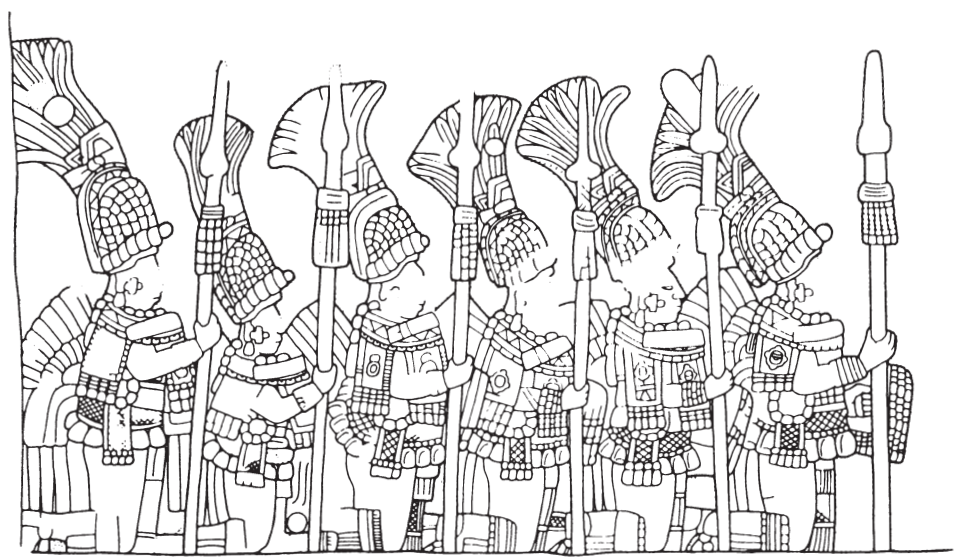
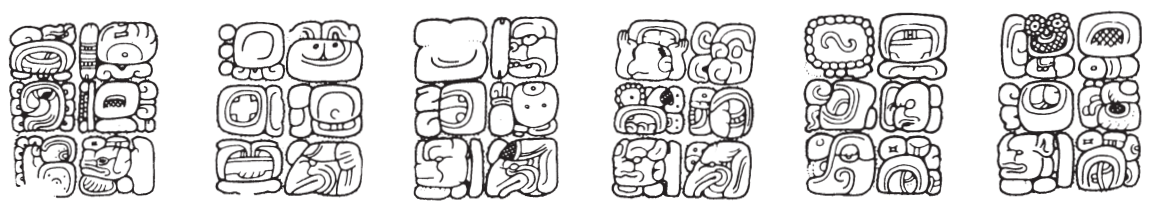
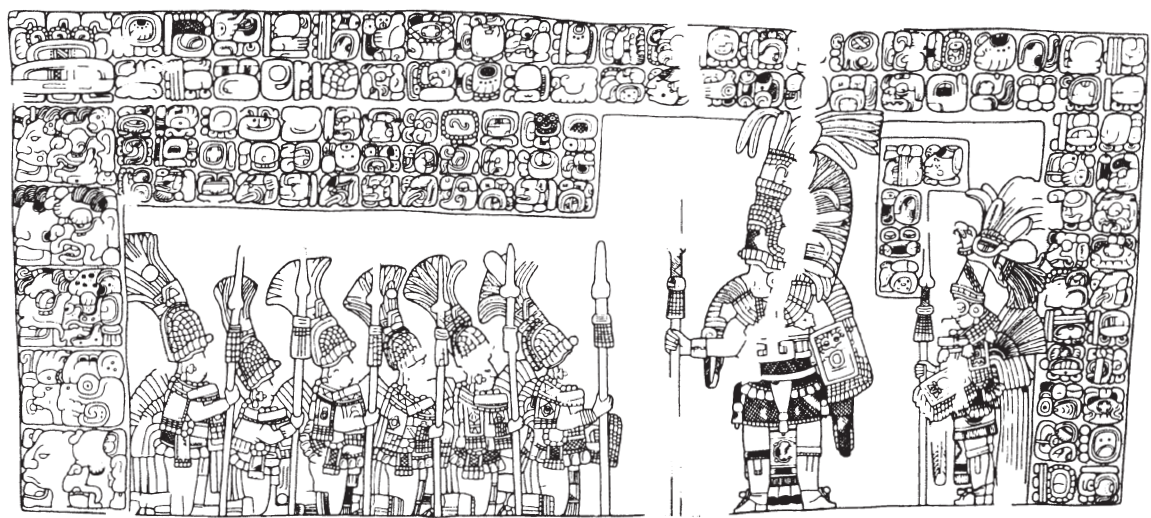
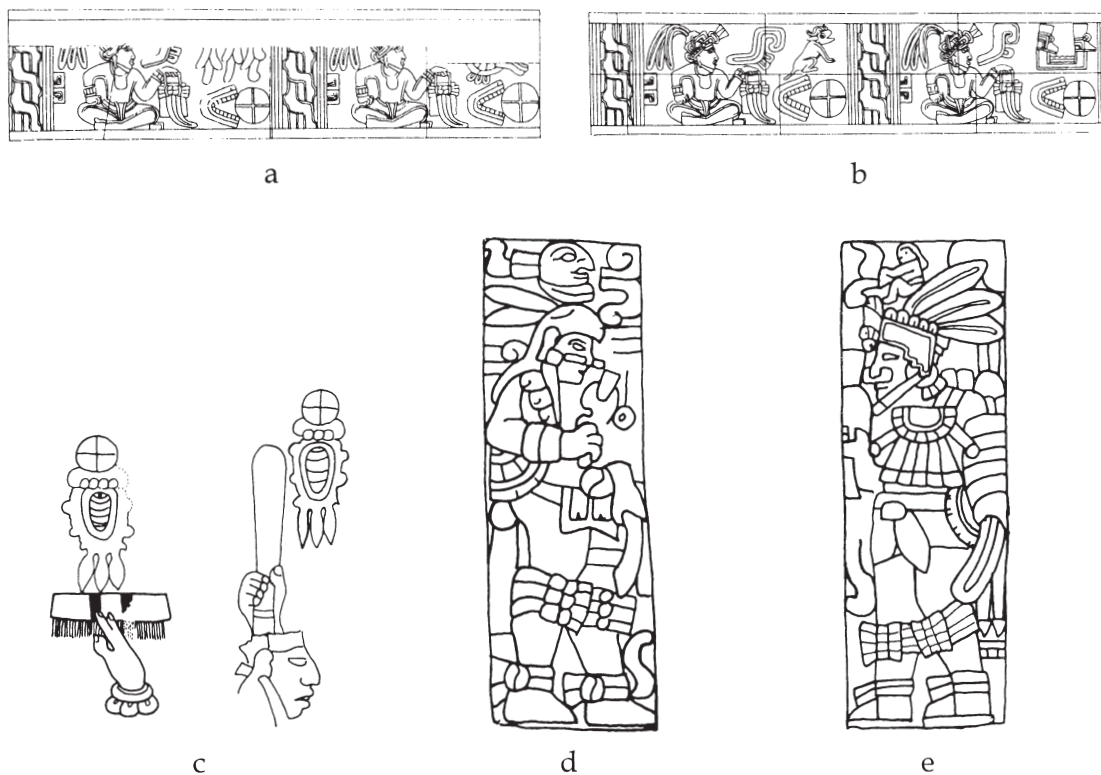


FIGURE 12. TITLES AND PERSONAL NAMES FROM TERMINAL CLASSIC AND EARLY POSTCLASSIC MESOAMERICA.



- a-b:** SEATED FIGURES WITH PROBABLE PERSONAL NAMES AND IDENTICAL TITLE, PYRAMID OF THE PLUMED SERPENT, XOCHICALCO (AFTER PEÑAFIEL 1890:PL. 190)
- c:** PROBABLE PERSONAL NAMES AND SHARED TITLE APPEARING WITH WARRIORS FROM BATTLE MURAL, CACAXTLA (AFTER MATOS MOCTEZUMA 1987:70-71; 85)
- d-e:** WARRIORS WITH PROBABLE PERSONAL NAMES IN HEADDRESS, PILLARS I AND IV, PYRAMID B, TULA (DRAWN FROM PHOTOGRAPHS BY AUTHOR)

intentionally alludes to glyphic naming conventions appearing in Teotihuacan art. This would not be the only case of a Classic Maya text alluding to Teotihuacan style and conventions. David Stuart (1999) notes that the temple superstructure of Structure 10L-26 at Copan contains a parallel text, one form written in a Teotihuacan-style “font” but nonetheless Maya script, and the other in more conventional Maya full-figure glyphs.

The glyphic labeling of individuals in groups of otherwise almost indistinguishable figures continues with later writing systems of Central Mexico, including those of Xochicalco, Tula, and the Aztec. At Xochicalco, the Terminal Classic Temple of the Plumed Serpents contains a series of identically posed men with Mexican year-sign headdresses, copal bags, and prominent speech scrolls (Figure 12a, b). Before each figure, there is a text composed of an open mouth and crossed circle topped by differing glyphic signs. The series of upper elements probably constitute the personal names of the individuals, with the lower portion denoting their shared office or title, quite like the tasseled headdress appearing in the Techinantitla texts (Figure 7). A very similar pattern occurs in the famous Cacaxtla battle mural, where each of the warriors assisting Lord 3 Deer has a specific personal name glyph

accompanied by a shared title composed of the same crossed circle, an upper jaw, and a bleeding heart (Figure 12c). Early Postclassic bas-relief columns from Tula and Chichen Itza portray striding figures in warrior garb with distinct glyphic signs on or near their head-dresses, again recalling the Techinantitla headdress signs (Figure 12d, e).

Among the Aztecs, there are abundant examples of groups of very similar figures distinguished by hieroglyphic signs. The pre-Hispanic conquest monuments known as the Stone of Tizoc and the Stone of Moctecuhzoma portray series of conquest scenes with figures in virtually identical poses, the Aztec victor grasping the captive by the hair (see Alcina Franch, León-Portilla, and Matos Moctezuma 1992:nos. XLI and XLII). In the scenes, the captives represent specific towns or ethnic groups, and aside from one instance, the qualifying glyphs appear directly behind the heads of the vanquished figures (see also Umberger 1998). The tradition of presenting series of very similar figures with distinguishing appellative glyphs continued with early colonial Aztec texts. In Aztec accounts of journeys, groups of people are commonly shown in similar poses, with their individual names attached to their heads (Figure 13a, b). Aside from scenes of journeys, Aztec genealogies frequently depict

FIGURE 13. SERIES OF FIGURES MARKED WITH PERSONAL NAMES FROM EARLY COLONIAL AZTEC MANUSCRIPTS.



- a: GOD BEARERS WITH PERSONAL NAMES (AFTER CODEx BOTURINI)
- b: STRIKING FIGURES WITH PERSONAL NAMES (AFTER CODEx TELERIANO-REMENSIS, FOL. 30R)
- c: ENTHRONED AZTEC RULERS WITH PERSONAL NAMES (AFTER PRIMEROS MEMORIALES, FOL. 51V)
- d: ENTHRONED NOBLES WITH PERSONAL NAMES AND POSSIBLE SHARED TITLE OF STRUNG JADE BEAD (AFTER CODEx VALERIANO)

series of similarly seated figures with accompanying name glyphs. In the *Primeros Memoriales*, figures in virtually identical seated position are identified by name glyphs near the head. For the series of Aztec kings, status and office are conveyed by such shared elements as a particular form of headdress, cape, and an *icpalli* mat throne (Figure 13c). Similarly, in the *Codex Valeriano*, there is a group of seated figures with appellative signs attached to their mat thrones (Figure 13d). Although the various glyphs appearing in the upper portion of the thrones appear to be personal names, the shared lower element, a strung bead, remains poorly understood and may serve as a patronym or title.

The use of appellative glyphs to mark series of similarly appearing peoples is common at Teotihuacan and with such later writing systems as Xochicalco, Tula, and the Aztec. This form of glyphic presentation is also known for Early Classic Teotihuacan-style vessels from the Escuintla area of southern Guatemala (see Hellmuth 1975). One carved Escuintla vessel in the collections of the Denver Museum of Art portrays four almost identically dressed men holding copal pouches (Figure 14). The four figures are distinguished by large glyphic compounds, these being a bird and turtle, a strung bead with a coefficient of 10, a knotted arm, and a headdress and jewelry.

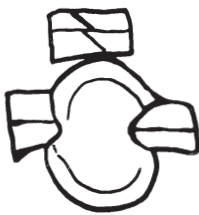
FIGURE 14. TEOTIHUACAN-STYLE GLYPHS APPEARING WITH FOUR FIGURES ON VASE ATTRIBUTED TO ESCUINTLA REGION, GUATEMALA.



a



b



c



d



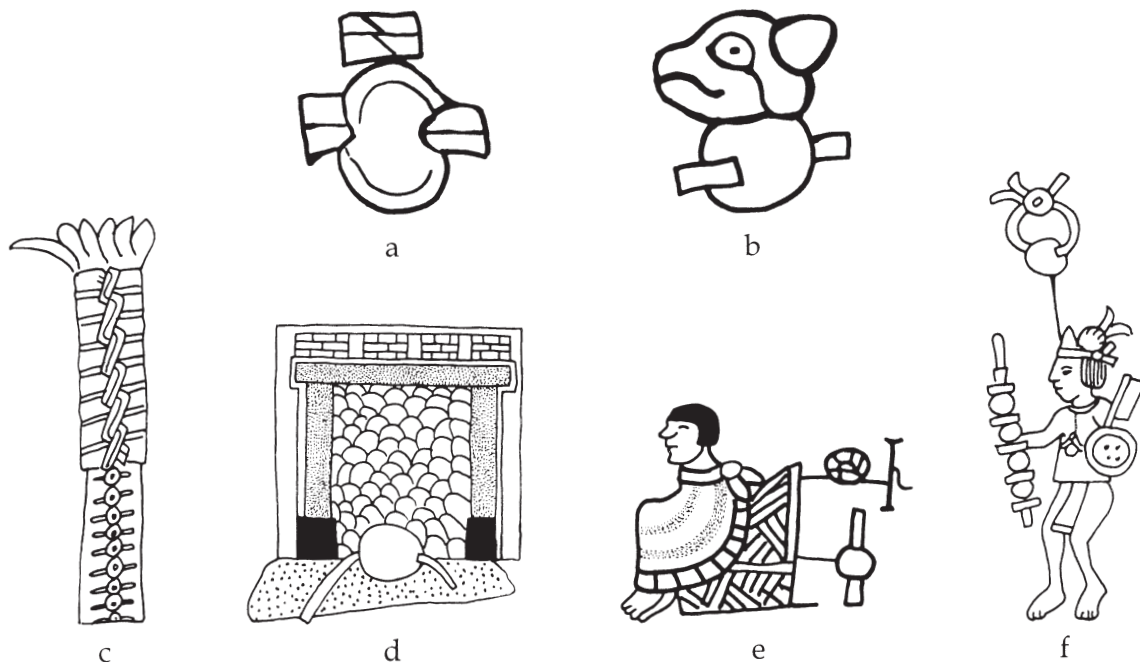
e

FIGURES DRAWN BY AUTHOR FROM FLAAR PHOTOGRAPHIC ARCHIVE, NOS. EC-CB4-84/1-4, PRE-COLUMBIAN STUDIES, DUMBARTON OAKS

- a: FIGURE WITH PROBABLE PERSONAL NAME SIGN COMPOSED OF BIRD AND TURTLE
- b: DETAIL OF GLYPHIC COMPOUND ACCOMPANYING FIGURE
- c: GLYPH COMPOUND FORMED OF STRUNG BEAD WITH COEFFICIENT OF 10
- d: COMPOUND WITH ARM, KNOT, AND STAR ELEMENT
- e: GLYPH OF HEADDRESS AND JEWELRY

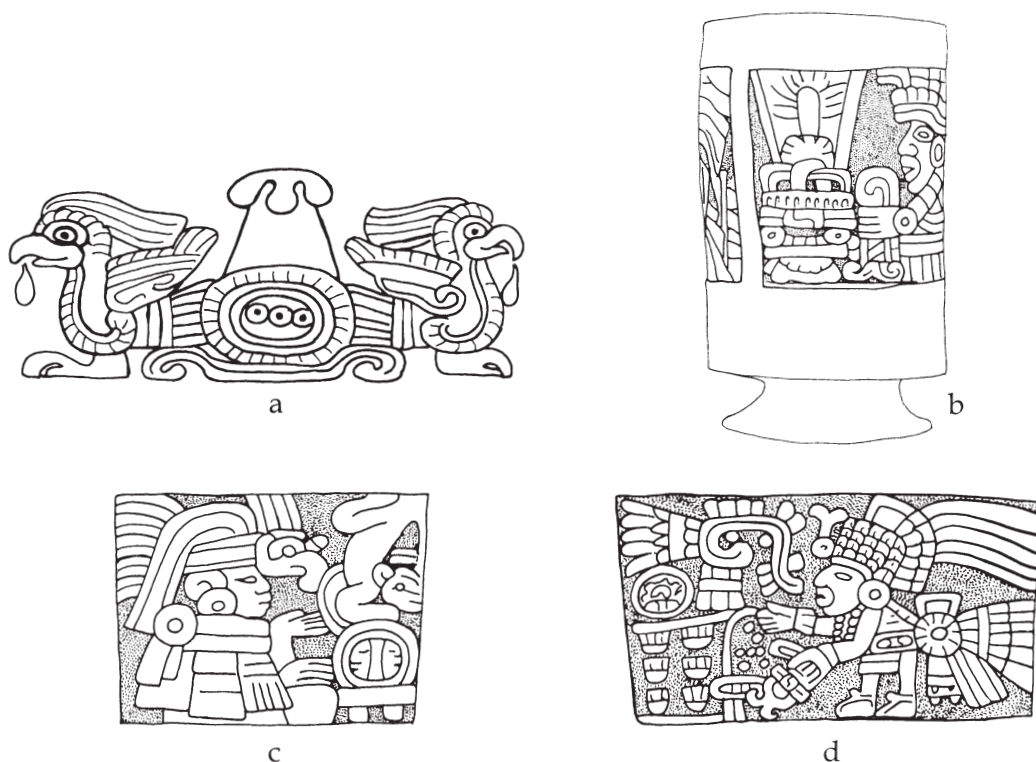
and starlike sign, and a headdress with earspools and a necklace. Although from a locally made Guatemalan vessel, these glyphic signs are clearly not Maya. According to Nicholas Hellmuth (1975:20), the texts appearing on Escuintla vessels constitute a unique, local form of writing. This interpretation, however, seems to be based on the common opinion that Teotihuacan lacked writing; “the Teotihuacans had, at most, rudimentary pictographs...” (ibid.). However, both the shared style and particular signs indicate that the Escuintla glyphs are Teotihuacan writing. One element, the strung bead, also appears in a text from the Plaza de los Glifos at Teotihuacan (Figure 15a, b). Along with appearing in Aztec and related Central Mexican writing, the strung bead also occurs in Late Classic Maya art (Figure 15c-f). A vessel scene illustrating the mythic event 4 Ahau 8 Cumku in 3114 B.C. depicts a series of gods before two stacked tribute bundles, one of manta cloth and the other containing strung jade beads (Figure 15c). Another Escuintla vessel portrays a complex sign of quetzal birds flanking a mountain with a probable mirror and shallow basin at the base, quite probably a toponymic sign for the Maya area, the region of quetzals (Figure 16a). At Teotihuacan, the same shallow basin also occurs at the base of mountains (Figure 6b).

FIGURE 15. REPRESENTATIONS OF STRUNG BEADS IN MESOAMERICAN WRITING AND ART.



- a: STRUNG BEAD WITH COEFFICIENT OF TEN, DETAIL OF ESCUINTLA VESSEL (DRAWN BY AUTHOR FROM FLAAR PHOTOGRAPHIC ARCHIVE, NOS. EC-CB4-84/1-4, PRE-COLUMBIAN STUDIES, DUMBARTON OAKS)
- b: JAGUAR HEAD AND STRUNG BEAD COMPOUND, PLAZA DE LOS GLIFOS (AFTER CABRERA CASTRO 1996b:33)
- c: TRIBUTE BUNDLES OF BOUND CLOTH AND STRUNG BEADS, DETAIL OF VASE OF THE SEVEN GODS, LATE CLASSIC MAYA (AFTER COE 1973:109)
- d: STRUNG BEAD IN TOPONYM FOR CHALCO (AFTER LIENZO DE TLAXCALA)
- e: STRUNG BEAD AS PROBABLE PATRONYM OR TITLE (AFTER CODEX VALERIANO)
- f: FIGURE WITH STRUNG BEAD AS PROBABLE PERSONAL NAME (AFTER CODEX EN CRUZ)

FIGURE 16. TEOTIHUACAN-STYLE WRITING APPEARING ON VESSELS FROM ESCUINTLA REGION.



- a:** SIGN COMPOSED OF A PAIR OF QUETZALS FLANKING A MOUNTAIN ATOP A PROBABLE MIRROR AND A SHALLOW BOWL (AFTER HELLMUTH 1975:PL. 3d)
- b:** VESSEL WITH FIGURE AND ACCOMPANYING GLYPH COMPOSED OF HEADDRESS AND JEWELRY, SEE FIGURE 7D (DRAWN BY AUTHOR FROM FLAAR PHOTOGRAPHIC ARCHIVE, NO. EC-CB4-82/2, PRE-COLUMBIAN STUDIES, DUMBARTON OAKS)
- c:** SEATED FIGURE WITH COMPOUND CONTAINING INVERTED JAGUAR AND OTHER GLYPHIC ELEMENTS (AFTER HELLMUTH 1975:PL. 13)
- d:** STANDING FIGURE WITH GLYPHIC CARTOUCHE AND SIX TUFTED ELEMENTS (AFTER HELLMUTH 1975:PL. 6)

Although one can readily compare the Escuintla glyphs with texts from Teotihuacan, it is also possible to find the same glyph on distinct Escuintla-style vessel scenes. One of the four signs appearing on the aforementioned carved Escuintla vessel is composed of a Mexican year-sign headdress, earspools, and chest piece (Figure 14e). This same glyph also appears on another Escuintla vessel, which although of different proportions, has a notably similar human figure with a copal pouch and a platelet headdress (Figure 16b). Quite possibly, these two vessels refer to the same historic individual. Aside from the seated figures with copal bags and platelet headdresses, there are other Escuintla vessel scenes containing figures with accompanying texts (Figure 16c, d).

It is noteworthy that many of the Escuintla glyphs are relatively large and elaborate, frequently as high as the accompanying figure. This is also true for the signs accompanying the striding figures on the Las Colinas bowl (Figure 8). In our perceptions of Teotihuacan writing, we perhaps have been too strongly influenced by the small and compact writing known for the Aztec. It appears that at Teotihuacan, there were two styles of writing, or “fonts,” one being relatively condensed and simple, like the Plaza de los Glifos texts and

known Aztec writing, and the other, an emblematic style of large and elaborate signs. These two approaches to hieroglyphic texts were already observed with the aforementioned striding figures from Techinantitla, where a particular office or title could be marked with a simple, single tassel or a complex tasseled headdress, complete with a fringe of pendant coyote tails (Figure 7). However, the emblematic style tends to be even more developed and can readily fill an entire scene. Aside from the Las Colinas bowl, emblematic texts commonly appear on stucco-painted and carved Teotihuacan vessels. One vessel portrays an identical pair of striding figures facing towards curious amalgamations of elements composed of flames, a pair of disembodied hands, and a series of tufted elements (Figure 17a). Rather than portraying a surreal landscape, these otherwise disparate forms constitute a large glyphic compound (Figure 17b). Another vase displays an emblematic glyphic sign composed of a canine head atop a version of the twisted root motif (Figure 17c). Behind this sign, it is possible to observe the speech scroll and offering stream of the attendant human figure.

Cynthia Conides (1997:40) notes that decorated Teotihuacan vessels commonly portray richly dressed figures alternating with other distinct motifs. In many cases, this second

FIGURE 17. EMBLEMATIC STYLE GLYPHS ACCOMPANYING FIGURES ON TEOTIHUACAN-STYLE VESSELS.



- a: ROLL-OUT OF VESSEL SCENE WITH COMPLEX GLYPHIC SIGN BEFORE IDENTICAL STRIDING FIGURES (FROM SELER 1902-23, V:531)
- b: DETAIL OF GLYPHIC COMPOUND FROM PREVIOUS VESSEL (DRAWN BY AUTHOR)
- c: COMPLEX SIGN OF COYOTE HEAD AND ROOT-LIKE SIGNS ACCOMPANYING FIGURE ENGAGED IN HAND SCATTERING (AFTER BERRIN 1988:FIG. VI.28)
- d: GLYPHIC COMPOUND ACCOMPANYING QUETZAL BUTTERFLY DEITY, DETAIL OF VESSEL FROM TETITLA (AFTER CASO 1967:FIG. 23)

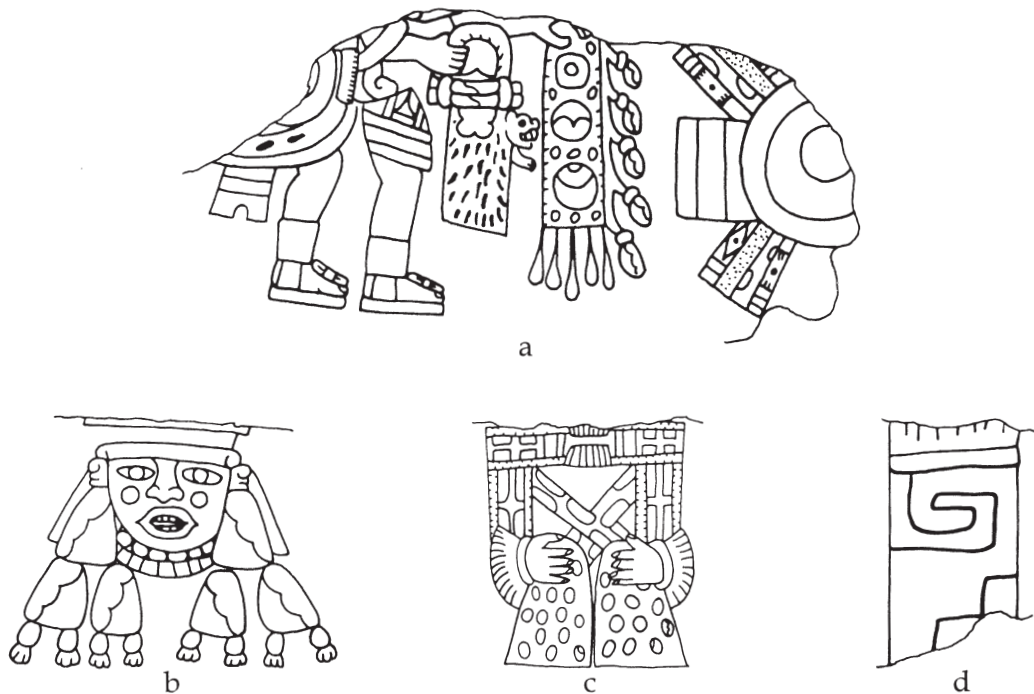
element is quite probably the emblematic form of Teotihuacan writing. Although in publications of vessel scenes, the emblematic sign tends to be arbitrarily portrayed on either side of a figure, it should be viewed in front of the individual as an attendant text, as in the case of the mural figures at Techinantitla and Tlacuilapaxco, the Las Colinas bowl, and the Escuintla vessels (Figures 7-9, 14, 16). But while the glyphic compounds can qualify particular individuals, their meanings may vary substantially, possibly including toponyms, verbs, and titles of rank or office as well as personal names. It is also possible that various meanings can appear in a single compound. Thus the signs accompanying the figures at Techinantitla are glyphic compounds combining both a title of office and individual names (Figure 7).

A magnificent plano-relief vessel from Tetitla contains an emblematic sign pertaining directly to the figure as an elaborate name glyph, in this case referring to a Teotihuacan deity with avian and butterfly attributes (Figure 17d; for view of entire vessel, see Caso 1966:fig. 23). Caso (1966:261) referred to this god as Quetzalpapalotl (a merging of a quetzal bird and butterfly), and more recently, Zoltán Paulinyi (1995) has termed this being "el Dios Mariposa-Pájaro." The emblematic glyphs accompanying the three representations of this god are essentially identical and specifically refer to attributes appearing with the deity. The upper portion of the emblematic glyph conveys the combination of quetzal bird and butterfly, here in the form of a fully figured crested quetzal flanked by hooklike elements with large drops of liquid. This pair of curving elements refers to the dripping butterfly proboscis in the head-dress of the god. The wing of this deity displays a series of flowers with four petals, and this motif again repeats in the emblematic sign. Immediately below the quetzal and dripping proboscis there is a four-petalled flower flanked by a pair of bird wings. The stream of precious elements falling from the hands of the god are found both on the pair of butterfly proboscis and in the shallow basin containing the flower and wings.

The emblematic glyphs appearing on ceramic vessels are fascinating in their own right, but there is an even more striking and impressive context for this style of writing, here in the form of very large and ornate glyphic compounds appearing as vibrant murals throughout the city. Occurring at the principal entrance to Tetitla, the murals of Room 1 and its portico contain an important group of such emblematic glyphs (see A. Miller 1973:plan XIII). Although the murals portray a series of figures engaged in hand scattering with accompanying glyphs, only one of the striding individuals is fully illustrated in the publication by Arthur Miller (Figure 18a). The shell-filled stream falling from his hand of is lined with a repeating vegetal motif, quite probably the flowering bud of the waterlily (see Langley 1986:256, 304). Remains of figures with identical falling streams also face three other signs, making it clear that this is the same epigraphic pattern appearing at Techinantitla, Tlacuilapaxco, and on Teotihuacan-style ceramic vessels, a series of similar figures with associative glyphs (see A. Miller 1973:figs. 231-39).

The two most elaborate glyphs flank the portico doorway of Tetitla Room 1. Mural 2, on the west side of the doorway features a human head with earpieces of inverted nopal cactuses, complete with flowering fruits (Figure 18b). On the opposing east side, there is Mural 3, with a hieroglyphic compound composed of disembodied hands scattering seeds along with diagonal crossed bands inside an enclosure marked with crosses and a bound central element (Figure 18c). The remains of another hieroglyphic sign and identical figures occurs with Mural 4 in the interior of Room 1 (A. Miller 1973:figs. 238-9). In this case, the sign is a piece of cloth ornamented with the stepped fret design (Figure 18d). With the Mural 4 fragment within Room 1, it is evident that an extensive series of figures with large accompanying glyphs lined the lower walls of the room and its exterior portico. A conservative estimate would place at least fourteen individuals and accompanying glyphs in the portico and interior of Room 1 at Tetitla (see A. Miller 1973:plan XIII).

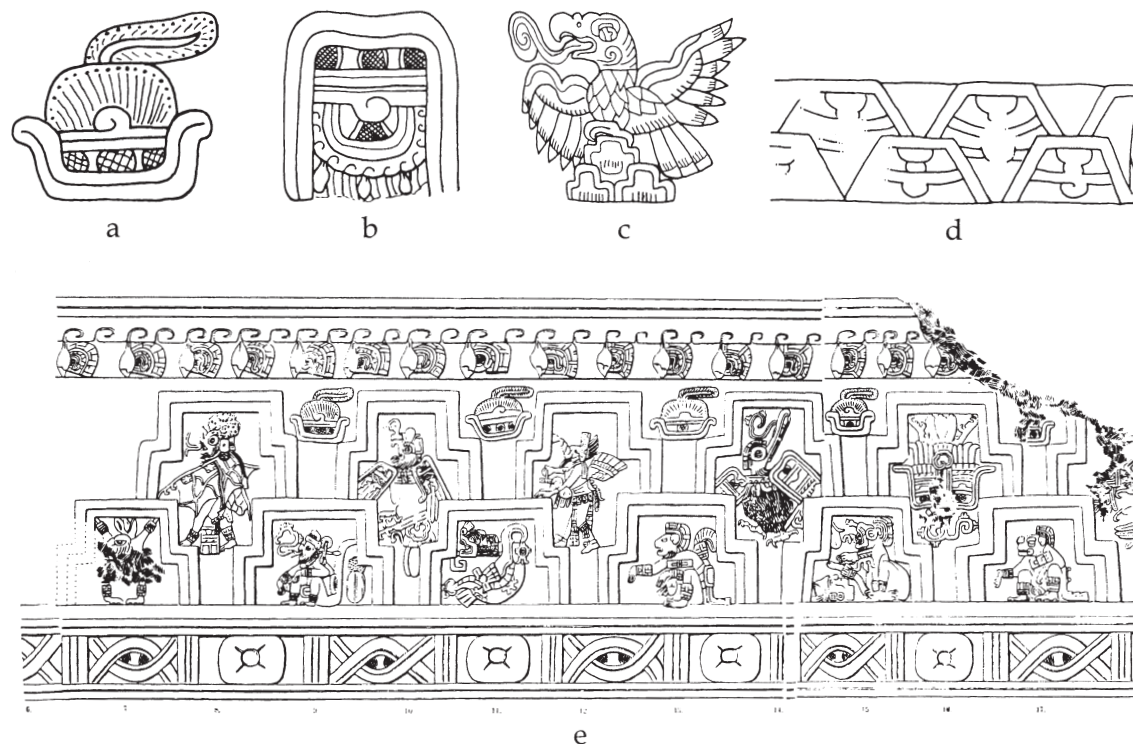
FIGURE 18. EMBLEMATIC GLYPHS APPEARING IN FRONT OF FIGURES ENGAGED IN HAND SCATTERING, PORTICO AND INTERIOR OF ROOM 1, TETITLA.



- a: FIGURE FACING TOWARD GLYPHIC SIGN (AFTER A. MILLER 1973:FIG. 235)
 b: GLYPHIC SIGN COMPOSED OF FRONTALLY FACING HEAD WITH NOPAL CACTUS EARPIECES (AFTER A. MILLER 1973:FIG. 234)
 c: GLYPHIC SIGN OF ENCLOSURE, DIAGONAL CROSSED BANDS, AND DISEMBODED HANDS ENGAGED IN HAND-CASTING (AFTER A. MILLER 1973:FIG. 234)
 d: GLYPHIC SIGN REPRESENTING TEXTILE WITH STEPPED FRET (AFTER A. MILLER 1973:FIG. 239)

The glyphs of Tetitla Room 1 are remarkable for their size, complexity, and extensive use of color. Because of their highly developed and elaborate nature, these and other emblematic Teotihuacan glyphs have been previously misidentified as simply pictorial "murals." Ironically, Teotihuacan writing has been generally ignored not because texts are absent, but because many have been too large for ready identification. With the accompanying human figures, the Tetitla Room 1 texts provide an excellent thematic context for the identification of emblematic glyphs in Teotihuacan murals. However, it is also possible to find examples of Teotihuacan emblematic writing as isolated signs, without associated figures (Figure 20d-h). These signs are hieroglyphic compounds composed of distinct elements that also occur in other Teotihuacan texts. As realistic scenes, they make little or no sense, but when understood as writing, they can be readily studied as combinations of distinct glyphic signs. For one Tetitla example, the compound is composed of a disembodied hand, a mirror, and cloth with the same pattern appearing with Mural 4 from Tetitla Room 1 (Figures 18d, 20f). The form in which the patterned cloth is arranged closely resembles Teotihuacan portrayals of butterfly wings, which typically are composed of upper and lower pairs, the former horizontal, and the

FIGURE 19. EMBLEMATIC GLYPHS APPEARING IN STUCCO FRIEZE AT ACANCEH, YUCATAN.



- a: BULLRUSH PU SIGN FROM ACANCEH FRIEZE (FROM SELER 1902-23, V:400)
- b: WING OF PROBABLE EAGLE FROM CORNER OF ACANCEH FRIEZE, NOTE SCHEMATIC DROPS FALLING FROM CLOUD VOLUTES (AFTER V. MILLER 1991:PL. 2)
- c: BIRD ON STEPPED MOUNTAIN, DETAIL OF EARLY CLASSIC MAYA VESSEL (AFTER COE 1982:61)
- d: MOUNTAINS WITH SUPERIMPOSED PU SIGNS, STRUCTURE 10L-16, COPAN (DRAWN BY AUTHOR)
- e: PORTION OF ACANCEH STUCCO FRIEZE WITH FIGURES SUPERIMPOSED ON MOUNTAINS (FROM SELER 1902-23, V:400)

latter, vertical (e.g., Figure 20e), and it is likely that the Tetitla textile composition is an intentional visual pun. Teotihuacan-style censer lids from the Escuintla region commonly portray prominent mirrors in the thorax region of anthropomorphic butterflies, corresponding precisely to the same region as the mirror appearing in the Tetitla emblematic glyph (see Hellmuth 1975:pls. 30-33). Another Tetitla text features a temple roof above a mouth with flames (Figure 20g). The flames and mouth signs also appear in Tepantitla texts (Figures 23a, g; 24a). At Tetitla, there is an exceptionally high ratio of emblematic glyphs in mural painting, and it should be recalled that this compound contains Maya texts. It appears that the inhabitants of this particularly opulent compound had a special fascination with scribal arts.

The most ambitious known portrayal of Teotihuacan emblematic glyphs occurs on the Early Classic stucco frieze on the roof facade of Structure 1 at Acanceh, Yucatan (Figure 19e). Rendered in strong Teotihuacan style, the facade portrays a series of overlapping stepped elements flanked by a pair of large raptors, possibly eagles. Virginia Miller (1991:31) suggested that the stepped form represents a mountain, and in support, cited a stepped mountain sign appearing on an Early Classic Teotihuacan-style vessel (Figure 19c). Although of

more complex outline, the aforementioned mountain in the Atetelco mural is also stepped (Figure 6b). As in the case of the Atetelco bird, the series of figures appearing on the Acanceh mountain signs are apparently toponymic references to particular places or towns; in other words, they are massive glyphs. In the Tepantitla Portico 2 murals, surfaces of mountains are similarly labeled with figures (Figure 4a-c).⁸ The aforementioned *pu* sign meaning rushes, and by extension Tollan, is interspersed between the upper mountain signs. Overlapping mountains marked with *pu* signs also occur on an upper stairway block from Structure 10L-16 at Copan, a building rich in allusions to Teotihuacan and the foreign founder of the Copan dynasty, K'inich Yax K'uk' Mo (Figure 19d).

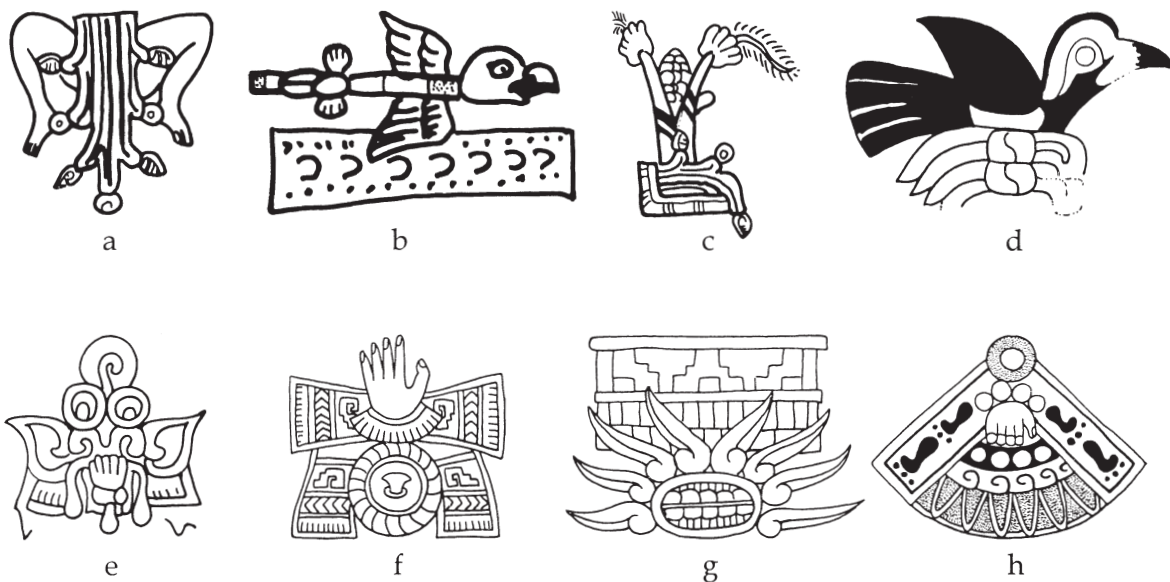
Hasso von Winning (1985:13) notes that the uppermost portion of the Acanceh facade portrays rain clouds, here as cloud volutes exuding large water drops (Figure 19e). The cloud scrolls and water drops also appear on the upper wings of the flanking birds, quite probably eagles (Figure 19b). In the Acanceh frieze, the rain falling upon the mountain toponyms probably derives from the accompanying rain-bringing bird. Recall the series of plant toponyms in the Techinantitla murals being watered by the plumed serpent hovering above (see Pasztory 1988). Rain apparently constitutes a Teotihuacan metaphor for governance, with the polity watering and thereby sustaining smaller, subsidiary districts or communities. The following text derives from an Aztec description of "Authority as a Model" recorded by Andrés de Olmos:

He over-arches, he is all encompassing.
He fosters the growth, the greening.
He is iridescent in plumage (Maxwell and Hanson 1992:170).

This 16th century Aztec account is strikingly similar to the Techinantitla scene, where the quetzal-plumed serpent – a basic Central Mexican symbol of rulership – rains upon the plants below. The Red Temple murals at Cacaxtla portray a similar pattern, with gods, plants, and animals of the Maya realm being watered by falling rain and irrigated by streams cascading along the bodies of plumed serpents (see Stuart 1992:134-36). In addition, there is the Classic Maya *uchabhi:y* or *ukabhi:y* phrase deciphered by Stephen Houston and David Stuart (personal communication 1998), which commonly refers to a Maya ruler overseeing actions performed by a ruler of a subservient site (Houston and Cummins 1998). As Houston and Stuart note, the Tzotzil term *chab* signifies to cultivate a maize field as well as oversee (see Laughlin 1988 I:184).⁹

In Classic Central Mexico, the plumed serpent embodied the concept of rulership and political hegemony through the basic metaphor of horticulture, the fostering of both fields and society. However, the trope of cultivation as governance was probably expressed also in other ways at Teotihuacan. The close and prominent relation of Tlaloc to the Teotihuacan polity – both within the city and abroad – may also relate to the metaphor of political administration and control as cultivation. As the god of rain and agriculture, Tlaloc is the primary being responsible for the nurturing of plants. On the base of the aforementioned Las Colinas bowl, Tlaloc occupies the pivotal, middle place, here in a circular pool of water surrounded by water scrolls and growing flowers (see Linné 1952:figs. 128, 170). As Clara Millon (1988:124) notes: "the Storm God [Tlaloc] is the unifying center." Circling around the water and growing plants are the four figures with their accompanying glyphic titles, all earnestly engaged in hand scattering (Figure 8). From the rim of the bowl, raindrops cascade upon the hand scattering figures and growing flowers, clearly a version of the showering drops in the Techinantitla and Acanceh scenes. The ubiquitous scenes of hand scattering or casting in Teotihuacan art may be ritual expressions of two basic agricultural acts, sowing and watering.

FIGURE 20. COMPARISON OF AZTEC TOPONYMNS APPEARING IN THE CODEX MENDOZA TO EMBLEMATIC GLYPHS FROM TEOTIHUACAN MURALS.



- a-c:** GLYPHS FOR AMAXAC, TOTOMIXTLAHUACAN, AND OCOAPAN (AFTER CODEX MENDOZA:FOL. 39R)
d: EMBLEMATIC GLYPH OF BIRD WITH PAIR OF KNOTTED CLOTHS, TOTOMETLA (AFTER DE LA FUENTE 1995:357, LÁM. 18)
e: BUTTERFLY WITH HAND WITH DRIPPING WATER, ZONE 5A (AFTER DE LA FUENTE 1995:61, LÁM. 2)
f: EMBLEMATIC GLYPH COMPOSED OF ORNAMENTED CLOTH, MIRROR, AND DISEMBODIED HAND, TETITLA (AFTER A. MILLER 1973:FIG. 315)
g: EMBLEMATIC GLYPH OF MOUTH, FLAMES, AND ROOF, TETITLA (AFTER DE LA FUENTE 1995:FIG. 19.25)
h: EMBLEMATIC COMPOUND CONTAINING DISEMBODIED HAND AND PROBABLE FORM OF CROSSROAD SIGN (AFTER FONCERRADA DE MOLINA 1995:FIG. 42)

As a symbolic act of cultivation, hand scattering may be as much a political as a religious statement, and could well express the active participation of gods and humans in the support and maintenance of the Teotihuacan world through the showering of water, jade, or other precious materials upon its earthly domain.

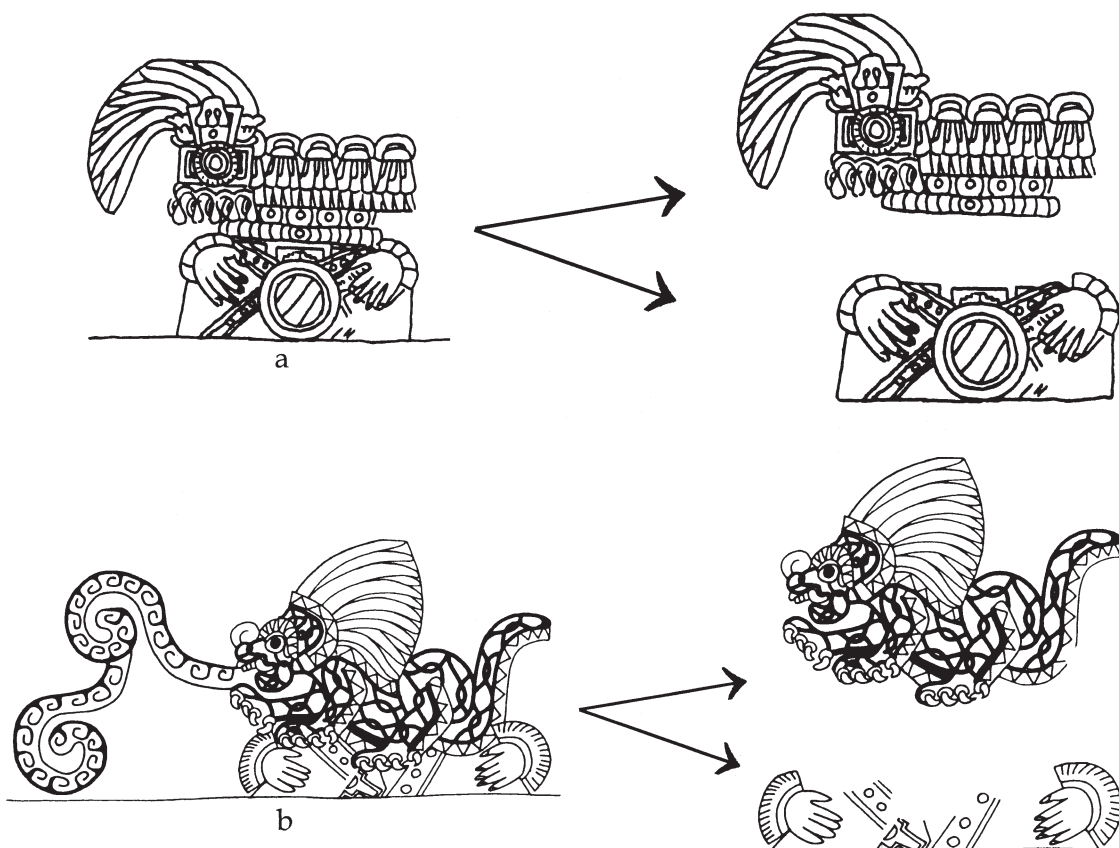
In addition to the large, elaborate emblematic signs in Teotihuacan-style murals and facades, there are also smaller, more intermediate glyphs. The headdress compounds from Tepantitla and the Tlacuilapaxco maguey-spine bundle are two such examples. Nonetheless, it should be born in mind that the Tlacuilapaxco sign is still almost one-half meter in length, far larger than glyphic signs commonly known for the ancient Maya, Zapotec, and Aztec (Figure 9a, b). A mural from Zone 5A contains a compound roughly 25 centimeters high composed of a disembodied hand, dripping water, and a butterfly (Figure 20e). Murals from Totometla portray two knotted cloths affixed to a bird, quite like glyphic compounds from the Plaza de los Glifos at La Ventilla (Figure 20d).

Within the great tradition of mural painting at Teotihuacan, massive polychrome epigraphic signs were emblazoned across walls, much like eye-arresting designs on modern

billboards. This provides a very different perspective for many Teotihuacan murals, which often appear to be extremely abstract, with weird combinations of elements. This is because these figures are not scenes, but *writing*. In form, they are quite like Aztec toponyms appearing in the Codex Mendoza, which are also strange combinations of human parts with items of the natural and cultural worlds (Figure 20a-c). Construing such Aztec compounds as iconographic scenes is obviously incorrect, and could readily lead to baseless interpretations. The same could be said for Maya hieroglyphic signs, which although highly visual, are often used for their phonetic value rather than alluding to the object illustrated. Thus a quite realistic-appearing fish could simply be used for the phonetic value *ka* rather than referring to fish or aquatic themes. Similarly, caution should be employed when interpreting Teotihuacan emblematic glyphs. For example, a mouth or a pair of hands may be providing specific semantic or phonetic values, and may have nothing to do with a particular deity, such as the “Great Goddess.” Teotihuacan writing and iconography are two distinct systems, with their own inherent rules and conventions. But although the recognition of Teotihuacan texts can limit literal interpretations of many complex scenes, it also provides important advantages for the interpretation of Teotihuacan writing and iconography. For one, there is a great deal of specificity of the glyphs used in texts. Thus the series of repeating tasseled headdresses appearing in the Techinantitla murals indicates that this particular costume element served as an important marker of a specific office (Figure 7). In addition, the simpler form of the headdress sign, a single tassel, demonstrates that this element is the critical marker for this political position (Figure 7a). For the aforementioned sign accompanying the Teotihuacan god, the quetzal and butterfly are clearly indicated to be essential components of this being, and the flower wing also appears to be an important trait (Figure 17d). In the writing, it is also possible to note substitutional patterns that could indicate similar thematic meanings. For example, one emblematic glyph from Tetitla represents a form of the tasseled headdress atop a hill-like element with dotted diagonal bands and hands (Figure 21a). This same headdress, complete with the dripping year sign element, appears in murals from Platform IV in Zone 3-A (see de la Fuente 1995:fig. 8.2-8.5). Aside from the infixed banded disk, the lower portion of the Tetitla compound is virtually identical to that appearing in the Palace of the Jaguars from Zone 2 (Figure 21b). These two mural compounds represent a form of substitution, with the tasseled headdress being replaced by the netted jaguar. Given our glyphic knowledge of the tasseled headdress, it can be inferred that in this context the net jaguar probably also refers to a particular title or office.

The emblematic glyphs appearing in Teotihuacan mural and vessel scenes may seem foreign to our general conceptions of Mesoamerican writing systems. However, the Aztec also employed larger and more emblematic forms of hieroglyphic signs. Thus while the glyph for Tenochtitlan can be simply a nopal cactus atop a stone, it also appears in very elaborate form, such as on the back of the Teocalli of Sacred Warfare monument (Figure 22c, d). Day names can also appear in large and elaborate forms. In the series of gods and twenty day names occurring on Codex Borgia pages 9-13, the day signs are about the same height as the seated deities, a proportion typical of the emblematic glyphs of Teotihuacan (Figure 22b). The famous “Aztec Calendar Stone” carries an especially striking emblematic glyph, here as a massive and elaborate form of the date 4 Motion in the center of the monument. This monument aptly portrays the birth of the fifth sun out of the sacrificial fire of Teotihuacan (Taube 1999b). The emblematic style of Teotihuacan writing also recalls the full-figure glyphs commonly appearing in Classic Maya Long Count texts. However, aside from Acanh, an excellent example of emblematic writing style among the ancient Maya is the Early Classic Margarita stucco facade at Copan. Whereas the complex name phrase of the founder, K'inich

FIGURE 21. SUBSTITUTIONAL PATTERNS IN EMBLEMATIC GLYPHS FROM TEOTIHUACAN MURALS.



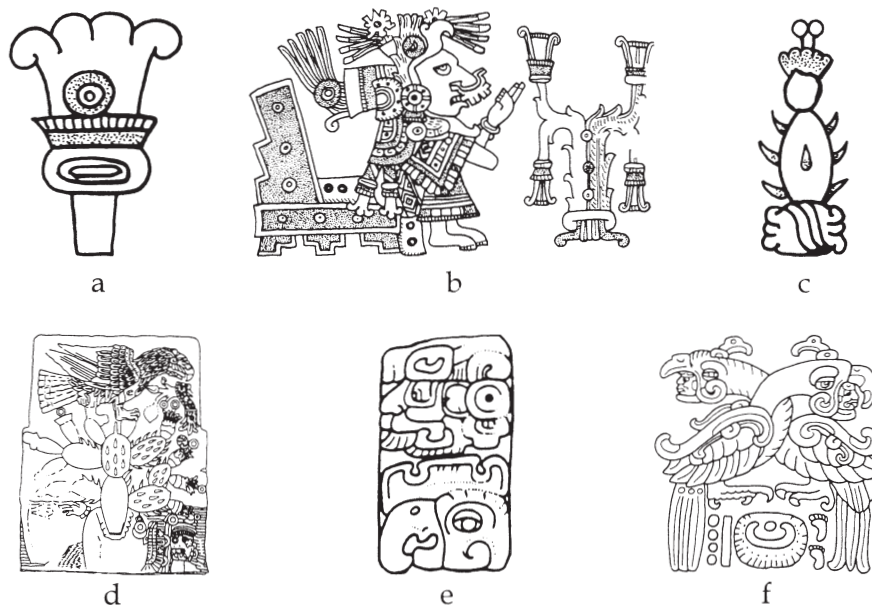
a: HANDS AND DOTTED DIAGONAL BANDS SIGN WITH CAPPING HEADRESS FORMED OF RAINING MEXICAN YEAR SIGN AND KNOTTED ELEMENTS, TETITLA (FROM DE LA FUENTE 1995:LÁM. 77)

b: HANDS AND DOTTED DIAGONAL BANDS SIGN WITH CAPPING HEADRESS FORMED OF NETTED JAGUAR (FROM A. MILLER 1973:FIG. 40)

Yax K'uk' Mo, typically appears in a rather compact form in Copan monumental texts, on the Margarita platform it is expanded to an almost heraldic sign in brilliantly painted colors (Figure 22e, f). It is especially intriguing that K'inich Yax K'uk' Mo had very special ties to Teotihuacan, and according to David Stuart (1999) he actually may have come from this distant city. As in the case of the Acanec h frieze, the Copan example is also an intentional allusion to the Teotihuacan style of mural texts.

To both commoner and elite inhabitants of Copan, the emblematic glyph appearing on Margarita was surely as recognizable as the Hapsburg eagle of Charles V was to 16th-century citizens of New Spain. In their bold, decorative quality, the emblematic signs of Teotihuacan resemble the logos of modern companies. Although an illiterate person would perhaps not be able to identify all of the constituent elements of an emblematic compound, the overall meaning could be readily conveyed. Much like the logographic signs used for the Mexico City metro stations, particular signs could be identified by individuals who had little or no knowledge of the writing system. In addition, these signs could be understood by people in Teotihuacan speaking entirely different languages.

FIGURE 22. THE EMBLEMATIC STYLE IN LATE POSTCLASSIC CENTRAL MEXICAN AND CLASSIC MAYA WRITING.



- a: CONVENTIONAL FORM OF DAY NAME FLOWER (AFTER CODEX BORGIA, P. 3)
 b: ELABORATE, EMBLEMATIC FORM OF DAY NAME FLOWER, NOTE RELATIVE SIZE OF DAY NAME TO GODDESS XOCHIQETZAL (AFTER CODEX BORGIA, P. 9)
 c: SIMPLE FORM OF TENOCHTITLAN TOPONYM (AFTER CODEX MENDOZA:FOL. 4v)
 d: ELABORATE FORM OF TENOCHTITLAN TOPONYM, BACK OF TEOCALLI OF SACRED WARFARE (FROM PALACIOS 1929:FIG. 2)
 e: NAME OF K'INICH YAX K'UK' MO, FOUNDER OF THE COPAN DYNASTY, APPEARING ON EARLY CLASSIC MOT MOT MARKER (DETAIL OF DRAWING BY BARBARA FASH)
 f: DETAIL OF MARGARITA FACADE WITH EMBLEMATIC FORM OF K'INICH YAX K'UK' MO NAME (DRAWING BY AUTHOR FROM PRELIMINARY FIELD DRAWING, USED WITH PERMISSION FROM ROBERT SHARER, THE EARLY COPAN ACROPOLIS PROGRAM, UNIVERSITY OF PENNSYLVANIA MUSEUM)

TEXTS IN SPEECH SCROLLS

Mention has been made of glyphic compounds appearing in speech scrolls in the Portico 2 murals at Tepantitla (Figures 23, 24). As compounds formed of distinct glyphic signs, they are quite unlike the elements commonly appearing within Teotihuacan speech scrolls (see Figure 1a). Moreover, many of the glyphs are found in other texts from Teotihuacan, including examples from the Plaza de los Glifos. For example, one speech scroll from Mural 2 contains a feline head devouring a heart, along with a flame affixed to a probable bone rasp (Figure 23a). Texts from the Plaza de los Glifos also contain the jaguar head devouring a heart sign (Figure 23b, c). Mural 3 contains two speech scrolls accompanied by the head of an old man and a coefficient of ten (Figure 23d, e). The same old man glyph also appears in a Plaza de los Glifos text (Figure 22f). Still another Mural 3 sign contains a series of human heads in profile and a footprint-marked road with flames (Figure 23g). Both flames and road glyphs commonly occur in other texts at Teotihuacan (Figures 4b, e; 7c; 17a, b; 20g; 23h, i).

Mural 3 of Tepantitla Portico 2 is filled with scenes of figures playing a wide variety of

games. Among the most elaborate and striking of these is a chain of four individuals joined by their left arms passing between their legs (Figure 24a). The seated figure directly before spouts a speech scroll marked with a centipede. This glyph may refer to the game, with the chain of figures representing the long, sinuous body of the centipede. In another region of Mural 3, a person flaps his arms with his left leg tightly bound up against his chest (Figure 24b). His accompanying speech scroll displays a knot and bird head, a text probably referring to the “trussed bird” game. An especially dramatic scene features four individuals around a central, seated person (Figure 24c). The uppermost figure runs towards the seated individual as if to kick him, with the three others looking on in alarm. The speech scroll text of the running figure contains a leg with a bone emitting sound scrolls. This compound probably refers to placing a resounding kick against the “bones” of the unfortunate seated figure. It is likely that many of the speech scroll glyphs describe the activities and games being performed in Mural 3.

The placement of texts on speech scrolls is known in other regions of ancient Mesoamerica. In Late Classic Maya vessel scenes, glyphs are often affixed to speech scrolls,

FIGURE 23. COMPARISON OF GLYPHS APPEARING IN TEPANTITLA PORTICO 2 MURALS AND IN TEXTS FROM THE PLAZA DE LOS GLIFOS.



- a:** SPEECH SCROLL CONTAINING NOTCHED BONE AND FLAME AND JAGUAR EATING HEART, TEPANTITLA (DRAWING BY AUTHOR)
- b-c:** LA VENTILLA GLYPHS WITH JAGUAR CONSUMING HEART SIGN (FROM CABRERA CASTRO 1996b:33, NOS. 17, 42)
- d-e:** TEPANTITLA TEXTS CONTAINING COEFFICIENT OF TEN AND HEAD OF OLD MAN (DRAWINGS BY AUTHOR)
- f:** HEAD OF OLD MAN SIGN, LA VENTILLA (FROM CABRERA CASTRO 1996b:33, NO. 13)
- g:** TEPANTITLA GLYPH COMPOSED OF PROFILE HUMAN HEADS, ROAD, AND FLAMES (DRAWING BY AUTHOR)
- h-i:** LA VENTILLA GLYPHS WITH FLAME ELEMENTS (FROM CABRERA CASTRO 1996b:33:NOS. 7, 40)

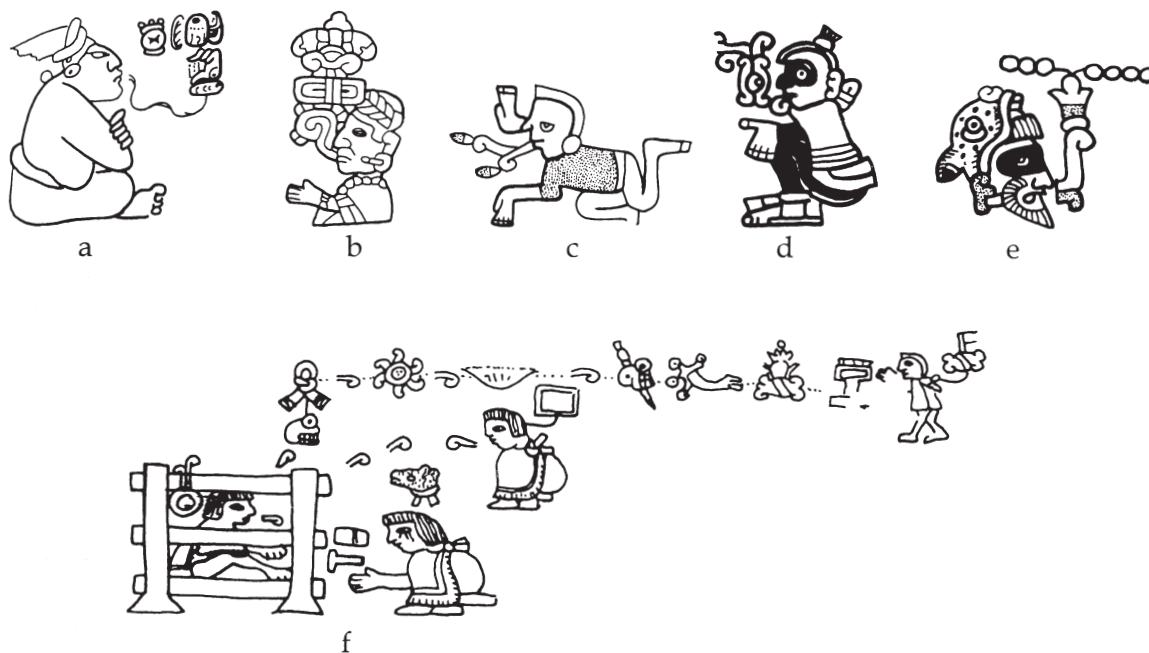
FIGURE 24. TEXTS APPEARING IN SPEECH SCROLLS FROM PORTICO 2 MURALS, TEPANTITLA.



- a:** SEATED FIGURE WITH CENTIPEDE IN SPEECH SCROLL, PROBABLY DESCRIBING GAME OF LINKED FIGURES (DRAWING BY AUTHOR)
- b:** PARTLY BOUND FIGURE FLAPPING ARMS WITH SPEECH SCROLL OF KNOT WITH BIRD HEAD, PROBABLY DESCRIBING "TRUSSED BIRD GAME" (DRAWING BY AUTHOR)
- c:** SCENE ILLUSTRATING FIGURE ABOUT TO BE KICKED, NOTE ACCOMPANYING GLYPHIC COMPOUND OF LEG AND BONE EMITTING SOUND SCROLL (DRAWING BY AUTHOR)

clearly denoting the specific content of an utterance (Figure 25a). Javier Urcid (1991) notes that Classic Zapotec monuments can portray individuals pronouncing texts with speech scrolls (Figure 25b). At times, speech scrolls appearing in the Mixtec codices can carry glyphic elements. One well-known example occurs on Codex Selden page 7, where two individuals threaten emissaries of Lady 6 Monkey. The gist of this harsh speech is denoted by flint blades attached to their speech scrolls (Figure 25c). Aurora Perez, a native Mixtec speaker of Chalcatongo notes that the flint blades signify the Mixtec expression *yuchi*, or *cuchillo*, meaning "I will kill you with a knife" (in Jansen 1982:248-49). On page 9 of the Codex Bodely, a glyphic element resembling the day name Motion appears in a speech scroll, the meaning of this sign remains unknown (Figure 25d). John Pohl notes another instance of a Mixtec speech scroll containing a glyphic text (personal communication 1999). On Codex Nuttall page 20, an individual by the name of 10 Rain displays a sound scroll with the date 7 Flower (Figure 25e). Since 7 Flower is the Mixtec god of music and dance, this date probably qualifies the utterance as song. The early colonial Codex Xolotl, a Tezcocan manuscript containing toponymic references to Teotihuacan, is filled with speech scroll texts, and at times, they form quite long

FIGURE 25. GLYPHIC SIGNS ATTACHED TO SPEECH SCROLLS
IN ANCIENT MESOAMERICA.



- a: DETAIL OF LATE CLASSIC MAYA VESSEL (AFTER KERR 1990:297)
 b: WOMAN WITH GLYPHIC SPEECH SCROLL, LÁPIDA DE SANTIAGO MATATLAN, LATE CLASSIC ZAPOTEC (AFTER URCID 1991)
 c: MIXTEC FIGURE WITH SPEECH SCROLL MARKED WITH KNIVES (AFTER CODEX SELDEN, P. 7)
 d: MIXTEC INDIVIDUAL WITH GLYPH IN SPEECH SCROLL (AFTER CODEX BODLEY, P. 9)
 e: PROBABLE SONG SCROLL DENOTED BY DATE 7 FLOWER, THE MIXTEC GOD OF SONG AND DANCE (AFTER CODEX NUTTALL, P. 20)
 f: PRISONER EMITTING LENGTHY SPEECH SCROLL TEXT (AFTER CODEX XOLOTL, PL. 8)

and complex glyphic chains. In one instance, no less than ten glyphic compounds are linked by a single chain of speech scrolls (Figure 25f).

The Codex Xolotl shares another trait with the Tepantitla Portico 2 murals. On the lower right corner of Map 10 of the Codex Xolotl, there is a remarkable scene of a stickball game, much like the famed stickball scene from Mural 2 (Figure 26). The lower portion of the scene portrays three players, with two in the act of striking the ball. The twisted element covering one arm of each ballplayer is clearly protective padding, something that would be of great help in stickball. In fact, such arm padding is found with Mesoamerican ball players as far back as the Olmec (see *The Olmec World* 1995:237, no. 134, fig. 1). In the scene above the game, the players seem to be enjoying a quaff of pulque. Although one should not overstress the similarity between the Codex Xolotl and the Portico 2 murals, the murals do resemble Chichimec historical maps. Like the early colonial examples, they feature individuals engaged in lively acts over broad and varied landscapes marked with toponyms, although in the case of Portico 2, the place names tend to occur at the base of the scenes.

FIGURE 26. A REPRESENTATION OF STICKBALL IN THE CODEX XOLOTL.



DRAWN BY AUTHOR

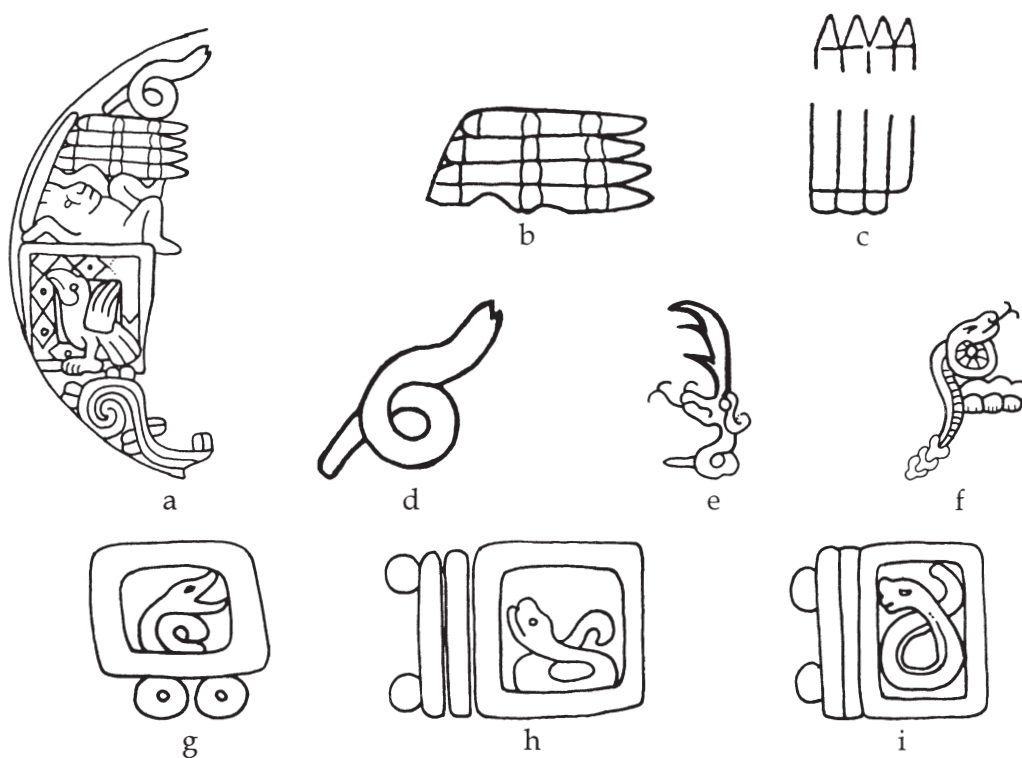
LINEAR TEXTS IN TEOTIHUACAN WRITING

Aside from the Portico 2 scenes, there is another instance where Teotihuacan glyphs appear with a speech scroll, here upon a slate mirror back. The mirror back has a long text in front of a seated Teotihuacan warrior, clearly a more complex form of the glyphs commonly appearing before Teotihuacan figures (Figure 27). At the feet of the warrior, the lowest portion of the text contains a curling speech scroll. This glyphic element is probably a quotative particle, denoting the act of uttering the previous phrase. Stephen Houston (personal communication 1999) notes a similar convention in Classic Maya epigraphy, where certain clauses terminate with the nominalized antipassive Mayan phrase *yalahiya*, or "it is his saying" (see Culbert 1993:fig. 84). Evidently a more epigraphic form of the glyphic speech scrolls in the Tepantitla Portico 2 murals, the speech scroll ending the mirror-back text may also be a nominalized antipassive, the noun phrase "his saying," derived from the verb "to say." It is noteworthy that this text is neither Classic Maya nor Zapotec but appears to be wholly Teotihuacano. Certain of the signs can be readily found in later Central Mexican scripts. Thus the sign of four darts appears in Toltec-style writing from a column from the Temple of the

FIGURE 27. CENTER OF CARVED MIRROR BACK WITH LINEAR TEOTIHUACAN TEXT.

AFTER BENSON AND
JORALEMON 1980:NO. 36

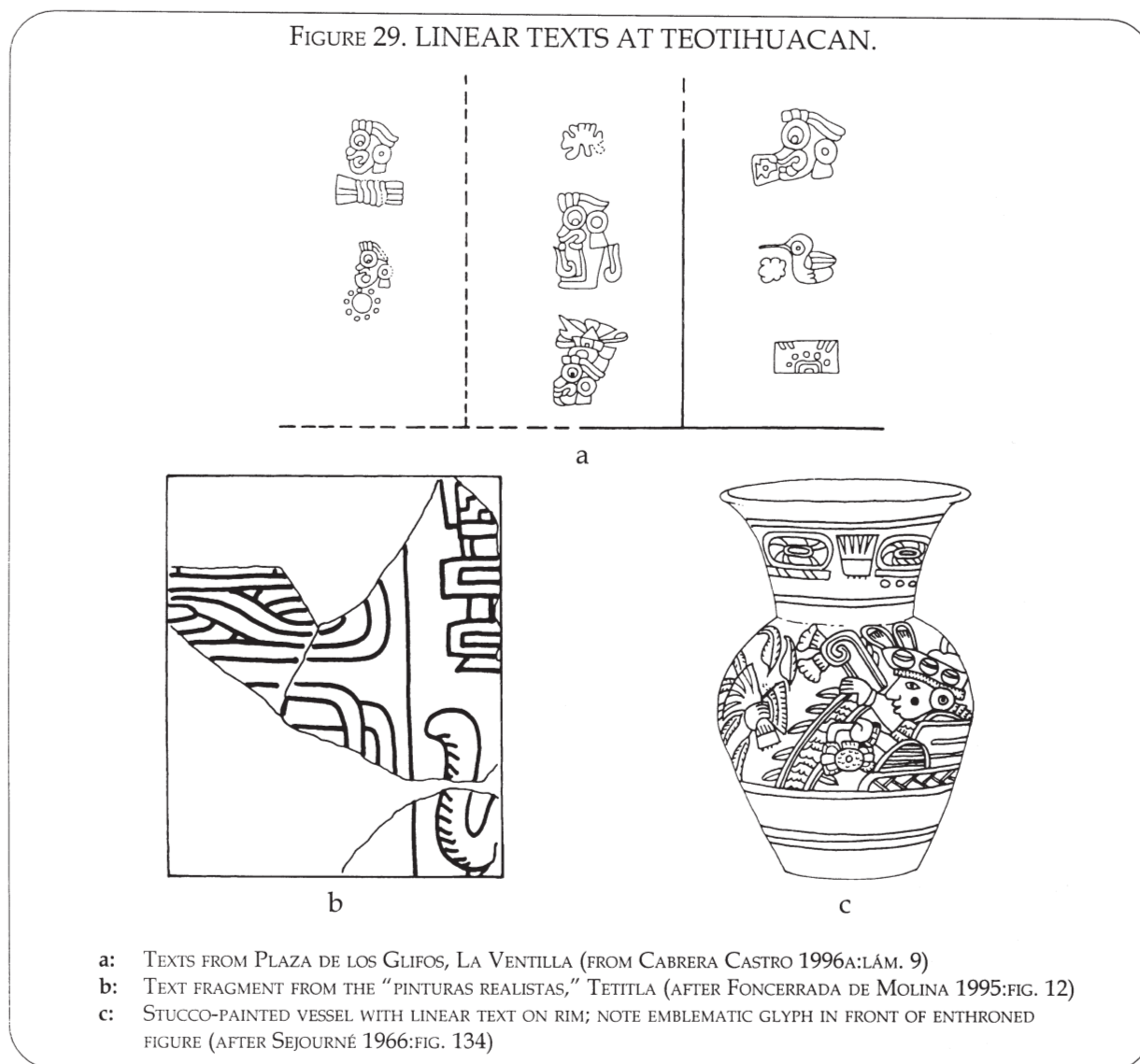
FIGURE 28. COMPARISON OF TEXT FROM TEOTIHUACAN-STYLE MIRROR BACK TO CLASSIC AND POSTCLASSIC SIGNS.



- a: LINEAR TEXT FROM MIRROR BACK (AFTER BENSON AND JORALEMON 1980:NO. 36)
 b: DART BUNDLE SIGN FROM MIRROR BACK (AFTER BENSON AND JORALEMON 1980:NO. 36)
 c: TOLTEC DART BUNDLE GLYPH, COLUMN 19, NORTHWEST COLONNADE, CHICHEN ITZA (DRAWN BY AUTHOR)
 d: TWISTED SERPENT GLYPH OF MIRROR BACK (AFTER BENSON AND JORALEMON 1980:NO. 36)
 e: TWISTED MAZACOATL SNAKE FROM PLAZA DE LOS GLIFOS, LA VENTILLA (AFTER CABRERA CASTRO 1996B:33)
 f: TWISTED SERPENT IN COHUATITLAN TOPONYM (AFTER CODEX AUBIN:FOL. 13V)
 g: TWISTED SERPENT IN DATE 2 SERPENT, DETAIL OF NEW FIRE RITUAL TEXT, XOCHICALCO (DRAWN BY AUTHOR)
 h-i: TWISTED SERPENTS IN DATE 12 SERPENT, STELAE 1 & 2, JIMBAL, GUATEMALA (DRAWN BY AUTHOR)

Warriors at Chichen Itza (Figure 28c). The looped serpent at the upper portion of the text is similar to a *mazacoatl* or “deer snake” from the Plaza de los Glifos, as well as the snake for the place Coatlan from the early colonial Codex Aubin (Figure 28e, f). The looped snake also appears in Terminal Classic texts as the day serpent at Xochicalco and the Maya site of Jimbal, here in texts exhibiting strong Mexican influence (Figure 28g-i).

At La Ventilla, the Plaza de los Glifos texts tend to be placed in rectangles delineated by thin red lines (Figures 10a, 29a). Although many are composed of a single sign or compound, other texts are more complex and contain a series of glyphic compounds (Figure 29a). It is likely that a series within a quadrangle was read together as a linear text rather than as separate signs. With their red borders, the Plaza de los Glifos texts recall passages in Mesoamerican manuscripts, including tribute lists and screen-fold almanacs. Another likely example of a Teotihuacan linear text derives from a mural fragment from the Realistic Paintings from Tetitla Corridor 12. Although these murals do contain Maya writing and iconography, this text is not Maya, and features two vertical glyphic columns placed on different fields of color (Figure 29b). In the fragmentary right column, there is a temple with an *almena*-



crested roof, and the tail and hindquarters of a feline. It is noteworthy that the lower portion of the murals of Corridor 12 and adjacent chambers features net jaguars running to a temple displaying a roof marked with prominent almenas (see A. Miller 1973:figs. 317-27). In other words, the text on the right side of the mural fragment may have pertained directly to the accompanying mural scenes below.

Alfonso Caso (1966:275) called attention to another linear Teotihuacano text, here upon a stucco-painted vase (Figure 29c). The writing extends around the vessel rim, recalling rim texts commonly appearing on Classic Maya vases (see Coe 1973). In the published portion of the text, a pinwheel-like glyph occurs twice with differing numerical coefficients. Between these two signs stands a tufted element, probably a bound quetzal bundle. The same sign occurs below in an emblematic glyph appearing before a figure seated on a mat throne.¹⁰ In the emblematic glyph, loose plumes radiate from the feather bundle, which is grasped by a disembodied hand. On this remarkable vase, the feather-bundle glyph appears both within a linear text and in an emblematic sign. It will be noted later that Teotihuacan-style linear texts are relatively common on monuments from southern Veracruz and coastal Chiapas.

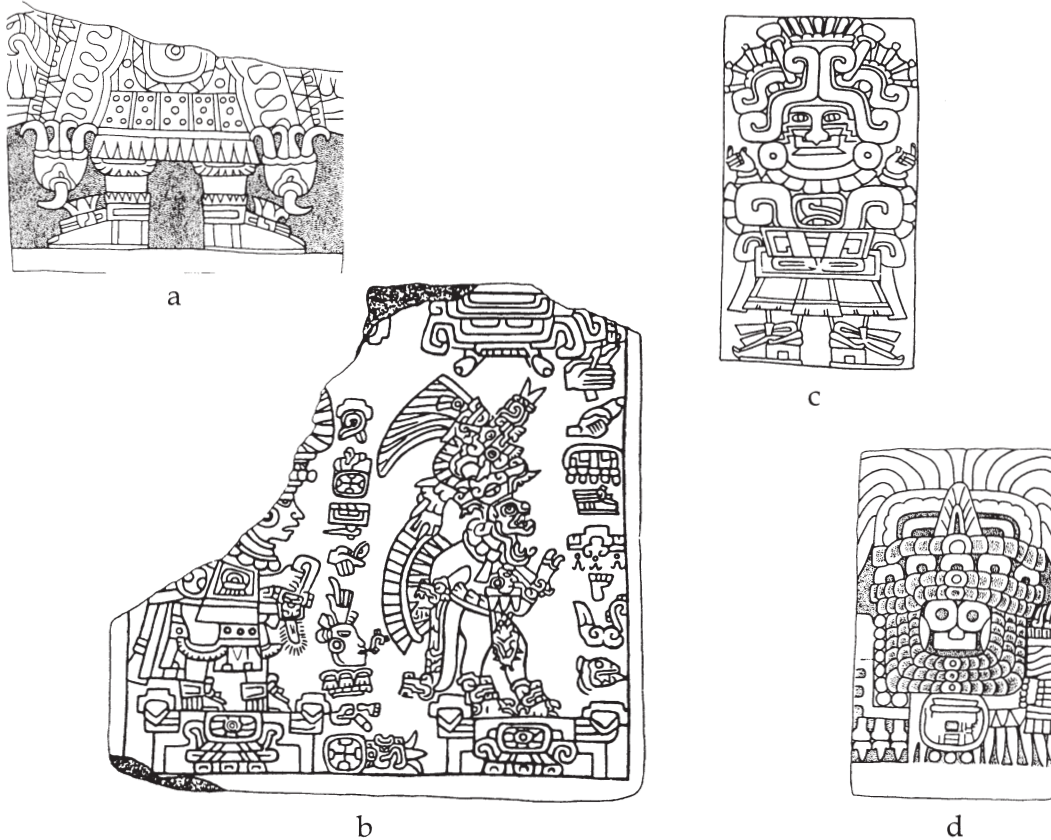
TEOTIHUACAN TEXTS APPEARING ON STONE MONUMENTS

In striking contrast to the Classic Zapotec and Maya, there is a puzzling paucity of writing on stone monuments at Teotihuacan. This may be partly because Teotihuacan art is a strongly painterly tradition, with a marked focus upon two-dimensional rather than three-dimensional representation. Along with the surfaces of walls and possibly banners and other textiles, texts may have been also painted on stelae. For Classic Cholula, there are large stelae with plain surfaces surrounded by elaborate borders in Veracruz scroll style (see McCafferty 1996:9-10). The smooth, central portion of these monuments probably conveyed painted scenes or texts, which is surely also true for the many "plain" stelae known at Classic Maya sites. At Teotihuacan, the fine travertine known as *tecalli* may have been especially favored for monumental painted texts. A particularly large and impressive *tecalli* monument is in the Jardín de Escultura of the Zona Arqueología de Teotihuacan. Finely dressed and smoothed, the four-sided monument is fragmentary but still over a meter in length, and in terms of size and proportions is comparable to Xochicalco Stelae 1, 2 and 3. Although no painted texts survive on *tecalli* monuments from Teotihuacan, finely painted *tecalli* vessels are known for Late Classic Xochicalco and Early Postclassic Chichen Itza (see Bernal 1969:no. 18; Coggins and Shane 1984:no. 31). The contrast between the brilliant but opaque stucco paint and the smooth, lustrous white stone makes for a stunning presentation.

Excavations in the Palacio de Quetzalpapalotl uncovered a large but fragmentary green *tecalli* stela roughly 50 cm. in width (Acosta 1964:37). The monument portrays a complex standing figure flanked by water bands, feather edging, and curving knives, as well as sharply clawed paws near the human feet (Figure 30a). In view of the many combined elements, this figure may constitute a form of emblematic glyph. The Palacio de Quetzalpapalotl excavations also revealed a plain, quadrangular *tecalli* stone 21 cm. in length (Acosta 1964:35). The dimensions of this object are comparable to the well-known *tecalli* Ixtapaluca Plaque (Figure 30c). In many respects the Ixtapaluca Plaque is a miniature stela portraying a standing figure with the date 7 Reptile Eye on his torso. This figure not only recalls the Quetzalpapalotl *tecalli* stela, but also a basalt monument in the Rufino Tamayo collection (Figure 30d). Attributed to Guerrero, this 70 cm. high basalt stela is carved in strong Early Classic Teotihuacan style, and features a warrior wielding a shield and darts in one hand, and a burning torch in the other. The center of the abdomen bears the date 3 House, with the day name in a circular rim. The appearance of the date in the lower abdomen recalls the similarly placed 7 Reptile Eye glyph on the Ixtapaluca Plaque. The placement of glyphic signs on the lower abdomen is commonly found on Classic stelae from south coastal Oaxaca as well as neighboring Guerrero, including such sites as Río Grande, Nopala, and Piedra Labrada (see Urcid 1993). Along with the use of circular day names in the Nuiñe region, this is probably a Teotihuacan-derived trait. The reverse of the Teotihuacan-style Guerrero stela bears a complex scene, including a series of darts piercing an earth sign, possibly a reference to conquest (see Xirau 1973:fig. 60). In contrast, the reverse sides of the *tecalli* Quetzalpapalotl Stela and the Ixtapaluca Plaque are plain, and may well have been ornamented with painted texts or scenes.

The amount of information that could be conveyed on a *tecalli* slab is clearly expressed by the Lápida de Bazán (Figure 30b). Although found at Monte Alban, the use of *tecalli* for monumental carving appears to be more typical of Teotihuacan. Alfonso Caso (1965:941) and Joyce Marcus (1983:179) have noted that the rear figure is dressed in Teotihuacan costume. Marcus (1983:181) also calls attention to Teotihuacan elements in the accompanying text, including the triple-knot headdress and a Teotihuacan-style sandal. In his initial

FIGURE 30. TEOTIHUACAN-STYLE MONUMENTS AND RELATED STONE CARVINGS.



- a: LARGE TECALLI SLAB WITH COMPLEX FIGURE, PALACE OF QUETZALPAPALOTL (AFTER ACOSTA 1964:FIG. 60)
 b: THE LÁPIDA DE BAZÁN, TECALLI SLAB WITH TEOTIHUACAN AND ZAPOTEC STYLE FIGURES AND GLYPHS (FROM CASO 1937:FIG. 17)
 c: THE IXTAPALUCA PLAQUE, TECALLI SLAB PORTRAYING TEOTIHUACAN STYLE FIGURE WITH DATE 7 REPTILE EYE (FROM BEYER 1922:FIG. 1)
 d: SMALL BASALT STELA WITH TEOTIHUACAN STYLE WARRIOR HOLDING BURNING TORCH AND SHIELD AND DARTS, NOTE DATE 3 HOUSE ON ABDOMEN (AFTER XIRAU 1973:PL. 61)

discussion of Teotihuacan writing, Caso (1937:138) suggested that Zapotec writing was influenced by Teotihuacan during the Classic period. The Teotihuacan elements in the *Lápida de Bazán* text should best be viewed as direct borrowings of Teotihuacan glyphs, rather than simply local Zapotec references to Teotihuacan-style art. As in the case of the *Techinantitla* murals, the triple-knot headdress appearing in the text probably refers to the headdress and office of the Teotihuacan figure.¹¹ Still another probable Teotihuacan-style sign is the second glyph at the upper-right corner, a human hand holding a spearthrower. At Early Classic Tikal, the hand-held spearthrower often appears in texts containing clear references to Teotihuacan (see Figure 31a-c, e).

At Tikal, one of the most striking Early Classic monuments in Teotihuacan style was discovered during excavations in the *Mundo Perdido* complex (Fialko 1986). Vilma Fialko notes that the form of this monument is virtually identical to the stone sculpture from *La Ventilla*, as well as the markers in the stickball scene from *Mural 2* of *Tepantitla Portico 2* (Fialko 1986:63). Carved of fine-grained limestone, the monument bears a text describing the arrival of Teotihuacanos at Tikal on 8.17.1.4.12 11 Eb 15 Mac, corresponding to January 16,

FIGURE 31. EARLY CLASSIC TEOTIHUACAN GLYPHS APPEARING ON THE MARCADOR DE PELOTA FROM THE MUNDO PERDIDO COMPLEX, TIKAL.



- a:** PORTION OF MAYA TEXT MENTIONING THE ERECTION OF MONUMENT, INCLUDING STYLIZED TLALOC GLYPH AND NAME SPEARTHROWER OWL (AFTER LAPORTE AND FIALKO 1995:FIG. 47)
- b:** NAME OF SPEARTHROWER OWL, A PROBABLE INDIVIDUAL FROM TEOTIHUACAN (AFTER LAPORTE AND FIALKO 1995:FIG. 47)
- c:** PROBABLE TEOTIHUACAN GLYPHIC COMPOUND (AFTER LAPORTE AND FIALKO 1995:FIG. 47)
- d:** STYLIZED TLALOC GLYPH ON SIDE A OF CAPPING, FEATHER-RIMMED DISK (AFTER LAPORTE AND FIALKO 1995:FIG. 46)
- e:** SPEARTHROWER OWL NAME ON SIDE B OF CAPPING DISK (AFTER LAPORTE AND FIALKO 1995:FIG. 46)
- f:** TEOTIHUACAN TEXT ON BALL ELEMENT BELOW SPEARTHROWER OWL NAME (AFTER LAPORTE AND FIALKO 1995:FIG. 46)

A.D. 378 (Stuart 1999). Whereas the lower, cylindrical half of the monument bears two panels of Maya text, the upper portion displays large Teotihuacan glyphs, two on the sides of the capping feathered disk, and another group on the ball-like, lower portion (Figure 31d-f). One of the upper signs, a schematic Tlaloc face, also appears on feather-rimmed disks in the monumental art of Teotihuacan (see Easby and Scott 1970:no. 111; Angulo 1986:148). The opposing side of the disk features an owl with a hand-held spearthrower (Figure 31e). The two glyphs ornamenting the capping feather-rimmed disk also appear in the Maya text, here in a verbal phrase describing the erection of the monument (Figure 31a). The Teotihuacan glyphs embedded in the Maya text are not simply pictographic signs illustrating the principal motifs appearing on the monument. Thus the owl and hand-held atlatl compound also appears in another portion of the Maya text, here as a personal name (Figure 31b). At Tikal, the owl and atlatl sign refers to the father of the Early Classic king Curl Nose, or Nun Yax Ain (Stuart 1999). According to Stuart, Spearthrower Owl may have been an important political figure at Teotihuacan. Occurring in a strikingly Teotihuacan context, the spearthrower-and-owl glyph in the center of the feathered disk constitutes a personal name (Figure 31e).

Below the name of Spearthrower Owl, there are other Teotihuacan glyphs, a pair of heads sharing the same headband, as well as a knot and a stepped motif surrounded by a circle of dots (Figure 31f). With their hanging hair, large ear spools, and necklaces, the pair of heads are very similar to the frontally facing figure appearing in the last glyph block of the two-panel Maya text below (Figure 31c). Also containing the hand-held spearthrower sign and a curious shieldlike element, this glyph block is probably not Maya writing, but rather a Teotihuacan glyphic compound.

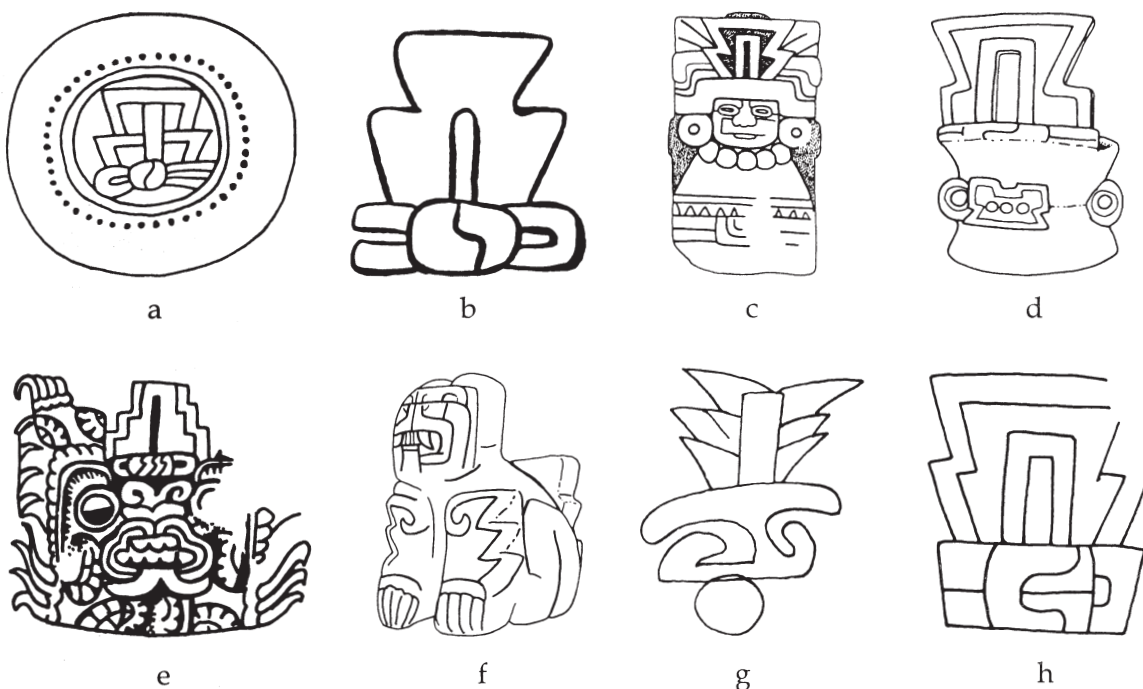
Directly below the pair of heads is the stepped sign and knot surrounded by the beaded ring. The beaded-circle sign also occurs in the Teotihuacan writing system, including a text from the Plaza de los Glifos (Figure 10, no. 30). The central element appears to be a form of the stepped “Xi” sign identified by Caso (1967:175) for the Late Classic site of Xochicalco. Since a number of N̄uiñe texts have a circle of dots to represent the numeral one (see Winter and Urcid 1990), Javier Urcid suggests that the circle around the Tikal Xi sign may represent a conflated sign of 1 Glyph Xi (personal communication 1999). An elaborate Teotihuacan-style vessel recently excavated near the Templo Mayor in Mexico City has the knot day name, Xochicalco Glyph A, circled by dots (López Luján 1999). This may also be the conflation of a date, in this case 1 Glyph A. The upper portion of the vessel also contains the Xi-sign day name, here with the coefficient of 9.

The Xi glyph appearing on the lower portion of the vessel contains a horizontal, segmented element quite probably a form of the same knot appearing with the Tikal example (Figure 32a). The stepped Xi glyph evidently denotes a headdress, with the knot representing the binding. A small, Teotihuacan-style stela represents a figure wearing the Xi-sign headdress (Figure 32c). Another such headdress, complete with a horizontal knot, appears on a partly anthropomorphized censer from Xochitecatl, Tlaxcala (Figure 32d). A possible form also occurs on a plano-relief Teotihuacan vessel, here as the headdress of a being with serpent and jaguar attributes. A fine tecalli jaguar from the Palace of Quetzalpapalotl displays the Xi sign and knot as a form of tail (Figure 32f, h). Another probable Xi glyph also appears in a text lightly incised on the back of the jaguar (Figure 32g). Although the precise meaning of this headdress remains uncertain, it probably denotes a major office at Teotihuacan. The occurrence of Teotihuacan writing on Maya monuments holds great promise for interpreting the poorly understood writing system of Teotihuacan. Signs and symbols of Teotihuacan rulership – so elusive at Teotihuacan – may eventually be elucidated by their contextual appearance in Classic Maya writing.

Mention has been made of Teotihuacan glyphs on local pottery from the Escuintla region of coastal Guatemala (Figures 14, 16). Carlos Navarrete (1986:25) notes that sites in the nearby coastal region of Cerro Bernal, Chiapas, have locally made pottery in Teotihuacan forms as well as monuments in strong Teotihuacan style. A huge rocky outcrop between the coast and the Sierra Madre de Chiapas, Cerro Bernal is essentially a gateway to the rich coastal regions of the Soconusco and neighboring Guatemala (see topographic view in Lowe, Lee, and Martínez Espinosa 1982:fig. 4.12). One of the major Cerro Bernal sites is Los Horcones, which contains a number of stelae with Teotihuacan-style iconography and texts.

The fragmentary Los Horcones Stela 1 portrays a probable decapitated ballplayer in seated position, with serpents of blood spurting from the severed neck (Lowe, Lee, and Martínez Espinosa 1982:fig. 1). Although well documented for later El Tajín and Chichen Itza, this motif is also known for Early Classic Teotihuacan-style ceramics from Escuintla (see Hellmuth 1975:pls. 8, 9). Los Horcones Stela 3 is particularly impressive, and features a standing Tlaloc rendered in pure Teotihuacan style (Figure 33e, f). Among the clear Teotihuacan conventions is the fanged mouth containing a water lily, an undulating lightning bolt

FIGURE 32. THE XI-SIGN HEADDRESS ELEMENT IN CLASSIC MESOAMERICA.

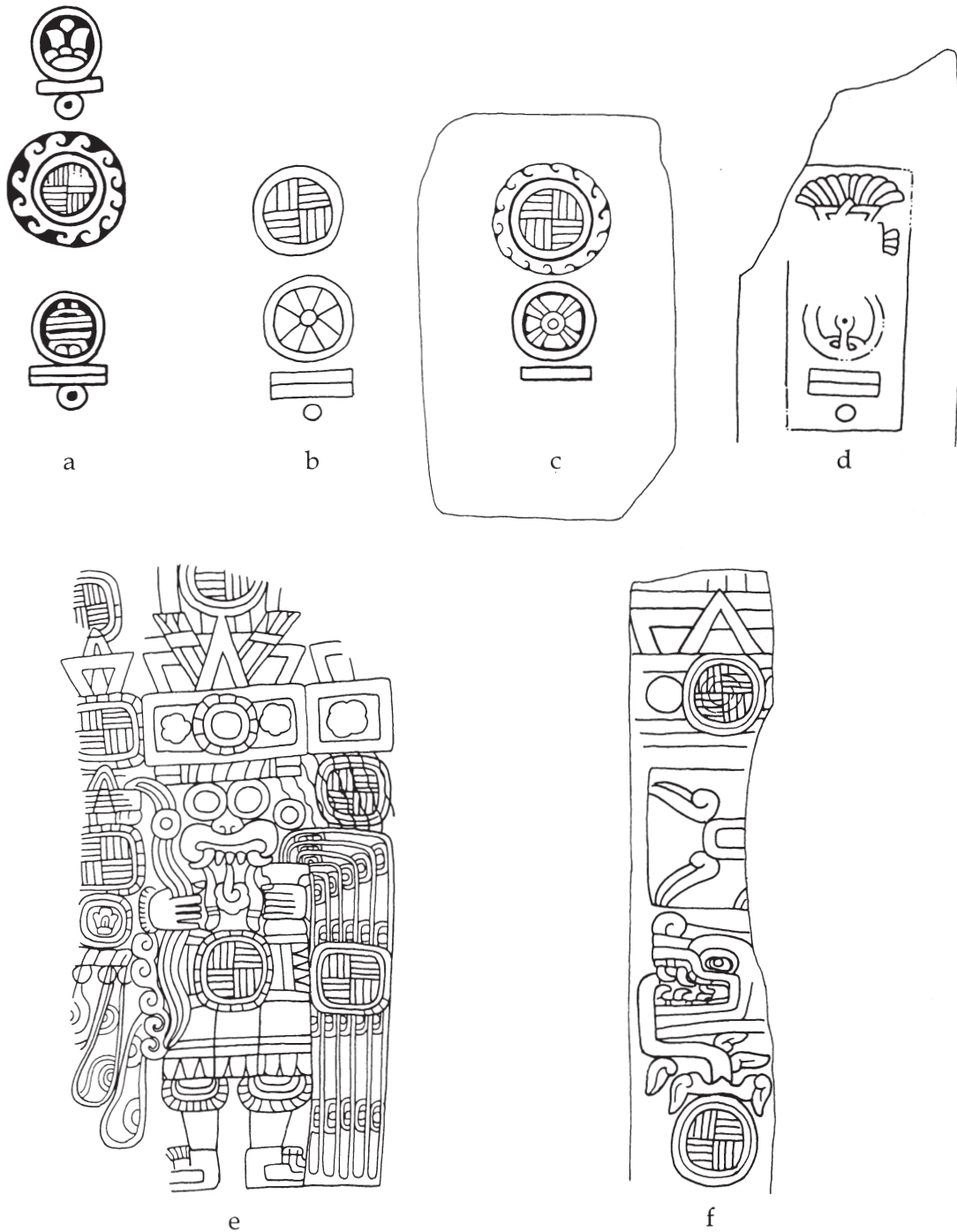


- a: XI SIGN AND KNOT IN BEADED CARTOUCHE, MARCADOR DE PELOTA (AFTER LAPORTE AND FIALKO 1995:FIG. 46)
- b: XI SIGN WITH KNOT ELEMENT, ACAPULCO REGION (AFTER CASO 1967:175, FIG. 11i)
- c: SMALL STELA OF FIGURE WEARING XI SIGN HEADDRESS (AFTER HARMER ROOKE GALLERIES 1987:FIG. 37)
- d: ANTHROPOMORPHISED CERAMIC CENSER WITH XI SIGN HEADDRESS, XOCHITECATL (AFTER SERRA PUCHE 1998:83)
- e: FIGURE WITH XI SIGN HEADDRESS, DETAIL OF PLANO-RELIEF TEOTIHUACAN VESSEL (AFTER SELER 1902-23, V:516)
- f: TECALLI JAGUAR ENTITY, PALACIO DE QUETZALPAPALOTL (AFTER ACOSTA 1964:FIG. 53)
- g: PROBABLE XI SIGN COMPOUND INCISED ON TECALLI JAGUAR (AFTER ACOSTA 1964:FIG. 54c)
- h: CARVED XI SIGN HEADDRESS IN TAIL REGION OF TECALLI JAGUAR (AFTER ACOSTA 1964:FIG. 54a)

lined with the cloud or water-volute sign, and streams of falling water containing eyes (for examples of the Teotihuacan Tlaloc with water lily in mouth, see A. Miller 1973:figs. 161, 249, 360). The figure continues on the two flanking sides, which also contain glyphs, including the Mexican year sign, a date of 8 Reed or 8 Flower, and the tilled-earth sign, which also appears in his naval region. The glyphs on the sides could be readily interpreted as linear texts, but there is a still clearer example on the back of the monument (Figure 33f). In complexity, this text is comparable to the previously mentioned example appearing on the carved mirror back (Figures 27, 28a).

Aside from Stela 3, Los Horcones Stela 2 contains another linear text, formed of two probable dates in the 260-day calendar as well as the aforementioned tilled-earth sign as the central glyph (Figure 33a). Notably similar texts appear on Stelae 2 and 3 from the nearby site of Fracción Mujular (Figure 33b, c). Both Fracción Mujular texts feature the tilled-earth glyph with the day name Flower, in one case with the coefficient of 11, and the other 5. Fracción Mujular Stela 1 also appears to portray a day name and coefficient (Figure 33d). In this case, however, the date is topped by a Mexican year-sign headdress glyph. Although the lower

FIGURE 33. MONUMENTS AND TEXTS FROM THE CERRO BERNAL REGION,
COASTAL CHIAPAS.

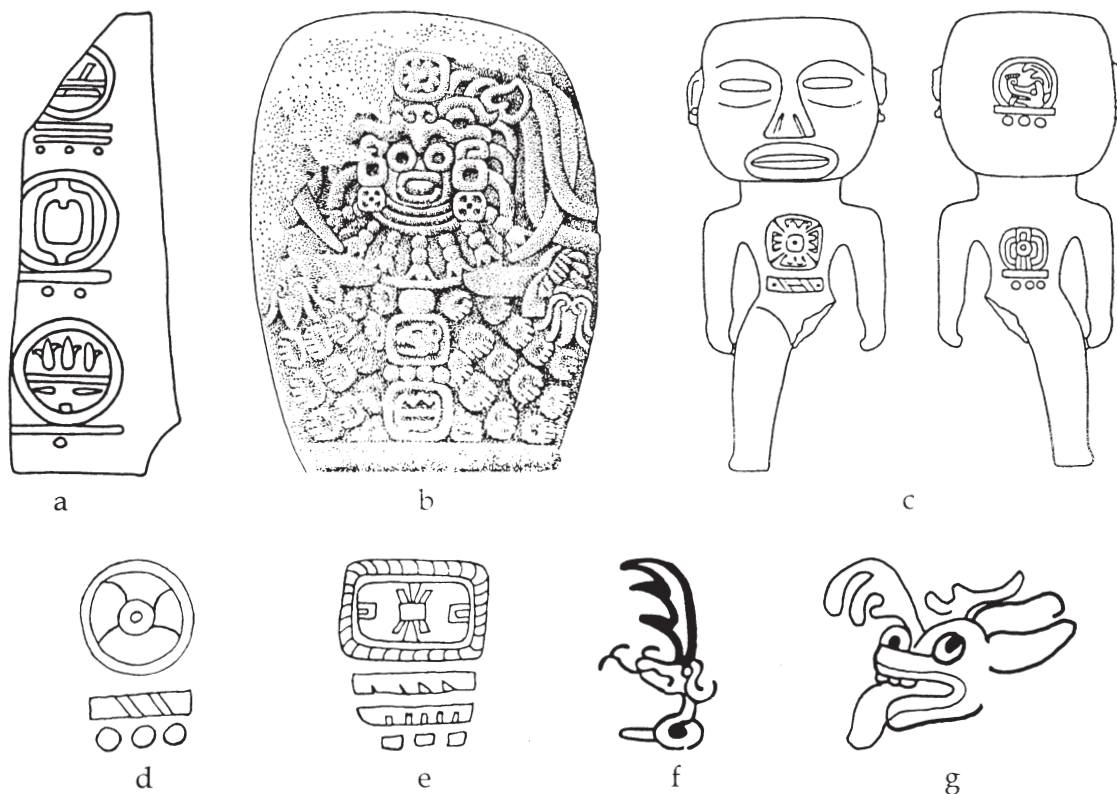


- a: LOS HORCONES STELA 2 TEXT (AFTER NAVARRETE 1986:FIG. 2B)
 b: FRACCIÓN MUJULAR STELA 2 TEXT (AFTER NAVARRETE 1986:FIG. 13A)
 c: FRACCIÓN MUJULAR STELA 3 (AFTER NAVARRETE 1986:FIG. 13B)
 d: FRACCIÓN MUJULAR STELA 1 (AFTER NAVARRETE 1986:FIG. 12A)
 e: FRONT AND SIDES OF LOS HORCONES STELA 3 (AFTER NAVARRETE 1986:FIGS. 3-5)
 f: LINEAR TEXT ON BACK OF LOS HORCONES STELA 3 (NAVARRETE 1986:FIGS. 3-5)

portion of the headdress is effaced, it may well have contained the same tilled-earth glyph appearing in the other Cerro Bernal texts. The texts of Los Horcones Stela 3 begin with Mexican year signs and the tilled-earth glyph (Figure 33e, f). For the text on the back of the monument, the tilled-earth glyph is infixed in the center of the headdress, a convention also appearing at Teotihuacan (see Selser 1902-23 V:513). The use of headdresses to begin texts may relate to the strongly iconic quality of Teotihuacan writing. As in the case of the personal name glyphs wearing titular headdresses at Techinantitla, the initial signs of Fracción Mujular Stela 1 and Los Horcones Stela 3 may represent headdresses worn by the texts, much as if they were sentient beings.

Navarrete (1986:25) compares the Cerro Bernal monuments to a stela from Zanatepec, a coastal site in Oaxaca close to the Chiapas border (Figure 34a). As in the case of many Cerro Bernal stelae, the Zanatepec example features a single text of circular glyphs running vertically down the center of the monument. The relatively loose spacing of the glyphs is quite similar to linear texts known for Teotihuacan (Figure 29). For both the Cerro Bernal and Zanatepec monuments, the coefficients appear below, in the style of Teotihuacan, with the units of one in the lowest position. Although also common in Zapotec writing, the coefficient

FIGURE 34. TEOTIHUACAN-RELATED TEXTS AND MONUMENTS.



- a: ZANATEPEC STELA (FROM NAVARRETE 1986:FIG. 15)
- b: STELA 15, CERRO DE LAS MESAS (FROM STIRLING 1943:FIG. 14A)
- c: TEOTIHUACAN STYLE STATUETTE WITH TEXT (FROM URCID-SERRANO 1992:FIG. 4.167)
- d: DATE 8 FLOWER, FROM TEOTIHUACAN TECALLI SERPENT (AFTER CASO 1966:FIG. 42E)
- e: TEOTIHUACAN GLYPH OF DATE 13 GLYPH A (AFTER CASO 1966:FIG. 42F)
- f: GLYPH OF DEER SERPENT WITH FORWARD PROJECTING ANTLER, PLAZA DE LOS GLIFOS (AFTER CABRERA CASTRO 1996B:FIG. 8)
- g: DEAD DEER WITH FORWARD-TURNING ANTLER, DETAIL OF TEOTIHUACAN MURAL (AFTER BERRIN 1988:FIG. V.11)

orientation is directly opposite the conventional order of the Maya and neighboring Isthmian region, including the site of Cerro de las Mesas, where the lowest coefficients are usually presented first, then units of five, and finally, non-numerical glyphs.

Both Fracción Mujular Stelae 2 and 3 feature dates with the twentieth day name, Flower, and it is possible that profile renderings of this day name appear in other Cerro Bernal texts (Figure 33b, c; see also Figure 33a, d, e). Although the Stelae 2 and 3 texts are very similar, the Flower day name occurs with different coefficients, 11 and 5. Clearly, these two distinct dates cannot correspond to the name of a single individual, and they do not readily coincide with any known pattern of the 260-day or 365-day cycle. However, as the twentieth day name, Flower does correlate well with the Long Count, a form of positional calendric notation widely represented in southeastern Mesoamerica, including the Isthmian area as well as the Maya region. In the Long Count, the period endings of Uinals, Tuns, Katuns, and larger cycles (to use the traditional Maya names for the periods) always occur on the twentieth day name, denoted as Ahau in the Maya region, and Flower in highland Mexican scripts. The 11 Flower and 5 Flower dates on the Fracción Mujular texts may represent Long Count period endings, such as of the roughly twenty year Katun. If these monuments do concern Katun endings, the dates may correspond to the Maya Long Count dates of 9.5.0.0.0 11 Ahau 18 Tzec and 9.8.0.0.0 5 Ahau 3 Ch'en, corresponding to A.D. 534 and 593 respectively.

Although documented Long Count texts are limited to only the Late Preclassic period in the south coastal Maya region, they do continue in the Classic period at the southern Veracruz site of Cerro de las Mesas as well as in the Maya lowlands (see Stirling 1943:35-42). One Cerro de las Mesas monument, Stela 15, was found on the west side of the principal mound, and is rendered in virtually pure Teotihuacan style, including the presentation of the linear text, which runs down the central axis of the frontal figure (Figure 34b). For Teotihuacan-style stelae and similar, smaller carvings, texts are often centered on the central axis of the body (Figure 30c, d). The initial glyph of the Stela 15 text is the day name Flower. Although the coefficient is eroded, this day name may have also referred to a Long Count period ending.

A Teotihuacan-style greenstone statuette, some 30 cm. high, bears the date of 5 Flower in the center of its torso (Figure 34c). Two other dates with circular frames appear on the back. Although the text has been interpreted as a later Zapotec addition (see Berrin and Pasztory 1983:no. 183), it is wholly Teotihuacano, and was probably inscribed when the statuette was first carved. The same four-petalled flower appears with a date of 8 Flower incised on a Teotihuacan tecalli serpent (Figure 34d). Caso (1966:275) notes that this is but one of three dates carved on the serpent, a format quite like the greenstone statuette (for another of the three glyphs, see Figure 3h). The top day name on the back of the head features a deer head in profile. The large forwardly projecting antler is virtually identical to Teotihuacan deer representations, including a deer-serpent glyph from the Plaza de los Glifos (Figure 34f, g). The curiously upturned nose appearing on the statuette glyph suggests that it may also be a serpent deer, thereby referring to the day name Serpent rather than Deer. The colonial Yucatec Mayan term for the Serpent day name, Chicchan, is based on the Cholan Mayan term "deer snake" (see Thompson 1950:75). The third day name contains a central knot, and is the same as the Xochicalco Glyph A described by Caso (1967:173). However, Caso (1966:275) also notes the presence of this day name in Teotihuacan writing (Figure 34e), and it has been previously noted that this same sign occurs on the Teotihuacan style vessel discovered in the vicinity of the Templo Mayor (López Luján 1999). In addition, this glyph also appears twice in an apparently non-calendrical context on a Teotihuacan-style monument attributed to Veracruz (Figure 35g).

Aside from the specific day names appearing on the statuette, the rear glyphs are in circular rims, a common convention with Teotihuacan day names. Moreover, their placement on the centerline of the abdomen is entirely consistent with texts from Teotihuacan monuments. There may have been considerable thematic overlap between Teotihuacan greenstone statuettes and stelae, and in fact some “statuettes” are truly monumental in their proportions (see Berrin and Pasztory 1993:nos. 13, 14).

The most prominent sign in the Cerro Bernal texts is the tilled-earth glyph, which occurs no less than nine times on Los Horcones Stela 3. Scenes at Teotihuacan and Xochicalco reveal that this sign represents tilled, irrigated fields (see Figures 4e, 6c). In the Tepantitla Portico 2 murals at Tepantitla, fields of maize, squash, and other plants grow out of lush blue and green fields, with the scenes framed by streams containing Tlaloc and aquatic animals (see Pasztory 1976:figs. 36, 39, 44, 45). Similar blue and green fields occur epigraphically in a mural from Tomb 112 at Monte Alban (Figure 35b). Arthur Miller (1988:238, 240) notes that the Tomb 112 mural displays many Teotihuacan traits and conventions, and compares the central figure to the Teotihuacan individual portrayed on the Lápida de Bazán. Miller (*ibid.*) also notes Teotihuacan motifs appearing in the text, including the cultivated-fields sign.

The Monte Alban Tomb 112 glyph is accompanied by a hand casting seeds upon the tilled fields (Figure 35b). Although this obviously refers to sowing, it also represents the act of hand casting, which as I have mentioned, symbolically represents cultivation. The glyph immediately following the hand-casting glyph is a rattlesnake tail, a combination that also appears on Stela 1 from the southern coastal Veracruz site of Piedra Labrada (Figure 35f). In this case, three tilled-earth signs are conflated with the rattlesnake tail. As Navarrete (1986:14) notes, this is a Classic monument. Both the capping torch and Reptile Eye glyph are rendered in essentially pure Teotihuacan style. Similarly rendered flaming torches appear on another monument attributed to Veracruz (Figure 35g). Rendered in strong “Teotihuacan style,” the torch-bearing figure wears a complex glyphic compound with torches in his headdress, quite probably denoting his office, or perhaps, his name. Along with Cerro de las Mesas Stela 15 and the Cerro Bernal monuments, Piedra Labrada Stela 1 should be regarded as a Teotihuacan-style linear text.

The rattlesnake tails in the Monte Alban Tomb 112 and Piedra Labrada Stela 1 texts probably have a great deal to do with ritual hand casting or scattering. Teotihuacan figures engaged in this act typically hold bags with pendant rattlesnake tails, presumably the pouches from which the thrown material derives (Figures 7-9, 16d, 18a). Two such bags appear as glyphs in the Plaza de los Glifos texts (Figure 10b). The figure from the Monte Alban Tomb 112 mural holds the rattlesnake-tail bag in his hand, and the accompanying sowing hand and tilled-earth sign probably refers to his public office (Figure 35c). The rattlesnake-tail bag also is carried by the Teotihuacan figure on the Lápida de Bazán. In the accompanying text, a hand casting a seed appears directly in front of the held bag, much as if it were his other hand (Figures 30b, 35a). As in the case of the Tomb 112 example, this sign probably refers to the role or office of the Teotihuacan figure.

The Zapotec glyphic examples of disembodied hands casting seeds are entirely comparable to the well-known hand-casting glyph of Classic Maya epigraphy (Figure 35d). In Late Classic Maya scenes of hand casting, the figures frequently hold Teotihuacan-style bags, frequently with serpent tails (Figure 35e; see also, Piedras Negras Stela 40, Tikal Stelae 4, 20, 21, 33). Quite frequently, the bags are ornamented with images of Tlaloc, clouds, and other rain-related motifs. In the western Maya region, these pouches appear to have been especially related to the subsidiary lords bearing the title of *sahal*. The magnificent El Cayo Altar 4 is particularly instructive (Figure 35e).¹² Here the *sahal* Chak Wayab engages in hand scattering,

FIGURE 35. HAND SCATTERING AND SERPENT-TAILED BAGS IN CLASSIC PERIOD MESOAMERICA.



- a: TEOTIHUACAN FIGURE WITH SERPENT TAIL BAG, NOTE HAND CASTING SEED IN ACCOMPANYING TEXT (FROM CASO 1937:FIG. 17)
- b: DETAIL OF TEXT FROM TOMB 112, MONTE ALBAN, NOTE HAND CASTING SEED ON TILLED-EARTH SIGN AND SERPENT TAIL (AFTER A. MILLER 1988:FIG. 3)
- c: SERPENT TAIL BAG HELD BY FIGURE FACING TOMB 112 TEXT (AFTER A. MILLER 1988:FIG. 3)
- d: LATE CLASSIC MAYA HAND SCATTERING GLYPH, LA PASADITA LINTEL 2 (DRAWN BY AUTHOR)
- e: MAYA LORD ENGAGED IN HAND SCATTERING WITH SERPENT TAIL BAG, EL CAYO ALTAR 4 (DRAWING COURTESY OF PETER MATHEWS)
- f: PIEDRA LABRADA STELA 1 (AFTER NAVARRETE 1988:FIG. 7A)
- g: FIGURE IN PLUMED SERPENT COSTUME WITH TORCHES (AFTER BOLZ 1970:PL. 20)

but the material does not fall into the brazier but upon the altar. This is probably because the hand casting represents Chak Wayab not simply making an offering but *overseeing* the dedication of Altar 4, quite probably the altar depicted in the scene. It will be recalled that a common Classic Maya phrase for overseeing is based on a term for cultivation. This public and political role for hand scattering may also explain the presence of such bags in other contexts, such as the military scene on Piedras Negras Lintel 2, where the primary officiating figures hold the bags with their shields (Figure 11).

In the Los Horcones Stela 2 and Fracción Mujular Stela 3 texts, a ring of water scrolls surrounds the tilled-earth sign (Figures 33a-c). Precisely the same tilled-field-and-scroll sign appears as a repetitive motif on a vessel attributed to Teotihuacan (von Winning 1987 II:chapt. 5, fig. 3b). The Teotihuacan tilled-earth disk rimmed by the water-scroll sign may represent an early version of the Aztec concept of *Anahuatl*, the earth disk surrounded by a ring of water (see Seler 1902-23 IV:3). However, as in the case of the Tlaloc figure occupying the center of the Las Colinas bowl, the tilled-earth sign may have political as well as cosmological meaning, as it represents a *cultivated* world, agricultural cultivation being a basic Teotihuacan metaphor for governance. Rendered in essentially pure Teotihuacan style, Los Horcones Stela 3 portrays Tlaloc as a cultivating, irrigating god (Figure 33e). On one side of the monument, the undulating hair of Tlaloc is carved directly atop the tilled-earth sign. In the Portico 2 tilled-field murals at Tepantitla, this form of Tlaloc hair clearly represents water streams, revealing that the hair is irrigating the Los Horcones glyph (see A. Miller 1973:fig. 161). The theme of irrigation continues further down this side of the monument, with Tlaloc pouring a stream of water from his jar upon another tilled-earth glyph. On the opposite side of the monument, large drops of rain cascade from the cloud and lightning sign grasped in the other hand of Tlaloc, much as if he were watering the Los Horcones area. Given the Teotihuacan trope of cultivation as governance, the tilled-earth sign may have important implications for the Cerro Bernal region. As in the case of the Aztec province of Soconusco, this strategic area may have been directly controlled by Teotihuacan during the Classic period.

CONCLUSIONS

Like its contemporaries of Classic period Mesoamerica, Teotihuacan also had a highly developed form of writing. Although this writing does share some conventions with Classic Zapotec and Maya scripts, such as bar-and-dot numeration, it is also a distinct system. One of the more striking traits of this writing is its emblematic quality, which is well suited for the vibrant mural tradition of Teotihuacan. Esther Pasztory (1997:192) notes that the innumerable walls throughout the city invited the development of mural painting, and this may also be true for the manner in which Teotihuacan writing developed. Of its contemporaries, Teotihuacan writing is perhaps most similar to that of the Classic Zapotec, and quite probably, many Teotihuacan signs derived from the precocious Zapotec system of Oaxaca. The interaction, however, was surely more complex, and the Classic Zapotec also borrowed signs from Teotihuacan. Although the Lápida de Bazán text contains a number of Teotihuacan glyphs, its combined use of Zapotec and Teotihuacan writing has been little studied, as it has been assumed that Teotihuacan lacked a writing system. The same can be said for all Teotihuacan style texts of southeastern Mesoamerica, which have generally not been studied in the perspective of Teotihuacan writing.

Aside from documenting the cultural and political relations of Teotihuacan to contemporaneous cultures of Classic Mesoamerica, the study of Teotihuacan writing also has impor-

tant implications for understanding the origins and development of Aztec script. According to Mary Smith (1973:3), "the type of pictographic writing employed in the early colonial manuscripts from the Nahuatl-speaking region around the valley of Mexico was probably derived from the Mixtec system of writing at some time before the Spanish Conquest." However, in terms of both general form and particular signs, Teotihuacan writing shares many traits with later Aztec texts. Many Teotihuacan glyphs can be traced through the Epiclassic and Postclassic periods to early colonial Aztec texts. As the earliest major script of Central Mexico, Teotihuacan writing may well have been ancestral to the later writing systems of Xochicalco, Cacaxtla, and the Postclassic Toltec and Aztec.

For Aztec and Teotihuacan writing, a number of common traits already can be discerned, including specific shared signs and the conventions for presenting text and images, such as the prevalent use of accompanying texts to label and distinguish individuals of similar appearance in a single scene. Mention has been made of the general lack of monumental stone texts at Teotihuacan. This is also largely true for the Aztec, where monumental texts are notably rare in comparison with the Classic Maya or Zapotec. In fact, were it not for the highly perishable documents of the 16th century, we would know very little concerning Aztec writing. The corpus of Teotihuacan glyphs now available for study probably exceeds the amount known for pre-Hispanic Aztec monuments. It is quite likely that screen-fold books or other forms of painted manuscripts indeed were present at Teotihuacan. Painted in red and outlined by a grid of lines, the texts from the Plaza de los Glifos strongly resemble a painted manuscript page, such as are found with early colonial Aztec tribute lists. Moreover, the Teotihuacan convention of presenting series of similar figures with accompanying glyphs is more appropriate for long passages in manuscripts rather than monumental texts. The study of Teotihuacan writing is still in its infancy, with a great deal of basic identification and documentation of glyphic signs remaining to be performed. Nonetheless, as one of the major glyphic systems of ancient Mesoamerica, Teotihuacan writing should be studied with the same interest and intensity paid to other Mesoamerican scripts, including those of the Maya, Zapotec, and Aztec.

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El sistema de la escritura de Teotihuacan antiguo

Al igual que sus contemporáneos del periodo clásico de Mesoamérica, Teotihuacán también contaba con una forma de escritura altamente desarrollada. A pesar de compartir algunas reglas convencionales con la escritura zapoteca clásica así como con la maya, por ejemplo la numeración con barras y puntos, esta escritura cuenta también con un sistema propio. Una de sus características más sobresalientes es su calidad emblemática, muy apropiada para la tradición mural vibrante de Teotihuacán. Esther Pasztory (1997:192) hace notar que los muros innumerables que se encuentran por toda la ciudad invitan al desarrollo de la pintura mural, lo cual también podría atribuirse a la forma en que se desarrolló la escritura teotihuacana. Comparada con la escritura contemporánea de la época, la escritura teotihuacana quizá se parezca más a la zapoteca clásica; muy probablemente muchos de los signos teotihuacanos se derivaron del sistema precoz zapoteco de Oaxaca. La interacción, sin embargo, fue seguramente más compleja; el zapoteco clásico también tomó prestados signos de Teotihuacán. Aunque el texto de la Lápida de Bazán contiene varios glifos teotihuacanos, su uso combinado de escritura zapoteca con la teotihuacana ha sido poco estudiado dada la suposición de que Teotihuacán carecía de un sistema de escritura. Se podría decir lo mismo de todo texto de estilo teotihuacano del sudeste de Mesoamérica que generalmente no ha sido estudiado desde la perspectiva de la escritura teotihuacana.

Además de documentar las relaciones culturales y políticas de Teotihuacán con las culturas contemporáneas de la Mesoamérica clásica, el estudio de la escritura teotihuacana tiene también implicaciones importantes para poder entender los orígenes y desarrollo de la escritura azteca. Según Mary Smith (1973:3), “el tipo de escritura pictográfica utilizada en los primeros manuscritos coloniales de la región Náhuatl alrededor del valle de México probablemente se derivó del sistema de escritura mixteco en algún momento previo a la conquista española”. Sin embargo, tanto en su forma general como en sus signos en particular, la escritura teotihuacana comparte muchas características con los textos aztecas posteriores. Muchos de los glifos teotihuacanos se pueden deducir desde los periodos epiclásicos y posclásicos hasta los primeros textos aztecas coloniales. Al ser la primera escritura principal del centro de México, la escritura teotihuacana bien podría haber sido ancestral a los sistemas de escritura posteriores de Xochicalco, Cacaxtla, y del tolteca y azteca posclásico.

En la escritura azteca así como en la teotihuacana ya se pueden discernir varias características comunes, incluyendo signos específicos compartidos y reglas convencionales en la presentación de textos e imágenes, tales como el uso prevaleciente de textos acompañantes para nombrar y distinguir a individuos de apariencia similar dentro de una misma escena. Se ha mencionado la falta general de textos monumentales inscritos en piedra en Teotihuacán. Esto también sucede considerablemente con respecto a los aztecas en donde textos monumentales eran

notablemente raros comparados con los mayas clásicos o los zapotecas. De hecho, de no ser por los documentos altamente perecederos del siglo XVI, sabríamos muy poco sobre la escritura azteca. El corpus de glifos teotihuacanos de los que disponemos ahora para ser estudiados probablemente excede lo que se conoce sobre los monumentos aztecas prehispánicos. Es muy probable que libros doblados en biombo u otras formas de manuscritos pintados hayan existido en Teotihuacán. Los textos de la Plaza de los Glifos pintados en rojo y trazados sobre cuadros tienen una fuerte semejanza a una hoja de manuscrito pintada, parecida a las que se encuentran en las primeras listas coloniales de tributos de los aztecas. Es más, la manera convencional en que Teotihuacán presentaba una serie de figuras parecidas acompañadas por glifos, es más apropiada para pasajes largos en manuscritos que para textos monumentales. El estudio de la escritura teotihuacana aún se encuentra en su infancia; todavía queda una gran cantidad de identificación básica y de documentación de signos glíficos por realizarse. No obstante, al ser uno de los sistemas de glifos principales de la antigua Mesoamérica, la escritura teotihuacana debería estudiarse con el mismo interés e intensidad con que se han estudiado otras caligrafías de Mesoamérica, incluyendo la de los mayas, zapotecas y aztecas.

Translation by Adriana Rosado & Bonewitz, Inc., of Libertyville, Illinois.



NOTES

¹ Although the Zapotec Glyph L has been often identified the glyph for the day name "Motion," Javier Urcid notes that this correlation is not possible, since as the seventeenth day name, Motion serves as a year bearer in the Zapotec calendar. In Zapotec texts, Glyph L never appears as a year bearer (Urcid-Serrano 1992:157).

² Phonetically, the text can be read as "(u, missing) *bahil* Maize God," that is, "his image, the maize god." The fragmentary gopher *ba* head and *li* syllable are plainly evident (see Foncerrada de Molina 1980:fig. 22). I (Taube 1985) have previously noted a portrayal of the Maya Maize God in the Realistic Paintings fragments from Tetitla Corridor 12.

³ Although the Beyer article is earlier in publication, Arreola was directly involved in the discovery and copying of the texts.

⁴ The round rim of day names may allude to the circular mirrors so prominent in Teotihuacan symbolism and art (see Taube 1992). The day name within the rim may constitute the reflective "face" or "aspect" of the day.

⁵ In Classical Nahuatl, a common term for "root" is *tlanelhuatl*, with *-tlan* being the common morpheme for "place of" (Molina 1977:101). Just as the glyph for *tlantli*, "teeth," is used rebicallly in Aztec writing to denote "place of," roots could conceivably be used in Nahuatl phonetically to denote "place of." In other words, if the Teotihuacan root motif has a toponymic significance, this may suggest that an ancestral form of Nahuatl was spoken at Teotihuacan.

⁶ Rendered in essentially pure Teotihuacan style, Stela 2 from Tepecuacuilco, Guerrero, portrays a figure standing upon the same shallow basin, here marked with water volutes. Díaz Oyarzábal (1986:206-7) interprets the spiraling forms as a water symbol. Teotihuacan-style censer lids from Escuintla frequently portray the basin filled with water (see Hellmuth 1975:pls. 31-33). The Teotihuacan basin in profile resembles the sign used to denote rivers in Postclassic Mixtec toponyms, such as the place name for Apoala appearing on Codex Nuttall page 36. In Teotihuacan toponymic expressions, the shallow basin may also refer to rivers and other bodies of water.

⁷ The presentation of similar figures with accompanying distinguishing texts on Lintel 2 recalls another Piedras Negras monument, the Early Classic Lintel 12. In this case four prisoners appear with separate texts, with three of the figures in essentially identical position. Whereas these figures wear Maya-style headdresses, the principal, presiding, is apparently in the costume and stance of a Teotihuacano (see Proskouriakoff 1952:fig. 39d).

⁸ Still another example of a sign on the surface of a mountain toponym appears in a group of plano-relief Teotihuacan vessels, in this case a nopal cactus upon a stepped mountain with ascending footprints (see von Winning 1987 II, chapt. 4, fig. 3b-d).

⁹ The metaphoric use of cultivation to express social interaction is not limited to Mesoamerica. In English, there are such expressions as to "cultivate" relationships, or "weed out" bad elements.

¹⁰ Both Warren Barbour and I independently noticed that at L2 on Tikal Stela 31, there is a backed throne of matting essentially identical to the *icpalli* thrones of Aztec rulers (see Figures 13c, d). Appearing on a monument with strong Teotihuacan traits, this mat throne suggests that mat seats in Teotihuacan art are also markers of high status (see Figure 29). At Teotihuacan, the plumed serpent commonly appears on such a mat throne, probably designating it as a god of rulership (see von Winning 1987 1:126-27).

¹¹ The capping portion of the introductory glyph of Isthmian and Maya Long Count texts is probably also a headdress, and in form, resembles the trefoil Jester God headband jewel worn by Maya kings (see Fields 1991). David Stuart (1996:155-58) notes that a common verb on Classic Maya Long Count dedicatory texts concerns the binding (*k'alah*) of a stone, quite probably the monument. This same "flat hand" verb, *k'alah*, also appears in Classic period royal accession statements, where it frequently refers to the binding-on of the Jester God jewel, or *sak hunal*. The center of the carved Copan peccary skull illustrates a stela and altar referring to the Katun period ending date 8.17.0.0.0 and the stone binding verb following by the Jester God glyph (see Stuart 1996:fig. 10). Rather than referring to the accession of a ruler, this text probably refers to the calendric accession of the Katun monument. In ancient Zapotec writing, royal headbands are used to denote "year bearers," day names used to name particular 365-day years in the 52-year cycle.

¹² With its circular plain rim, the format of El Cayo Altar 4 is very much like a carved mirror back.

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