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## **HOUSE OF THE SERPENT MAT, HOUSE OF FIRE: THE NAMES OF BUILDINGS IN TEOTIHUACAN WRITING**

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### **Abstract**

In the present paper we put forward some preliminary observations on glyphic references to architectural structures, especially houses and temples, in the writing system of ancient Teotihuacan. Based on comparisons to examples of similar textual references to architecture in Maya and Nawatl writing, we suggest that a temple (literally 'house') in Teotihuacan writing could be represented as an entire building, shown frontally or in profile, or graphically reduced to a simple and conventionalized *almena*. In addition we will present a provisional list of glyphic references to named structures in Teotihuacan writing, discussing some of them in greater detail. Finally, we will briefly discuss examples of titles that appear to have been derived from, or associated with, highly important structures. In order to situate these findings, we start by providing a short overview of our current understanding of Teotihuacan writing.

### **Resumen**

En el presente estudio proponemos algunas observaciones preliminares respecto a las referencias jeroglíficas a las estructuras arquitectónicas, especialmente casas y templos, en el sistema de escritura teotihuacano. Con base en comparación a ejemplos de similares referencias textuales a la arquitectura, existentes en la escritura maya y nawatl, sugerimos que un templo (literalmente 'casa') en la escritura teotihuacana podía representarse como edificio entero, mostrado de frente o en perfil, o reducirse gráficamente a una *almena* básica y convencionalizada. Además, ofrecemos una lista provisional de referencias glíficas a las estructuras nombradas en la escritura teotihuacana, comentando algunas de ellas en mayor detalle. Por último, comentamos brevemente ejemplos de títulos que pueden haberse derivado o haberse asociado a estructuras de alta importancia. Para contextualizar estos resultados, comenzamos con una breve descripción de nuestra comprensión actual de la escritura teotihuacana.

## **THE WRITING SYSTEM OF TEOTIHUACAN**

The nature of the notational system present at Teotihuacan has been the source of on-going debate for several decades. Is it a type of incipient writing, a symbolic notational system resembling European heraldry as advocated by some? Alternatively, is it a writing system on par with other glyphic writing systems known for Mesoamerica? Is it because the writing system of Teotihuacan remains undeciphered that it is shrouded in so much ambiguity? The writing system of Teotihuacan has not received the attention it deserves, and despite the attempts of various researchers, a consensus has not been achieved as to its identity and function. Part of the problem rests with the fact that Teotihuacan is quickly drawn into the debate that involves all central Mexican writing systems as to whether these represent writing at all, incipient picture-writing or some other form of notational record (Berlo 1989;

Boone 1994; Langley 1986; Taube 2000, 2011). Already in the early 1970s Clara Millon identified attributes of Teotihuacan's script that conform to writing, and she concluded that: "the writing system of the Teotihuacanos may not have been so completely different from other Middle American writing systems, as superficially it appears to be" (Millon 1973: 311). More recently, James Langley has characterised Teotihuacan writing as a notational complex of signs: "that approximate most closely in appearance and usage to those of an ordinary writing system" (Langley 2002: 276). It is, however, to the work of Karl Taube (2000, 2002, 2011) that we have to turn for the first coherent argumentation and presentation of supportive data that allow characterisation of Teotihuacan's script as "writing", on par with the other systems known from Mesoamerica. Subsequent work has provided further insight (King and Gómez Chávez 2004; Nielsen 2004; Nielsen and Helmke 2008, 2011; Helmke and Nielsen, this volume), just as we now have a better understanding of the script's relationship to the later Epiclassic and Postclassic writing systems of western Mesoamerica (Berlo 1989; Lacadena 2008; Helmke and Nielsen 2011).

In the decipherment of ancient scripts one of the crucial starting points is the elaboration of a comprehensive sign inventory, or signatory. In the case of Teotihuacan writing we are fortunate to have the signatory developed by Langley. In the first version of his signatory Langley "identified 229 signs most which were regarded as having some notational value", but he later remarked that: "As a result of recent investigations at Teotihuacan that number would now rise to about 240" (Langley 2002: 276-277). Our own independent review of Teotihuacan's written corpus finds that the signatory includes no more than 200 separate signs. The inventory that such a signatory presents is not only an invaluable tool for any epigraphic study, but the total number of signs also provides some essential clues as to the structure and composition of the writing system. Students of writing systems have thus created a scale with phonetic writing systems at one extreme and logographic writing systems at the other. All intervening scripts between these two ideals are referred to as mixed writing systems. By "phonetic" is intended writing systems in which each sign conveys a particle of sound, or phoneme, disassociated from any semantic function, or meaning. What have been termed "logographic" systems on the other hand exhibit signs wherein each conveys a complete word, and thus signs convey meaning by the word that each records. Pointing out these fundamental aspects of writing systems is significant since their character affects the number of signs that these utilise. Thus phonetic systems such as alphabets tend to have fewer than 40 signs, and pure syllabic writing systems involve less than 100 signs. At the opposite end of the spectrum are logographic writing systems that exhibit signatories involving thousands of signs (e.g., Coe 1992: 41-43; Robinson 2009). For Maya and Aztec scripts, which are now both known to be mixed logo-phonetic or logosyllabic systems involving logograms and phonograms (especially vocalic signs and syllabograms), we can say that Early Classic Maya script involved anywhere between 125 and 300 signs, whereas 200 to 300 signs were used in the Late Classic, and the Postclassic codices exhibit somewhere in the region of 300 signs (see Knorozov 1958: 289; Mathews and Biró 2008). These figures compare favourably with those known for contemporary central Mexican writing systems (Lacadena and Wichmann 2011: 5-37) indicating that the composition and sign inventory of these scripts are, at least structurally, wholly comparable. On the basis of the signatory alone it can be reasoned that Teotihuacan writing in all likelihood is a mixed logo-phonetic writing system, and functioned along essentially the same lines as Maya or Aztec writing, undoubtedly involving logograms, syllabograms and vocalic signs.

With regard to the language expressed in Teotihuacan writing the issue remains unresolved, but based solely on the currently prevailing linguistic models and epigraphic data, any of a combination of Totonakan, Nawan, a northern Oto-Manguan or proto-Otomí language and a now extinct northern branch of Mije-Sokean all seem likely candidates as languages originally spoken at Teotihuacan (e.g., Campbell 1997: 161; Kaufman 2002; Kaufman and Justeson 2008; King and Gómez Chávez 2004; Nielsen and Helmke 2011: 345-349). From there it stems that the Early Classic texts at Teotihuacan

recorded one or several of these languages although the script was presumably devised for one of those languages, that spoken predominantly in the area. Before some kind of consensus has been reached on the issue of language attribution, it would seem premature to propose specific phonetic readings of Teotihuacan glyphs.

In relation to the topic in focus here, one specific and central feature of Teotihuacan writing — shared with other Mesoamerican writing systems — needs to be addressed in some detail. This is the two-part structure that conditions the relation between a qualifier and the qualified. From an epigraphic approach to Teotihuacan's writing system the sign which is constant in a pairing or sequence of signs is the item that is being qualified and the variable element will be the qualifier. This applies equally to dates, titles, theonyms and toponyms. Thus, in examples that record a title, for instance in the form of a headdress, the variable element will somehow characterise or qualify the title. As such it is hypothetically possible that the variable element may serve to specify distinctions between holders of the same title (e.g., Millon 1973, 1988: 119-120; Taube 2000: 10-17, 2002: 338-343; Nielsen 2004). Thus, when the head of the so-called Storm god is represented, any additional sign associated with it, serve to qualify the theonym and as such specify which particular manifestation of the deity is represented or referred to (Wrem Anderson and Helmke 2013). However, in other instances, the variable element that can be designated as the qualifier tends to record the anthroponym of the individual who carried a title.

With regard to place names, most Mesoamerican languages make use of prominent physiographic features in the natural landscape such as mountains and caves in forming toponyms, and it has long been recognised by scholars that this is reflected in the graphic representations of place signs in both the writing and iconography of most Mesoamerican cultures (Smith 1973: 38-41; Pasztory 1988a; Stuart and Houston 1994; Angulo 1996: 74, 82-89; Boone 2000: 36-37; Taube 2000: 25-27; Nielsen and Helmke 2008: 461; Helmke and Nielsen, this volume). Thus, glyphs designating place names are often composed of such natural elements called “geographical substantives” and additional qualifiers, that is, one or more elements that specify what mountain, cave or other topographical element is intended (see Helmke and Nielsen, this volume: Fig. 1). By far the most common of the geographical substantives is the mountain sign (Helmke and Nielsen, this volume), but in terms of the built environment the most common “architectural substantive” is a house or a temple structure and it is on precisely this subcategory of toponyms that we focus here. From Maya and Aztec sources we have abundant examples of specific temples being referred to literally as ‘houses’ (written logographically as **NAH**<sup>1</sup> and **KAL**, respectively) (Stuart 1998; Velásquez García 2009). Thus, although we prefer to use the more neutral and emic term ‘house’ for the most common architectural substantive in Teotihuacan writing, it is very likely that several of the examples discussed below are in fact references to the temple structures both within and outside of the residential compounds of Teotihuacan.

The qualifying signs are typically placed either on top of the structure, or they are infixes, which is to say embedded, within the structure sign, most often in the central doorway. Abundant examples of a similar practice are found not only in Aztec and Mixtec writing, but also in the earlier scripts of Oaxaca and central Mexico. It is important to note that we do not attempt to present phonetic decipherments of the toponyms presented here; instead we will concentrate on identifying the character and general meaning of a group of structures that seem to have been immensely important to the ancient inhabitants of Teotihuacan.

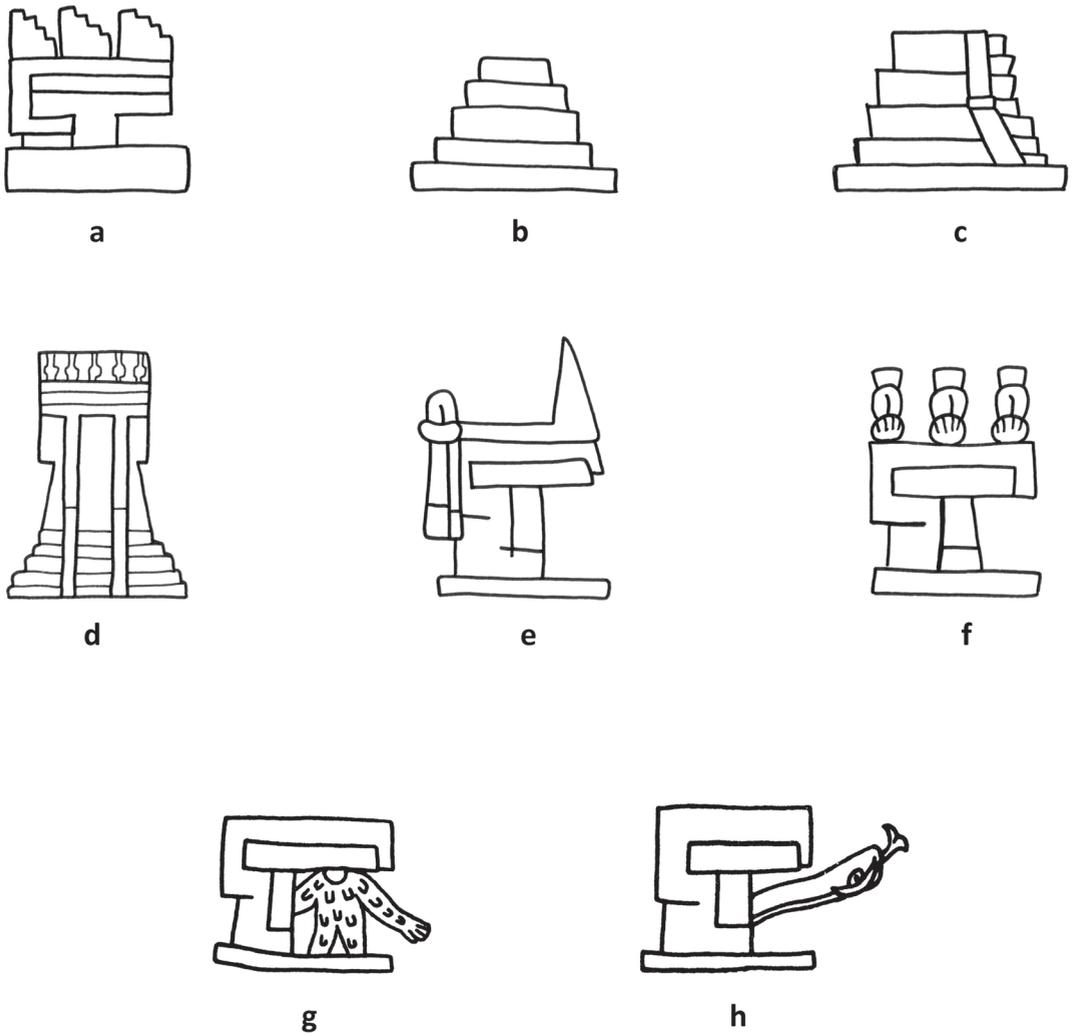
<sup>1</sup> Here we follow the conventions in transcription first developed by George Stuart for Maya writing (Stuart 1988) and also employed by Alfonso Lacadena (2008) in his seminal paper on Aztec writing (see also Velásquez García 2009), thus for the transliteration the value of logograms will be written in capital letters while phonetic signs are in lowercase, both written in bold typeface. The transliterated signs of a glyphic compound are separated by hyphens, whereas transcriptions are written in italic typeface, while square brackets indicate reconstructed phonemes.

## IDENTIFYING NAMED STRUCTURES AT TEOTIHUACAN

Whereas previous work on Teotihuacan writing has focused mainly on calendrical signs, place names, titles and possible personal names, here we wish to investigate the names of buildings recorded in Teotihuacan script. In our work we have been much inspired by the initial suggestions of our colleague Karl Taube that some Teotihuacan glyphs may be toponymic references to specific buildings (Taube 1992: 58-59, Fig. 4, 2011: 86-87, Fig. 5.7), but we have also benefitted greatly from recent studies by Erik Velásquez García (2009), who has presented an excellent discussion of architectural terms in Maya and Nawatl writing and Claudia García-Des Lauriers (2008) who has previously demonstrated that a military title of the Aztec, tied to the ‘House of Darts’, probably had its origin in Teotihuacan. We build on those foundations and shall provide further evidence in support of her interpretation below.

From Maya and Nawatl writing as well as historical sources we know that important structures were often conceived of as living entities and were also named (Houston 1998; Nielsen 1998; Stuart 1998; Velásquez García 2009), and we must assume that a similar practice existed in the Classic cultures of central Mexico, including Teotihuacan. As Nawatl writing is related to, and most probably evolved from, Teotihuacan writing via Epiclassic scripts, we will begin by presenting a few Aztec examples of writing wherein important buildings are referred to. Firstly, we may notice that the Aztec usually represented the word for ‘house’ by the logographic sign **KAL** (*kal[li]*) which depicts a stylised house seen in profile (Figure 1a), with doorway and lintel visible. Sometimes the roof is further embellished with stepped *almenas* or merlons. Temples, on the other hand, written **TZAKWAL** (*tzakwal[li]*) or **TEOPAN** (*teopan[tli]*) are typically represented by a structure composed of several superimposed platforms and a balustrated stair (Figure 1b-c). While there seems to be a tendency to depict structures in profile, examples of the logogram for ‘temple’, or literally ‘god-house’, **TEOKAL** (*teokal[li]*) shown frontally are also found (Figure 1d). We suspect that most of the Teotihuacan logographic signs involving the basic sign for ‘house’ are references to temples or sanctuaries rather than residential structures. In order to distinguish and name specific structures and to produce place names, Aztec scribes added qualifying signs, such as the ruler’s diadem as a *pars pro toto* reference to **TEK<sup>w</sup>** (*tek<sup>w</sup>[tli]*) ‘lord’ to write **TEK<sup>w</sup>-KAL** *tek<sup>w</sup>-kal-[ko]* ‘lord-house-place’ or simply ‘palace-place’; the skin of a flayed sacrificial victim **EWA** (*ewa[tli]*) ‘skin’ within a house to write *ewa-kal-[ko]* ‘skin-house-place’; or a snake **KOWA** (*koowaa[tli]*) to produce *koowaa-kal-[ko]* ‘snake-house-place’ (Figure 1e, g-h). Secondly, the Aztec material shows that at least one specific title, the *tlakochkalkatl* which essentially means “Keeper of the Dart House” was derived from the term *tlakoch-kal-ko* meaning ‘dart-house-place’ (García-Des Lauriers 2008: 35-36) (Figure 1f). Here it is worth noting how the ‘house’ logogram **KAL** is topped by the butts of three darts, read **TLAKOCH** (*tlakoch[tli]*) ‘dart’ that thus replace the more generic stepped *almenas*. Since the locative suffix *-ko* is not always represented in written forms of Aztec toponyms (Berdan and Anawalt 1992a), the glyphs referring to the military title and the ‘dart-house-place’ are essentially inseparable, and only the specific context will allow the reader to determine which of the two are meant.

Bridging the Postclassic with the Classic are the examples of ‘house’ logograms encountered in Epiclassic writing, at both Cacaxtla and Xochicalco – from the latter we even have clear references to a ‘dart-house’ (García-Des Lauriers 2008: 42-45; Helmke and Nielsen 2011: 6-9). In addition, in Maya writing, the logogram **OTOT** for ‘house’ (possibly read *otohti*), is basically identical to the profile view that we found in Aztec and, as we shall see, Teotihuacan writing. The Maya logogram ‘house’ could be supplemented by phonetic complements, or the term for house could be spelled out with phonograms as **yo-to-ti**. With these observations we can now approach the epigraphic evidence from Teotihuacan.



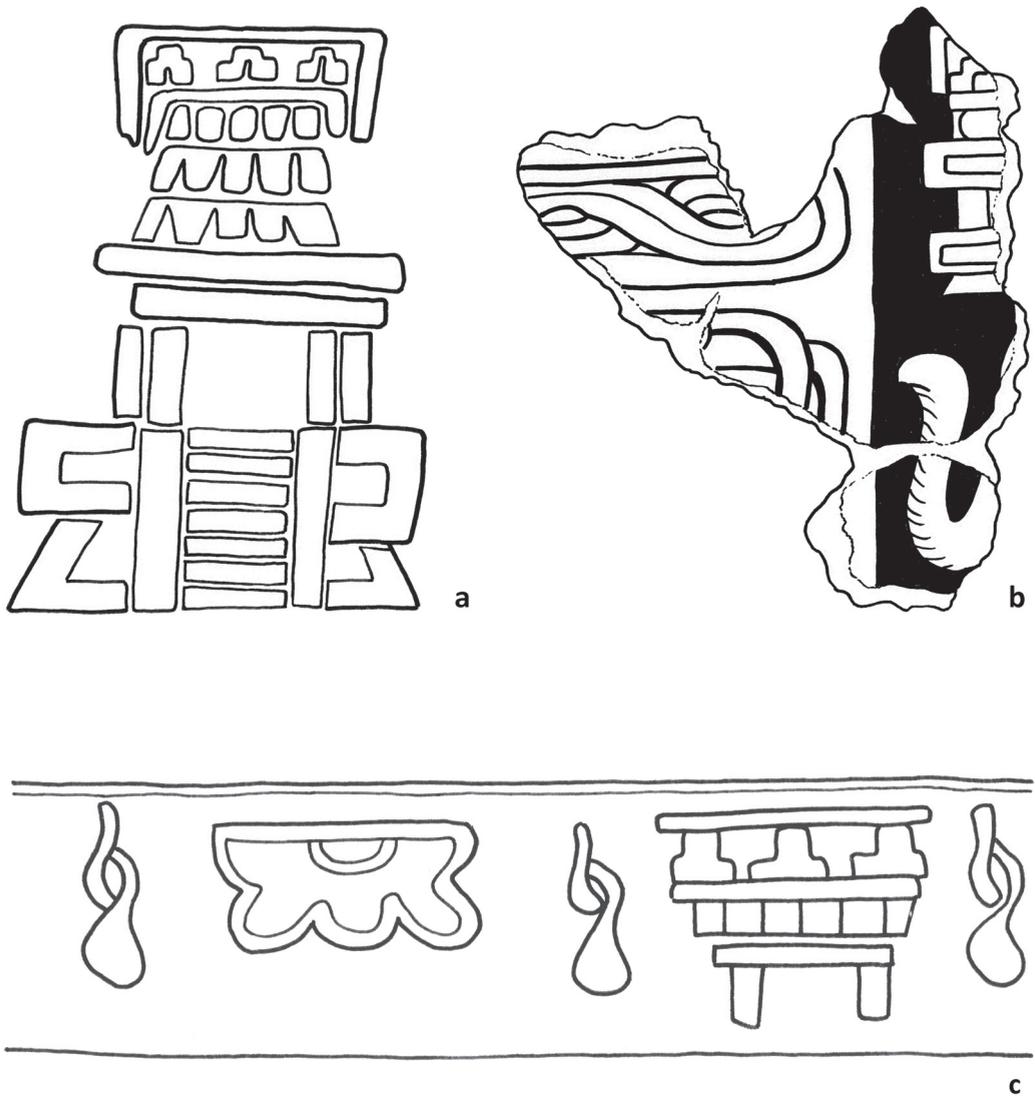
**Figure 1.** Examples of architectural substantives in Aztec writing: **a)** **KAL**, *kal[li]* ‘house’ (from Piedra del Sol), **b)** **TZAKWAL**, *tzakwal[li]* ‘pyramidal temple’ (from *Codex Mendoza*, fol. 6r), **c)** **TEOPAN**, *teopan[tli]* ‘temple’ (from *Codex Mendoza*, fol. 37r), **d)** **TEOKAL**, *teokal[li]* ‘temple’ (from *Lienzo de Tlaxcala*, p. 21). Examples of Aztec toponyms and title based on the **KAL** logogram and qualified by additional logographic signs: **e)** **TEK<sup>w</sup>-KAL**, *tek<sup>w</sup>-kal-[ko]* (‘lord-house-place’ or ‘palace’) (*Codex Mendoza*, fol. 20v), **f)** **TLAKOCH-KAL**, *tlakoch-kal-[katl]* (‘Keeper of the Arrow House’) (from *Codex Mendoza*, fol. 65r), **g)** **EWA-KAL**, *ewa-kal-[ko]* ‘skin-house-place’ (*Codex Mendoza*, fol. 40r), and **h)** **KOWA-KAL**, *koowaa-kal-[ko]* ‘snake-house-place’ (*Codex Mendoza*, fol. 24v) (**a-f** drawn by Jesper Nielsen; **g-h** adapted from Berdan and Anawalt 1992a).

## EXAMPLES OF NAMED STRUCTURES IN TEOTIHUACAN WRITING

Architectural representations in Teotihuacan iconography were first discussed by Hasso von Winning (1947), and later in much greater detail by Jorge Angulo (1996: 106-113). However, it was James Langley who first treated some of these representations as notational signs and included the sign he designated as “temple” in his signatory and compared it to the Aztec day sign *Kalli* and the corresponding glyph in the Zapotec writing system (Langley 1986: 292). Following Langley’s suggestion and bearing in mind our previous observations based on comparisons to Maya and Aztec writing, a first and important step is to identify the unqualified logogram for ‘house’. In Teotihuacan this is typically a frontally depicted structure atop a *talud-tablero* platform with a central stair (Figure 2a-b). The superstructure often has an elaborate roof construction with stepped *almenas*. In some cases the *talud-tablero* platform is omitted (Figure 2c), and in a few instances the logogram is reduced to the roof or to a single *almena* (see Figure 7a). The different Early Classic versions of the logogram are all highly reminiscent of how the later Aztec represented houses and temples.

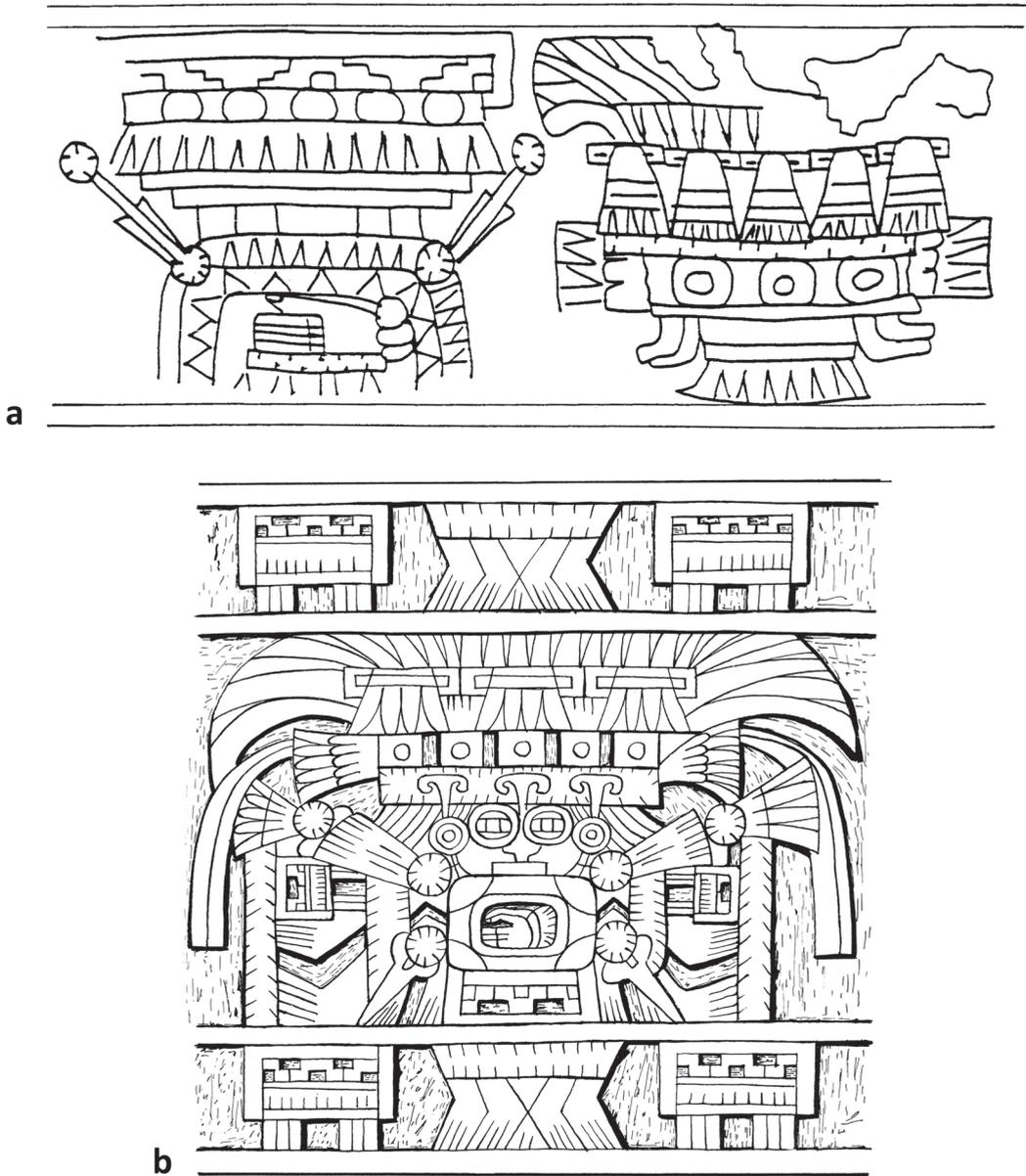
We begin our review of Teotihuacan building names with a series of examples that are similar in their composition in that they combine a frontally depicted structure superimposed by different qualifiers, leaving the roof and *almenas* to peer out from behind. The first example is from a vessel now in the collections of the Los Angeles County Museum of Art which shows a shield with an infixed hand with two crossed arrows or darts behind it (Taube 2011: 86, Fig. 5.7d) (Figure 3a). A provisional reading of the collocation would thus be ‘dart-shield-house’. However, we know that among the later Aztec the *difrasismo* ‘dart and shield’ (*in miitl in chiimalli*) was a well-known reference to ‘war’ (e.g. Mikulska Dąbrowska 2008: 69-77; Helmke 2013), and it is likely that the combination of the two elements carried a similar metaphorical meaning in Teotihuacan. A Tassel Headdress glyph appears next to the named structure, and it is possible that when read together they would refer to a specific Teotihuacan military title. Additional support may be found on a plano relief vessel from the Diego Rivera collection (Figure 3b), where a warrior figure, possibly a funerary bundle, wearing the Tassel Headdress is shown flanked by small stylised structures and an unidentified object, possibly the fringe of a tasselled shield or a bundle (Taube 1983: 110, Fig. 5; Langley 1986: 242, 313). In the incised bands running along the rim and base of the vessel the houses and tasselled objects are repeated, suggesting that the name of the structure could be ‘shield-house’ or perhaps ‘bundle-house’.

A second example, also possibly related to warfare, is found on a stuccoed and painted tripod now in the Museo Nacional de Antropología in Mexico City (Conides and Barbour 2002: 415-416, Fig. 5), and here the temple or house structure is appearing with a shield emblazoned with a halved star (Figure 3a). As has been shown by several scholars, the star had martial and sacrificial connotations in the imagery and writing of Teotihuacan, the Maya and the Epiclassic (e.g., Baird 1989; Schele and Freidel 1990: 130-164; Helmke and Nielsen, this volume: Fig. 9a-e). It should be noted that next to the ‘star-shield-house’ is an elaborate headdress also incorporating a row of stars, once again implying that toponym and title were closely related. Our next example is from a stuccoed and painted ceramic lid excavated at La Herradura in Tlaxcala, but clearly a Teotihuacan artefact, which shows a frontal feline-like head, blood scrolls emanating from its mouth, superimposing a building (Martínez Vargas and Jarquín Pacheco 1998: 46) (Figure 4a), suggesting the general reading ‘feline-house’, or perhaps with a more specific meaning related to the symbolism of the feline creature. Appearing next to the house glyph are three bleeding hearts which could indicate that we are once again dealing with a structure related to yet another title. Thus, recent studies in Teotihuacan and Epiclassic writing and iconography have shown that a possible warrior-priest title referring to the devouring of bleeding hearts were in use for a long period in central Mexico (Taube 2000: 17-18; Helmke and Nielsen 2011: 23-28). The glyphs of the lid from La Herradura may thus refer to the house of a kind of warrior order, akin to those that we believe are also referred to at Teotihuacan itself.

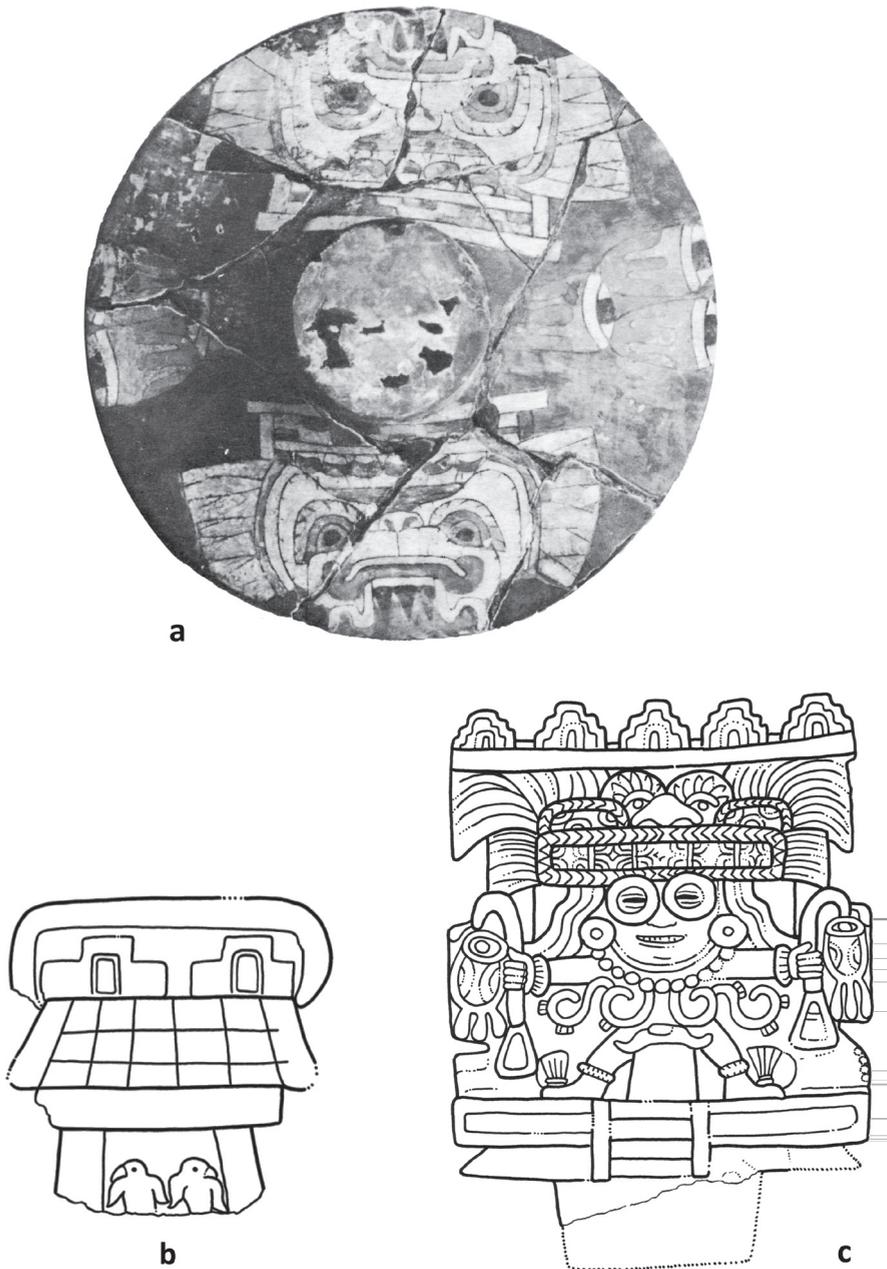


**Figure 2.** Examples of the generic Teotihuacan architectural substantive ‘house’ as represented on **a)** a tripod vase (after von Winning 1947: 174, Fig. 1) and **b)** mural fragment from Corridor 12a at Tetitla (after Taube 2000: Fig. 29b), compared with **c)** the same sign in a more reduced form, omitting the lower *talud-tablero* platform (after von Winning 1947: 175, Fig. 7) (**a-c** drawn by Jesper Nielsen).

Superimposing the qualifier on the basic ‘house’ logogram thus appears to be a common scribal practice, but we also encounter different ways of combining this logogram with its specific identifying or qualifying signs. Thus, on a magnificent Teotihuacan-style censer from the Escuintla region in Guatemala recently published by Oswaldo Chinchilla Mazariegos (2010: 125-128, Figs. 8-9), we find four moulded ceramic *adornos* representing houses (Figure 4b). The best preserved of these shows



**Figure 3.** a) A reference to ‘dart-shield-house’ and an associated title as seen on Teotihuacan vessel from the Los Angeles County Museum (after Conides and Barbour 2002: Fig. 7), b) Plano relief tripod with depiction of possible ‘shield-house’ (after Séjourné 1966: Fig. 87), and c) stuccoed and painted tripod showing the combination of a ‘star-house’ and a starry headdress, the latter possibly being a title derived from the ‘house’ (after Conides and Barbour 2002: Fig. 5).



**Figure 4.** References to houses associated with: **a)** A feline being and bleeding hearts on ceramic lid from La Herradura, Tlaxcala (after Martínez Vargas and Jarquín Pacheco 1998: 46), **b)** Birds, as a reference to a ‘bird-house’, forming part of a mythic narrative involving the slaying of a great supernatural bird. *Adorno* of theatre-style censer from the Escuintla region of Guatemala, and **c)** Warfare and human sacrifice (**b)** drawn by Christophe Helmke, **c)** drawn by Jesper Nielsen based on Latsanopolous 2005: Plate 4f).

two small birds placed in the doorway leaving the entire building visible. The resulting name, ‘bird-house’, makes perfect sense considering that the *adornos* are attached to an effigy temple with several additional, presumably dead birds hanging from the roof. The toponym in question undoubtedly provides the name of the effigy building, which in turn seems to be related to a mythic event in which a great celestial bird is shot and defeated by two blowgunners (Nielsen and Helmke 2010; Helmke and Nielsen, this volume). We suspect that the name of the building referred to on the Escuintla incensario is related to palatial structures (known as Totocalco ‘bird-house-place’ among the Postclassic Aztec), and that the specific name finds its origins in the pan-Mesoamerican myth of two twins or brothers that slay a supernatural avian being.

A similar practice of placing the qualifier in the doorway of the ‘house’ logogram is attested from the little-known site of Cinteopa in Morelos, and is clearly a reference to a structure related to warfare and heart sacrifice (Figure 4c). Thus, a goggle-eyed warrior-priest stands at the central doorway of the temple displaying two curved obsidian knives with bleeding hearts impaled on them (Cook de Leonard 1985; Latsanopoulos 2005). In this case the glyphic reference to what is probably a “house of sacrifice” is represented on actual *almena*, and it worth emphasizing that most of the qualifiers employed to name structures that we have able to identify also reoccur in the shape of architectural *almenas*. Since the *almena* sign could be used as a kind of shorthand for ‘house’ (see below) and because we know that the common, stepped *almenas* were substituted by qualifying signs in later Aztec writing. What is apparent is that architectural *almenas* in Teotihuacan tend either to have the characteristic stepped form (Figure 5a-b) or else take the form of various supernatural entities, animals, or objects (see Gendrop 1985 for a short, pioneering article on the subject; Nielsen and Helmke in press) (Figure 5c-f). We suspect that the stepped *almena* is the basic or generic version of this kind of roofcomb adornment, and by generic we mean that its shape did not serve as a direct reference to the structure’s specific name, but primarily served to mark it as a structure of special importance and possibly as having temple-like functions (Séjourné 1966: 134-138, Lám. LXXXIX-XCII). We suggest that the significant number of *almenas* that did not have the generic stepped shape, but instead represent supernatural entities and objects, were conceived of as replacing or perhaps rather superimposing the stepped *almena* (Figure 5c-e). Thus, as we have pointed out elsewhere (Nielsen and Helmke in press), the architectural *almenas* served as three-dimensional glyphs naming and identifying the structures they adorned.

The same practice is in fact known among the Late Postclassic Aztec, where elaborate figurative *almenas* served not only to decorate and embellish the structures that they adorn, but also to qualify and label these, as buildings with distinctive names and toponyms in their own right. The evidence can be found in the figurative codices, but also in the *almenas* that have been recovered archaeologically. Thus the elite religious and military academy, known as the *kalmekak*, of the central religious precinct of Tenochtitlan was once adorned with large stylized conches (Carrizosa Montfort and Aguirre Molina 2003), whereas a small shrine at a great spring at Coyoacan once bore small effigies of *Tlaalok*, the rain god, as *almenas* (Declercq and Cervantes Rosado 2013). As such the aforementioned buildings were tied and identified by the attributes of their supernatural patrons, the conch shell the distinguishing characteristic of *Ketzaalkoowaatl*, whereas *Tlaalok* was not only the personification of celestial rain and meteorological phenomena (Wrem Anderson and Helmke 2013), but evidently also tied to springs and other sources of freshwater.

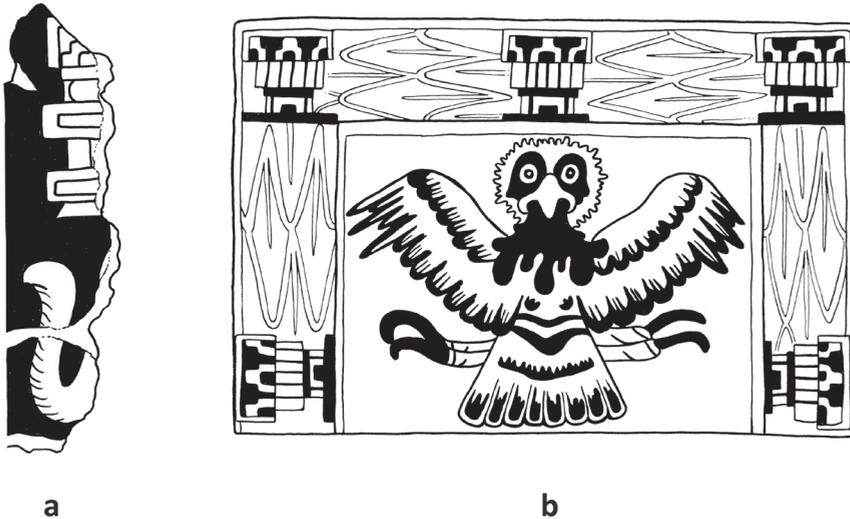
Returning to the two-dimensional epigraphy, we find among the hundreds of mural fragments from Corridors 12 and 12a of Tetitla one that depicts a small structure followed by a glyph that is unfortunately almost completely broken off (Figure 6a). However, enough remains to identify the bushy tail of an animal, most likely a canine (highly reminiscent of the coyotes or wolves on Building B at Tula). We take this to be yet another toponym, here rendered in linear fashion, with the qualifier separated from, and placed beneath, the generic ‘house’ logogram. Since the qualifying sign (the canine) is not superimposing the structure we are able to see the complete sign which is a



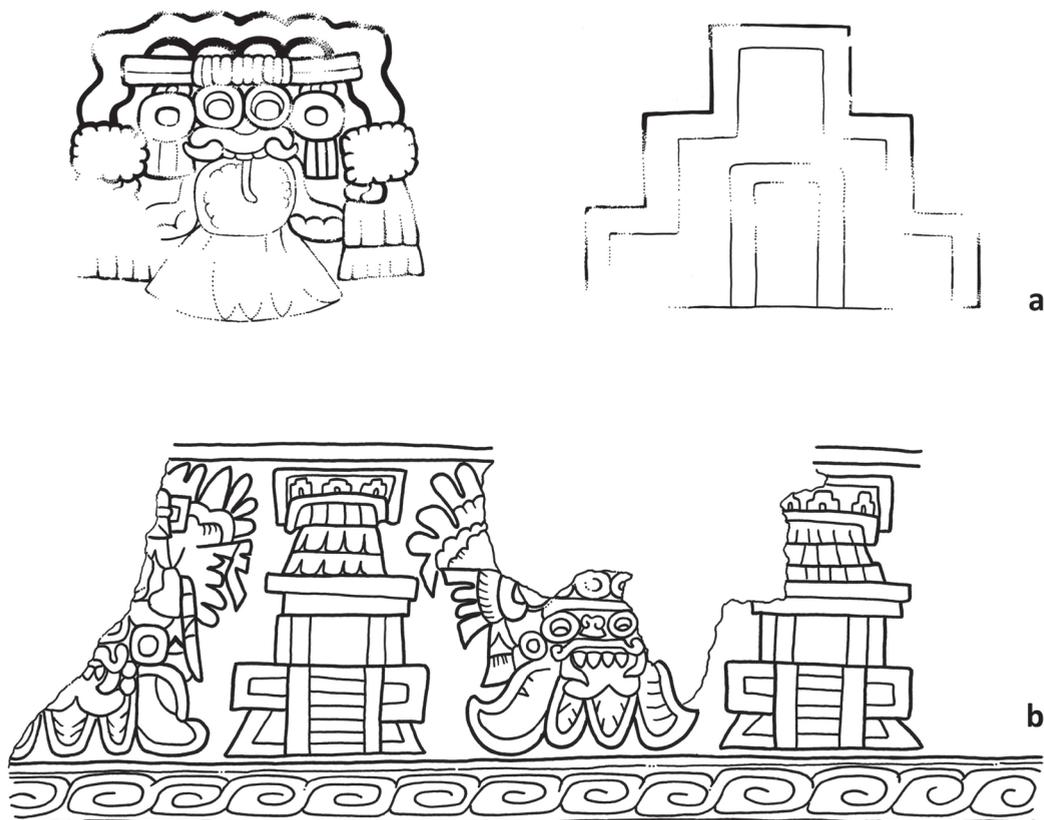
**Figure 5.** Examples of architectural *almenas* from Teotihuacan: **a-b**) Unprovenanced stepped *almena* (after Berrin and Pasztory 1993: cat. no. 7) and stepped *almena* from Techinantitla (after Pasztory 1988b: 182), **c**) Bird with stream of water and cloud scrolls emerging from its beak (after Somogyi éditions d'art 2009: cat. no. 188), **d**) Feline with cloud-like scrolls on its back (after Somogyi éditions d'art 2009: cat. no. 189), and **e-f**) circular *almenas* possibly representing a martial aspect of the Storm god (drawings by Jesper Nielsen after Somogyi éditions d'art 2009: cat. nos. 129 and 131).

conventional and stylized structure with stepped *almenas*. The canine probably qualifies the building as a ‘feline-house’ or ‘carnivore-house’, which, as already shown, also occur elsewhere in the corpus of Teotihuacan writing. Interestingly we also encounter possible references to an ‘eagle-house’ or ‘raptor-house’, suggesting that the buildings housed members of or served as temples for the two assumed military orders or sodalities associated with these fierce animals and birds (e.g., Nielsen 2004). In Tetitla’s Portico 25 frontally depicted eagles, wings outstretched and blood streaming from their beaks, embellish the basal *taludes*, and simple house structures were added onto the feathered border surrounding the raptors (Séjourné 1969: 92; de la Fuente 1995: 290-291, Fig. 19.28) (Figure 6b). As can be seen from Laurette Séjourné’s reconstruction of the portico, the motif is most likely to have been repeated on the entire border surrounding the eagles. It is tempting to interpret this as a direct reference to an ‘eagle-house’, a term we also find among the later Aztec (the *k<sup>w</sup>aawkalli*) where this structure was associated with the most high-ranking warriors (e.g., López Luján 2006; Townsend 2009: 212-215), but possibly also referred to on the reliefs adorning structures from Early Postclassic sites such as Tula and Chichen Itza.

The examples of the ‘house’ logogram that we have examined so far are all based on representations of conventionalized, yet complete, architectural entities, but there is also evidence to suggest that Teotihuacan scribes sometimes used the distinctive *almena* as a reduced, short-hand reference to houses or temples. Thus, it appears that the scribes used what is known as the *pars pro toto* principle, which was also employed in all other Mesoamerican writing systems. An isolated *almena* could thus be used to signify ‘house’. Perhaps our best example of this comes from Mural 5 of Room 19 at Tetitla. Here the Storm god is flanked by the *almena* sign, and we are thus in a position to read this toponym as ‘storm.god-house’ (Helmke and Nielsen, this volume: Fig. 2c; Salinas Rodrigo 2010: 92-128; compare with von Winning 1947: 174, Fig. 1) (Figures 7a-b). The qualifier and the qualified are here represented separately in linear fashion, but as we have seen above superimposition was also used in Teotihuacan writing.



**Figure 6.** Possible references to building associated with military power and institutions: **a**) mural fragment from Corridor 12a at Tetitla with linear sequence of ‘house’ sign followed by the likely logogram for ‘coyote’, and **b**) a reference to a ‘raptorial.bird-house’ from Tetitla (drawings by Jesper Nielsen).

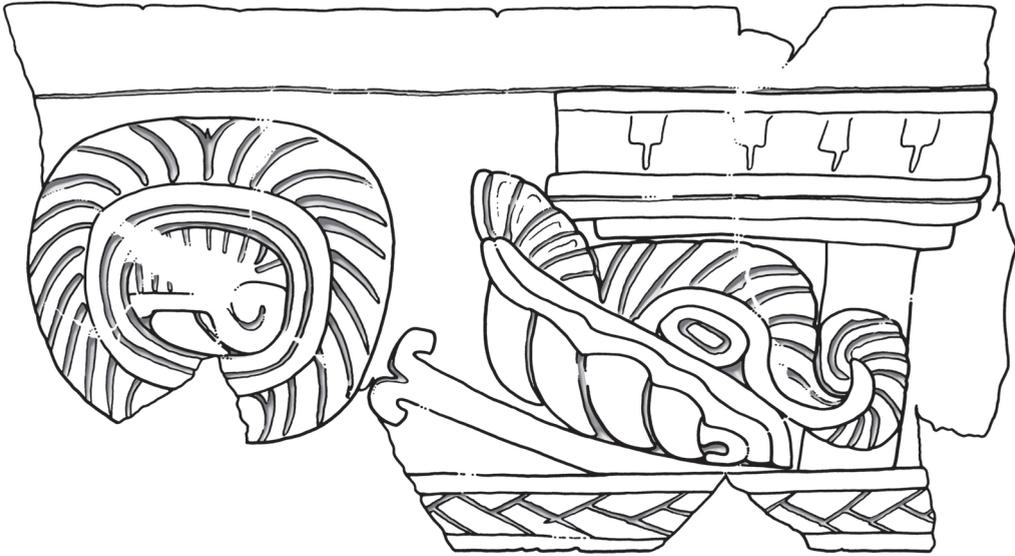


**Figure 7.** Two alternate references to the ‘storm.god-house’: **a)** Written with the *almena* sign combined with the head of the Storm god at Tetitla (Room 19, Mural 5) and **b)** Written with a complete ‘house’ sign combined with a fuller representation of another manifestation of the Storm god (**a**) drawn by Christophe Helmke, **b)** drawn by Jesper Nielsen based on von Winning 1947: Fig. 1).

### A POSSIBLE REFERENCE TO A HOUSE OF AUTHORITY: THE ‘SERPENT MAT HOUSE’

In the following section we will focus and discuss in some more detail a wonderful and previously unpublished example of the ‘house’ logogram in Teotihuacan writing (Figure 8). The glyph and its qualifying elements appear on a large Thin Orange vessel that was excavated under the direction of Rubén Cabrera Castro in 2009 in a midden in one of the streets separating the residential compounds of La Ventilla (Rubén Cabrera Castro, personal communication 2013).<sup>2</sup> First, we may note that the house is shown in profile, something that is otherwise rarely found in Teotihuacan writing, but eventually

<sup>2</sup> According to Cabrera Castro the vessel that can be dated to the Tamimilolpa-Xolalpan phases (A.D. 250-450) was: “hallado en una calle del barrio en estudio, junto a un conjunto departamental de carácter doméstico aún sin explorarse totalmente y a una distancia de ocho metros del Conjunto de los Glifos que usted conoce” (letter from Cabrera Castro to the authors, April 2<sup>nd</sup>, 2013).



**Figure 8.** The glyphic compounds, with possible reference to a ‘serpent-mat-house’, adorning the vessel excavated at La Ventilla (drawing by Christophe Helmke, based on photographs by Erika Carrillo courtesy of the ZAT and Rubén Cabrera Castro).

becomes the standard way of representing a house in the Late Postclassic. What makes this glyphic collocation particularly interesting, however, are the qualifying elements which appear in the doorway of the structure, namely the head of a feathered serpent with a long protruding bifurcated tongue, placed on a mat. To our knowledge, this is the only known example of a reference to such ‘feathered serpent-mat-house’, whereas the combination of the feathered serpent and mat is not uncommon at Teotihuacan (Figure 9a-e). Thus, Saburo Sugiyama noted that: “in several cases, the Feathered Serpent is shown resting on a mat, a symbol of authority and rulership well known throughout Mesoamerica. Significantly, in Teotihuacan the mat symbol appears almost exclusively with feathered serpent heads” (Sugiyama 2000: 121; see also Millon 1988: 119; Boot 2000). Two examples, also emphasized by Sugiyama, deserve special attention. The first, found on a ceramic vessel from Zacuala (Figure 9a), originally published by Laurette Séjourné, in which the serpent-mat combination is paired off with the head of what appears to be a prominent individual wearing a large headdress (and a beard) and which Séjourné uncannily named “El rostro del Rey de Tollan” (Séjourné 1959: 172-173, Fig. 138). The other example is from the murals from Techinantitla where the “serpent-mat” appears in conjunction with the Tassel Headdress (Millon 1988: 117-119, Fig. V5) (Figure 9b). In this sequence of murals a series of individuals, who all wear the Tassel Headdress, are shown with glyphs in front of them, all including the Tassel Headdress and one or two additional signs that vary from one person to the other, suggesting that these serve as qualifying elements specifying the individuals’ names and/or rank. In the case of “serpent-mat”, this has been interpreted as a possible “reference to authority and rulership” (Millon 1988: 119). These observations strongly suggest that the structure referred to on the La Ventilla vessel is related to a high office associated with the feathered serpent, and while purely speculative the building in question could be the Temple of the Feathered Serpent, the structure best known for its distinctive sculptural program displaying this supernatural entity (Taube 1992; Sugiyama 2005).



**Figure 9.** Examples of feathered serpents associated with mats in Teotihuacan writing: **a)** Zacuala (after Séjourné 1959: 173, Fig. 138), **b)** Techinantitla (after Millon 1988: 117-119, Fig. V5), and **c-f)** ceramic sherds from ex-collection of Hasso von Winning (after von Winning 1987, I: 125-130, Figs. 3d, f, g and k; **f)** drawing by Christophe Helmke).

A possible Late Postclassic Mexica sculptural representation of the “serpent-mat” is found in relation to the early Koyolxaawki sculpture from the fourth construction phase of Templo Mayor (c. 1454). Placed below the legs of the female entity are two stuccoed and painted tesontle reliefs, one showing a mat consisting of four interwoven serpents, their heads appearing at the corners of the mat (Figure 10), the other a shield with darts. Possibly, this is a reference to the political and military power of the Mexica that originated with Wiitziloopochtli’s defeat of Koyolxaawki at Koowaatepek.<sup>3</sup> In addition, some striking images and descriptions supporting a link between the “serpent-mat” and an exalted position within political and religious hierarchy can be found in central Mexican colonial sources from the late 16<sup>th</sup> century. Thus, in Diego Durán’s *Historia de las Indias de Nueva España* we find an illustration of the great, legendary Toltec ruler Topiltzin Quetzalcoatl shown seated on a seat combining what appears to be a finely woven mat framed by serpents (Durán 1967: Lám. 1) (Figure 11a). In other words, Quetzalcoatl’s throne is a “serpent-mat” seat, and this seems to be qualifying it as a ruler’s throne. In Book 11 of Bernardino de Sahagún’s *Florentine Codex*, which deals with “earthly

<sup>3</sup> Alternatively, the intertwined serpents may function as a reference to the name of Wiitziloopochtli’s mother Koowaatik“ee, “Serpent Skirt”, who is frequently represented with a skirt composed of serpents forming a mat-like design, whereas the shield and darts could refer to the characteristic weaponry of Wiitziloopochtli.

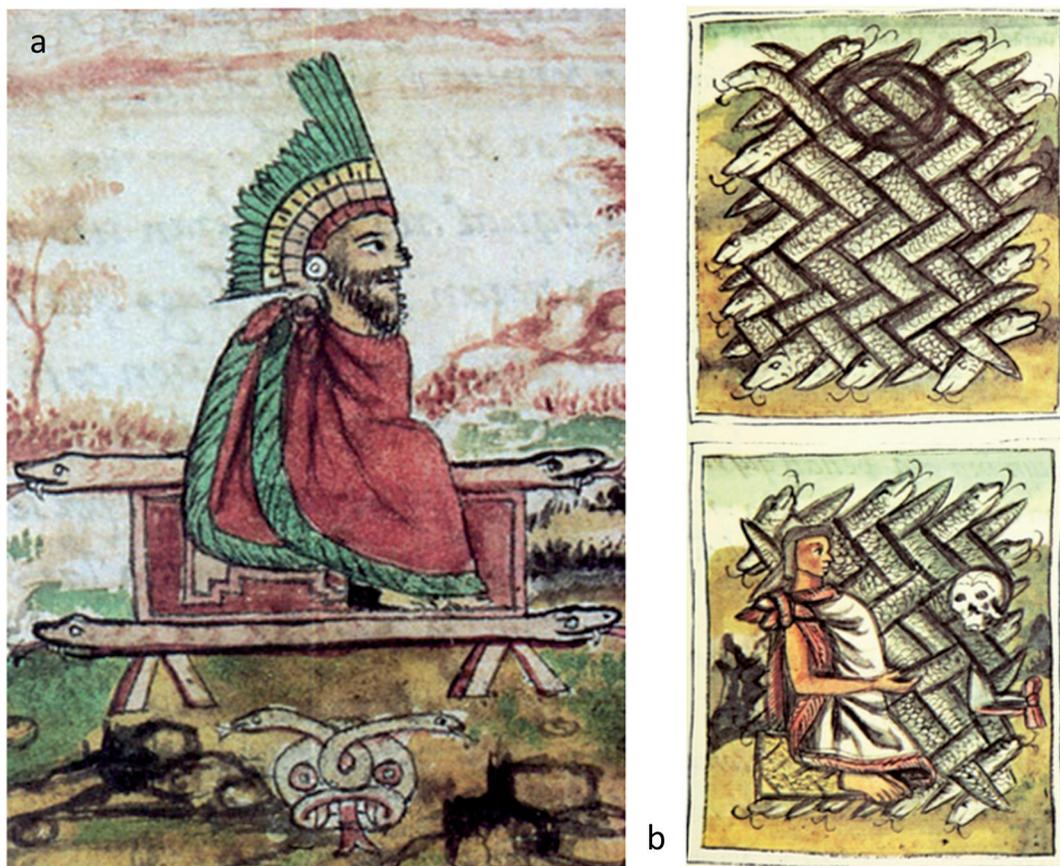


**Figure 10.** Stuccoed and painted tesontle ‘serpent-mat’ (*koowaapetlatl*) relief found near the Koyolxaawki figure at the foot of the stairs of Construction Stage IV of the Templo Mayor (directly below the famous monolithic representation from Stage IVb) (photo by Christophe Helmke).

things” and contain numerous chapters that are dedicated to different types of animals and plants, we encounter a detailed description of a curious species of snake, the ‘serpent-mat’ (*koowaapetlatl*) or ‘mat-serpent’ (*petlakoowaatl*). It is worth quoting Sahagún at length:

This is not a single one; serpents are assembled, gathered, much as if they were made into a reed mat, on which is a serpent seat [...] And it goes, it travels, in this way: it runs back and forth; it runs in all directions, because the serpent’s heads lie in all directions making the border of the serpent mat [...] Whoever sees it, if ingenious, if advised, has no fear; he quickly seats himself on it; as if on a reed mat he seats himself [...] He rides upon the seat; he goes making the serpent seat his seat [...] When he did this, two things came to mind. First, it was said it was his omen that already he would die or something dangerous would befall him. Second, it was said that he would merit, then attain lordship, rulership as a reward. It was said he would be a lord, he would become a ruler: this because he had quickly seated himself upon the serpent mat. (Dibble and Anderson 1963: 80-81)

The accompanying drawing (see Sahagún 1979: XI, fol. 84r) shows a Nawa elite person seated on a finely woven mat, a ruler’s diadem or headband and a skull placed before him, thus referring to the two possible outcomes of seeing the serpent-mat (Figure 11b). Behind (or placed beneath) these three



**Figure 11.** Early colonial Aztec representations of the serpent-mat: **a)** Ce Acatl Topiltzin Quetzalcoatl seated on his serpent seat (after Durán 1967: Lám. 1) and, **b)** The so-called ‘serpent-mat’ (*koowaapettatl*) or ‘mat-serpent’ (*petlakoowaatl*) as illustrated in the Florentine Codex (after Sahagún 1979: XI, fol. 84r).

elements is the serpent-mat, composed of large intertwined serpents together making up this unusual “creature-object”.<sup>4</sup> The description and illustration is noteworthy, not only because it corresponds so well with the depiction of Topiltzin Quetzalcoatl’s throne as shown by Durán, but because it provides strong evidence of the concept of a ruler’s seat or throne conceptualized and referred to as a ‘serpent-mat’. Whether the Teotihuacanos would have explained all aspects of the serpent-mat in a manner identical to that of the Aztecs is doubtful, but it seems highly possible that they associated it with a high political office — perhaps even that of rulership. It is also significant that of all the kings depicted on or near their throne in Durán it is only Topiltzin Quetzalcoatl that is shown with this specific type of royal seat, possibly indicating that the ‘serpent-mat’ was associated with the great kings of the past. In sum,

<sup>4</sup> Pablo Escalante Gonzalbo has noted how the artists producing the illustration may have been inspired by the seal of a 16<sup>th</sup> century publisher from Salamanca named Mathias Gastius. The seal shows a tree formed by intertwining serpents in the process of being cut down by an axe-wielding skeleton (Escalante Gonzalbo 1999: 58-59). Although this may have been the source of inspiration for the manner in which the serpent-mat was represented, there is little doubt that the concept of a “serpent-mat” related to rulership and authority was of pre-Columbian origin as exemplified by the ‘serpent mat’ relief from the Templo Mayor.

the glyphic compound on the vessel from La Ventilla may refer to a structure associated with power and authority, that is, a ruler's main architectural stage for public performance and state rituals (but not necessarily his palatial residence, see discussion in Nielsen in press). Another glyph in the shape of what may be feather-rimmed shield marked by the characteristic curved upper lip and fang of the Storm god (Wrem Anderson and Helmke 2013) appears in front of the 'serpent-mat house'. Whether this is a personal name or title, possibly that of an individual who commissioned the building, is not clear at the moment. Nevertheless, considering the incidence of the word 'shield' in Mesoamerican onomastics it seems probable that this 'Storm.god shield' is the anthroponym of the individual bearing the 'serpent-mat house' title. Key examples from the Maya area — that pair off *pakal* 'shield' with the name of a supernatural entity — include *Upakal K'inich* ('the shield of the Sun god') of Palenque and *K'ahk' Upakal K'awiil* ('fire is the shield of the Lightning god') of Chichen Itza (see Grube 2002; Colas 2004). Closer to the case at hand, it bears recalling the name of the third king of Tenochtitlan, *Chiimalpo'pooka* ('smoking shield'), that also features the word *chiimal* 'shield' in his regnal name. Based on these examples it also seems likely that the glyph on the vase from La Ventilla records the name of the title-bearer as 'the shield of the Storm god'.

### **“KEEPER OF THE FIRE-HOUSE”: TEOTIHUACAN TITLES RELATED TO BUILDINGS**

In the following we will present a few considerations on the relationship between specific structures and titles in Teotihuacan writing, and we will for a moment return to the argument of García-Des Lauriers that the Aztec warrior title *tlakoch-kal-katl* ('dart-house-keeper') was derived from the term *tlakoch-kal-ko* ('dart-house-place'), and that both the institution and the title find their origin at Teotihuacan (García-Des Lauriers 2008) (Figure 12a). Since the publication of García-Des Lauriers' study, we have come across a large fragment of an incised ceramic tripod from Teotihuacan (in the collections of the Museo Nacional de Antropología in Mexico City) that further strengthens her hypothesis (Figure 12b). It depicts a Teotihuacan warrior, or warrior-priest, with the 'dart-shield-house' glyph, composed of a small temple with stepped *almenas* above two crossed darts placed behind a shield, embedded in his magnificent feathered and shell-platelet headdress. Accentuating the martial aspects of the scene is the band at the base of the tripod which shows alternating decapitated heads with closed eyes and lulling tongue, spearthrowers and obsidian blades. Perhaps then, we should understand the office-holders derived from specific houses as living representatives embodying the qualities and obligations of these structures and the opposite may also hold true, in that ritual structures were inherently associated with particular offices, the holders of which tended and cared for the buildings.

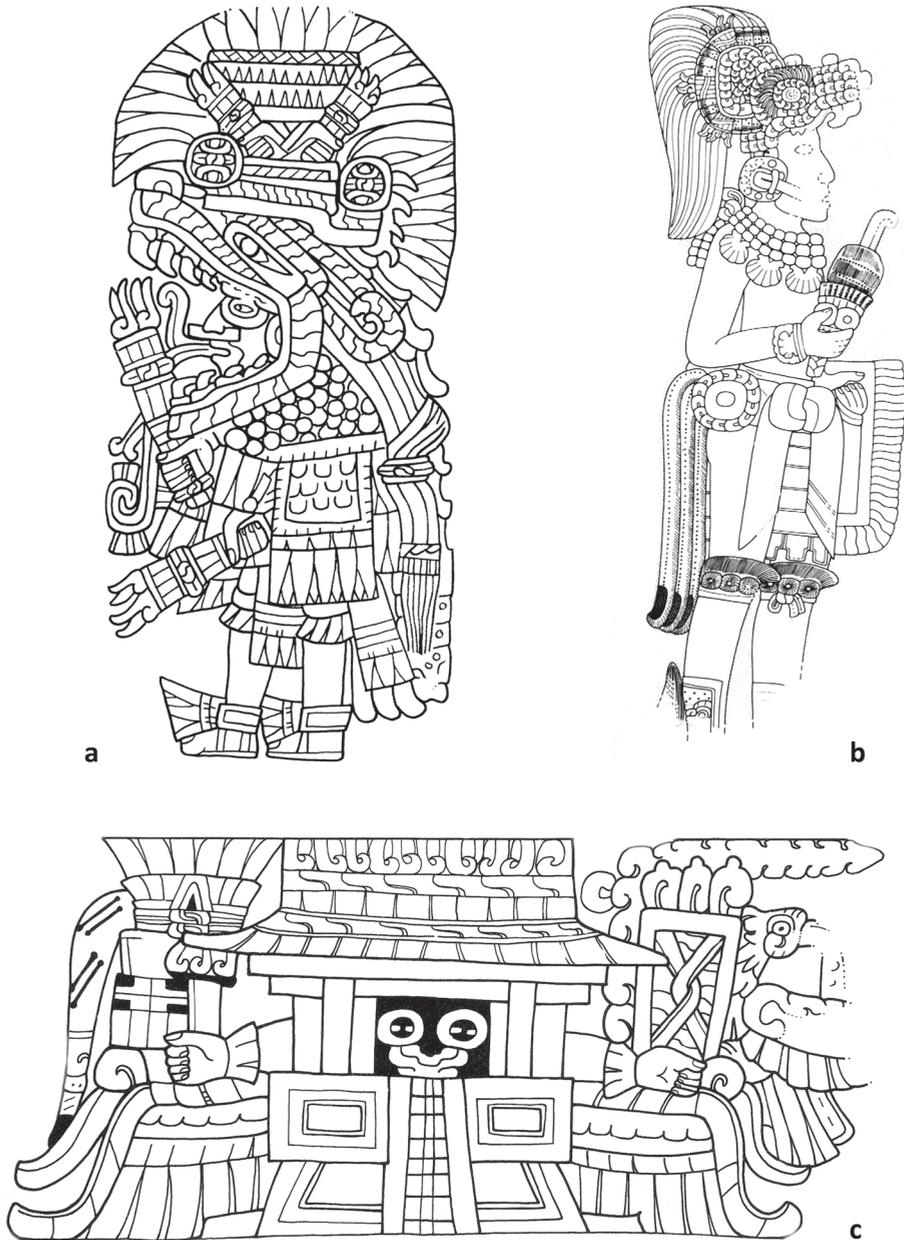
Secondly, we have identified at least one more example of an important Teotihuacan title or office derived from a specific structure. A prime example of this is found on a Teotihuacan-style stela reportedly from Soyoltepec, Veracruz (Bolz 1975: LXX) (Figure 13a). It shows an individual wearing a Feathered Serpent headdress and brandishing two burning torches in his hands. The torches reappear in his headdress, but now crossed and set below the roof of a building. The torches reappear in his headdress, but now crossed and set below the roof of a building, suggesting a reading of the compound as 'torch-house' or 'fire-house'. We suggest that in this specific case the name of the building serve as a reference to a title, presumably 'fire-house-keeper', derived from the structure, thus forming a parallel case to the 'dart-house-keeper' title. As has been suggested recently, there is evidence that a 'fire-house', possibly a structure near the Pyramid of the Sun (if not the pyramid itself) played center stage in much of Teotihuacan's ritual and political life and that dynasties in various parts of Mesoamerica actively sought to demonstrate some relation to such a structure, in some cases probably erecting local versions thereof (Fash *et al.* 2009: 221; Helmke and Nielsen, this volume; Nielsen and



**Figure 12.** a) Aztec rendering in the Codex Mendoza (fol. 65r) of individual carrying the title of *tlacochcalatl* (*tlakoch-kal-katl* ‘dart-house-keeper’) (adapted from Berdan and Anawalt 1992b: 137) b) Fragmentary Teotihuacan tripod in the collections of the Museo Nacional de Antropología e Historia in Mexico City showing headdress with ‘dart-shield-house’ title embedded (drawing by Jesper Nielsen and Christophe Helmke).

Helmke in press). Teotihuacan-style monuments from sites in Guerrero, and along the Gulf and Pacific coast as well as the Maya area, often carry depictions of torches and other references to the New Fire, probably signalling the coming and foundation of a new political order at the hands of Teotihuacanos (Nielsen 2003, 2006). Thus, assuming that a ‘fire-house-keeper’ title is referred to on the Soyoltepec monument, which is derived from a ‘fire-house’ at Teotihuacan, it follows that he was a representative or emissary of the same place. Another remarkable occurrence of the torch-headdress appears on the famous Stela 31 at Tikal, Guatemala, the one Maya monument that has provided the most crucial evidence with regard to Teotihuacan’s influence in the Maya area. Thus, on the left side of the stela is a portrait of *Yax Nuun Ahiin* I, son of “Spearthrower Owl” (read *Jatz’o’m Kuy*, lit. ‘striker owl’), tentatively seen by some to be the fourth ruler of a Teotihuacan dynasty, who ruled from A.D. 374 to 439 (Stuart 2000: 481-490; Martin and Grube 2008: 28-31). *Yax Nuun Ahiin* I was seated on the Tikal throne in A.D. 379, one year after the so-called Teotihuacan *entrada* into the central Peten. What is worth noting about the image of *Yax Nuun Ahiin* I are the small Teotihuacan-style torches stuck in his Feathered Serpent headdress (Figure 13b). While there seems to be no visual reference to a house, it is very plausible that this is a Maya artists’ rendition of a Teotihuacan headdress identifying its wearer as a representative of the ‘fire-house’.

An additional reference to the Teotihuacan ‘fire-house’ is found at Copan in Honduras, and comes from a stunning stuccoed and painted tripod vase, nick-named the “Dazzler”, found in the spectacular Margarita tomb (Reents-Budet *et al.* 2004: 178-180; Sharer *et al.* 2005; Fash *et al.* 2009: 220). It shows a Teotihuacan-style *talud-tablero* structure with a roof, wherein the *almenas* are replaced by flames,



**Figure 13.** References to a type of structure possibly named ‘fire-house’ or ‘torch-house’: **a)** appearing in the headdress of a Teotihuacano on a monument from Soyltepec, Veracruz (drawing by Jesper Nielsen after Bolz 1975: LXX), **b)** Detail of the left side of Tikal Stela 31 showing small Teotihuacano-style torches in the headdress of *Yax Nuun Ahiin* I (after Jones and Satterthwaite 1982: Fig. 51a), and **c)** ‘fire-house’ with additional reference to Copan’s dynastic founder Yax K’uk’ Mo’ on the “Dazzler” (drawing by Barbara Fash; after Fash *et al.* 2009: Fig. 11).

making this another likely depiction of and reference to the Teotihuacan ‘fire-house’ (Figure 13c). Since Yax K’uk’ Mo’ is consistently portrayed with goggles, it appears that the “Dazzler” portrays the founder within his ‘fire-house’ (Taube 2004). There are also intriguing suggestions that the building depicted was erected shortly after the arrival of Yax K’uk’ Mo’ to Copan and the dynastic founding in A.D. 426, since one of the earliest temples, referred to as Hunal, discovered deep underneath Temple 16 in the Acropolis, is a small talud-tablero structure, the only of its kind discovered so far at Copan (Sharer *et al.* 2005: 159-161). Hunal’s interior was once covered by Teotihuacan-style murals, fragments of which were recovered during excavation. In all likelihood, the ‘fire-house’ shown on the “Dazzler” is an illustration of Hunal, the Teotihuacan-style temple and shrine of Yax K’uk’ Mo’.

Several of the epigraphic references to Teotihuacan buildings found in the periphery of Teotihuacan and further afield may plausibly be correlated with some of the structures that were mentioned at Teotihuacan itself (see also Nielsen and Helmke in press). These were obviously some of the most important houses, and by extension, offices and institutions of Teotihuacan, and when we encounter them in cities and areas that have long been recognized for their contact with Teotihuacan, it is tempting to view these references as indications that these houses and institutions, in some cases, literally moved out, replicated and re-erected, even if in minor scale, in the areas of Teotihuacan dominance.

## CONCLUSIONS

It has been recognized for some time that ancient Mesoamericans named their most important structures, be they temples, palatial structures or otherwise, and that these names often reflect the activities that were performed within or nearby the structures. At other times, the names draw on mythological events, or ancestors of great importance to the ruling elite and the surrounding community. Although we have the clearest evidence of such naming practices for the Maya and the Aztec, there can be little doubt that this is a pan-Mesoamerican phenomenon, and thus it should come as no surprise that a similar practice can be detected in the epigraphy and iconography of Teotihuacan. Although the script of Teotihuacan remains undeciphered we hope to have been able to demonstrate that the surviving texts contain references to buildings and their names. In the case of the Maya, textual references to buildings tend to form part of dedication statements (Nielsen 1998; Stuart 1998), but the Teotihuacan examples we have encountered seem to be what can be called name-tags (Houston *et al.* 1987) or labels, simply stating, sometimes in repeated fashion, the name of a given structure. At present, we have been able to identify at least ten references to specific houses in Teotihuacan writing and three titles or offices that seem to be derived from such houses, and although we cannot read the glyphic expressions phonetically, we can give a rough estimate as to their general meaning and significance.

Needless to say, additional research is required in order to achieve a deeper and more complete understanding of named buildings at Teotihuacan; among them is the need to establish a better database of Teotihuacan glyphic texts, and in particular those found on Teotihuacan’s decorated ceramics. Thus, the painted, engraved and incised ceramic vessels, produced in the thousands through much of Teotihuacan’s history, appear to have been a far more common media for hieroglyphic expressions featuring the juxtapositions of text and images, than were the murals. Scholars will need better access to this rich source material, of which only a fraction has been adequately published so far (e.g. von Winning 1987; Conides 2001), and we believe that further significant advancement in the decipherment of Teotihuacan’s writing system will only take place once this has been achieved. Still, we hope to have demonstrated that Teotihuacan writing, encountered in the city itself and its periphery has a clear potential to provide further insights not only into the names and functions of the built environment, but also into the socio-political institutions and titles derived from and associated with these buildings.

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