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## **IF MOUNTAINS COULD SPEAK: ANCIENT TOPONYMS RECORDED AT TEOTIHUACAN, MEXICO**

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### **Abstract**

Although the writing system of ancient Teotihuacan remains undeciphered and consensus has not yet been achieved as to its internal workings, significant progress has been made over the past seven decades. For example, glyphic constructions recording personal names and titles have been identified as have the first toponyms, or place names. Here we build on these foundations and present some of our most recent research on Teotihuacan toponyms, focusing specifically on place names that include mountain signs, concentrating on identifying the character and general meaning of these place names. In commenting on the role and importance of mountain toponyms attested in Teotihuacan writing, we also note the persistence of place names in central Mexico, which suggests that many are of great antiquity and figured prominently within the culturally-construed landscapes and ritual practices of Teotihuacan. Thus, the toponymic constructions recorded in the writing of the great metropolis are wholly comparable to later script traditions of Highland central Mexico, which leads us to suggest that the writing systems of the Epiclassic period and the Aztec do find, at least in part, their origins in Teotihuacan culture. Furthermore, the toponyms cited at Teotihuacan appear to record the names of localities that were either in the relative vicinity of the site or that show evidence of Teotihuacan presence and utilisation. As part of our investigations we have found that the mountain toponyms of Teotihuacan record both important mythological places as well as earthly locations that figured prominently as the setting of historical events, rituals and pilgrimages.

### **Resumen**

Aunque el sistema de escritura de Teotihuacan permanece sin descifrar y todavía no existe consenso en cuanto a su funcionamiento interno, en las últimas siete décadas se han logrado avances significativos. Por ejemplo, se han identificado construcciones glíficas que registran nombres personales y títulos, así como los primeros topónimos o nombres de lugares. En el presente estudio nos basamos en estos avances y presentamos algunos de nuestros trabajos de investigación más recientes sobre los topónimos teotihuacanos, centrándonos en particular en los nombres de lugares que incluyen signos de montaña, prestando una atención especial a la identificación del carácter y el significado general de estos nombres de lugares. Al comentar el papel y la importancia de los topónimos de montañas atestiguados en la escritura teotihuacana, también hemos podido observar la persistencia de los nombres de lugares en el centro de México, lo cual sugiere que muchos de ellos son de gran antigüedad y ocupaban una posición privilegiada dentro de los paisajes culturales y las prácticas rituales de Teotihuacan. De este modo, las construcciones toponímicas registradas en la escritura de la gran metrópolis son totalmente comparables a las tradiciones escriturarias posteriores del altiplano central de México, lo que nos lleva a sugerir que los sistemas de escritura del periodo Epiclásico y de los mexica tenían, en efecto, al menos en parte— sus orígenes en la cultura teotihuacana. Por otro lado, los topónimos citados en Teotihuacan parecen registrar los nombres de localidades que estaban situadas en los entornos del sitio o que muestren indicios de la presencia y utilización teotihuacana. Como parte de nuestra investigación hemos descubierto que los topónimos de montaña de Teotihuacan se refieren tanto a importantes lugares mitológicos, como a lugares terrenales que destacaban por su importancia, por ser marco de acontecimientos históricos, rituales y peregrinaciones.

## INTRODUCTION

The writing system of Teotihuacan remains undeciphered and consensus has not been achieved as to its identity and internal workings. Part of the problem rests with the fact that Teotihuacan writing is quickly drawn into the debate concerning its relationship to the languages spoken at this great multiethnic metropolis. As a result Teotihuacan script continues to be shrouded in much ambiguity. Nevertheless, huge strides have been made over the past seven decades. Excellent and comprehensive catalogues of the murals and decorated ceramics of the site are now available, allowing researchers to further their analyses of the corpus (Séjourné 1966; Miller 1973; von Winning 1987; de la Fuente 1995a, 1996; Conides 2001). As is typical of Mesoamerican writing systems, the calendrical notations and associated day signs were the first to succumb to epigraphic work (Caso 1937, 1960, 1966: 274-275, 1967), but much remains to be done to fully reconstruct the calendrical systems of ancient Teotihuacan (see Taube 2011; Helmke and Nielsen 2011, 2013a; Helmke *et al.* 2013). Glyphic constructions recording personal names and titles have been identified over the past four decades (Millon 1973, 1988a; Berlo 1989: 27-33; Taube 2000, 2002; Conides and Barbour 2002; Nielsen 2004; Helmke and Nielsen 2011, 2013) as have the first toponyms, or place names (Angulo 1972: 50-51, 63, 1996: 74, 82-89; Berlo 1989: 20-22, 32; von Winning 1987: 2: 43-44; Pasztory 1988; Padilla Rodríguez and Ruiz Zúñiga 1995: 176, 185; Taube 2000: 7-10, 51, 2002: 361; Corona Sánchez 2002; Nielsen 2006: 4; Nielsen and Helmke 2008). Since 1986 the glyphic signs of Teotihuacan's writing system have been compiled and catalogued into an extensive signatory (Langley 1986, 2002). Karl Taube's influential articles establishing the nature of Teotihuacan writing as exactly that, have appeared over the past decade and have greatly impacted our thinking (Taube 2000, 2002, 2011). And finally, coherent dialogues are now emerging on the language or languages of Teotihuacan, including that recorded in the glyphic texts of the site (King and Gómez Chávez 2004; Kaufman and Justeson 2008; Davletshin 2010; Nielsen and Helmke 2011).

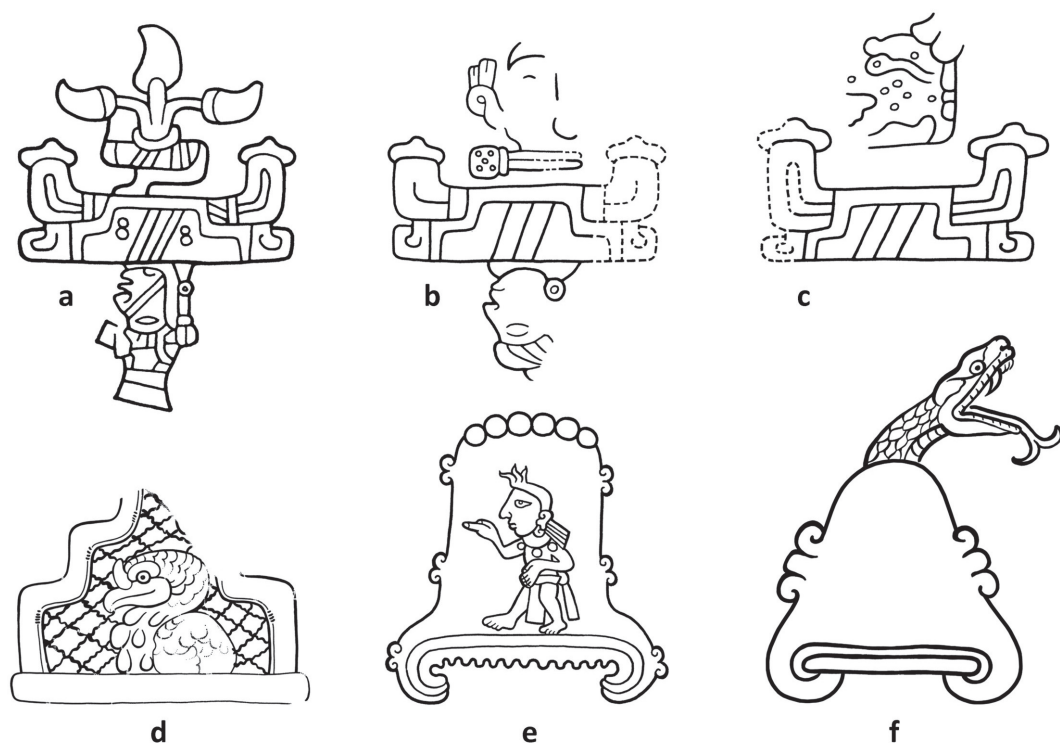
Here we build on these foundations and present some of our most recent research on Teotihuacan toponyms (for earlier work see Nielsen and Helmke 2008). Of the many different types of toponyms that could be discussed we focus on place names that include mountain signs. We do not attempt to present phonetic decipherments of the glyphic signs represented in the corpus of Teotihuacan. Instead, we will concentrate on identifying the character and general meaning of these intriguing place names. Before presenting our study we review the salient attributes of Mesoamerican place names as reflected in ancient scripts and associated Amerindian languages. In commenting on the role and importance of mountain toponyms attested in Teotihuacan writing, we note the uncanny subsistence of place names in central Mexico, which suggests that many are indeed of great antiquity and figured prominently within the culturally-construed landscapes and ritual practices of this great metropolis.

## MESOAMERICAN TOPONYMS

Most Mesoamerican languages make use of prominent physiographic features in the natural landscape in forming toponyms, and it has long been recognised by scholars that this is reflected in the graphic representations of such place signs in both the writing and iconography of most Mesoamerican cultures (e.g. Smith 1973; Marcus 1992; Stuart and Houston 1994; Boone 2000). 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 (Smith 1973: 38-41) (Figure 1a). By far the most common of the geographical substantives is the mountain sign and it is on precisely these toponyms that we focus here. In the so-called "open" writing systems of western Mesoamerica (Houston 2004)

the qualifiers are typically placed either on top of the mountain, or are infixed, which is to say embedded within mountain signs. Abundant examples of this practice are found in Aztec and Mixtec writing, and in the earlier scripts of Oaxaca and central Mexico (e.g. Monte Albán and Cacaxtla) (Figure 1). While mountain place names are extremely common, other geographical substantives are also quite widespread in the Late Postclassic period, including trees, rivers, caves and irrigated fields. Place signs can be used to refer to specific locations in the landscape (such as a particular mountain, forest, or cave), to congregations of built space such as towns or city-states, and to specific areas or buildings within sites (Marcus 1992: 157; Stuart and Houston 1994: 81-89; Zender 2005).

Because Teotihuacan culture played such a pivotal role in the development of Highland Mexican cultures, and the tradition of writing in the associated area, it should come as no surprise that a similar tradition of representing place names existed at that site (Berlo 1989; Browder 2005; Taube 2000, 2002, 2011; Nielsen and Helmke 2008). As a case in point, the names of particular buildings within Teotihuacan are now also being identified and slowly succumbing to decipherment (see Nielsen and Helmke, this volume). In the glyphic texts of Teotihuacan the names of buildings are recorded by means of diminutive depictions of structures, or architectural units, such as roofs, which are paired off with additional qualifying elements (e.g. Taube 2011: 85-86) (Figure 2a-b). Thus, Claudia García-



**Figure 1.** Examples of Mesoamerican toponyms illustrating the pairing of geographical substantives and associated qualifiers. **a)** *Chiltepec*, **b)** *Cuicatlan*, and **c)** *Ocelotepec*, conquest slabs of Structure J, Monte Albán (after Marcus and Flannery 1996:ills. 234b, 235d & 236f). **d)** Turkey Mountain, Glyph D, Hieroglyphic Stair, Templo Rojo, Cacaxtla. **e)** Ancestor Mountain (?), *Codex Nuttall*, p. 67. **f)** *Coatepec*, *Codex Boturini*, p. 10 (d-f: these and all other drawings by Christophe Helmke unless otherwise specified).



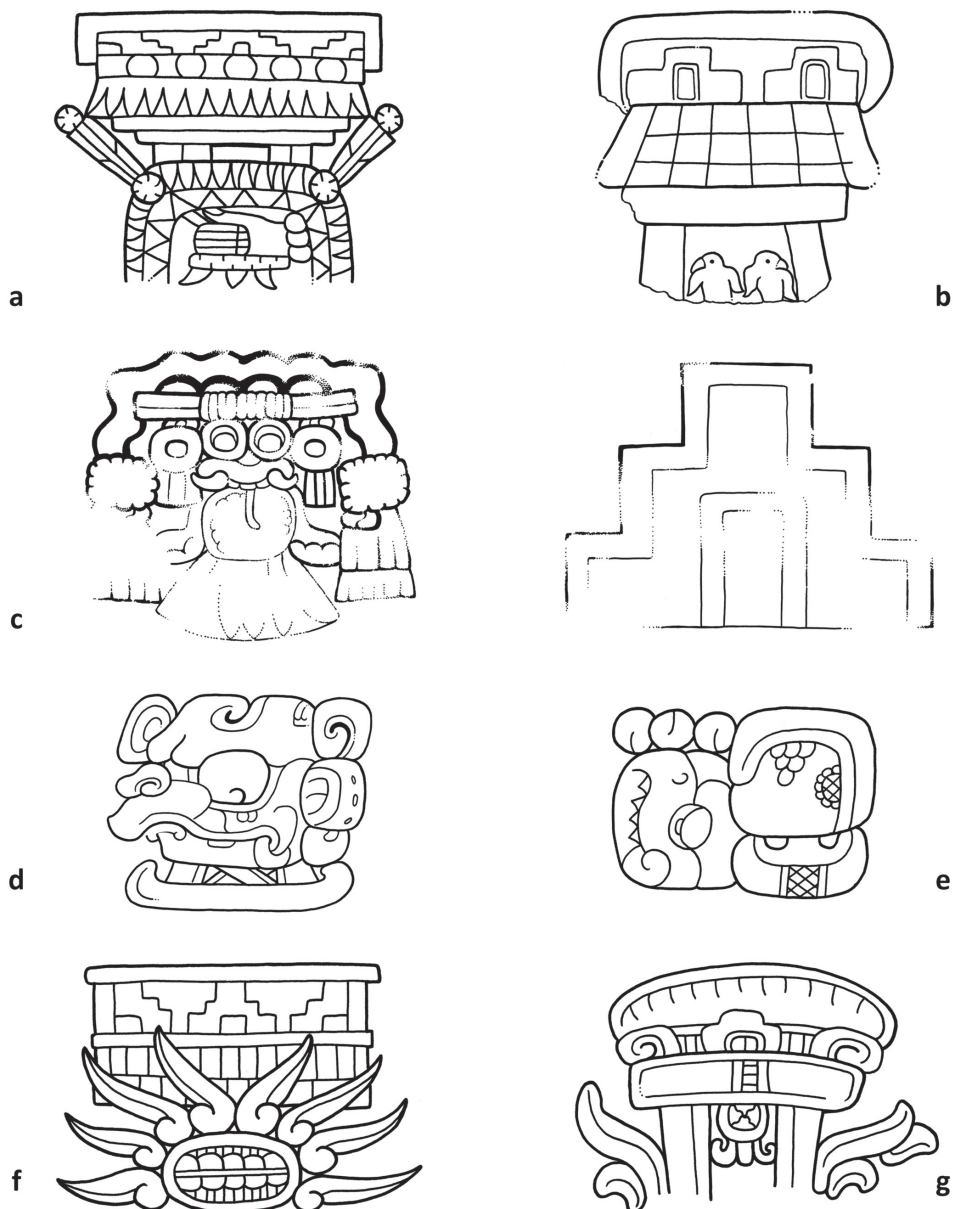
Des Lauriers (2000: 141-146) has successfully identified the forerunner of the Aztec *Tlacoachcalco* /tlakoch-kal-ko/ 'dart-house-place' in Teotihuacan and Epiclassic writing based on depictions of buildings matched with a logogram for 'dart' (Figure 2a). Another such toponym is represented on a series of moulded ceramic *adornos* on a Teotihuacan-style censer found in the Escuintla area of Guatemala. The toponym in question provides the name of a building related to a mythic event in which a great celestial bird is shot and defeated by blowgunners (see Nielsen and Helmke 2010). The *adornos* each depict a building with two small birds in the doorway as if to name the structure 'Bird House' (Figure 2b). This designation is in line with the *Totocalco*<sup>1</sup> /tootoo-kal-ko/ 'bird-house-place', the famed building in the palace of *Moteczucuma* II (Peñafiel 1897: 297).<sup>2</sup> For additional examples we can look to the murals of Tetitla, one of which provides frontal depictions of the so-called Storm god – the prototype of the later Aztec rain deity *Tlaalok* – flanked by *almenas* (a typical crenellated roof comb or merlon that embellishes the perimeter of flat-roofed central Mexican buildings) (Miller 1973: Fig. 261; de la Fuente 1995b: 285-286; Salinas Rodrigo 2010: 92-128) (Figure 2c). Since *almenas* can, on the basis of the *pars pro toto* principle, refer to a whole structure (see Langley 1992: 252, 274; Taube 2011; Helmke and Nielsen 2011, 2013) we are now in a position to read this toponym as 'Storm god house'.<sup>3</sup> This name finds apt analogies in Classic Maya writing where we find references to ritual buildings associated to the local rain and thunder deity, known as *Chaahk* (from proto-Maya \*kahwoq 'thunder'; see Wichmann 2002: 24; Kaufman 2003: 473, 489-490). As such, a *chaahk-naah* 'rain deity-house' is known from the texts at the site of Dos Pilas (Figure 2d) whereas a *chahuk-naah* 'thunder-house' is recorded at Piedras Negras (Figure 2e). Another Tetitla toponym represents a human mouth ringed by flames topped by the roof of a small temple structure (Figure 2f). Again the toponym finds correspondences with Maya texts, especially with Stela 31 from Tikal where a *k'ahk'-naah* 'fire-house' is depicted as a Teotihuacan shrine connected with pyrolatry (Nielsen 2003: 129) (Figure 2g). While it is plausible that these toponyms name the particular structure within which these are found, on the basis of present evidence it remains equally possible that these refer to other buildings, located outside of the Tetitla compound.

Previously, scholars have focused on what are believed to be Teotihuacan place names based on florid trees such as those encountered in the murals of Techinantitla (Berlo 1983, 1989; Pasztory 1988; Corona Sánchez 2002) (Figure 3a). However, years before that Jorge Angulo had already undertaken pioneering work on Teotihuacan place names incorporating mountain signs. Thus, Angulo appears to have been the first to suggest that the so-called "scalloped arch" (Miller 1973: 82, 116, 145) – otherwise known as the "polylobate sign" (de la Fuente 1995c: 70-71; Padilla Rodríguez and Ruiz Zúñiga 1995: 176, 185) – represents a stylised mountain and that these could form part of toponyms

<sup>1</sup> All entries are provided as in the original sources unless we felt that there was sufficient consensus to present a form in an updated modern orthography modelled on those formulated and employed by Terrence Kaufman, especially for Mayan and Nawan languages. In order to homogenise the orthography between different Amerindian languages the following vowels are used here: a, e, o, i, u for short vowels, and doubled vowels marking long vowels, leaving the apostrophe ['] to mark both glotalisation and the glottal stop [ʔ]. The following consonants are used in this paper: b, ch, h, j, k, k', k'', l, m, n, ñ, q, r, s, t, tl, tz, v, w, and x. Otherwise all entries are presented as they are in the original source. Slashes / ... / are used to mark off phonemic transcriptions and segmentations. Doubled slashes // ... // frame theoretical phonemic constructs that are not actually documented. Angled brackets < ... > are used to render either colonial spellings of terms, or more recent items, whose spelling or orthography is deemed inadequate. Names of culture groups are left in their original spellings as for example Olmec, Aztec, Zapotek and Mixtec, but the corresponding language names are updated as with the case of Sapotek and Mixtek.

<sup>2</sup> This also compares to the *Tz'ikina-ja* 'bird-house' of the *Popol Vuh*, a palace known to be tied to one of the dynasties of the K'iche' (see Christenson 2007: 282). Noteworthy is also a red-on-cream ceramic effigy of an open temple enclosing a giant macaw that was found in the Northern Platform at Monte Albán (see Marcus and Flannery 1996: 184-185, ill. 211). This find demonstrates that a comparable Bird House also formed part of the toponymy of the Zapotek.

<sup>3</sup> We know that there was a variety of Storm gods in the ancient pantheon of Teotihuacan (see Pasztory 1974; Headrick 2010). Thus, technically-speaking, since the Storm god depicted in the murals is the one who is qualified by a water-lily (which is seen streaming from his mouth), the toponym in question is that of a house named after this *particular* manifestation of the Storm god.



**Figure 2.** Toponyms referring to the names of particular buildings in Teotihuacan writing. **a**) House of Darts, a prototype of the Aztec *Tlakoch-kal-ko* 'Arrow-house-place' (based on a drawing by Karl Taube). **b**) Bird House, *adorno* of theatre-style censer from the Escuintla area of Guatemala. **c**) Storm god and *almena* sign, detail of Mural 5, Room 19, Tetitla. **d**) *Chaahk-naah* 'Rain God-house', Hieroglyphic Stair 2, Dos Pilas (based on a photograph by Marc Zender). **e**) *Chahuk-naah* 'Thunder-house', Throne 1, Piedras Negras (based on a drawing by John Montgomery). **f**) Fire House, detail of Mural 3, Patio 3, Tetitla (based on a drawing by Laurette Séjourné). **g**) *K'ahk'-naah* 'Fire-house', Front of Stela 31, Tikal (based on a drawing by William Coe).

in Teotihuacan writing (Angulo 1972: 50-51, 63). His interpretation was based on examples from the murals of Portico 2 of Tepantitla, some of which combine a mountain and a tree (Figure 3b-c), as do many other central Mexican toponyms, but he did not attempt a further analysis of this particular group of signs. In Taube's studies of Teotihuacan writing, toponyms are discussed at some length, and he briefly touches upon these polylobate signs – which he refers to as “stepped mountains” – as probable place names (Taube 2000: 7-9, 25-26).

As is well known, but it bears repeating, the place names attached to particular localities tend to be resilient and “resist replacement even when the language spoken in the area is replaced. This resistance to replacement is particularly marked in the case of important topographical features such as large rivers and mountains” (Bynon 1977: 273; see also Campbell 1999: 415-417). Oft-cited examples, such as Scandinavian place names in Britain come readily to mind (Campbell 1999: 415-416), as do the Arabic names attached to the Iberian peninsula (Asín Palacios 1944; Latham 1967), or the Amerindian toponyms of North America (e.g. Manhattan from *manaháhteenk* ‘where one gathers



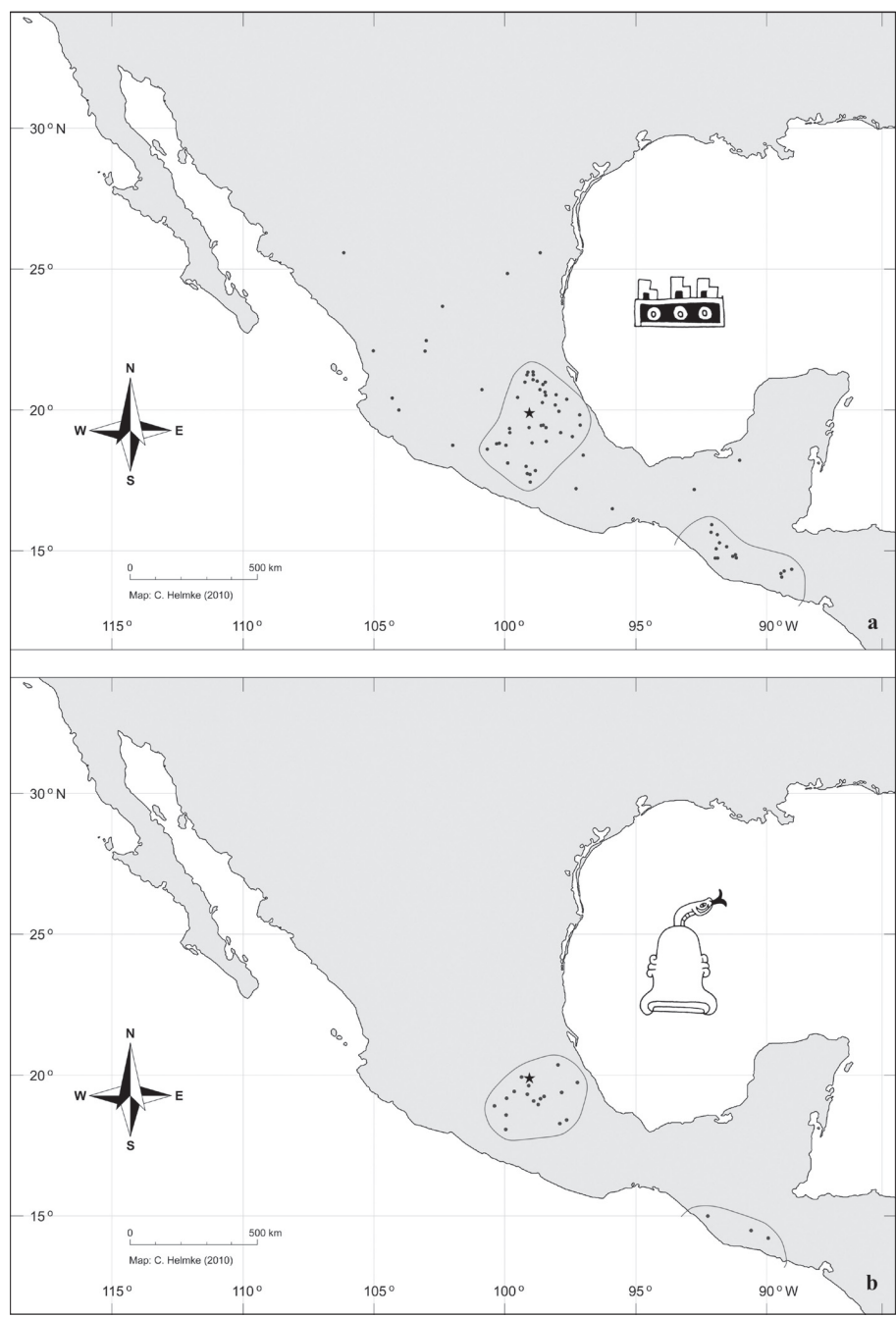
**Figure 3.** Toponyms and flowering plants. **a)** Examples of trees in bloom rendered in the murals of Techinantitla. **b)** Mountain sign surmounted by florid tree, detail of Mural 6, Patio 2, Tepantitla. **c)** Mountain sign atop woven mat with flowering plant, detail of Mural 5, Patio 2, Tepantitla.

bows'; or Chicago from *shekaakooheki* 'wild leek place'; Bright 2004: 96, 265). Toponyms of England ending in *-caster*, *-cester*, and *-chester* reflect the Latin *castra* 'camp' or 'military post' and provide insights into the history of Roman occupation of England (Campbell 1999: 415). In much the same way Mesoamerican toponyms such as *Tenango*, *Chimaltenango*, *Quezaltenango*, or *Jocotenango*, which all incorporate or end in <tenango> reflect the Nawatl //tenam-ko// 'wall/fortress-place' also referring to fortified encampments and testify to the glaring military presence that Nawatl-speakers maintained in the areas that they controlled (Figure 4a). The degree to which toponyms are resilient in Mesoamerica is well attested from the glyphic texts of the Classic Maya, which likewise record toponyms that have been maintained for more than a millennium.<sup>4</sup> Clear examples of this constancy include *Yaxha*, in Guatemala's central Peten, a lake that in antiquity was known as *yax-a* 'blue/green-water' (Stuart 1985; Zender 2005). Similarly, we know that the settlement of *Acanceh* in Yucatan was anciently named *ahkan-keej* 'groan-deer' (Schele and Grube 2002: 20-21). These examples confirm that Mesoamerican toponymy is indeed highly conservative and is preserved despite the adverse effects of time, depopulation, colonisation and language replacement.

In addition to conservatism, other highly relevant features of Mesoamerican toponymy should be pointed out. One of the features to note are the many instances in which places have two toponyms: an endonym in the local language, and an exonym in a dominant language, usually the foreign language of a colonising culture. This is the case with many place names of Oaxaca and Guatemala where the endemic toponyms subsist despite centuries of imposed Nawatl and Spanish place names. Thus *Quezaltenango* (exonym) in Guatemala is also known as *Xela(ju)* (endonym), and *Teotzapotlan* (exonym) in Oaxaca is also named *Zaachila* (endonym). Despite the semantic discrepancies that separate the exonyms and endonyms just cited, another relevant feature concerns the cases in which toponyms were essentially literally translated, or calqued, into the dominant language. Such instances may be found among the carved slabs adorning Structure J at Monte Albán (c. 150 BC-AD 150), that glyphically refer to the names of conquered towns, the vanquished lords hanging helplessly upside-down below each toponym. Based on the qualifiers that accompany the mountain toponyms equivalences have been traced, among others, to the Oaxacan towns of *Chiltepec*, *Cuicatlan* and *Ocelotepec* (Caso 1947; Whittaker 1980; Marcus and Flannery 1996: 195-198) (Figure 1a-c). These equivalences are all the more remarkable when one considers that these toponyms are Nawatl exonyms, whereas the texts of Monte Albán probably record an early form of Sapotek (see Urcid 2001). Comparable translations of toponyms from Sapotek and Mixtek to Nawatl are known for several other Oaxacan place names and more in-depth research will likely reveal additional examples.<sup>5</sup> In the Maya area the same process seems to have taken place, since the province named *Cehache* ~ *Quejache* /keej-ach/ 'deer-INTENSIFIER' in modern-day Campeche was also known under the Nawatl toponym *Mazatlan* ~ *Mazactlan* / masaa-tlaan/ 'where deer abound' (Villa Rojas 1962: 450-451; Barrera Vásquez 1980: 308-309; de Avendaño y Loyola 1996; Bracamonte y Sosa 2001: 74). In sum, good evidence exists to suggest that Mesoamerican toponyms are indeed resilient, and that in some cases the place names are calqued into the dominant language, thereby fostering not only the ties that bind toponyms to the locations they name, but also their underlying meaning.

<sup>4</sup> For the northern Maya Lowlands, we know of *Acanceh* /ahkan-keej/, *Bacalar* /bak-halal/, *Calcehtok* /kal-keej-took/, *Campeche* /kan-pech/, *Canul* /kan-u'l/, *Coba* /kob-a'/, *Ek Balam* /ek'-bahlam/, *Motul de Felipe Carrillo Puerto* /mut-u'l/ and *Tiho* /ti-joo'/; for the southern Maya Lowlands the Classic Maya texts also make reference to *San Juan Acul* /ahk-u'l/, *Chac Río* /chak-ha'/, *Chajul* /ch'aj-ul/, *Coban* /kob-an/, *Itza* /itz-a'/, *Río Lacantun* /lakam tuun/, *Mopan* /mon-paan/, *Motul de San José* /mut-u'l/, *Peten* /peten/, *Zacpeten* /sak peten/ and *Yaxha* /yax-a'/.

<sup>5</sup> Examples of this process include Oaxaca's *Mitla*, a corruption of the Nawatl *mik-tlaan* 'where death abounds', which was known in Sapotek as *Lhio'ba* and in Mixtek as *Nuu Ndiyi* both meaning 'place of the dead' (Rodríguez Villegas 2010a, 2010b). Other Oaxacan examples involve *Nanacaltepec*, which in Sapotek is recorded as *Guebea*, both meaning 'mushroom mountain place' (Oudijk and Jansen 2000: 291) and *Tututepec*, which in Mixtek is known as *Yuku Saa* 'bird mountain' (Rodríguez Villegas 2010b).



**Figure 4.** Distribution of selected Nawaatl toponyms in Mesoamerica. The location of Teotihuacan is marked by a star. Note the distribution centered on the Aztec heartland and the outlying enclave in what is now southern Guatemala and adjoining El Salvador. **a)** Distribution of place names including *tenam-*, *tenan-* and *-tenan-go* (above). **b)** Distribution of *Coatepec ~ Coatepeque* (below).



## MOUNTAIN SIGNS AND TEOTIHUACAN TOPONYMS

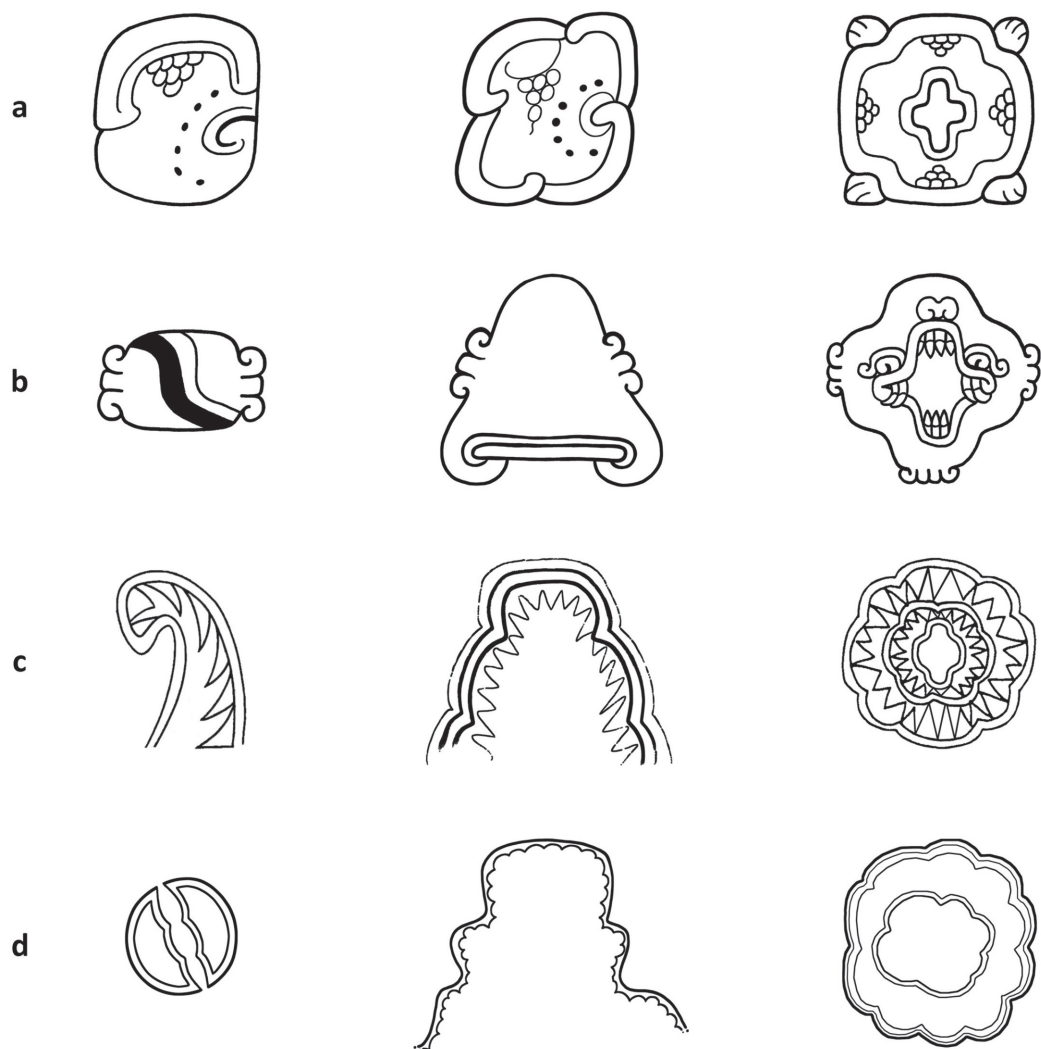
One of the features that has long baffled western scholars is the graphic richness of Mesoamerican writing systems and the fluid interchange that dominates text and image. In large measure this is due to the fact that the conventions that govern iconographic representations also impart distinct written signs with their diagnostic attributes. Marc Zender (2008) has recently shown that the same underlying principles exist in the writing systems of the Maya and Aztec as concerns the attribution of diagnostic elements, for a particular category of signs. Thus for Classic Maya writing the logograms for 'stone', 'mountain' and 'cave' each share the same basic attribute: the so-called "grapes", which are the diagnostic element for 'stone' imparted by the logogram *tuun* (see Stuart 1997) (Figure 5a). Here the diagnostic element remains unvoiced, but serves as a semantic determinative that qualifies the logograms as made of this primordial substance. Graphically, the stone sign is highly stylised, the mountain sign then essentially represents a craggy and stony mass, and the cave sign is rendered as an opening within the rock. The same exact conventions are found in Aztec writing, where the culturally-idiosyncratic diagnostic element of the logogram *te-tl* 'stone', which represents a series of lateral scrolls, is also attributed to the matching logograms for 'mountain' and 'cave' (Figure 5b).<sup>6</sup> What is truly remarkable is that the same underlying principles also govern the corresponding logograms in Teotihuacan writing. As we have found, the diagnostic element for 'stone' appears in two stylistic and/or temporal variants: one a sharp triangular serrated edge that qualifies stylised obsidian blades (Figure 5c), the other a dull lunate crenellation found on conventionalised cobble-shaped stones (Figure 5d).<sup>7</sup> The same diagnostic element embellishes what others have called the polylobate sign, representing a stylised mountain, and a circular scalloped frame that must represent caves. It is the orderly logic and shared conventions of these Mesoamerican writing systems that has allowed us to confirm that the polylobate signs indeed represent mountains and to identify the depiction of caves (or at least 'portals' that provide access between two cosmogonic realms) in the corpus of Teotihuacan.

In the past there has been some confusion among Teotihuacan scholars concerning the identification of aquatic motifs and symbols. Part of this muddle rests with the fact that the mountain and cave signs that we are dealing with here have previously been subsumed, at one point or another, under the category of water-related themes (e.g. Angulo 1996: 74-78; von Winning 1987: 2: 7-13). In order to segregate these, we should point out the scenes that clearly depict watery environments, such as the shell divers from Tetitla (Murals 3-4, Portico 26; see Miller 1973: 136; de la Fuente 1995b: 288-289), which exhibits parallel arrangements of scalloped lines, which undoubtedly represent waves, a convention that continues unbroken into the Epiclassic (c. AD 650-950). In addition, aquatic creatures, including water fowl, fish, personified molluscs and crustaceans prancing between the waves form an integral part of archetypal water scenes (e.g. Miller 1973: 86; Nava Rivera and Ruiz Gallut 1995; Paredes Cetino 2002). The elements that we identify as mountains and caves can be neatly extracted and segregated from the aquatic motifs thus defined. As such other murals depicting these diagnostic elements, including the murals from the Antechamber of the Palacio de Quetzalpapalotl, the famed Mythological Animals mural, the murals of Room 18 in the Conjunto del Sol, and those of Sector 4 of La Ventilla must all represent aquatic scenes (e.g. Miller 1973: 44, 63, 71, 84; Nava Rivera and Ruiz Gallut 1995; Paredes Cetino 2002). The one point of contention concerns five-pointed stars that some

<sup>6</sup> The earliest known example of this diagnostic element is found adorning a stylised mountain sign that frames the central doorway of Structure A at Cacaxtla. Dated to the Epiclassic (c. AD 730-870) (see Helmke and Nielsen 2013b), this representation predates the earliest examples found in Aztec writing by at least six centuries.

<sup>7</sup> Whereas we surmise that the differences between the two variants of these diagnostic attributes are the result of temporal differences, it remains to be verified by means of rigorous dating, which is the earlier, and which is the later manifestation.





**Figure 5.** Diagnostic elements shared between the logograms for ‘stone’, ‘mountain’ and ‘cave’ in three different Mesoamerican writing systems. **a)** Maya glyphs: *tuun*, *witz*, and *ch’e’n*. **b)** Aztec writing: *te-tl*, *tepee-tl*, and *osto-tl*. Teotihuacan writing with **c)** triangular serration and with **d)** lunate crenellations (based on a figure by Marc Zender).

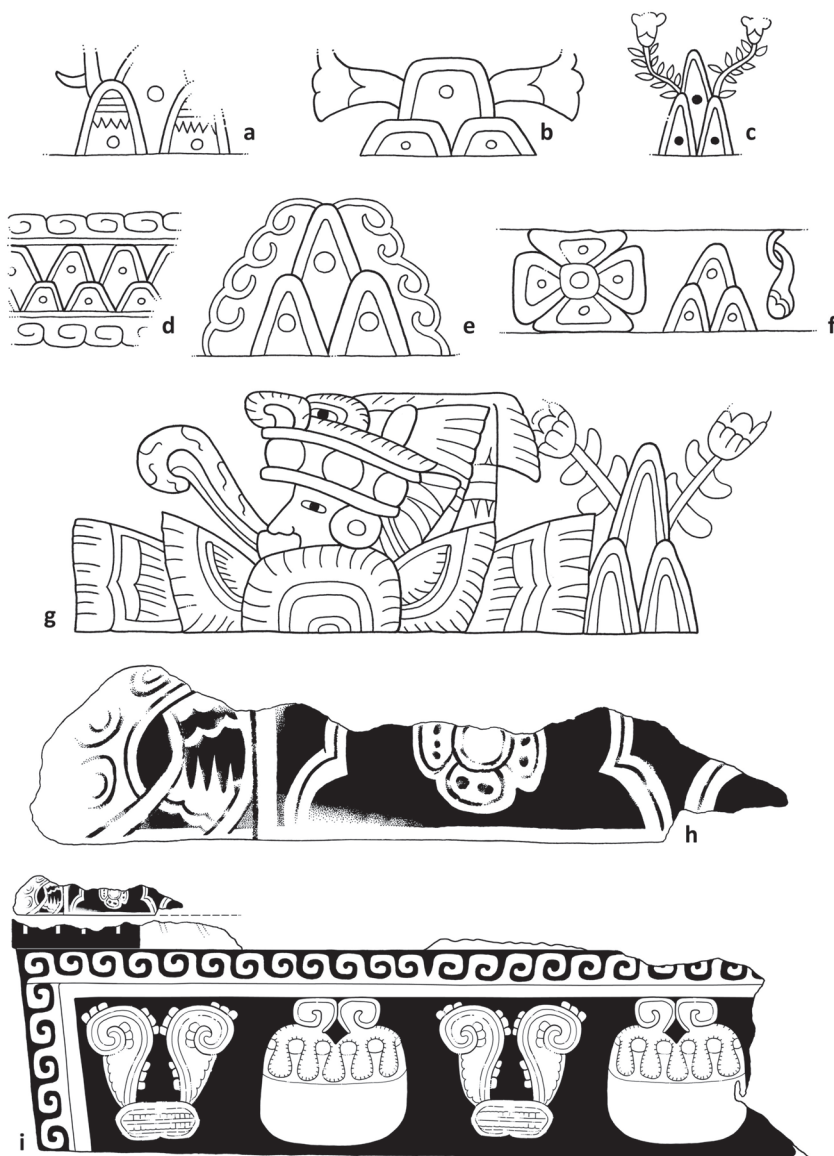
have viewed as starfish. Based on a careful examination we can allow for the existence of starfish in the repertoire of Teotihuacan iconography, but must add that in many cases these same elements are clearly meant to depict stars and to define celestial scenes. Furthermore in most cases such stars are not directly embedded into watery landscapes but co-occur in an associated frame, to specify an additional quality of the scene. With this review and re-definition we are in a better position to define what properly constitute water scenes and segregate these from the toponymic signs under investigation.

Thus armed, we can now present a review of toponyms involving the mountain sign in the known Teotihuacan corpus. Of the fourteen such toponyms that we have identified to date we will examine four of these in detail and leave the others to preliminary comments at the end of this paper. While we point out textual and toponymic continuities between Teotihuacan and Aztec writing, and do cite later place names, we are not implying that the texts of Teotihuacan record an archaic form of Nawatl. When we point out correspondences between the toponyms recorded at Teotihuacan and the Nawatl ones documented in the codices, and which subsist to the present-day, we do so for the benefit of outlining the shared toponymic onomastic practices at play among the cultures of central Mexico. To this we should also recall the premise that some of these toponyms may have maintained their semantics over the ages, with toponyms at times succumbing to calquing rather than replacement. Furthermore, the toponyms in the writing system are, for the most part, composed of at least two signs, a mountain sign and a qualifier. As such the second sign evidently also has to function as a logogram in order to form a coherent toponym. It is on the basis of identifications of the qualifying sign that we can approximate the meaning of the place names recorded, without actually knowing which language the texts of Teotihuacan record.

## Flower Mountain

A sound place to begin is with a supernatural one, identified by Taube (2004; 2006) as Flower Mountain. As has become abundantly clear over the past few decades, Teotihuacan was the seat of a state based on institutionalised warfare, human sacrifice and the veneration of fallen warriors (Berlo 1983; Taube 1992; Cabrera Castro 2002; Headrick 2003; Sugiyama 2005; Sugiyama and Cabrera Castro 2007). Researchers have been able to partly reconstruct some of Teotihuacan's cosmology and religion, at the heart of which is the belief that the souls of fallen warriors, metamorphosing into butterflies, went on to inhabit an ethereal and flower-filled solar realm. The main physiographic feature of this archetypal paradise is a florid mountain that provides the toponym for this supernatural realm. As identified by Taube (2006: 159), Flower Mountain is depicted in Teotihuacan iconography by means of the so-called "tri-mountain" sign from the sides of which emanate flowers (Figure 6a-c). Independently, Hasso von Winning (1987: 2: 12) identified the same sign grouping as the "montaña fértil", which ties in with the concept of Flower Mountain as a source of primordial sustenance (see also Headrick 2001). In other instances rendered on post-slipped incised sherds of ceramic vases the same tri-mountain sign or a whole mountain range is shown framed by a series of scrolls (Figure 6d-e), undoubtedly representing landscapes in which mountains are swathed in stylised clouds (see Stone 1996; Reilly 1996). Other examples depict stylised rain drops to the side of the tri-mountain sign, as though depicting a rainy mountainous landscape. In these instances the mountain sign has as its qualifier a stylised flower with four petals set aside emblematically (Figure 6f). Convincingly, depictions of the florid tri-mountain sign is paired off with warrior-butterflies in the iconography of ceramic vessels (Figure 6g) and so-called theatre-style censers that were utilised in the cult and veneration of deceased warriors (see also Conides 2001: Fig. 64). Two of these censers, from the Tiquisate region of Guatemala, depict such departed warriors, replete with butterfly headdresses and matching wings, and the chimneys of the censers double as stylised mountains embellished with quatrefoil flowers (Hellmuth 1975: Plate 31, 33-34; Taube 2006: 159-160). Intriguingly, these censers both exhibit other features such as the "shallow basin" sign that corroborates that we are indeed looking at a toponymic construction (see Taube 2000: 9, 23, 51, 2002: 345, 350; Nielsen and Helmke 2008: 464; Helmke and Nielsen 2011, 2013).

In addition to the references made to Flower Mountain in Teotihuacan iconography we have found what might be termed textual references to this supernatural place, which duplicate key features of the Tiquisate censers and the incised ceramic sherds. These examples are found in the murals of Rooms 18



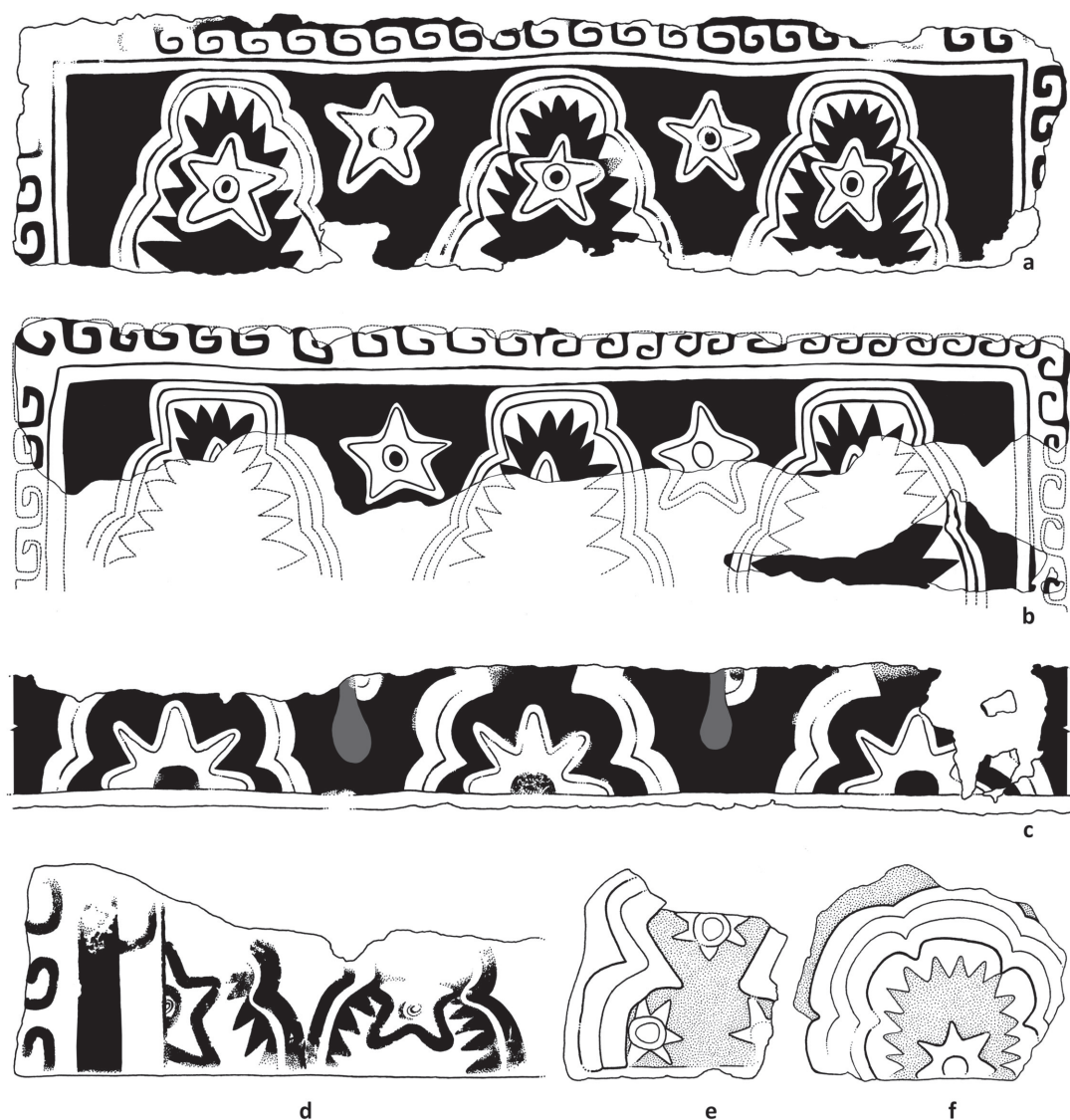
**Figure 6.** Flower Mountain in the Teotihuacan corpus. Examples of the tri-mountain sign with flowering plants: **a)** detail of incised sherd, **b)** detail of Mural 1, Portico 17, Conjunto del Sol, and **c)** detail of a stucco and painted vessel (based on Taube 2006: Fig. 4). **d)** Stylized mountain range framed by cloud scrolls and **e)** tri-mountain sign bordered by scrolls (based on von Winning 1987: Vol. 2: Figs. 16a & 14i). **f)** Tri-mountain sign qualified by a four-petalled flower and accompanied by rain drops (based on von Winning 1987: Vol. 2: Fig. 18a). **g)** Depiction of a warrior butterfly paired with a flowering tri-mountain sign (based on Séjourné 1966: Fig. 94). **h)** The Flower Mountain toponym as preserved in Mural 1 of Room 18 at Tetitla. **i)** Mural 1 in its entirety with the possible title below and the toponym above. Note the dashed line that separates terminal from penultimate architecture (based on photographs by Ricardo Alvarado and Laurette Séjourné).

(Mural 1) and 18a (Mural 4) of the Tetitla compound (see Miller 1973: 129; de la Fuente 1995b: 284, lám. 12 and 13). Parts of four Flower Mountains are clearly rendered using the conventionalised polylobate mountain logogram infixed into which is a quatrefoil flower (Figure 6h). Both rooms exhibit evidence for at least two distinct architectural phases and the references to Flower Mountain are partly preserved on the terminal murals at floor level, whereas the better-preserved penultimate murals glyphically record what may be an important warrior title (see Berlo 1989: 33; Taube 2000: 17-18; Salinas Rodrigo 2010: 34-36, 40-41, 51-90; Helmke and Nielsen 2011: 24, 25) (Figure 6i). Although the murals are not contemporary they appear to share thematic continuities, since the compositions of both rooms are associated with warriors, their titles and the desired afterlife in a florid paradise.

Substantiating the existence of a Flower Mountain in Teotihuacan religious beliefs are the mentions made to this place in the glyphic texts of the Maya. Thus among the texts inscribed into human bones found within Burial 116 at Tikal, are two (MT 33 and 36) that refer to the conjuring of a supernatural being known as *Waxaklajuun Ubaah Chan* 'Eighteen are the Images of the Snake', which is known to be the Maya name for the Teotihuacan War Serpent (Freidel *et al.* 1992: 281; Taube 2004: 88, 2006: 161). The texts go on to relate that the conjuring event transpired at a place named *Nikte' Witz*, literally 'Mayflower Mountain' (*Plumeria* sp.). The War Serpent and Flower Mountain have both been connected to the Temple of the Feathered Serpent at Teotihuacan (Taube 1992: 59-68, 2006: 161-162). For one the terraces of the temple are embellished by headdresses depicting the War Serpent and hypothetical reconstructions place their total number at eighteen (to each side of the pyramid). For another, the feathered serpents that give the temple its name are seen emerging from floral blossoms. Since in Mesoamerican thinking temples are conceived of as human-made emulations of mountains (e.g. Vogt 1964; Stuart 1997; Vogt and Stuart 2005), the pairing of mountain with floral symbolism produces a cohesive whole. Whether this interpretation can be corroborated or not, it remains to be established if the Flower Mountain textually recorded in the murals of Tetitla refer to an abstract supernatural place, or to a very concrete structure within the monumental epicentre of the city. Considering the significance of religious structures, such a distinction may not have been drawn in antiquity, but it strongly suggests that toponyms in the texts of Teotihuacan may equally refer to both earthly and otherworldly locations.

## Star Mountain

We continue our examination with the toponymic collocation that occurs most frequently in the corpus of Teotihuacan, a toponym that we have designated as Star Mountain. In the murals, the toponym is depicted at four separate compounds, including the Conjunto del Sol (Murals 2 and 3, Room 13, Zona 5A), the Conjunto Jaguares at La Ventilla (Murals 1-4, Southeast Room, Sector 2), the patios of Zacuala (Mural 4, Corridor 2; Mural 5, Room 2), and Teopancazco (Mural 1, Room 1) (Miller 1973; Cabrera 1995a: 157-158; de la Fuente 1995c: 70-71, 1995d: 314, 319; Padilla Rodríguez and Ruiz Zúñiga 1995: 176-185) (Figure 7a-d). Several additional examples are also known from moulded sherds and from ceramic *adornos* for theatre-style censers (von Winning 1987: 2: Figs. 9d and 14f; Múnera and Sugiyama 2000: foto 49B) (Figure 7e-f). The depictions from the Conjunto del Sol are among the clearest and best-preserved examples. Both murals are essentially identical and each provides three mountain signs into which are infixed stylised stars (Figure 7a-b). Between each mountain sign are additional star signs possibly indicating the nocturnal quality of the scene. The scrolled frame to the toponymic register undoubtedly represents clouds, as in the aforementioned examples involving the tri-mountain sign. As such the whole composition invites the viewer to look onto a starry and mountainous landscape amidst the clouds. In the examples from La Ventilla the mountain sign is again repeated three times, but here the landscape is embellished with rain drops, which are placed between the mountain signs, on par with murals from the Zacuala patios (i.e. Mural 5,



**Figure 7.** Examples of Star Mountain. **a)** Mural 2, Room 13, Conjunto del Sol. **b)** Mural 3, Room 13, Conjunto del Sol (drawing by Felipe Dávalos). **c)** North Wall, Southeast Room, Sector 2, La Ventilla. **d)** Mural 4, Corridor 2, Zacuala Patios (based on Miller 1973: Fig. 220). **e)** Mould for a ceramic *adorno* found at the Cuidadela (based on Múnera and Sugiyama 2000: foto 49B). **f)** Moulded ceramic vase sherd in the collection of Hasso von Winning (Lot 1108).

Room 2, see Miller 1973: Figs. 225-226). The rain drops depicted at the Conjunto Jaguares are painted a hue that blends into the red background to underline the secondary function of these signs (Figure 7c). The uppermost third of the murals depicting the Star Mountain toponym was razed during a phase



of architectural refurbishment in antiquity. Nevertheless, the remaining portions of the murals are otherwise well-preserved and here these mountain signs are marked with distinctive halved-star signs that match those seen on the moulded ceramic examples (Figure 7f). Finally, a fragmentary mould for a censer *adorno* recovered from excavations of the censer workshop tied to the Ciudadela represents a mountain sign infixed with three separate stars (Figure 7e). Based on these examples, we can see that Star Mountain is rendered at times as a neutral toponymic landscape, whereas in other instances additional glyphic elements are added to characterise secondary attributes of the scenes.

The murals depicting the Star Mountains in the Conjunto del Sol adorn the two eastern walls of Room 13 (on either side of its central doorway), a room that portrays a mythological episode, previously alluded to, taking place deep in the past in which a great celestial bird is shot down by blowgunners (Nielsen and Helmke 2010). To account for the pairing of these mountain signs with this important myth we assume that the toponym provides the name of the location where the defeat of the celestial bird took place. Certainly the nocturnal qualities of the toponymic scene are well in-keeping with the cosmogonic myth, which precedes the creation of the sun. If this is the case then the toponym may provide the name of a supernatural place, or alternatively an earthly location where these mythic events were said to have transpired. Nevertheless, if Star Mountain is indeed a mythical place, then it cannot be ruled out that earthly locations with the same name seek inspiration from mythology, on equal footing with the many places named *Coatepec* /koowaa-tepee-k/ ‘snake-mountain-place’ in central Mexico and abroad (Figure 4b). Whatever the case, Star Mountain is the most-commonly cited mountain toponym at Teotihuacan and as such it is clear that it was of great import to the ancient inhabitants.

The name Star Mountain immediately resonates with Aztec toponymy since *Zitlaltepec* ~ *Citlaltepec* ~ *Çitlaltepec* /siitlal-tepee-k/ ‘star-mountain-place’ is a well-known, but relatively rare place name. The first connection is to Mexico’s highest volcanic peak, known as the *Pico de Orizaba* (5 636 m), but also identified by the Nawatl name *Citlaltepetl* (Figure 8). The permanently snow-capped *Pico de Orizaba* is an awe-inspiring sight as it reaches to the skies. The majesty and liminality of the peak, between earth and heaven, could well be the setting of central mythological events, especially ones related to the descent of celestial supernatural entities. In addition to the modern settlements named *Citlaltepec* ~ *Zitlaltepec*, in Tlaxcala, Veracruz, and Guerrero is the town of *San Juan Zitlaltepec*, on the shores of what remains of Lake Zumpango (Figure 8). The settlement takes its name from a nearby mountain and its significance stems from the fact that it is relatively close to Teotihuacan, being situated some 33 km to the northwest.<sup>8</sup> Even more intriguing, however, is a mention to a *Sitlaltepetl* in a documented dated to 1608, and entitled a “Declaración de un señor de San Martín Obispo” (Gamio 1922: II: 571-573). The San Martín Obispo of the document is a settlement that is now known as San Martín de las Pirámides, owing to the fact that it lies immediately north of the archaeological site of Teotihuacan, just north of the Moon Pyramid to be precise. In this document, the anonymous individual declares the extent of his tract of land, by describing the names of hills that define its limits. Thus he states:

[...] *yn tlanti ca inahuac Serrogordo ycpac temoa tlacoloa caqui yahualca ce tepetontli huiztic ytoça Sitlaltepetl ocsepa motoca ynahuac ocsetepetzintli y toça huaxoxtepetl momalacachoa ytech Malinaltepetl temoa ytocalloca tlaxitla yhuellaca Loma hasta quinamiqui huitz(na)hua ytoça se tepetzintli yhuan motlalnamiqni yn altepetl Sr. Sn. Martín Obispo llonca tlatenquixti llomoteneuh temictilpetl ytoça Serrogordo ycmosentzacua yn se sitio* (Gamio 1922: II: 572).

<sup>8</sup> The distance between the archaeological site and the settlement, although it might seem great, is in fact on par with that separating *Mutu’l* (Tikal) and the modern settlement of Motul de San José in Guatemala.



[...] these lands, which are adjacent to Cerro Gordo on the slopes; thence turning by a pointed hill called Sitlaltepetl ('star mountain'); again follows near another hill called Huaxoxtepetl ('willow mountain'); is surrounded by Malinaltepetl ('grass/vine/ivy mountain'); goes down via the so-called Tlaxitla, the knoll; (still) over the hill to reach a hill named the Huitznahuac ('besides the thorn/spine'); and reaching the town of San Martín Obispo; starting from there, as stated, the famed Temictepetl ('mortal/dream mountain'), called Cerro Gordo; there the circuit of the parcel is closed. (Translation by the senior author).

Of all the toponyms named in the *Declaración* only few remain today, demonstrating that many of the names have changed during the centuries following the Spanish conquest. Cases in point include the prominent Cerro Gordo, which the *Declaración* clearly names *Temictepetl*, and whereas the *Malinaltepetl* of the *Declaración*, was known in the 1920s as the *Cerro Malinalco* (see Gamio 1922: I: Lám. 1), it is now the *Cerro Malinal* (INEGI 1998). Therefore although we cannot conclusively identify the parcel described in the *Declaración*, nor precisely which "pointed hill" was once named 'Star Mountain' we can surmise that it is one of the smaller hills to the southwest of the Cerro Gordo



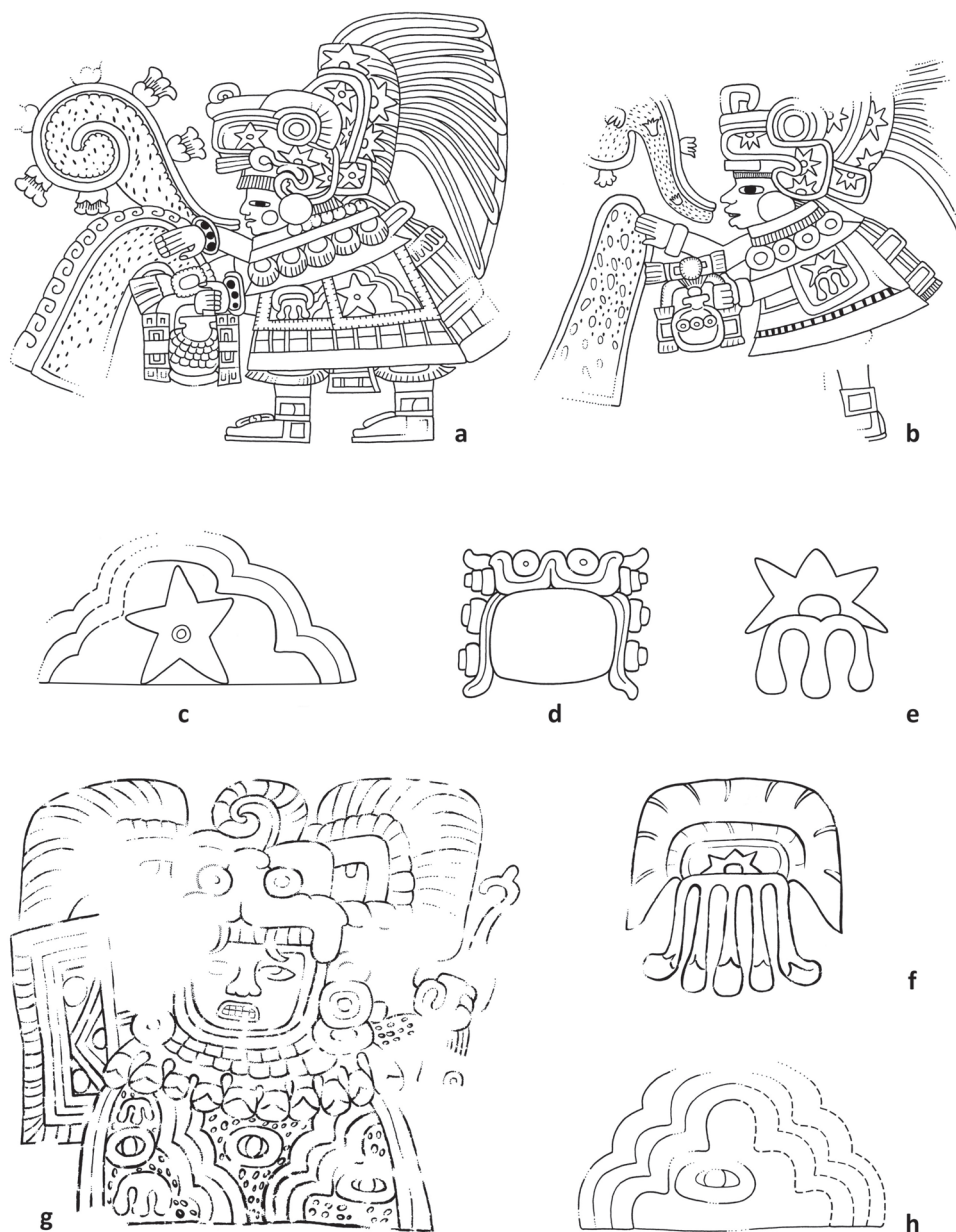
**Figure 8.** Maps showing the locations of the most important archaeological sites (open squares), settlements (filled squares), and peaks (crosses) cited in the text. The inset map focuses on central Mexico and toponyms in relative vicinity to Teotihuacan (marked by a star). Maps based on cross-blended hypsometric tints with shaded relief produced and distributed by Natural Earth (www.naturalearthdata.com).

based on the known locations described in the text, including the *Cerro Malinal*. Importantly, it also demonstrates that a hill named ‘Star Mountain’ was found in direct vicinity to Teotihuacan, as little as 6 or 7 km northwest of the Moon Pyramid.

A reference made to a settlement named *Çitlaltepec* can be found in the *Codex Mendoza* – which has as its qualifier a starry night sky – and this toponym has been attributed to a location in the Lake Texcoco region (Berdan and Anawalt 1997: 29). Considering the distribution of placenames it seems likely that this Star Mountain was located relatively close to Teotihuacan, if not one of the placenames identified above. The lacustrine location of *Çitlaltepec* is supported by a description recorded by Friar Bernadino de Sahagún in which he relates how reeds were gathered “for the festival of Etzalcualiztli by the priests and servants of the idols. Four days prior to the priest’s fasting, they went to gather reeds at Citlaltepec. It was here that very tall grasses with a white base were to be found” (Berdan and Anawalt 1997: 173). The indications we have as to the location of the Postclassic Star Mountain are all the more intriguing when we consider that the hill, now known as the *Cerro de la Estrella* and surrounded by the urban sprawl of Mexico City, is situated at the end of the peninsula that once separated Lake Texcoco from Lake Xochimilco (Figure 8). The *Cerro de la Estrella* is well-known for the small temple erected at its summit where New Fire ceremonies were conducted in the Postclassic, every 52 years, at the close of each major cycle in the calendar (e.g. Sahagún 1997: 160; Elson and Smith 2001; Montero García 2002; Pérez Negrete 2003). Based on Epiclassic petroglyphs (c. AD 650-950) that were carved into the slopes of the hill and which record calendrical notations in keeping with New Fire ceremonies, we know that the area was the locus of important calendrical rituals, centuries before those of the Aztec (Montero García 2002: 185, 198, 208; Helmke and Nielsen 2011: 17, 2013: 400-401). Connecting the *Cerro de la Estrella* to its Early Classic utilisation is an imposing Teotihuacan-style *talud-tablero* pyramidal structure, dated to between c. AD 400 and 500 that was recently re-discovered and partly excavated (Flores Jiménez 2008; Valadez 2006; see also Felipe Valencia 2002: 41-44). As it turns out, the Calvary established in the colonial period, where the prominent re-enactments of Christ’s Passion are played out at Easter, was built precisely atop this temple, on the shoulder of the hill (just 500 m north of the Aztec temple). The connection that we are making between Star Mountain and the *Cerro de la Estrella* is admittedly tentative at present since we lack the documentary evidence to corroborate that the modern Spanish name is a translation of an antecedent pre-Hispanic toponym.<sup>9</sup> However, what the ethnohistorical sources do tell us is that the New Fire ceremony culminated with the drilling of fire when Orion appeared at the horizon (Sahagún 1997: 154-155; Pérez Negrete 2003: 5). It is this stellar observation that undoubtedly gives the hill its Spanish, and as we surmise, its preceding Classic-period name. Considering the presence of the *talud-tablero* temple discovered at the *Cerro de la Estrella* it is clear that the area was of special importance to the inhabitants of Teotihuacan, which fits neatly with the many references that we have to Star Mountain in the corpus.

Evidence for the ritual importance of Star Mountain in ancient Teotihuacan society stems from the murals of Teopancazco. Although the murals have now faded, the watercolour renditions produced by Adela Breton in 1894 provide us with one of the best possible records. Mural 1 of the site shows richly-attired warrior-priests conducting a scattering ceremony, holding handled *ollas* that may contain incense, libations, or even seed grains (Figure 9a-b). Their rich feather headdresses are in the shape of felines that are glaringly speckled with large star signs. The epaulettes are decorated with what could be described as weeping stars, or star signs affixed by a so-called “trilobe” drop sign, the latter typically interpreted to represent some sort of fluid. The warrior status of the Teopancazco individuals is intimated by the weeping stars since they match the logogram used in Maya writing to record “star wars”, in which a stream of fluid flows from halved star sign (see Riese 1984; Martin 2001: 178-179).

<sup>9</sup> This is particularly true since the Aztec referred to the hill as *Huixachtepetl* /witzach-tepetl/ ‘huizache-mountain’ in reference to a type of acacia (*Vachellia farnesiana* or *Acassia publensis*).



**Figure 9.** The Teopancazco warrior-priests conducting scattering rituals. Details of Mural 1: **a)** south wall and **b)** west wall, respectively (based on watercolours by Adela Breton). **c)** The Star Mountain toponym as a heraldic device adorning the vestments of the warrior-priests. **d)** Example of the “star war” verb in Maya writing in which the stream flowing from the halved star is marked with so-called “water stacks” (Glyph B8, Lintel 2, Temple IV, Tikal). The “weeping star” glyph adorning **e)** the Teopancazco warrior-priests and **f)** a polychromatic tripod vase from the Sub-Jaguar Tomb, Copan. **g)** Teotihuacan warrior-priest rendered in Mural 2 at Xelha, Quintana Roo. **h)** The Eye Mountain toponym as a heraldic device adorning the Xelha warrior-priest.



(Figure 9d-f). Linda Schele and David Freidel (1990: 130-164) were among the first to suggest that “star wars” refer to a type of warfare that was introduced to the Maya area from Teotihuacan during the Early Classic “*entrada*” (AD 378), which bolsters the comparison all the more. Also, among the Late Postclassic Aztec, we know of a long series of military insignia, among them the <*çitlalcoyutl*> or ‘star coyote’. This insignia was the device and insignia of brave warriors and consisted of a coyote battlesuit covered with nocturnal feathers of black and embellished with spots of white feathers, for stars (Sahagún 1997: 268, 275) (Figure 10). To this suit probably belonged the shield known as the <*çitlallo chimalli*> that likewise was “covered with crow feathers. On it are large stars of white feathers” (Sahagún 1997: 270) (Figure 10). These martial accoutrements are marked in precisely the same way as the star-studded *Çitlaltepec* of the *Codex Mendoza* (Berdan and Anawalt 1997: 29), with circular dots of white on a dark background, demonstrating the coherence of the figurative conventions for representing stars among the Aztec. What is all the more remarkable is that the <*çitlalcoyutl*> battlesuit may derive more or less directly from matching insignia and warrior order at Teotihuacan as seen at Teopancazco. Unfortunately, apart from the depiction and brief descriptions made in Sahagún’s *Primeros Memoriales*, we are not given added information as to the obligations of these warriors nor what the symbolism was tied to.

Returning to the murals from Teopancazco, what is all the more remarkable is that the tabard worn by the warrior-priests is clearly emblazoned with a Star Mountain toponym (Figure 9c). Considering this reference and the prominence given to star symbolism in the headdress and the attire of these figures one is left to wonder if their function was not specifically to officiate over rituals at Star Mountain. If this is the case then it attests not only to the importance of this ritual site, but also to the existence of a separate order of warrior-priests that was dedicated to this cult.

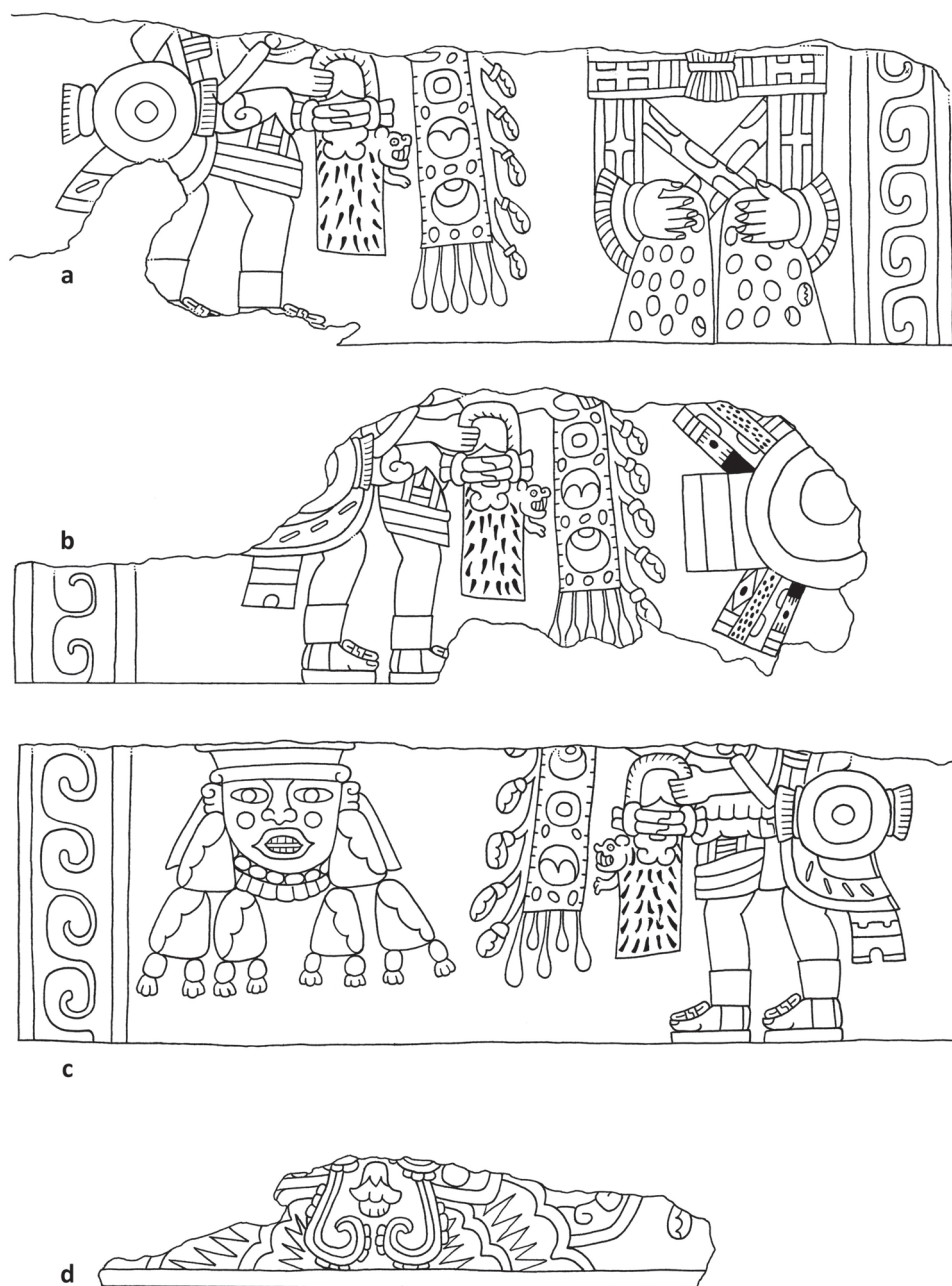
In this connection, it is worth commenting on the Teotihuacan-style mural discovered at the Maya site of Xelha in Quintana Roo. The mural in question provides a frontal depiction of a Teotihuacan butterfly warrior, brandishing a shield and an *atlatl* (Taube 1992: 74, Fig. 18b; Miller and Taube 1993: 49) (Figure 9g). The tabard worn by this figure is also marked laterally with mountain signs and here the qualifying sign is a set of human eyes (Figure 9h), tying it to the toponym documented in the murals of Tepantitla (see Figure 2c). As such this may be a depiction of another order of warrior-priests whose cult was centered on what we provisionally designate as Eye Mountain.

## Singing Mountain

The following toponym is found at Tetitla, where it adorns the walls of Patio 1. Based on extant murals, the iconographic programs of the symmetrical northern and southern structures appear to have shared a similar composition. The better-preserved of the set are the murals of Portico 1, the southern structure of this patio. These murals originally displayed a procession of four individuals facing onto the doorway, holding incense pouches and performing scattering rituals, the whole rendered in vivid colours (see Miller 1973: Figs. 229-239) (Figure 11). Distinctive water lily buds spill from the sides of the sown streams. In front of each of the sowing figures is a large glyphic collocation that may record the anthroponyms of the figures depicted (i.e. Murals 2 and 3; see Taube 2000: 23-25), as well as an “enclosure” sign that may record the verbal form of the action depicted (i.e. Mural 1; see Helmke and Nielsen 2011: 34, 44-46, 2013: 422-424) (Figure 11a). The same overall program appears to have originally decorated the murals of Portico 2 (the northern structure), although at present only that of the western wall subsists *in situ* (i.e. Mural 1) and a matching fragment is stored in the bodegas (Miller 1973: Fig. 241-243). At most, only half of the large glyphic collocation is preserved, but just enough remains of the distinctive water lily bud to indicate that similar sowing figures were once also represented (Figure 11d). At odds with Portico 1, however, those of Portico 2 appear to have been arranged so as to pace outwards from the central doorway.



**Figure 10.** Folio of the *Primeros Memoriales* showing the battle-suit known as the <çitlalcoyutl> (top) and the matching shield besides the caption <çitlallo chimalli> (bottom) (Sahagún 1993: Fol. 79v).



**Figure 11.** The scattering priests of Patio 1 at Tetitla. **a)** Priest facing an “enclosure” sign that refers to the action depicted (Mural 1, Portico 1). **b)** Individual before a shield and crossed “four element bands” (Mural 3, Portico 1). **c)** Scatterer whose qualifying glyph is a head adorned with nopal cacti (Mural 2, Portico 1). **d)** All that remains of this mural is the lower part of the glyphic sign and a small water lily bud from the sown stream (Mural 1, Portico 2; based on drawings by Felipe Dávalos as well as photographs by Arthur Miller and Leticia Staines).



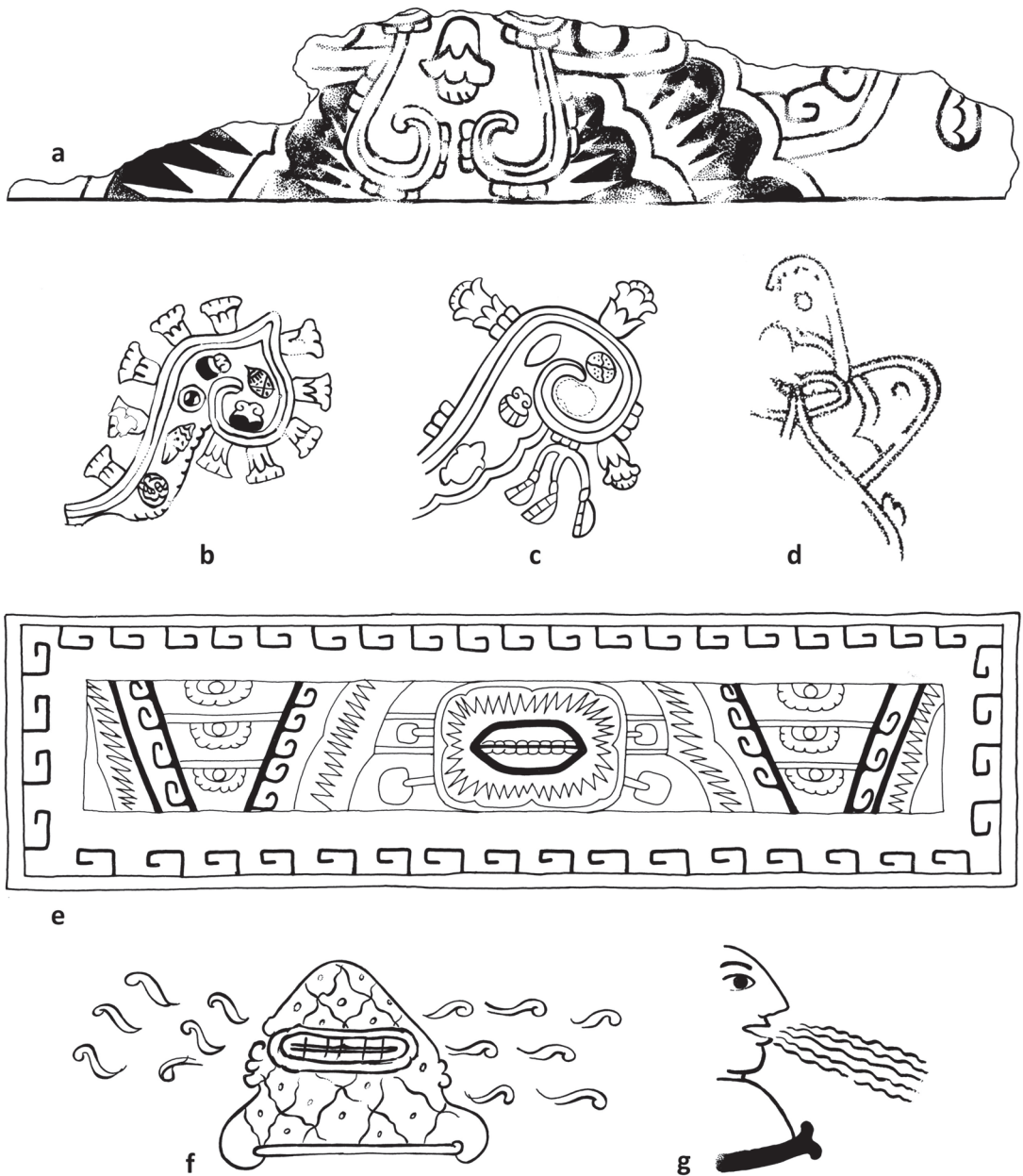
The glyphic compounds of Portico 2 depict examples of yet another mountain toponym. We surmise that these murals commemorate a noteworthy scattering event by recording the location where this ritual transpired. The glyphs of Patio 1 thereby testify to the variety of functions that these served, an otherwise overlooked feature. Albeit fragmentary, the murals depict a mountain range and from the summit of the central peak a series of large and beaded speech scrolls descend as they interlace a floral blossom<sup>10</sup> (Miller 1973: 124, Figs. 241-243; de la Fuente 1995b: 264, Fig. 19.5) (Figure 12a). The same exact flower is often shown outlining speech scrolls at Teotihuacan, especially within the murals of Techinantitla and Tepantitla (Figure 12b-c). As such the scrolls represent florid speech, a culturally-specific although well-known idiomatic expression also found among the later Aztec (Angulo 1995: 160; Houston and Taube 2000: 276-278). Eloquent interlocution and song were conceived as floral words, and the Nawatl difrasismo *in xoochitl in k'iiikatl* 'the song and the flower' was used as a reference to song and poetry (León Portilla 1963: 75). Thus, the Tetitla toponym may refer to a 'Singing Mountain'.

Interestingly, another reference to a 'singing' or 'talking' mountain, rendered in Teotihuacan writing, has been found at Chalcatzingo in Morelos. In one of the caves (Cave 19) in Cerro Delgado opposite from Cerro Chalcatzingo and the famous Olmec-style rock carvings, a number of paintings in clear Teotihuacan style have been found (see Apostolides 1987: 191-193, Fig. 12.44). Among these is a partly eroded tri-mountain sign with an open mouth with a speech scroll emanating from it (Figure 12d). What is particularly interesting is that the local population still recounts how the neighbouring Cerro Jantetelco is known, at times, to emit peculiar sounds, presumably due to winds being pressed through subterranean vents (Jorge Angulo, pers. comm. 2006) (Figure 8). As Gordon Brotherston points out, there are other toponyms that recall this combination, for example at Monte Albán where one of the conquest slabs of Structure J has been interpreted as a reference to *Cuicatlan* /k'iiika-tlaan/ 'where singing abounds' (Brotherston 1995: 123-124; Marcus and Flannery 1996: 198) (Figure 1b). In fact, the Dominican Friar Diego Durán referred to an important mountain shrine in the vicinity of Popocatepetl called *Teocuicani* /teoo-k'iiikaani/ 'divine-singer' "to which the entire country journeyed with its offerings, sacrifices, and prayers" (Durán 1971: 258). David Grove and Susan Gillespie, in a recent publication, convincingly argue that this is a reference to Cerro Jantetelco "because that mountain has a natural hole near its summit that whistles or 'sings' in the wind" (Grove and Gillespie 2009: 60). The presence of Teotihuacan writing and iconography at this remarkable group of sacred mountains may suggest that it served as a recurrent ritual pilgrimage site, perhaps akin to those performed at the Cerro de la Estrella mentioned above. The singing qualities attributed to the mountain could also suggest that it was deemed to function as an oracle (e.g. LaFarge 1947: 128-129, 162; Nash 1970: 19-25). The nature of Teotihuacan presence at Chalcatzingo remains to be investigated further, but a Teotihuacan-style ballcourt marker which was kept in the village of Chalcatzingo (which has now sadly disappeared) underline the strong interest held in this locality during the Early Classic (see Cook de Leonard 1967: Plate 8).

## Shouting Mountain

Another Teotihuacan toponym is found in the murals of the Zacuala patios (Murals 1-3 of Platform 5) (Séjourné 1959: 52, Figs. 33-34; Miller 1973: Fig. 227; de la Fuente 1995d: 319, Fig. 20.6). The murals in question adorn the *tablero* of Platform 5, an earlier structure that was partly razed

<sup>10</sup> This highly distinctive floral blossom is also depicted in the murals of Techinantitla. There shrubs bearing this flower are characterised by the so-called "yellow platform" and the "blue-green net-medallion" signs (see Figure 3a). In the same murals the colours of the flowers alternate between: green-blue-yellow and green-white-yellow with either sign, which contrasts to the pink-green-yellow coloration of the Tetitla examples.



**Figure 12.** Singing Mountain and Shouting Mountain. **a)** Detail of Mural 1, Portico 2, Tetitla. **b)** Speech scroll from Techinantitla exhibiting the same type of flowers as the Tetitla toponym (drawing by Saburo Sugiyama) and **c)** comparable speech scroll from Tepantitla (drawing by Felipe Dávalos). **d)** Tri-mountain with speech scrolls painted within Cave 19 at Chalcatzingo (after Apostolides 1987: Fig. 12.44). **e)** Restitution drawing of Mural 1, Platform 5, Zacuala patios (after a de la Fuente 1995d: Fig. 20.6). **f)** <Catcitechpetli> depicted on fol. 10 of the *Codex Vaticanus 3738* (*Codex Rios*). **g)** A proclaiming mountain in *Codex Baranda* (*Mitepec Roll*).

and dismantled during the construction of the superimposed and later Platform 3. The mural adorns both the inset panel and the moulding frame of the typical *tablero*. This place name shares some features with the Singing Mountain just explored, but the differences are sufficient to suggest that we are dealing with another toponym. In this instance the moulding is accentuated with a frame of cloud scrolls and the inset panel shows parts of three mountain signs (Figure 12e). Only the central of three mountains is visible, but each is further surrounded by diagonal bands symbolising clouds. Intervening between each mountain sign are the secondary attributes of the landscape: parallel horizontal bands marked with stylised eyes, apparently denoting a flowing and lustrous body of water. The proper qualifying elements of the mountain include a cave sign, infixed into which is a human mouth that emits four lines ending in circular elements. Previous interpretations have taken these four emanations as alternate representations of stylised speech (e.g. de la Fuente 1995d: 319). However, considering the consistency and widespread use of speech scrolls in central Mexican iconography, and that of Teotihuacan in particular, it seems that the mouth is deliberately marked off with another qualifier. The pairing of cave and mouth sign within the middle of the mountain undoubtedly provides the crux of the toponym, and suggests that we are looking at a cavernous feature within a mountain that emits sputtering shouts.

This identification calls to mind the *Tzatzitepetl* /tza'tzi-tepee-tl/ 'shout-mountain' of the ethnohistoric literature. In the *calepino* of Sahagún *Tzatzitepetl* is translated as the 'Cerro del pregón' he relates that "ay una sierra que se llama, *tzatzitepetl*, hasta agora assi se nombra: en donde pregonava, un pregonero, para llamar a los pueblos apartados: los quales distan, mas de cien leguas, que se nombre Anaoac, y desde alla oyan, y entendian el pregon" [Lib. 3, fol. 9, p. 210v] (Máynez 2002: 329). As such we can see that the ethnohistoric *Tzatzitepec* (translated by some as 'the hill of proclamation') is a place where orations and proclamations are made, but it remains unspecified whether sonorous caves indeed form part of the complex.

The persistence of highly similar toponyms are attested in the *Codex Vaticanus 3738* (*Codex Rios*) where we find a reference on Folio 8r to a certain <*Catcitatepli*>, represented as a mountain marked by an open mouth, teeth clearly visible, from which issues a stream of speech and glossed in the accompanying Italian text as *Montagnetta che parla* 'hillock that speaks' (Figure 12f). In his treatment of this toponym Gordon Brotherston transcribes the term in question as *Tzatzitepec* /tza'tzi-tepee-k/ 'shout-mountain-place', and places this in Tzoncolihcan (modern Zongolica) on the route from Tula to Cholula (Brotherston 1995: 123-124). Similarly, in the much later *Codex Baranda* (*Miltepec Roll*) a personified mountain toponym, is depicted in the act of proclamation, amidst a whole landscape of mountain signs (Brotherston 1995: 80, 208, table 5b) (Figure 12g).

As has been brought to our attention by Annabeth Headrick (pers. comm. 2010), Teotihuacan's Cerro Gordo may be the Shouting Mountain that we have identified in the murals of Zacuala. Cerro Gordo is the extinct volcano, with a cleft at its summit, that dominates the landscape of Teotihuacan, and in large measure, shaped the architectural configuration and urban planning of the metropolis (Torbiner 1972: 103-105; Taube 1986: 52; Headrick 2007: 1-4, 30) (Figure 8). To this we should add the observations of Corregidor Francisco de Castañeda who in 1580 described a gorge or cave (termed a "quebrada" in the original) on the eastern slope of the Cerro Gordo and the sounds made by gurgling of water within (Nuttall 1926: 76). Stephen Torbiner (1972: 111-112) also reported on the discovery of a vertical vent emitting air and the noise of water travelling in the phreatic system within this massive mountain. Based on these features the Cerro Gordo is an excellent match for the Shouting Mountain recorded at the Zacuala patios. For one it exhibits a cavernous feature that issues gusts of air and sounds. For another the toponyms are depicted with flowing water that may correspond to the phreatic system within, or even the springs that were known to exist near the cathedral of San Juan Teotihuacan. Although it is apparent that it is the physiographic particularities of the mountain that gave it its name, James Brady (pers. comm. 2011) reminded us that certain caves also serve as important oracular

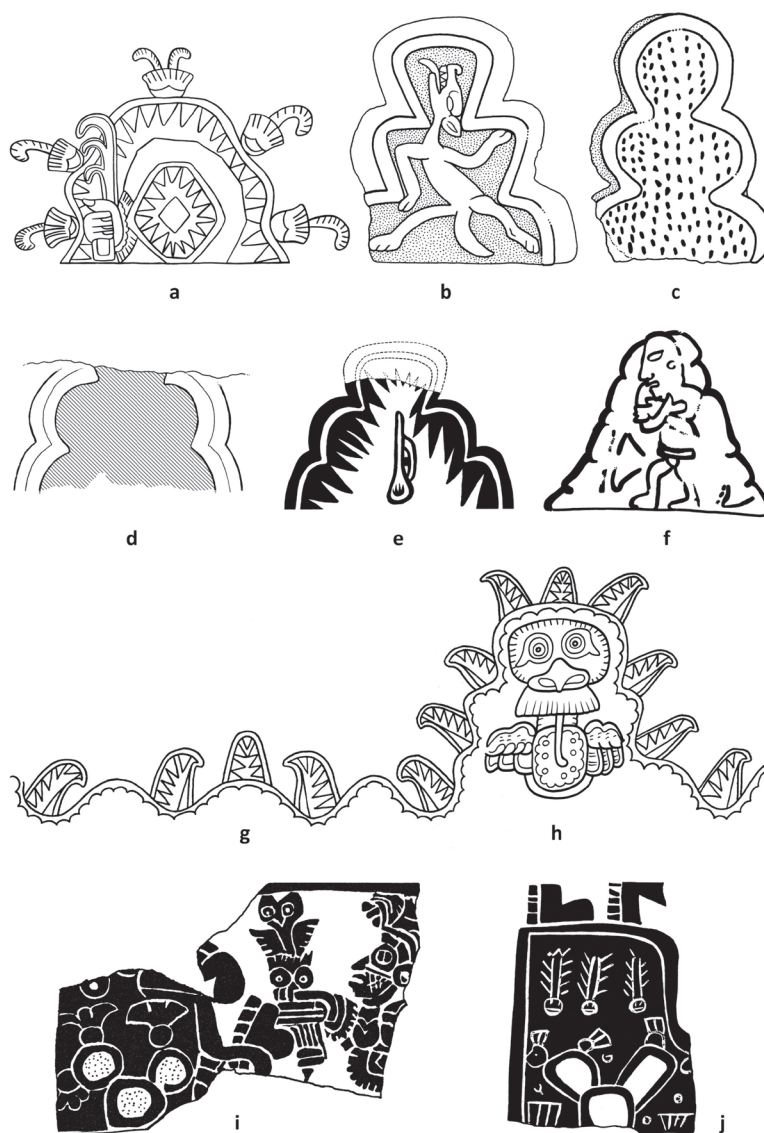
sites, especially at key stations in the ritual calendar (e.g. LaFarge 1947: 128-129, 162). As such it is plausible that the Cerro Gordo served as a place of prophesy and proclamation, perhaps even surviving as the template for the *Tzatzitepetl* known from the ethnohistoric literature.

## OTHER MOUNTAIN TOPONYMS: PRELIMINARY COMMENTS

Of the remaining toponyms, a few have already been the topic of foregoing research (e.g. Angulo 1972: 50-51, 63, 1996: 74, 82-89, 2008: 188-190; von Winning 1987: 2: 43-44; Taube 2000: 7-10, 51; Nielsen 2006: 4; Nielsen and Helmke 2008), but the majority have as yet to be satisfactorily interpreted or matched up to extant toponyms (Figure 13). The scope of this paper does not allow us to address each of the toponyms that we have identified. Thus, although many of the toponyms have to remain within the purview of future research, we nevertheless present some preliminary comments below.

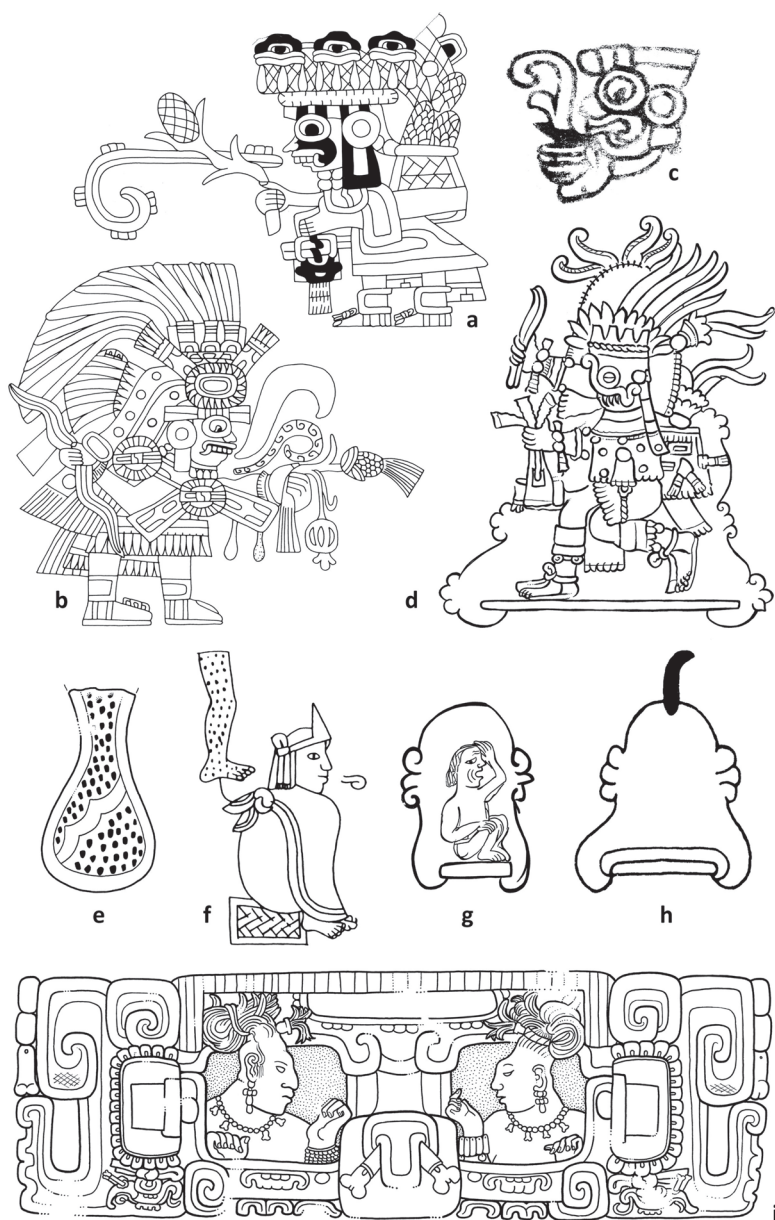
The first of these is rendered in the murals of the Atetelco compound. The murals in question adorn the portico of the southern structure (Portico 1) of the so-called White Patio (Miller 1973: Fig. 335; Cabrera 1995b: 207, Fig. 18.3) (Figure 13a). Repeated nine times within the frame of the murals, the toponym of interest has been described by Rubén Cabrera (1995b: 207) as resembling a mountain whose silhouette is marked by five additional stylised tufts of *malinalli* grass (see also Millon 1988b: 215). The qualifier is, unusually, affixed laterally to the mountain sign and represents a disembodied human hand that grasps an element that has been identified as a frond, or a part of plant (see Langley 2002: 301). This motif is known from other murals at Teotihuacan, notably those of Zacuala (Mural 3, Portico 3) (Figure 14a), Amanalco (Muro Norte, Personaje 2) (Figure 14b), as well as two unprovenanced murals housed in the Denver Museum of Art and the Musées Royaux d'Art et d'Histoire in Brussels (see Paulinyi 2009: 172-177). Furthermore, a glyphic example is also known from the Conjunto de los Glifos at La Ventilla (see Cabrera Castro 1996: 403; Nielsen and Helmke 2011: 362) (Figure 14c) as is an example rendered on an incised mirror back, now in the Cleveland Museum of Art (Berrin and Pasztory 1993: 274, Fig. 180). The Amanalco murals depict a Storm god clutching a maize stalk in one hand and brandishing a sinuous lightning bolt in the other, as a series of turbulent cloud-like speech scrolls emanate from his mouth. The Zacuala examples show the Storm god holding an incense pouch in one hand and a maize stalk in the other. He is also shown carrying a harvesting bin that is filled to the brim with maize cobs. The Denver and Brussels murals depict a figure that has been described as a mountain deity, brandishing fronds and appearing to emerge from a stylised mountain range (see Paulinyi 2009: 181-184). Although the identity of this apparent mountain divinity remains obscure, the repeated pairing of fronds with the Storm god in both iconography and writing suggests to us that the qualifier of the Atetelco toponym refers to a particular aspect of the Storm god. As such the Atetelco toponym could name a mountain that is tied to the Storm god, and thus could well relate to the peak known as Mount Tlaloc, or *Tlalocatepetl* /*tlalok-kaan-tepetl*<sup>11</sup> 'Tlalok-place-mountain' in the Sierra Occidental (Wicke and Horcasitas 1957; Townsend 1991; Iwaniszewski 1994) (Figure 14d). This mountain, located some 34 km south-southeast of Teotihuacan, was an important pilgrimage site for the Aztec, especially its summit where the remains of a sanctuary have been found (Figure 8). Ethnohistorical sources relate that a single important annual ritual was celebrated on the summit of the mountain at the beginning of May, coinciding "with the time of maize sprouting prior to the onset of the rainy season" (Iwaniszewski 1994: 160). The association of *Tlalok* with mountain shrines and the pairing of the theonym with mountain toponyms is significant since it closely compares to the Teotihuacan examples. The explicit connection between the rituals conducted

<sup>11</sup> An alternate analysis of this toponym is /*tlalok-kaa-tepetl* / '*Tlalok-participial-mountain*'.



**Figure 13.** Other mountain toponyms documented in the Teotihuacan corpus. **a)** Storm god Mountain (?), detail of Murals 1-2, Patio Blanco, Portico 1, Atetelco (drawing by Agustín Villagra). **b)** Coyote Mountain, unprovenanced ceramic adorno, American Museum of Natural History, New York (accession number: 30.2/8834). **c)** Blood / Red Mountain as *adorno* from the Cuidadela (based on a photo by Saburo Sugiyama). **d)** Blood / Red Mountain, West Wall, West Room, Sector 2, La Ventilla. Note that the diagonal hatching represents red pigment (based on a photo by María Elena Ruiz Gallut). **e)** Rain Mountain (after Miller 1973: Fig. 215). **f)** Ancestor Mountain, Mural 6, Patio 2, Tepantitla. **g)** Sierra de las Navajas, and **h)** Spearthrower Owl Mountain, Murals 2-3, Portico 1, Patio 3, Atetelco (based on a drawing by Francisco Villaseñor based on a drawing by Karl Taube). **i)** Cerro del Nopal, sherds of a vessel from Azcapotzalco (after von Winning 1987: Vol. 2: Fig. 3b) and **j)** the same toponym on a sherd found at Santiago Ahuizotla (after von Winning 1987: Vol. 2: Figs. 3c).





**Figure 14.** **a)** Detail of Mural 3, Portico 3, Zacuala (after a drawing by Laurette Séjourné). **b)** Detail of the mural adorning the North Wall of Amanalco (drawing by Saburo Sugiyama). **c)** Glyph no. 1, Conjunto de los Glifos, La Ventilla. **d)** *Tlalok* amidst the Sierra Occidental with Popocatepetl in the background in reference to Mount Tlaloc, fol. 20r *Codex Vaticanus 3738* (*Codex Rios*). **e)** Fragmentary *adorno* depicting a drop of blood marked with punctations in the Hasso von Winning collection (Lot 1019). **f)** The Aztec ruler *Tizoc* as depicted and named on fol. 12r in the *Codex Mendoza* (drawings from the *Mendoza* by Jean Cucker Sells). **g)** *Huehuetepetl*, fol. 26r in the *Codex Telleriano-Remensis*. **h)** *Yiztepec*, fol. 23r in the *Codex Mendoza*. **i)** Backing of Throne 1, Piedras Negras.



at Mount Tlaloc and the cultivation of maize is even more enticing since the Atetelco toponym clearly depicts the main characteristic of the Storm god in its capacity as a harvest deity. The analogies drawn from Mount Tlaloc are certainly revealing and we suspect that the Atetelco toponym refers to precisely such a place.

Another toponym is presented on a moulded ceramic *adorno* for a theatre-style censer, now in the collections of the American Museum of Natural History in New York (Figure 13b). It represents a perfect example of a mountain sign that has as its qualifier a coyote that is sprawled within the scalloped frame, with head raised as though howling. The curved and pointed tongue of the canine is distinctive of Teotihuacan representations, particularly of the Techinantitla murals (e.g. Millon 1988a: Figs. V.2 and V.11). This pairing of signs is highly productive, considering the many toponyms involving a term for this wild canine throughout Mesoamerica. Significantly, on the western shores of Lago Zumpango, immediately to the southwest of *San Juan Zitlaltepec*, is the settlement of *Coyotepec* /koyoo-tepee-k/ ‘coyote-mountain-place’, located circa 39 km west-northwest of Teotihuacan (Figure 8). Whereas *San Juan Zitlaltepec* takes its name from the mountain to the north, *Coyotepec* appears to have as its namesake a prominent peak to the west, within the Sierra de Tepotztlan. Alternatively one could read the ceramic *adorno* as cueing *Coyuacan* ~ *Coyoacan* /koyoo-wa’-kaan/ ‘coyote-possessive-place’ (see Berdan and Anawalt 1992: 181), the well-known Tepanec settlement outside of Tenochtitlan, now integrated into greater Mexico City (Figure 8).

Four separate ceramic *adornos* recovered from excavations of the north palace of the Ciudadela, represent yet another toponym (Múnera and Sugiyama 2000: Fig. PN 14-5) (Figure 13c). The main qualifier of the sign is a series of punctations that have been evenly applied across the whole surface. At first sight, these punctations would not seem to be a sufficient indication for resolving the identity of this toponym. It is noteworthy, however, that traces of red pigmentation still adhere to these *adornos* (Múnera and Sugiyama 2000: 124) and the prevalent symbolic connection between this colour and blood may not be amiss. Indeed, other fragmentary *adornos*, representing stylised drops of blood, are equally marked with identical series of punctations (e.g. Múnera and Sugiyama 2000: Foto 1911) (Figure 14e). The convention is also found among the Aztec, where it serves as the body marking for priests and captives that have undergone bloodletting (e.g. Berdan and Anawalt 1997: 129-131; see also Nehammer Knub 2010). In the context of writing, the same short dashes mark off a human leg that has been bled as part of auto-sacrificial rites, prompting the regnal name *Tizoc* ~ *Tizozic*, a name that although problematic in its analysis is usually translated as ‘the bled one’ (see Nicholson 1973: 7; Berdan and Anawalt 1992: 235; Quiñones Keber 1995: 315; Whittaker 2009, 2010) (Figure 14f). The use of punctations and the red pigmentation suggests that these *adornos* may record the toponym ‘Blood Mountain’, or simply ‘Red Mountain’. Supporting this proposal are the eleven examples of mountain toponyms rendered in the western room of the Conjunto Jaguares at La Ventilla (Padilla Rodríguez and Ruiz Zúñiga 1995: 185) (Figure 13d). There the uppermost portions of the signs were evenly cut during the dismantling of the structures in antiquity, but it is clear that the only qualifying element of the mountain signs is the red pigmentation that completely fills the interior of the scalloped frames. We surmise that the *adornos* and the murals of La Ventilla represent the same toponym, and that the distinct media account for their graphic differentiations. If this is the case then the toponym *Tlatlauhtepec* /tlatlaawki-tepe-k/ ‘vermillion-mountain-place’ may provide an incarnation of essentially the same place name (Berdan and Anawalt 1992: 219). Then again, the Teotihuacan toponym also resonates with the mythical *Tlapallan* /tlapal-laan/ ‘red-place’, and as such may be an early reference to the place to which Ce Acatl Topiltzin Quetzalcoatl, the legendary ruler of Tollan, fled to (Sahagún 1978: 35-38).

In the murals of the patio of Zacuala is one more toponym (Corridor 1, Mural 1) (Miller 1973: Figs. 214-215; de la Fuente 1995d: 313). Here a series of mountain signs each carry as their qualifying element a single rain drop (Figure 13e). While we have seen various toponymic landscapes that include

rain drops as additional attributives, considering that the rain drops of this particular mural are squarely infixed into the mountain sign, there can be little doubt that these are indeed the qualifying elements. As such the place name can be interpreted as 'Rain Mountain' and finds close parallels among later Aztec toponyms, including *Chiconquiahco* //chikoom-kiyaw-ko// 'seven-rain-place', which also uses conventionalised rain drops as its qualifier (Berdan and Anawalt 1992: 177). Nevertheless, few closely matching toponyms can be identified that include the segment *kiyaw* 'rain', with the notable exceptions of *Quiahuitepec* /kiyaw-tepee-k/ 'rain-mountain-place' in Guerrero, and *Quiahuiztlan* /kiyaw-s-tlaan/ 'where there will be an abundance of rain', the *aaltepeetl* of Tlaxcala and the archaeological site in northern Veracruz (Figure 8).

As first pointed out by Jorge Angulo (1972: 50-51, 63), one of the toponyms of Tepantitla includes a mountain sign, topped by a florid tree (Figure 13f). The main qualifier to this sign is human figure, apparently bald, partly hunched, with arms folded, and accompanied by traces of what may be three footprints. Once compared to the manner in which toponyms are recorded among the Aztec, graphically the best match is with places named *Huehuetepic* /wewee-tepee-k/, or 'Ancestor Mountain' (Berdan and Anawalt 1992: 188; Quiñones Keber 1995: 55, 297) (Figure 14g; see also Figure 1e). If this is indeed the meaning of this toponym then it finds correspondence with the pan-Mesoamerican notion that ancestors reside in a cavernous underworld within the hollows of mountains (e.g. LaFarge 1947: 59; Nash 1970: 19-25; Stuart and Vogt 2005: 157, 172, 178; Nielsen and Brady 2006: 208-210). Among the Classic Maya wonderful sculptures are known from the archaeological sites of Piedras Negras (Throne 1) and El Peru (Stela 39), both in present-day Guatemala, in which ancestors peer out of the orbital cavities of a skeletal mountain (Stuart 1997: 17) (Figure 14i). Although alternatives exist to the reading of the Tepantitla toponym, it is enticing to think that it might record the name of the supernatural place where ancestors reside.

Jorge Angulo (2008: 188-190) has also recently suggested that the row of repeated mountain signs with obsidian blades seen in the murals of the northern patio of Atetelco (Murals 2 and 3, Portico 1, Patio 3) (Figure 13g) could function as a specific reference to the *Sierra de las Navajas*, some 50 km to the north of Teotihuacan (Figure 8). This mountain range is rich in obsidian and is the source of the diagnostic Pachuca green obsidian, upon which the cutting edge of Teotihuacan's economy literally depended (see Taube 1991: 64-65; De Leon *et al.* 2009; Pastrana 2009). Among the Aztec one of the prominent peaks within this range was named *Ytzepec* /itz-tepee-k/ 'obsidian-mountain-place'. Nowadays the same peak is known as the *Cerro de las Navajas*. The neat correspondence between the modern and pre-Columbian names demonstrates the principle of toponymic calquing and offers some assuagement that at least some Spanish toponyms preserve the original meaning of place names. Furthermore, the mountain range represented in the murals of Teotihuacan perfectly compares with the Aztec toponym, since it too was written with a curved obsidian blade atop a mountain sign (Figure 14h). The astonishing Teotihuacan-style murals recently discovered at the site of El Rosario in Querétaro (located some 140 km northwest of Teotihuacan) also represent mountainous landscapes that are dominated by large obsidian blades and these too have been taken to be references to the *Sierra de las Navajas* (Viramontes and Fenoglio 2010). In the Atetelco murals, one of the peaks within this range bears additional qualifying signs, including an owl and a spearthrower (Figure 13h). In previous research on this particular toponym we have thus suggested the reading 'Spearthrower Owl Mountain' (Nielsen and Helmke 2008: 461-465). Since this toponym is depicted as an integral part of the mountain range, we now wonder if Spearthrower Owl Mountain does not designate a peak somewhere within the *Sierra de las Navajas*.<sup>12</sup>

<sup>12</sup> Notwithstanding, we should also consider the possibility that the obsidian blades provide a secondary attribute of the toponymic scene, on par with the many agave and cacti that adorn the wavy peaks, perhaps to indicate a more general essence of the environment, as arid, rugged and sharp topography (Nielsen and Helmke 2008: 473, n. 3).

The last toponym that we would like to explore brings us even closer to home. Identified by Hasso von Winning (1987: 2: 43-44) as *Cerro del Nopal* it depicts a mountain sign, which is qualified by a nopal or prickly pear cactus bearing fruits (Figure 13i-j). Although one side of the mountain sign exhibits the typical polylobate or stepped outline, the other is entirely vertical, as if cut. We suspect that this refers to a particular Nopal Mountain that is known for its very tall and steep cliff on one of its flanks. Although toponyms that make reference to this cactus are widespread in Mexico, the best match for this place name is the village formerly known in full as *Santa María de la Asunción Nopaltepec* /no'pal-tepee-k/ 'nopal-mountain-place', which is located only 17 km to the northeast of Teotihuacan (Figure 8). Present-day Nopaltepec is situated on a mainly flat plateau with small elevations, but a hill (approx. 130 m high), located circa 5 km southeast of the settlement, has the distinction of being a breached volcanic crater with a steep southern face. Could this be the actual hill upon which the Teotihuacan toponym is based? Interestingly the two clear examples we have of this toponym in the corpus of Teotihuacan are depicted on post-slipped incised sherds and both depict what may be a warrior, identified by the spearthrower that he brandishes, as he ascends to the summit of this mountain. Similar arrival events in Mesoamerican texts and imagery often times convey euphemistic remembrances of conquest events (e.g. Stuart 2000, 2005). As such the known scenes might very well commemorate the conquest of this site at the hands of Teotihuacan warriors.

## CONCLUSION

Having thus reviewed the corpus of Teotihuacan for examples of the proper names of localities, we can see that there is ample evidence to suggest that many toponyms are indeed recorded and that many refer to named mountains. In large part, the toponymic constructions recorded in the writing of Teotihuacan are wholly comparable to the later script practices of Highland central Mexico. This suggests that the later writing systems do find, at least in part, their origins in Teotihuacan culture. Since Teotihuacan writing has not succumbed to phonetic decipherment we cannot read the Teotihuacan toponyms in the intended language, the language in which they were recorded. However, based on the identification of the qualifying elements, we have attempted to approximate their meaning as best as possible. The semantic equivalencies that we have been able to establish between the place names documented at Teotihuacan and the Nawatl toponyms, known to us from ethnohistoric documents and modern toponymy, attest to their great continuity and resilience over the better part of a millennium. Intriguingly it also seems clear that the principles of toponymic onomastics at play at Teotihuacan are wholly comparable to these found among the later cultures of central Mexico, suggesting that such shared cultural features are the legacy of a deeply-rooted past. Based on these correspondences we have – to greater or lesser degrees – been able to suggest which locations may have been specified in the texts. Using these findings we can ascertain that, for the most part, the toponyms cited at Teotihuacan record the names of localities that were either in relative vicinity of the site or that show ample evidence of Teotihuacan presence and utilisation. As part of this study we have found that the toponyms of Teotihuacan record both important mythological places as well as earthly locations that figured prominently as the setting of key historical events, rituals and pilgrimages, and in so doing have begun to reveal the importance of mountains in Teotihuacano world-view and ritual. The boundary is sometimes blurred since certain toponyms appear as worldly locations that emulate supernatural ones. We have been able to point out some exceptional examples of toponymic calquing, although more research is required to clarify the extent and mechanisms of this intriguing process in Mesoamerica. In addition, whereas we can posit that some of the most important toponyms were calqued from Nawatl into Spanish, it still remains unclear if this process duplicates an earlier phase of cultural contacts. The research presented here has several important ramifications, both in terms of

deepening our awareness of representational practices and graphic conventions at Teotihuacan, but also as it pertains to expanding our understanding of the writing system of this great metropolis. As such we hope that this piece of research can stimulate future efforts, until the glyphs of Teotihuacan can be read once more.

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