

Foreigners at Teotihuacan:  
Tracing Multiethnicity Through the Rise and Fall of the City

An Honors Thesis for the Department of Archaeology

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## Introduction

The ancient site of Teotihuacan is located approximately 48 km northeast of modern Mexico City in the Basin of Mexico. At its height during the Mesoamerican Classic, Teotihuacan was a spectacular metropolis of magnificent scale. The city emerged and grew to a size of nearly 200,000 people and a surface area of 83 km<sup>2</sup> at an extraordinary rate. First established around 100 BCE, the city expanded rapidly and flourished for centuries. Yet, around 550 CE the city's monuments were destroyed and by the 8th century CE, its collapse was complete and much of its population disappeared. Although parts of the city were continuously occupied by limited numbers of people (squatters), the site was really rediscovered one thousand years later by the Aztecs. The Aztecs were fascinated by the remains of the grandiose pyramids and monumental avenue of a lost culture, and named the site Teotihuacan "City of the Gods", and its major street the Avenue of the Dead, assuming the monuments were tombs. Still today, archaeologists are asking, who were the Teotihuacanos? The site has proven to be remarkably enigmatic. Due in part to a lack of clear depictions of rulers, as commonly seen in complex societies, the political structure of the Teotihuacan state is unclear. Extensive looting of the monuments has left potential royal or elite burials unidentifiable, and leaves the political system frustratingly shrouded in mystery. The effectiveness of the state's power, however it was organized, in the developmental stages of the city, is clearly evidenced by the scale of urban planning and monumental construction. Teotihuacan most likely had a strong centralized government, headed by a ruler with command of the military. While various other political systems have been proposed, they rely heavily on speculation and will require further studies and more evidence to gain credibility.

The rest of the population was seen as a collective unit of relatively equal status. Differences in wealth are seen most clearly in the very private contexts of family burials under apartment floors. Differentiation of wealth and status was greater within the apartment compound than between them, indicating social stratification on the level of lineages and individuals within families of an apartment compound. During Teotihuacan's rise and development, status was tied to ancestry and society was not dramatically stratified— the result of the state's efforts to neutralize displays of wealth. The standardization of apartment compounds and the exterior compound walls separated the public and private spheres, keeping the domestic hidden and serving the state's goal of equalizing the exhibition of wealth. This apparent lack of social stratification, however, would change as the state became decentralized, compounds specialized crafting activities, and merchants began accumulating wealth. The rise of this merchant class redefined status and established divisions of classes, causing tensions in the city that ultimately contributed to the collapse of Teotihuacan.

#### Scholarship

The presence of foreigners at Teotihuacan is a relatively new concept. Until René Millon's Teotihuacan Mapping Project, begun in 1962 and published in 1973, the full extent of the city, of more than 10 square miles, wasn't known. Excavations and knowledge of the site were restricted to the ceremonial center and the pyramids venerated by the Aztecs more than a millennium after the rise of the city. It wasn't until 1961 that the first apartment compounds were fully excavated. Originally thought to be almost exclusively a pilgrimage destination, due to the apparent lack of residences, our impressions of Teotihuacan have been highly dynamic. With the discovery of more than 2,000 multi-family residential structures, known as apartment compounds, a new area of archaeology was initiated at the site; the focus of archaeological

investigations has shifted to the realm of the household. Attempts to understand how the ruling body was organized shifted to understanding how society was organized and how the population lived. Excavations have been conducted on a limited number of apartment compounds and new methods of analysis have resulted in discoveries regarding the internal organization of the apartment compound. Studies of mortuary materials and skeletal remains have come to the forefront. Stable-isotope and DNA analyses of bone and tooth enamel have given geographic identities to many of the individuals buried at Teotihuacan, surprising archaeologists with the amount of migration in and out of Teotihuacan. Much of our perspective of the character of Teotihuacan's population must be reevaluated in light of these new discoveries.

The multiethnic nature of Teotihuacan, which until recently was believed to be minimal, is now paramount in Teotihuacan studies. It is important to recognize that our knowledge of foreigners at Teotihuacan is limited to those we can trace through cultural materials and skeletal analysis. These samples represent only individuals with strong ties to and/or recent migration from their homeland. Many foreigners, however, would have been more thoroughly assimilated into the populations and would have virtually disappeared from the archaeological record. Foreigners were undoubtedly more prevalent at Teotihuacan

René Millon and George Cowgill have written most extensively about Teotihuacan and provide the foundation for most subsequent studies. In addition to Millon and numerous works, I engage primarily with the new evidence and discussions provided by Linda Manzanilla, Esther Pasztory, Saburo Sugiyama, Christine White, Patricia Plunket and Gabriela Uruñuela, among many others.

## Contribution

With this project, I attempt to combine the most recent ecological dating and DNA and isotopic studies to create a more comprehensive picture of foreigners living in Teotihuacan. I reconstruct an approximate timeline of their arrival and construction activities at Teotihuacan to demonstrate the profound impact foreigners had on the development of Teotihuacan's ideology, architecture, economy, and society.

First, I look at how the arrival of immigrants to Teotihuacan spurred the city's growth and shaped the ideological program of the state and the socioeconomic organization of society. I examine the volcanic eruptions of Popocatepetl and Xitle that initiated the earliest mass movements of refugees, and then shift to the beginning of monumental construction along the Avenue of the Dead, which was part of an effort by the state to consolidate the Basin's population in the city. My survey focuses on the Sun and Moon Pyramids and the Ciudadela and Feathered Serpent Pyramid to demonstrate the architectural and symbolic program used by the state to attract migrants and to keep its population happy. The Feathered Serpent Pyramid, in particular, includes a mortuary program of over 200 sacrificial burials, many of which were foreigners or had spent significant periods outside of Teotihuacan. Following the erection of these monumental structures, building at the city reflects a shift of attention from the public to the domestic spheres with the construction of the apartment compounds designed to house this huge population. I choose two specific apartments— Tlajinga 33 and Teopancazco— to study more closely because they represent foreign neighborhoods in different areas of the city, but also demonstrate different internal organizations. A key feature of the apartment compound structure is the role of crafting, so I look at these foreign compounds and their economic activities to show the rise of merchants and an intermediary class. This new merchant class and the increasing

economic disparity in the city is ultimately a factor in the instability of the state and society. In response to an effort by the state to reassert its power, the population revolted, resulting in the burning and vandalism of the elite center of the site and marking the beginning of Teotihuacan's collapse.



Figure 0.1 View of the Avenue of the Dead, looking south from the Moon Pyramid.

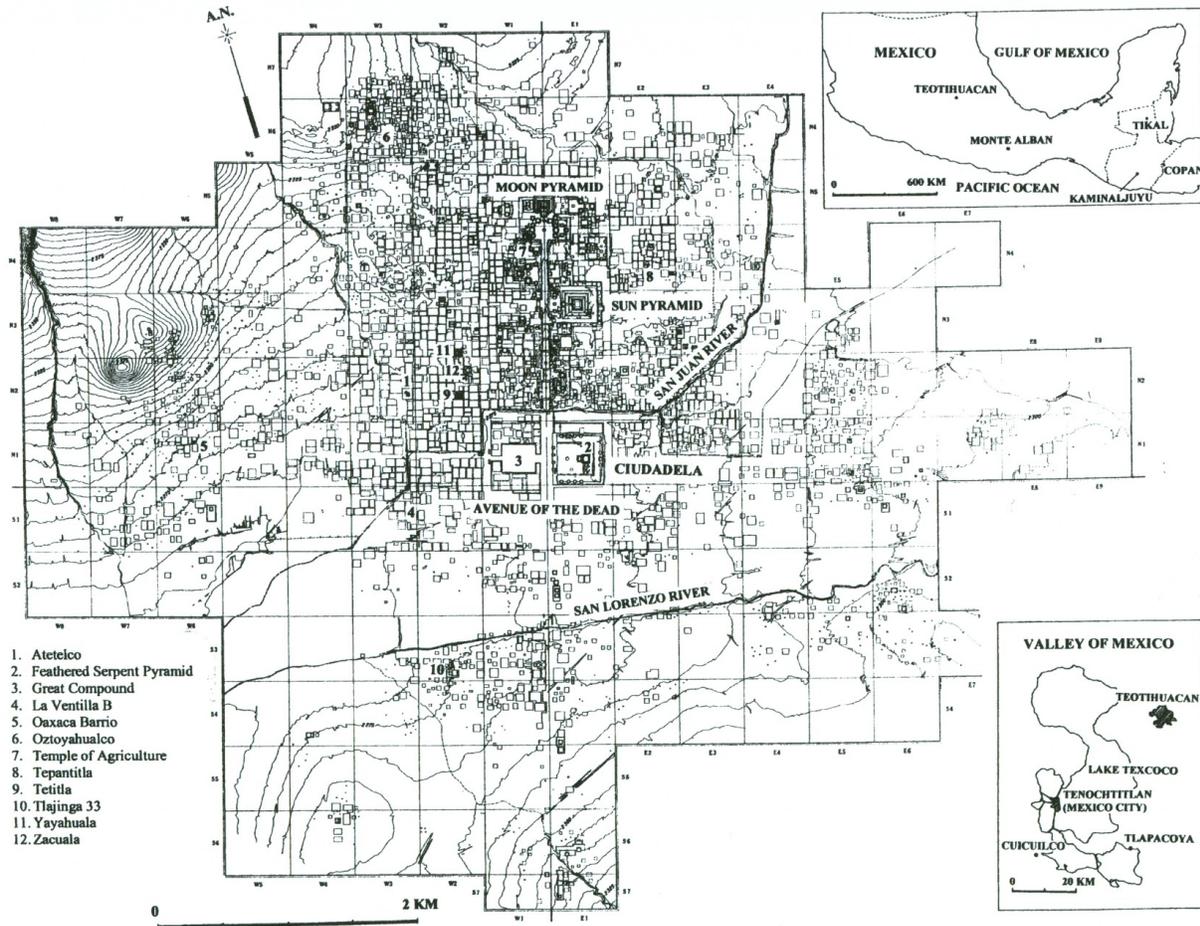


Figure 0.2 Modified Millon Map. From Sugiyama 2005.

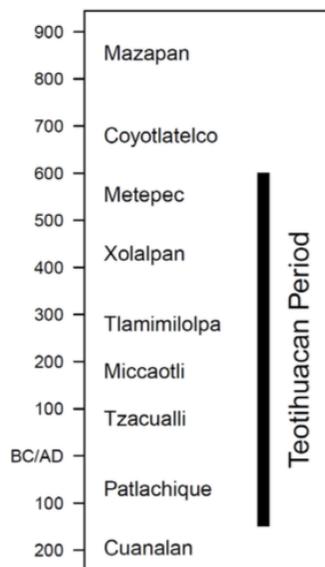


Figure 0.3 Teotihuacan Chronology of Ceramic Phases. From Cabrera Cortés 2011.

## Volcanic Activity

It appears that the rise of Teotihuacan was the result of an intriguing combination of natural occurrences and planned development. The relationship of these elements is gradually being revealed as new evidence allows us to better understand both the ecological processes in the Basin of Mexico at the time and the nature of the state at early Teotihuacan. A significant factor in the shaping of the Basin of Mexico was volcanic activity, particularly the eruptions of two volcanoes: Popocatépetl (1st century CE) and Xitle (3rd century CE). Archaeologists have struggled to understand the rise of Teotihuacan in the context of these natural disasters, but uncertainty surrounding the date of the eruptions and the sequence of events impacting the inhabitants of the Basin has complicated interpretations.

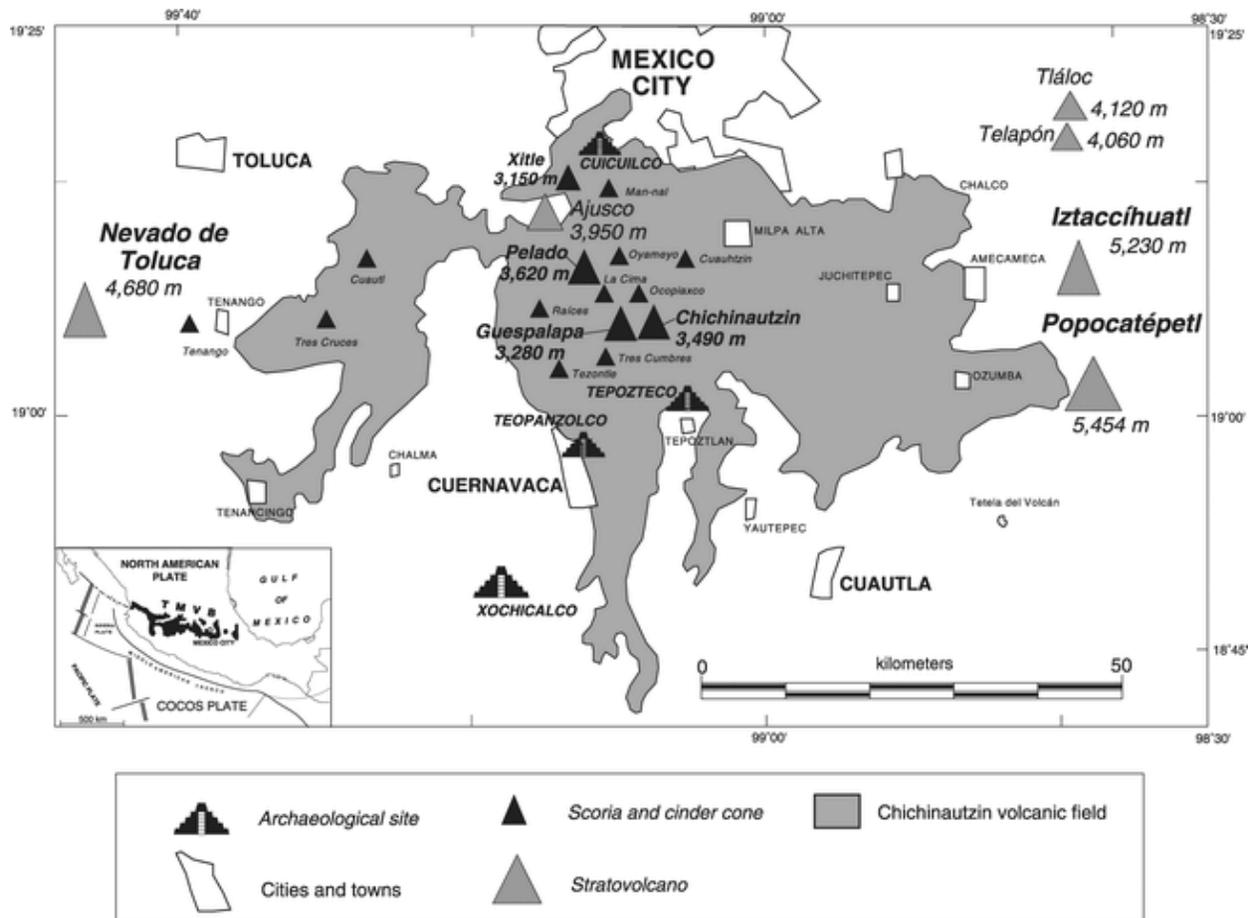


Figure 1.1 Map showing the location of Popocatépetl and Xitle. From Siebe et al. 2006.

## Popocatépetl

In the first century CE, the city of Teotihuacan experienced a dramatic increase in population, while the surrounding rural areas were abandoned. Opinions are divided over the reason for such a large-scale movement of people. Until recently it was generally believed that the state of Teotihuacan actively coerced the population of the Basin of Mexico to move to the city as a means of control and exerting dominance. However, it has been argued that the eruption of the Xitle volcano was the primary cause for the relocation of people to Teotihuacan (Plunket and Uruñuela 2006, 19). The two hypotheses are not mutually exclusive and, in combination with numerous other factors, both certainly contributed to the growth of Teotihuacan. I would, however, propose that the Teotihuacan state attracted its rural neighbors through a deliberate religious and political program, rather than a forceful coercion. I would also include the eruption of Popocatépetl, which predates Xitle's eruption, as an initial driving factor of these mass migrations and drastic demographic changes. Plunket and Uruñuela suggested the major eruption of Popocatépetl "was an important catalyst in the emergence, not only of Teotihuacan, but also of Cholula, a major prehispanic city in the neighboring Valley of Puebla" (19). Understanding the significance and extent of the eruption's environmental and ecological impact on the region, as described by Plunket and Uruñuela, reveals the disastrous conditions that paved the way for Teotihuacan's rapid growth:

Not only were the southern and eastern sections of the Basin of Mexico prime agricultural areas, but their freshwater lakes and forested piedmonts were richly endowed with natural resources, making them valuable hunting and gathering territories. As pyroclastic materials fell on the forested slopes the ash would have suffocated wildlife. The hot pyroclastic flows, with temperatures between 250 and 600°C may have ignited multiple, highly destructive forest fires that would have spread quickly through the Sierra Nevada during the dry season, and the melting glacier would have formed destructive lahars that rushed down the steep canyons into the Amecameca river and the Chalco area (see Nakada, 2000, p. 948; Siebe, 2000; Capra et al., 2004). (23-24)

In addition, Plunket and Uruñuela (2000) claim the Plinian eruption occurred during the dry season, from October through May, evidenced by unplanted agricultural fields and empty storage facilities. The damage to the landscape would have seriously diminished the productivity of hunting and gathering, and short-term climate changes like frost and drought, caused by the smoke and ash, would have resulted in food shortages and famine (Sigurdsson 2015, 10-11).

The eruption of Popocatepetl provided archaeologists a unique opportunity to explore the site of Tetimpa, a Formative village on the northeastern flank of Popocatepetl in Central Mexico. In the first century CE, the village was buried under more than a meter of pumitic ash. Much like at Pompeii, this ash layer helped preserve the settlement in its final phase of occupation. Tetimpa is estimated to have had between 400 to 600 house compounds, each house consisting of “three wattle-and-daub rooms built on top of stone-faced talud-tablero platforms that delimited a central patio (Figure 15.1) where domestic chores and ritual activities took place (Plunket and Uruñuela 2002a; Uruñuela and Plunket 1998)” (Plunket et al. 2005, 183). We see this triadic layout reflected in the three-temple complexes at Teotihuacan, including twenty-three mapped throughout the city and, on the largest scale, the Pyramids of the Sun and Moon. Esther Pasztory suggests that the three-temple complexes had origins “going back to the founding of the city and the different groups that came together to build it” (Pasztory 1992, 296). This similarity connects Teotihuacan’s architectural expansion to its population growth, while also characterizing its attitude toward foreigners, “whose differences may have been maintained and perhaps even built into the political structure of the city” (297). Migrants to the rapidly developing center of Teotihuacan would have brought their culture, ideas and technologies, with them, and it is Teotihuacan’s unique process of urbanization that allowed these diverse cultures to coexist and be integrated into the evolution of the city.

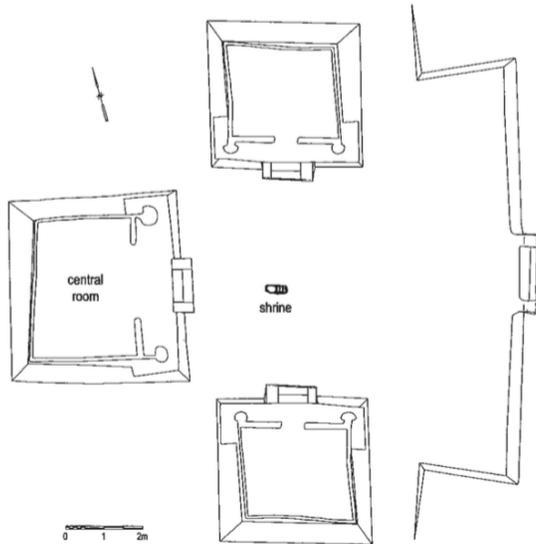


Figure 1.2 Typical house layout at Tetimpa. From Uruñuela and Plunket 2007.

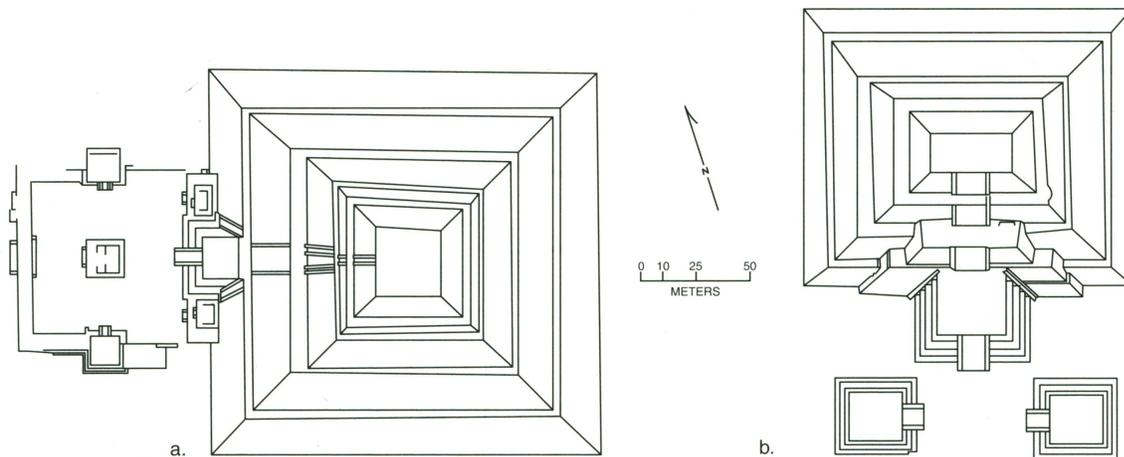


Figure 1.3 The Sun Pyramid (a) and Moon Pyramid (b) at Teotihuacan as three-temple complexes. From Headrick 2013.

While many people were readily drawn to Teotihuacan, the more unfortunate were compelled to migrate by the natural force of Popocatepetl. The contents of the houses at Tetimpa indicate the site was in the process of being abandoned when it was buried (Plunket and Uruñuela 2000b). The archaeological evidence shows some people had abruptly left their homes, while others moved more gradually, living elsewhere but still returning to tend their

fields. Ceramic bowls and metates left face up indicate some families were still living here when the eruption occurred, while some families had flipped their bowls face down to keep them clean, fully intending to return home when the crisis had passed (Plunket and Uruñuela 2008, 116). This possible awareness of volcanic activity and the “gradual nature of the evacuation might also explain why we have found no casualties associated with such a massive natural disaster” and the consequent tens of thousands of refugees who needed new homes and reappear in the archaeological record at the sites of Teotihuacan and Cholula (116).

At the same time, on the other side of Popocatepetl, the overall population of the Basin of Mexico had been growing steadily at an annual rate of approximately 0.3% for the last one thousand years, reaching a population of ca. 145,000 by 100 BCE (Sanders, Parsons, and Santley 1979, 183). But in the first century CE this population dropped drastically to 80,000-110,000. The eruption of Popocatepetl was of such intensity, it would have “created a general sense of chaos that may have stimulated the migration of communities outside of that zone [of eruption deposits]” (Carballo 2011, 168). The environmental and ecological impacts of the eruption undoubtedly reached into the Basin of Mexico, so when another eruption— although of much smaller magnitude— followed in the next century, the southern region of the Basin of Mexico, where once the majority of the entire Basin population lived, was readily abandoned.

#### Xitle

The volcano, Xitle, has been of particular interest to archaeologists since the 1920s, when the quarrying of the lavas resulted in the discovery of an ancient culture that was flourishing in the Basin of Mexico until being engulfed by lava. The date and sequence of Xitle’s eruption has been a matter of debate for the last century, with radiocarbon dates ranging anywhere between 1430 ± 230 BP and 6715 ± 90 BP. However, with recent evidence, Siebe calculated an age of

1670 ± 35 BP (245-315 CE), which “confirms the hypothesis that Xitle erupted much later than ca. 2000 years BP (the date most frequently accepted by previous investigators)” (2000, 59).

The largest of the sites discovered buried beneath the lava, Cuicuilco, 7 km NE of Xitle, is particularly important because it represents the first regional center in the Basin of Mexico and the “oldest known evidence of urbanism in the highlands of Central Mexico” (Siebe 2000, 48). The southwestern region of the Basin of Mexico, where Cuicuilco is located, was “ecologically the most favorable for agriculture. Rivers allowed for irrigation, and archaeologists have located irrigation canals in the area” (Pasztor 1997, 79). Begun as a farming community, the city developed into a ceremonial center and was laid out oriented to the cardinal directions. The ceremonial center included a five-level, circular pyramid, with a height of about 20 meters and a diameter of more than 110 meters. The city also had one of the earliest irrigation systems in the region and had a drainage system much like that seen later at Teotihuacan (Evans and Webster 2013, 199). At Cuicuilco there is also evidence of nucleation in the lack of other sites in the southwestern Basin, in the same way a high proportion of the Basin’s population later lived at Teotihuacan.



Figure 1.4 Pyramid at Cuicuilco. From Siebe et al. 2006.

The exact size of the site is unknown, due to modern development preventing further archaeological excavations, but Cuicuilco contained at least 20,000 inhabitants (Sanders et al. 1979) and as many as 40,000 (Evans and Webster 2013, 76). Between 300 and 100 BCE, Cuicuilco “doubled in size and seems to have dominated the southern basin,” while to the north, where previously only a few hamlets had existed, Teotihuacan had now begun to materialize (Evans and Berlo 1992, 6). By ca. 300-100 BCE, Teotihuacan and Cuicuilco were comparable in size and, as the two major centers in the Basin, were similar in character and regional impact (Sanders et al. 1979). Cuicuilco was probably Teotihuacan’s closest rival, in growing size and complexity, although how friendly or hostile the rivalry might have been is unclear. In their extensive survey of the Basin of Mexico, Sanders et al. closely examine the ecological processes that shaped the way civilizations in the Basin developed and evolved. While the northern and southern sections of the Basin of Mexico were settled at very different rates, due in part to the unreliable rainfall in the north, Teotihuacan, in the northeast, and Cuicuilco, in the southwest, were the only sites to achieve the size and technological advancement they did by this time. Having the city of Cuicuilco preserved under lava has provided insight into what Teotihuacan might have looked like, at this earlier stage of urban development.

When the eruption of Xitle consumed Cuicuilco around 300 CE, the population of Teotihuacan flourished and at this time “came to comprise 90% of that of the basin” (Evans and Berlo 1992, 7). Cowgill (2008) points out that “the founders of Teotihuacan did not start from nothing... they already had knowledge of settlements that had populations on the order of several thousands” and credits Cuicuilco for inspiring the plan to lay out the city as a grid (2008, 89). Pasztory claims that Teotihuacan chose an orientation for its layout that was “consciously different” than Cuicuilco’s, as part of its ideological effort to distinguish Teotihuacan (1997, 80).

This would set Teotihuacan apart from Cuicuilco and its fate by establishing Teotihuacan along and within an entirely new system. In this way Teotihuacan could assure the refugees of Teotihuacan's safety from the volcanoes and the wrath of the gods. A drainage system was also found at Cuicuilco, much like the drainage system later implemented at Teotihuacan. Both the architectural and symbolic programs at Teotihuacan were influenced by the arrival of refugees and their experiences with catastrophe.

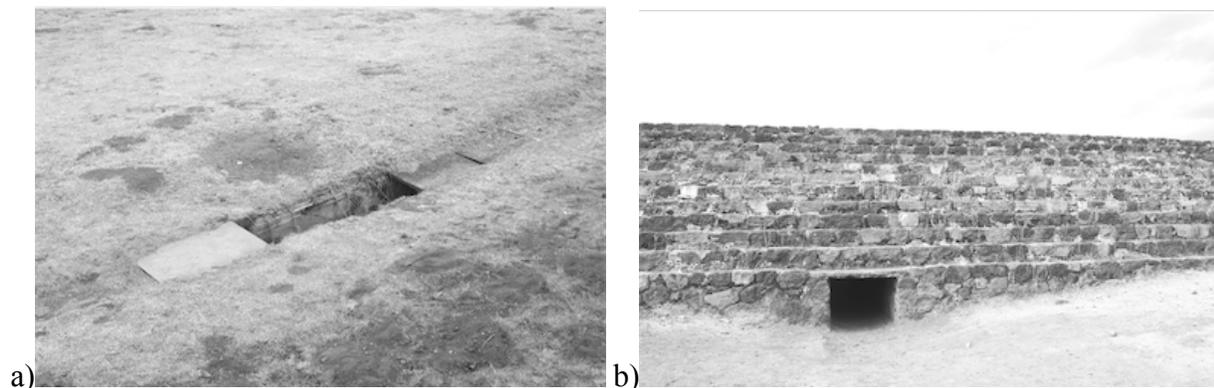


Figure 1.5 Drainage system of the Avenue of the Dead at Teotihuacan.

While these shifts in population and power are undeniably related, exactly how directly the eruption itself contributed to the fall of Cuicuilco and the rise of Teotihuacan is still contended. The doubt arose when archaeologists started discovering evidence that indicated Cuicuilco was already abandoned by the time the city was buried by lava. Numerous hypotheses regarding the perplexing sequence of events attempt to position the eruption within archaeological context. Siebe describes three possibilities:

- (1) The eruption of Xitle directly caused the downfall of Cuicuilco ca. 2000 years BP, forcing its population to abandon the southern areas of the Basin of Mexico and allowing Teotihuacan to emerge as the dominant city.
- (2) The rise of Teotihuacan resulted in the absorption of much of the regional population and the abandonment of Cuicuilco before the eruption of Xitle.

(3) The fall of Cuicuilco was caused by a first eruption of Xitle, which deposited primarily ash ca. 2000 years BP, allowing Teotihuacan to emerge. The already abandoned city of Cuicuilco was then completely buried several hundred years later by a second eruption of Xitle. (2000, 60)

Evidence of two lava flows is still debated, but Siebe's later date for the final burying of Cuicuilco adjusts the relationship between the two sites. The combination of detrimental environmental side-effects from the eruption of Popocatepetl and possible volcanic activity at Xitle would have created challenges for Cuicuilco. In the first centuries CE, Teotihuacan was growing rapidly in size, both in population and architecture, and overcoming Cuicuilco. It is possible that like at Tetimpa, some inhabitants of Cuicuilco were already moving to Teotihuacan, attracted by the appeal of this new, sacred center, far from the dangers of volcanic activity. Teotihuacan would have been a symbol of hope— an idea fostered by religious and political propagandistic messages— and a prospect of economic success, offered by the big city. However, Cuicuilco might have still been occupied and only when the city was buried around 300 CE did the rest of its inhabitants move to Teotihuacan. It was at this time that the construction of apartment compounds was begun at Teotihuacan, perhaps reflecting this new wave of migrants arriving from Cuicuilco.

Although we cannot determine the sequence of events or date Xitle's eruption precisely, it is clear that Cuicuilco and Teotihuacan were contemporary centers in size and rise to power. Whether or not Cuicuilco was already beginning to lose its population to Teotihuacan, the eruption of Xitle confirmed Cuicuilco's fate, and with it, Teotihuacan's. Much of Teotihuacan's power came from its complete control of the Basin of Mexico— the population, the flow of materials in and out of the region, and the agricultural practices needed to sustain the population.

The decline of Cuicuilco removed it as a competitor, allowing Teotihuacan to take control of the entire Basin, effectively unchallenged and unrestricted.

To refugees, Teotihuacan would have been seen as a safe environment, far from the dangers of Popocatépetl. The hope of a better life in combination with Teotihuacan's active effort to advertise itself as a sacred center, explains why tens of thousands of refugees migrated to the city. Teotihuacan offered the resources of a powerful urban center, growing rapidly and providing the opportunity of an improvement in quality of life through economic success and social status. With such a rapid increase in population and the introduction of foreigners to the city, the population was undoubtedly rife with tensions. Teotihuacan responded with monumental construction, which served as a powerful tactic to simultaneously promote the image of the city and its state, while keeping the population, occupied with work and invested in the affairs of the city.

## **The Avenue of the Dead**

The Avenue of the Dead, as the Aztecs called it, is the grand north–south street lined with monuments at the center of the city. The Avenue was probably laid out in the final century BCE (Cowgill 2000, 358). At the northern end of the grand Avenue of the Dead lies the Moon Pyramid and approximately 2 km south is the Ciudadela complex, on the avenue’s eastern side. Based on the relatively short time span between the construction of the Sun and Moon Pyramids and the Ciudadela and Feathered Serpent Pyramid, Sugiyama believes “the Teotihuacanos intended to manifest interrelated ritual meanings among the major monuments” and proposes “a master plan or plans that included spatial integration and meaningful coherence among the major monuments” (Sugiyama 2005, 40). Additionally, the use of a standard measurement unit, known as the Teotihuacan Measurement Unit (TMU), is evident in the “Unusual uniformity in architectural style, orientations, and symmetrical and proportional spatial distributions of buildings” (40). This concept of a master plan is revealed through the continuity of iconography working together to present a collective visual and symbolic program on a monumental scale.



Figure 2.1 Looking north towards the Moon Pyramid from the front of the Sun Pyramid.

The idea of a master plan is significant because it indicates an active effort by the Teotihuacan state to plan a large-scale urban center, a rather sudden increase of resources, and political power that needed to be affirmed through ideological messages. The rise of Teotihuacan's monumental architecture along the Avenue of the Dead represents an emphasis on the city's sacred role and an acute awareness of its significance to people immigrating to the city. The goal of a collective architectural program could have been to serve numerous functions: an impressive monumental center attracts outsiders, it promotes harmony within the population, and it legitimizes the state. With the arrival of a large new population, the monumental architecture essentially functioned as advertisement for the city and its religious and cultural significance. Migrants would undoubtedly be impressed by the sheer unprecedented size of the construction, let alone the visible success of the city in the wake of such disaster in the homes they fled.

Teotihuacan had apparently not only escaped the wrath of the gods, but also flourished with their divine approval.

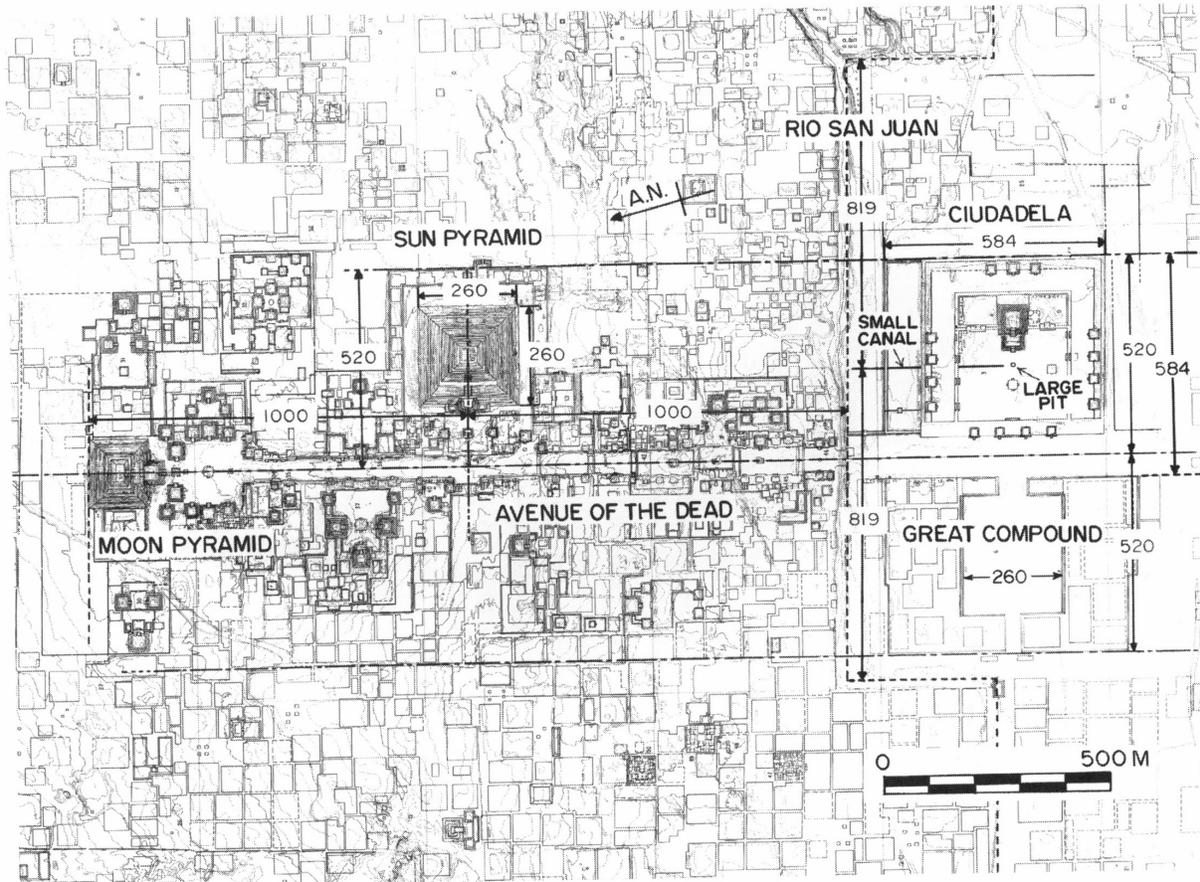


Figure 2.2 Plan of the Avenue of the Dead. From Sugiyama 2005.

### Cosmos

Cultures throughout Mesoamerica shared the use of calendar systems rooted in astrological and cosmological cycles, and a worldview that divided the world horizontally and vertically, their intersection representing the center of the cosmos (Sugiyama 1993, 105). The horizontal sphere consisted of four quadrants and a center point, with an emphasis on the east–west dimension, corresponding to the paths of celestial objects. The significance of the north–south dimension varies between regions, but the Underworld was often represented by one of these directions (106). At Teotihuacan, the north–south dimension is evidently paramount in the

Avenue of the Dead, while the presence of an East Avenue and a West Avenue remains uncertain. The symbolism of the Ciudadela and Feathered Serpent Pyramid at the southern end of the Avenue of the Dead suggests an association of south with the Underworld; however, the southern complex lacks a clear architectural and symbolic counterpart to the north, which “violates the usual Teotihuacan emphasis on symmetry” (Cowgill 2015, 220). As a result, the horizontal division of the cosmos at Teotihuacan and the symbolism of the cardinal directions remain controversial.

In the vertical sphere, the universe was often seen as multilayered and was permeated with symbolism of objects, beings, and forces, often existing in cyclical systems. Water, for example, was fundamental and existed in a cyclical fashion through both time and space. Water was believed to have existed since the start of the universe and at the beginning of creation; in the present world, water persisted in the sky, on earth, and beneath it, in the underworld (Sugiyama 1993, 105-6). Wendy Ashmore examines concepts of directionality among the Ancient Maya, many of which are applicable to Teotihuacan. The function of mountains and caves within the cosmological belief system are expressed in the “vertical connections in space between the natural world and the supernatural domains- for example, ... mountains mediating between sky and earth, or caves linking the earth with the underworld” (Ashmore 1991, 201). The architectural program of Teotihuacan embraces the natural landscape and manipulates the horizontal and vertical spheres to accentuate their supernatural significance.

## Creation Mythology

Normally, a crucial and fundamental component of religion is its creation mythology. The genesis of the cosmos began with “a contract with the gods at the time of creation of the ‘universe,’ the sun, the moon, the earth, and mankind” (Sugiyama 1993, 106). In Mesoamerican creation mythology, the gods sacrifice themselves for the creation of the world and humanity. In accordance with this contract, humans must sacrifice themselves to feed the gods and maintain the stability of the universe (106). To refugees from the southern Basin of Mexico, the volcanic eruptions would conceivably have indicated a failure to maintain this contract and resulted in the ensuing consequences. The refugees would have arrived in Teotihuacan instilled with a fear of the gods and dissatisfaction with their former leaders, who actuated such a fiery and catastrophic punishment. Teotihuacan successfully responded to and exploited this vulnerability, welcoming the refugees to the City of the Gods— the site of this original contract and a thriving center lead by a royal authority with clear divine legitimization.

## Caves

In 1971, a 100 m long cave was discovered 6 m under the Pyramid of the Sun. Although the cave itself is a natural formation, the shape was modified by the Teotihuacanos. The walls and ceilings were brought in at some parts, effectively making it impossible to walk upright. The cave terminates in a large chamber, which then branches out into four smaller chambers. It is likely that these chambers were almost entirely created by the Teotihuacanos. The entrance to the cave is located right at the center of the central staircase of the pyramid, indicating the construction of the Pyramid of the Sun was closely related to the location of this cave (Millon 1981, 231). The significance of the cave is closely tied to creation mythology. René Millon (1981) connects the cave to the creation of the sun and moon, while Doris Heyden interprets the

cave as an early form of Chicomoztoc, or “Seven Caves”– the place of origin of human beings (Heyden 1981, 12). In Mesoamerican mythology, the origin of the sun and moon and the emergence of human beings from the underworld formed a single event, in which the universe was created and the sun, the moon, and human beings surfaced from a cave (Taube 1986, 52).

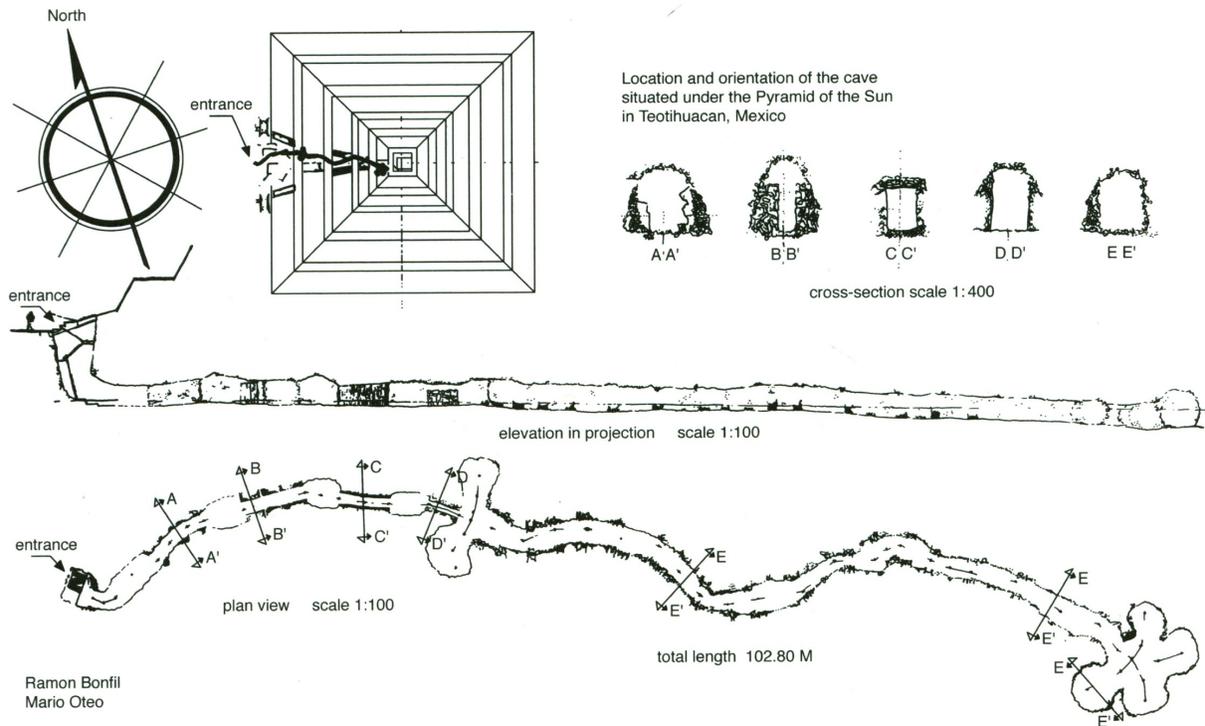


Figure 2.3 Cave beneath the Sun Pyramid. From Headrick 2013.

The modifications of the original cave beneath the Pyramid of the Sun reveal the desire to use the cave for ritual purposes, “stemming from the use of caverns as homes and as shrines” (Heyden 1981, 13). The narrowed tunnel would have forced the person travelling through to crouch, only being able to stand fully upright upon emerging from the cave. In this way, the Sun Pyramid built at the mouth of this cave would have served as an “emergence temple, a structure offering access to the generative forces from which mankind is created and sustained” (77). The immense importance of the cave and origin mythology at Teotihuacan is articulated by the

vastness of the Sun Pyramid. The Sun Pyramid stood as an unparalleled testament to Teotihuacan as the place where time began and the gods prevailed.

### Orientation

It is very likely that the entrance to the cave determined much more than the construction of the Sun Pyramid. A convincing explanation of the unique orientation at Teotihuacan of  $15\frac{1}{2}^{\circ}$  east of north, which dictated the city layout, ties the value to astronomical events observed from the entrance to the cave. To someone standing at the mouth of the cave in late first century BCE, the sun would have set at  $15\frac{1}{2}^{\circ}$  north of west on two days of the year: August 12 and April 29. The significance of these two days can be explained by the two calendars being used in Mesoamerica at the time— the 365-day year and the 260-day count— producing the 52-year calendar (Millon 1992, 387). Moreover, the sun would have passed directly overhead at noon on two days of the year, known as the zenith passage days— on August 12 and April 29 (Malmström 1978, 106). In the Maya Long Count calendar, the present era was said to have begun on August 12, with the setting of the sun and indeed, “It must have seemed fraught with cosmic significance that the sightline from Teotihuacan’s sacred cave commemorated the day that time began since they believed that Teotihuacan was where time began” (Millon 1992, 388). Teotihuacan’s connection to the beginning of time was incorporated into the very foundation of the city by basing the orientation of the Avenue of the Dead and the entire city on the sightline from the cave’s entrance.

### Mountains

In the report of the first controlled excavations at Teotihuacan, Sigvald Linné describes the visual relationship between the pyramids and the surrounding landscape. The northern end of the Avenue of the Dead terminates at the Moon Pyramid, but a prolongation of the Avenue

would lead right to the foot of Cerro Gordo, the highest mountain in the region (Linné [1934]2003, 32). Annabeth Headrick recounts the impact of this visual association. The profile of the pyramid duplicates the shape of the mountain “so that Cerro Gordo symmetrically frames the structure” (Headrick 2013, 114). As one walks north up the Avenue and perspective shifts, the Moon Pyramid grows, while the mountain subsides behind. “In effect, the Moon Pyramid replaces the mountain, indicating that the temple is the manmade replication of Cerro Gordo... Through this optical illusion, the Moon Pyramid is visually and symbolically Cerro Gordo” (Headrick 2013, 114). Through its meticulously designed spatial arrangement, the Moon Pyramid not only imitated Cerro Gordo, but also declared itself as the mountain’s equivalent in the human realm. Both pyramid and mountain were incorporated into the visual experience of promenading up the Avenue of the Dead.



Figure 2.4 Pyramid of the Moon and Cerro Gordo.

The mountain, referred to as the mythological Sustenance Mountain, has frequently been associated with water and agriculture in Mesoamerican cultures. Sustenance Mountain, in Mayan and Aztec mythology, typically includes a cleft in its peak, from which maize vegetation sprouts. Cerro Gordo, as an extinct volcano, contains this cleft. According to local tradition in the Teotihuacan Valley, the primary source of water in the valley is Cerro Gordo. By assuming the symbolism of Cerro Gordo and its claims to the original source of maize and water, the Moon

Pyramid would have served as a constant reminder of the divine that created, and the city that continued to provide, life for the population of Teotihuacan (Headrick 2013, 114).

Accentuated by the slight incline from south to north, the Avenue of the Dead as a complete program might have materialized the passage from the underworld to the heavens in the north. The wide avenue, flanked by monumental structures and with its main access point in the south by the Ciudadela, undoubtedly functioned as a space for ceremonial procession. Beginning at the Ciudadela with its watery imagery, one would proceed north, gradually ascending, towards the Moon Pyramid. The recreation of Cerro Gordo in the Moon Pyramid served as “a reference to the cosmological relations between the pyramid-mountain and the celestial realms to the north” (Uruñuela and Plunket 2007, 45). In this way, progressing up the Avenue of the Dead would have been a profound and sacred experience, employed explicitly in public ritual and performance.

The Sun Pyramid also links the city to its landscape. “A line from the Moon Pyramid to the top of the Sun Pyramid meets if lengthened the crest of Cerro Patlachique” (Linné 1934[2003], 32-33). The Sun Pyramid mirrors the mountain behind it, replicating the unevenly stepped silhouette of Cerro Patlachique. Unfortunately, destructive excavations using dynamite were conducted by Leopoldo Batres at the beginning of the 20th century, which left the pyramid we see today altered from its original appearance. It is therefore easy to imagine that the final, pristine form of the Sun Pyramid would have mirrored Cerro Patlachique with remarkable accuracy (Headrick 2013, 115).

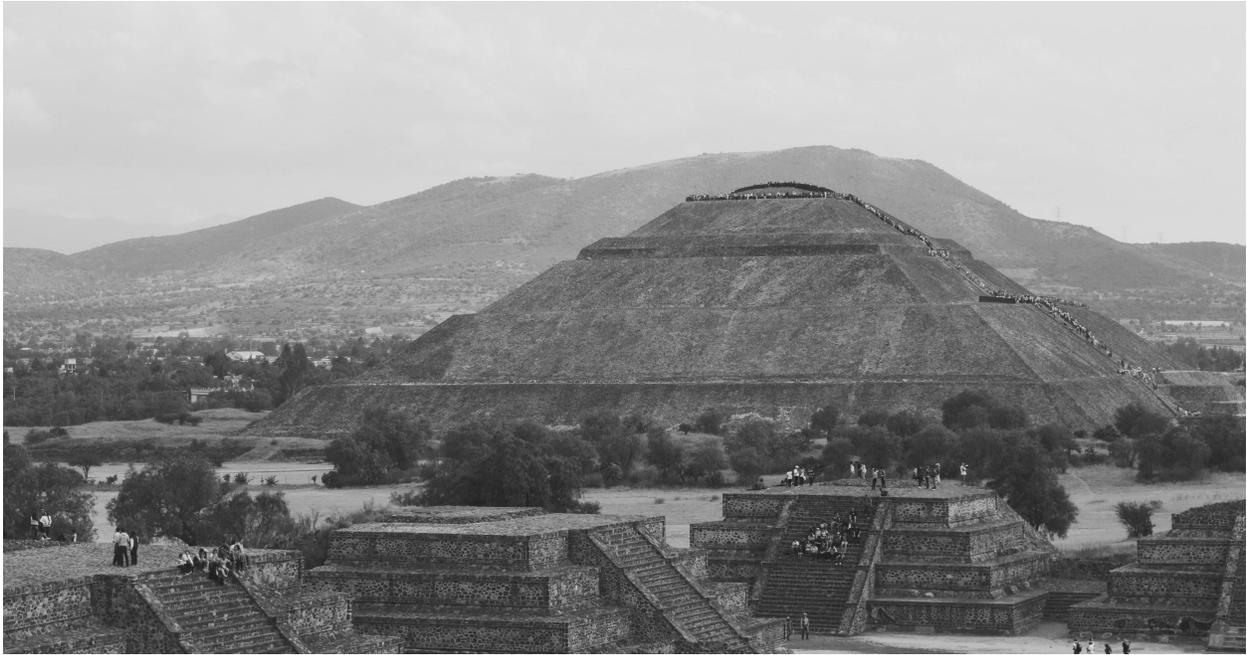


Figure 2.5 Pyramid of the Sun and Cerro Patlachique, viewed from the Moon Pyramid.

Uruñuela and Plunket point out another intriguing perspective: “Looking southeast from the Plaza of the Moon, the Pyramid of the Sun rises in the same direction as Popocatepetl.... It would have been a fortunate decision to intertwine the image of the huge smoking mountain that changed the destiny of many of Teotihuacan’s inhabitants with the concept of universal human origins, thereby avoiding any exclusionary genealogical references” (2007, 46). The inclusion of Popocatepetl in the planning of the monumental core of Teotihuacan is indicative of the notable presence of refugees. The view of Popocatepetl in the distance would have served as a constant reminder of Teotihuacan’s prosperity, sanctioned by the gods. Many refugees would have assisted in the construction of the monument, working to raise an artificial mountain of incomparable scale that would effectively replace Popocatepetl in the horizon. The visual connection between the awe-inspiring Pyramid of the Sun and the smoking Popocatepetl would have emphasized to the refugees the stark contrast of the world they left behind and the world

they were welcomed into. A sense of appreciation and civic responsibility would inevitably be instilled in these new residents.

### Imagery

Like the city itself, imagery at Teotihuacan is remarkably unique. Several characteristics of the imagery set Teotihuacan apart, including abstraction, depersonalization, and standardization. Abstraction, which simplifies forms and depicts the world as flat and restricts it to a two-dimensional plane, presents a stark contrast to realism or naturalism. The consistent use of such a visually simplifying style indicates perhaps an underlying concept of idealism. Pasztory proposes that Teotihuacan invented a religion, which, through abstraction, combined the concepts of higher purity and spirituality with ideas of “rational order and organization” (1992, 292). Imagery was used to conceptualize the role of human beings within the cosmic worldview and convey to the population of Teotihuacan their duty to the divine. The use of abstraction seems well suited for the depersonalization and standardization that together serve to convey a message of uniformity and conformity to the population.

Depersonalization is evident in the limited portrayal of the individual. Unlike the public art found throughout Mesoamerica, celebrating the deeds and triumphs of specific rulers, depictions at Teotihuacan do not identify individuals. This striking lack of royal proclamation has greatly complicated the ongoing quest to understand rulership at Teotihuacan. However, the absence of a clear ruler, who, in many cultures, is expressed as a semi-divine being serving as the intermediary between the gods and humanity, suggests an attempt at Teotihuacan to foster a direct relationship between the population and the gods. The positioning of figures in murals, for example, supports this idea. Human beings tend to be depicted in profile, while a frontal view is almost entirely reserved for deities (Pasztory 1992, 293). Unlike the depersonalized humans,

divine beings look out, beyond the two-dimensional plane of the mural, and seem to make eye contact with the viewer, creating a connection and pulling the viewer into the scene and into the associated duties to the deity.



Figure 2.6 Front-facing figure in mural. From Pasztory 1992.



Figure 2.7 Detail of the Water Talud mural from the Tepantitla apartment compound. From Headrick 2013.

Figures are standardized and indistinguishable, apart from the glyphs, which sometimes accompany them. However, while the individuals are abstracted and unremarkable, their attire is detailed and lavish, further removing the focus from the individual. The concentration on the attire suggests an emphasis instead on the occupation or role the figure plays in the depicted scene or in society. In this way, agency is removed from the person, while their function or responsibility is accentuated.

An example of the effect of Teotihuacan's abstraction and de-emphasis of the individual is seen in the production of masks. The masks are highly stylized, with an open mouth and projecting lips; geometric eyes, cheeks, and ears; inlaid eyes and teeth; and a cut off forehead. Unfortunately, we know very little about their archaeological contexts due to looting in the late 19th and early 20th century. However, none have been found in the apartment compounds and it can be assumed that they were looted from the sacred structures in the ceremonial center. They might have been funerary or even used in composite deity images in the temples (Berrin and Millon 1988). We have more physical masks in our archaeological record from Teotihuacan than any other culture in Mesoamerica and they reappear in murals and on figurines, pointing to their significance at Teotihuacan. Pasztory describes the mask as Teotihuacan's "ideal form... [hiding] the individuality of the wearer by an outward facade of impersonal uniformity" and developing the concept of 'collective persona' (Pasztory 1992, 294). With only slight variation, the masks are standardized and they possess no identifying attributes.

The uniform face reappears in other artistic formats, such as on clay figures. Terracotta figurines discovered in the fill of different construction phases at the Moon Pyramid reveal a progression toward increasing standardization and abstraction in the faces (Montoya 2001). While a variety of clay figures have been discovered at Teotihuacan (e.g. "portrait" figurines and

“host” figurines) and their symbolism and function is still debated, the faces remain impersonal and standardized. In this way, imagery at Teotihuacan perpetuated a message of social uniformity and divine idealism.

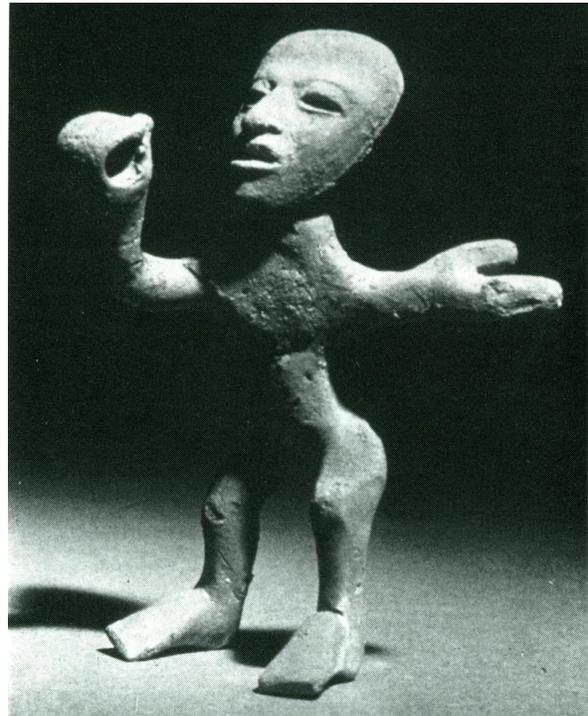
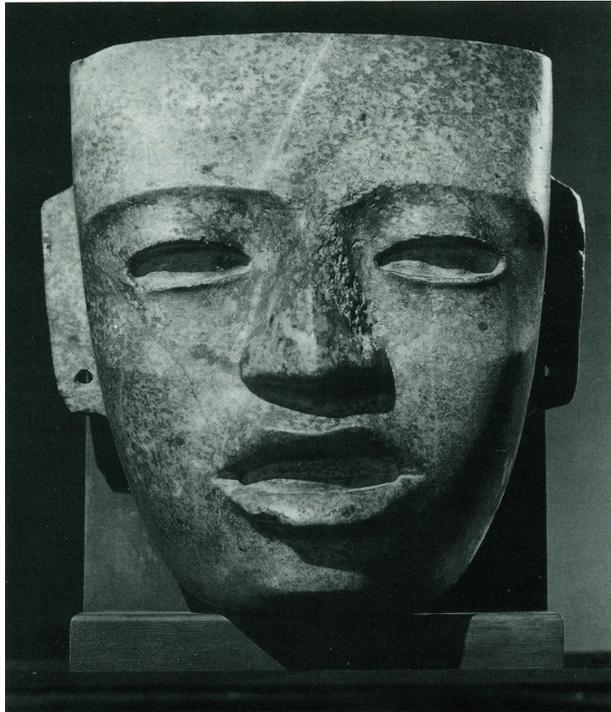


Figure 2.8 (*left*) Teotihuacan-style mask. From Pasztory 1992.  
Figure 2.9 (*right*) “Portrait” figurine. From Pasztory 1992.

### Monumental Architecture

In addition to the religious message expressed by the iconography of these monumental structures, the process of planning, constructing, and using monumental architecture is a significant indicator of the state and society that built it. The decision to design and carry out such an ambitious project, “required the ability to plan on a large scale, a high degree of engineering skill, the recruitment and direction of substantial labour forces, and a well-developed artistic standard” (Trigger 1990, 121). In addition to bringing a large labor force, the migrants brought to Teotihuacan their own sets of skills, which could have fostered the technological advances seen in the construction at Teotihuacan following their arrival. The progression of

planning and artistic standardization can be traced through the construction phases of the monuments in their material, design, and scale.

The construction of monumental architecture would have served a crucial role to the inhabitants of the city. The challenge of maintaining stability would have increased with the dramatic growth of Teotihuacan's population. The Teotihuacan state rose to this challenge with the knowledge that "monumental architecture makes power visible and hence becomes power rather than merely a symbol of it" (Trigger 1990, 122). Large scale construction of public structures would simultaneously have served as a forcible symbol of the state's economic and political capacity, while actively keeping the population occupied and under control, through the physicality of construction work.

Joye and Verpooten examine religious monumental architecture (RMA) from a Darwinian perspective, extending the role of RMA beyond that of costly signaling to one of sensory exploitation (2013, 53). The concept of costly signalling describes a signal, which costs more than was necessary in order to convey the information; if a signal is costly it is considered an unambiguous and reliable representation of the signaller (Smith 1994). By functioning as a costly signal, monumental architecture contributes to vertical stratification within complex societies. The state's ability to control labor and energy on a monumental scale would have promoted social organization and stratification, while "By participating in constructing such power symbols, commoners acknowledged their lower ranking with regard to the leading elites, which further underlined their social inferiority" (Joye and Verpooten 2013, 54). The theory of sensory exploitation operates within this signaling system, revealing how monumental architecture exploits "an adaptive sensitivity for bigness" (55) and triggers a sense of awe (57).

Locals and foreigners alike would have been impressed and awestricken with the sheer size of the monuments looming over the city.

In addition to the solidification of vertical stratification, the resulting emotional response to RMA also strengthens community bonding and religious belief within the population. Keltner and Haidt propose:

the primordial form of awe is the feeling a low status individual feels towards a powerful other. This feeling is likely to involve reverence, devotion, and the inclination to subordinate one's own interests and goals in deference to those of the powerful leader. Awe reinforces and justifies social hierarchies by motivating commitment to the leader, countervailing self-interested attempts to overturn the social hierarchy. (Keltner and Haidt 2003, 307)

The power hierarchy constructed by the exploitation of awe serves the relationship between the commoners and the elites, the population and the state or ruler, but it also can be extended to the relationship of humans to gods. In the case of Teotihuacan, the monumental structures instilled awe through their sheer size as well as through their religious iconography and associated ideology.

The planning and construction process of Teotihuacan's Avenue of the Dead reveals the state's efforts to advertise itself to its inhabitants, old and new, as well as to the populations outside Teotihuacan, in and beyond the Basin of Mexico. The combined effect of the ideology of the monumental architecture and "the splendour of such buildings [proclaimed], and by doing so [reinforced], the status of rulers, of their protective gods, and of the state" (Trigger 1990, 122). The Aztecs gave Teotihuacan its name, proclaiming it the City of the Gods. The concept clearly echoed what the Teotihuacanos themselves expressed through their architecture and iconography. The proximity to the gods was established by the city's physical location to the origin of the universe, the beginning of time, and the creation of the divine contract. In a unified and congruous effort, the monumental architecture, the ideology, and the imagery connected the

city to its natural and divine origin, while promoting the state and a sense of civic responsibility and pride. The materialization of the cosmic view of Teotihuacan's place in the universe and the individual's place at Teotihuacan is evident in the monumentality, cohesion, and comprehensiveness of its architectural and ideological program, initiated around the 1st century CE.

### Construction of the Moon Pyramid

With its population growth, Teotihuacan saw a notable increase in monumental construction. To the Teotihuacan state, the arrival of refugees from the eruption of Popocatepetl in the first century CE meant a sudden surplus of labor. As a way of both keeping this new and diverse population occupied and promoting the image of the city and its leaders, a series of monumental construction projects in the central precinct of the city were undertaken, beginning with the Moon Pyramid at the northern end of the Avenue of the Dead. Remarkably little was known about the Moon Pyramid until the 1998-2004 excavations led by Saburo Sugiyama and Rubén Cabrera Castro, which revealed "an elaborate architectural sequence, including seven overlapping monumental constructions and five burial complexes of sacrificed individuals and sacred animals associated with rich offerings" (2007, 109). Examining these seven pyramidal levels, labeled Buildings 1 through 7 from earliest to most recent, provides unique insight into the early chronology of Teotihuacan constructions.

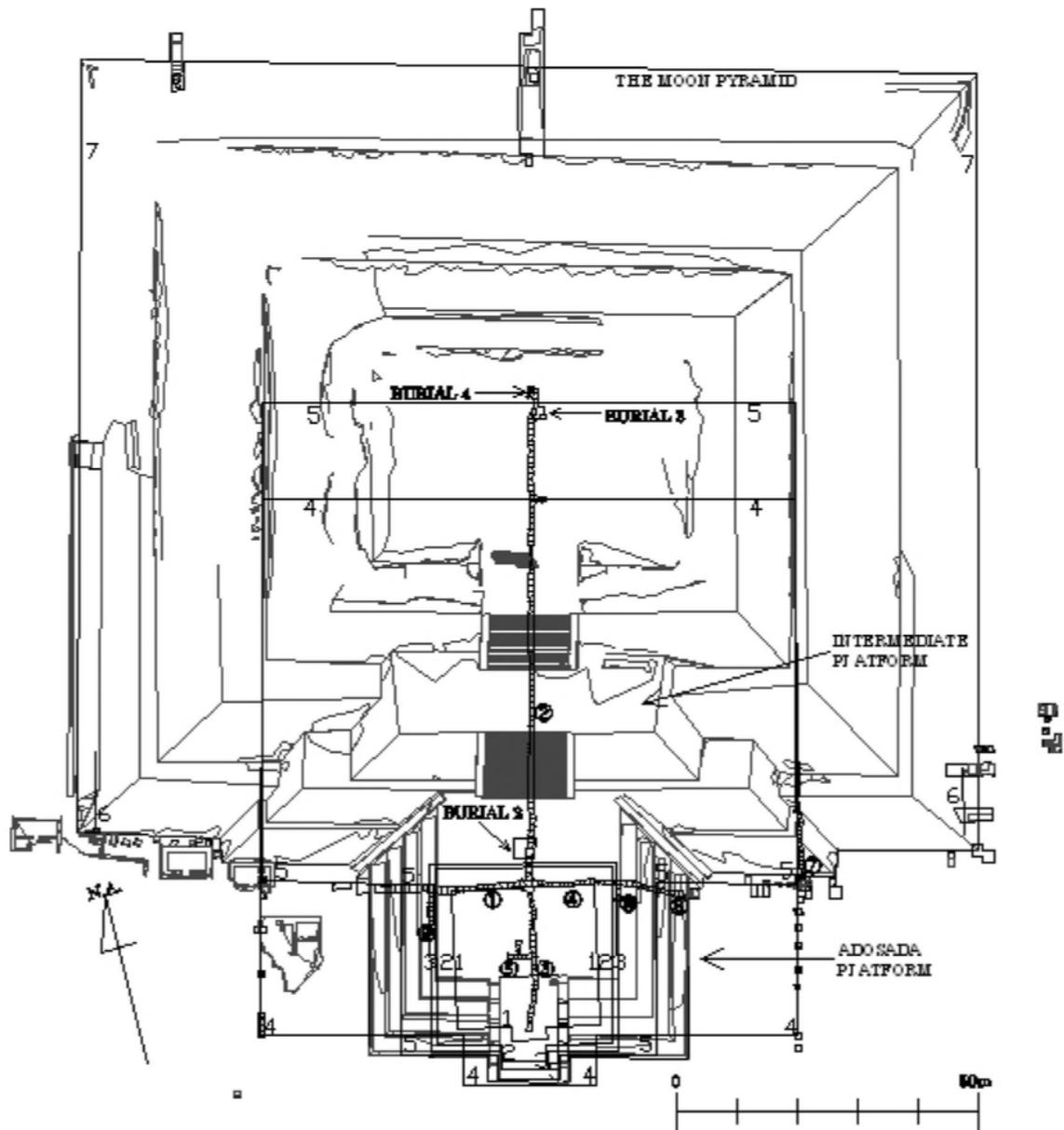


Figure 2.10 Plan of Moon Pyramid with seven superimposed construction phases. From Sugiyama and Cabrera Castro 2007.

Ceramics found associated with Building 1 are dated to the end of the Patlachique phase and the beginning of the Tzacualli phase, while  $^{14}\text{C}$  dates acquired from three wood samples place the date of Building 1 around 130 CE. Sugiyama and Cabrera Castro estimate a tentative construction date of  $100 + 50$  CE for Building 1, making it the “oldest monument dated with

ceramics and <sup>14</sup>C dates found to date at Teotihuacan” (2007, 116). The structure was a stepped square pyramidal platform with a 23.5 m base (Murakami 2010, 102). Interestingly, the orientation of Building 1 is about 4° off of the standard Teotihuacan orientation, and likely predates the design of the city-grid. The subsequent phases of the structure gradually rotate clockwise— probably due to astronomical reasons— bringing the orientation closer to the later standard Teotihuacan orientation. Whether or not Building 1 contained a burial or offering complex could not be determined, since the upper part of the Adosada was mostly destroyed (Sugiyama and Cabrera Castro 2007, 116).

Construction of Building 2 occurred around 150 + 50 CE, at the end of the Tzaccualli phase and beginning of the Miccaotli phase. Building 2 saw an enlargement of the base width to 29.3 m and the complete covering of Building 1. The facade of Building 2 had a stepped talud, covered with concrete. Building 3 was another enlargement shortly thereafter, which brought the base width to 31.3 m. A low platform was added on the west side of the building; however, little else could be determined about the appearance of this construction phase because the rocks and plaster were removed, probably to be reused in a later construction (Sugiyama and Cabrera Castro 2007, 116-7).

Perhaps the most significant construction phase, Building 4 expanded almost ninefold. The east–west side of the base was enlarged to 89.2 m and the north–south to 88.9 m. The discovery of reused talud-tablero parts in Building 5 suggests that Building 4 might have been the first talud-tablero style pyramid, or at least that it had tableros at the base (Murakami 2010, 103). The orientation of Building 4 is approximately that of the standard Teotihuacan east–west orientation, suggesting the city-grid system was established at this time. Ceramics date primarily to the Tzacualli phase (86.6%), with some from both the Patlachique and Miccaolti phases,

indicating a construction date near 200 CE. While the  $^{14}\text{C}$  dates from fill samples are highly variable, a sample taken from a burial, Burial 2, helps concentrate the construction date of Building 4 to 250 + 50 CE, in the Miccaotli phase (Sugiyama and Cabrera Castro 2007, 120). The timing of this exceptionally high caliber construction phase is significant when the adjusted date of Xitle's eruption (245-315 CE) is taken into account. This connection supports the role that Xitle's eruption played in bringing a new wave of migrants to Teotihuacan. Their arrival prompted an even greater effort on the state's part to convey its ideological program and to maintain control of the population. Significantly, it is approximately at this time that the apartment compounds, which would house nearly the entire population, were constructed. With the surge of migrants and a suddenly very large population searching for assurance and provision from its state, Teotihuacan seems to have focused its attention on the population in this period.

Burial 2 is also important because it represents a dedicatory offering in the nucleus of Building 4, which Sugiyama and López Luján (2007) describe as a “symbolic proclamation of institutionalized rulership closely associated with the state military apparatus” (as cited in Sugiyama and Cabrera Castro 2007, 120). Building 4 demonstrates that by the end of the Miccaotli phase, the Teotihuacan state had accumulated, with the support of a military, the power and resources to significantly enlarge the Moon Pyramid. The possible implementation of the city-grid at this time would also be an early indication of the state's intention for large-scale, city-wide urban planning. The construction of Building 4 in the third century reveals a distinct shift in scale, both architecturally and politically.

The construction of Building 5 enlarged and modified the monument further. While the width remained unchanged at 89.2 m, the north–south dimension was lengthened to 104 m and added an Adosada platform to the main body. Ceramics and carbon samples suggest a

construction date of around 300 + 50 CE, in the Early Tlamimilolpa phase. Building 5 demonstrates the adoption of the talud-tablero form, indicating an “important ideological shift” (Sugiyama and Cabrera Cortes 2007, 121). The addition of two new burials, Burials 3 and 6, to the core of Building 5 seems to communicate “the importance of bloody sacrificial ritual with a strong emphasis on brute military force” (121). This interpretation aligns well with the message expressed by the large-scale sacrifices at the Feathered Serpent Pyramid.

Building 6 brought the monument nearly to the size and form of the Moon Pyramid today. The east-west dimension was extended to 144 m and the north-south probably to about 168 m. Burial 4, which contained 17 severed human heads and was located in the northern base of Building 5, was integrated into the nucleus of Building 6 (Sugiyama and Cabrera Cortes 2007, 121). Only the Adosada platform remained in the talud-tablero style, while the pyramid was changed to a stepped form. Ceramics provide an approximate date of 350 + 50 CE (Murakami 2010, 103). The final phase of the Moon Pyramid, Building 7, was a slight enlargement in the Early Xolalpan phase, around 400 + 50 CE. This brought the pyramid to its current size of 168 x 149 m. The construction of the Moon Plaza and projects in the surrounding area indicate the Moon Pyramid remained in use, with few further modifications to the pyramid, until the city’s collapse (Sugiyama and Cabrera Cortes 2007, 122).

#### Construction of the Sun Pyramid

Following the construction of the Moon Pyramid, the monumental program of the Avenue of the Dead was extended, “half a mile south, to where there is now a small seasonal river, the Rio San Juan,” to the site of the cave’s entrance (Millon 1992, 390). From the mouth of the cave rose the Sun Pyramid, which would grow to be the largest pyramid at Teotihuacan and the third largest pyramid in the world. Among other structures, the Sun Pyramid complex

includes the pyramid, an Adosada Platform on the west façade, a plaza with an altar or adoratorio, temple structures north and south of the plaza, a residential compound, and low platforms enclosing the complex (Murakami 2010, 110-11). In addition, excavations by Millon, Drewitt, and Bennyhoff in 1965 revealed “evidence of a tomb in or below the lowest terrace of the pyramid,” where the ruler responsible for initiating the construction of the first Sun Pyramid might be buried (Millon 1992, 391). Unfortunately, like much of monumental center, looting has removed any conclusive evidence. The question of royal burials remains unanswered and any ideas to the nature of individual rulers speculative.

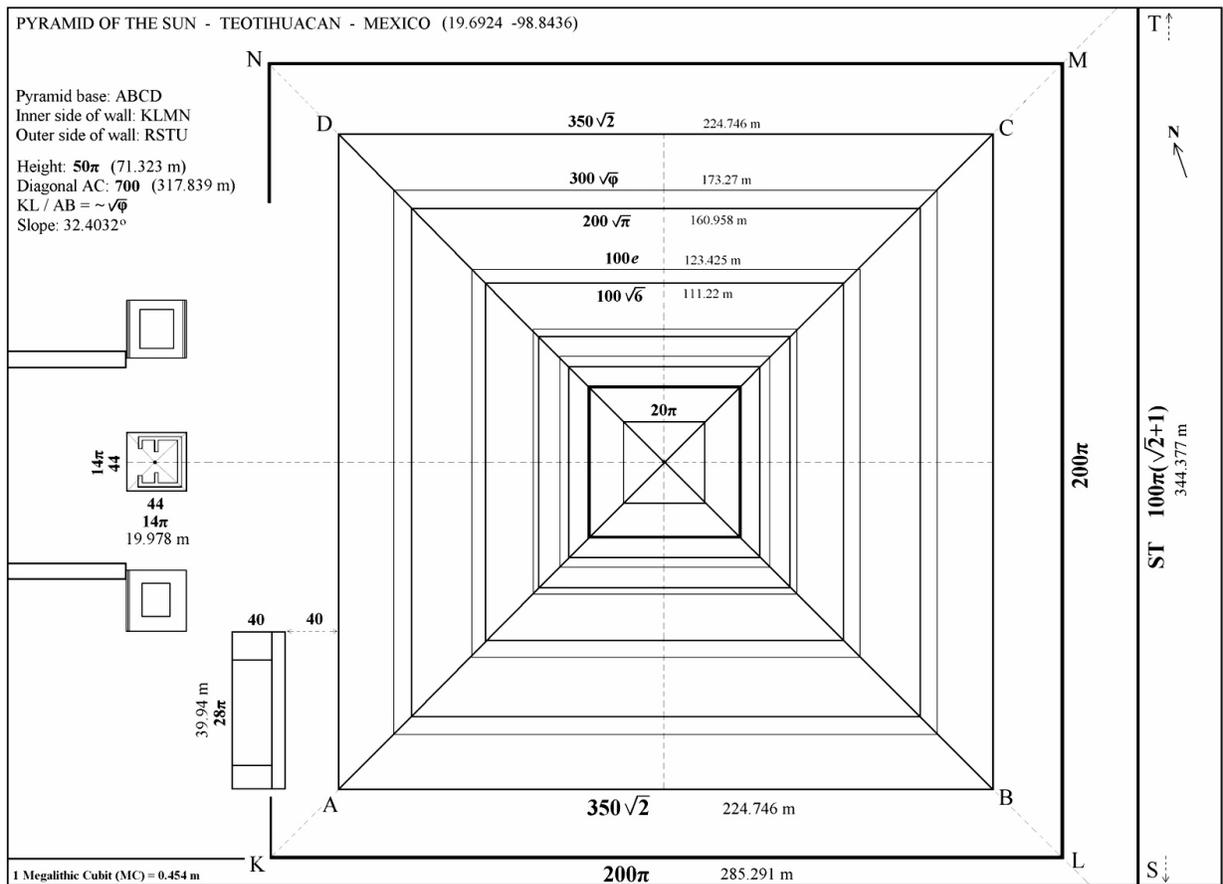


Figure 2.11 Plan of the Sun Pyramid. From Angelopoulos 2011. <http://athang1504.blogspot.com/2011/02/teotihuacan.html>.

Four major construction stages have been identified at the Sun Pyramid complex. The first stage refers to possible substructures within the pyramid, dated to the Tzacualli phase. The first Sun Pyramid was built during the second construction stage. The pyramid had a base of 216 m and a height of at least 64 m. Early dating of this construction phase placed this first pyramid in the Tzacualli phase. However, based on an extensive study of the architectural technology of monumental structures at Teotihuacan, Murakami has proposed a later construction date, during the Miccaotli phase (2010).

When compared to the construction materials and techniques used in the various construction phases of the Moon Pyramid, a Miccaotli phase construction of the Sun Pyramid aligns well with Building 4 of the Moon Pyramid. As described above, Building 4 of the Moon Pyramid represents a significant shift in building scale and styles, using for the first time: lime plaster, construction cells, and probably talud-tablero style. The construction cells in Building 4 marked the start of using adobe bricks and tepetate blocks, rather than the later volcanic rocks, in monumental constructions. The similar use of adobe bricks as construction cells and crushed tepetate in the fill of the Sun Pyramid indicates it was constructed around the same period as Building 4 of the Moon Pyramid. The features in the Sun Pyramid that Millon identified as part of an early earthen pyramid are instead probably parts of structural supports in the construction fill, as seen in the Moon Pyramid Building 4. The correlation between the Sun and Moon Pyramids reveals a period of distinct architectural and technological advances in the Miccaotli phase (Murakami 2010, 111).

The third construction phase of the Sun Pyramid complex took place during either the Late Tlamimilolpa phase or the Early Xolalpan phase. The Sun Pyramid was enlarged, the Adosada Platform was probably rebuilt, and the residential structure, known as the Palace of the

Sun, was built. While the upper portions of the Sun Pyramid were destroyed in Pre-Hispanic times and by early excavations, the pyramid today has a base of approximately 224 m, which it probably reached during this third construction phase. The fourth construction phase occurred during the Metepec phase. The Palace of the Sun was rebuilt and the floor was raised first by about 80 cm and later by another 15 cm (Murakami 2010, 117-8).

## **The Ciudadela and the Feathered Serpent Pyramid**

The Ciudadela is a complex that includes the Feathered Serpent Pyramid, also known as the Temple of Quetzalcóatl, facing a large enclosed plaza with an area of about 4.4 ha. The monumental construction along the Avenue of the Dead, including the Sun and Moon Pyramids, was continued with the building of the Ciudadela at the southern end of the Avenue, which “might have been deliberately constructed by a very powerful ruler as the materialization of a new regime” (Cowgill 2007, 289). The Ciudadela is of particular interest because it is generally thought to have served as the administrative center of the city, housing the heads of the state. The Teotihuacan Mapping Project, which exposed a much larger city than presumed, first revealed that the Ciudadela was situated near the geographic center of Teotihuacan, not at the Southern edge, as previously thought (Millon 1964, 350). The centrality of this complex, as well as its unique ideology and mortuary program, supports its potential as an important administrative building. The heads of state would have lived in the apartment compounds on the north and south sides of the pyramid (Cowgill 1992, 108).

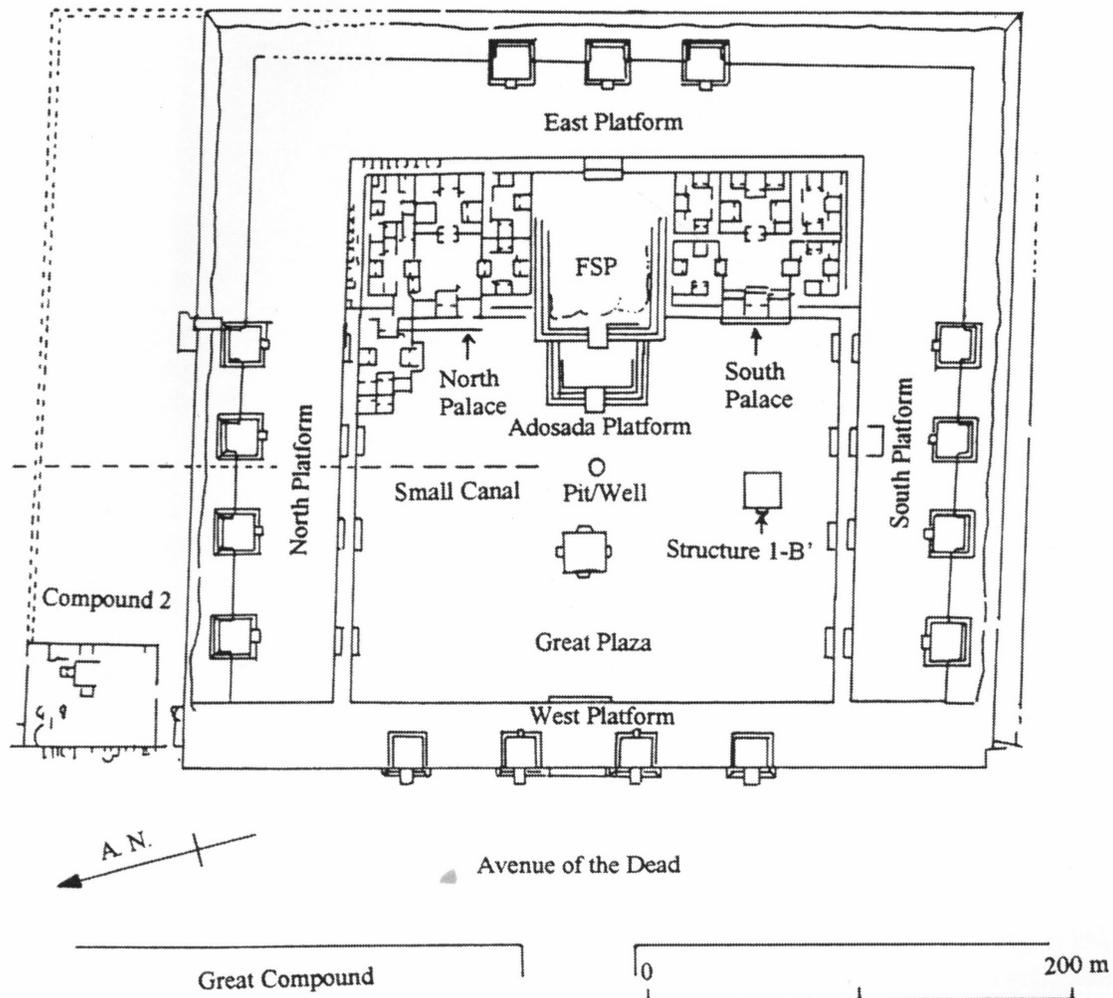


Figure 3.1 Plan of the Ciudadela. From Sugiyama 2005.

### Construction of the Complex

The building of the complex is grouped into four major construction phases, beginning with the Pre-Ciudadela. This refers to a series of platforms and residential structures under the Ciudadela dated to the Tzacualli and Miccaotli phases. Two substructures discovered beneath the great plaza, corresponding to the Pre-Ciudadela stage, indicate a monumental structure might have stood where the FSP was later built. The first construction phase of the Ciudadela occurred between the Miccaotli and Early Tlamimilolpa phases. With the FSP, the North and South Palaces and the 15 temple platforms atop the Great Platforms were also constructed (Murakami

2010, 126). The second construction phase included the building of the Adosada Platform, as well as the rebuilding of the North and South Palaces and the Great Platforms. The façades of the Interior Platforms, the lower platforms on the interiors of the Great Platforms, were modified from talud-tablero walls to talud walls (Murakami 2010, 127-8). The dating of this second construction phase is uncertain; however, the Adosada Platform is dated to the Late Tlamimilolpa phase or Early Xolalpan phase (Cabrera Castro, Sugiyama, and Cowgill 1991, 88). The third and final construction phase consisted of another rebuilding of the North and South Palaces and the Great Platforms, assigned to the Metepec phase (Murakami 2010, 129).

Although the Feathered Serpent Pyramid was significantly smaller than the Sun Pyramid and the Moon Pyramid, Sugiyama estimates that “the energy expenditure for its construction may have been as great” (Sugiyama 2005, 54). The pyramid had a square base of 65 m and stood about 20.7 m high, probably with 7 stepped platforms. The facade of the FSP used stone block coverings and large, three-dimensional sculpted heads, unique to this pyramid. There are an estimated 361 of these great heads on the pyramid, 175 depicting a serpent and 186 of an unknown image, often identified as a headdress. The FSP also demonstrates the oldest instances of talud-tablero profile at the site and perhaps all of Mesoamerica (Sugiyama 2005, check book chapter 4). The Feathered Serpent Pyramid introduced a unique architectural and symbolic program that represented a departure from the designs of the Sun and Moon Pyramids.

#### Monumental Program

It is unclear how precisely the Ciudadela and the Feathered Serpent Pyramid fit into the monumental construction project along the Avenue of the Dead and into the ideological and political settings of Teotihuacan at the time of their construction. The relationship to the Avenue of the Dead is evident not only in the Ciudadela’s placement at the southern terminal of the

Avenue, but also in that the “only known east-west axis, defined by ‘East’ and ‘West’ avenues passes through the Ciudadela” (Cowgill 1992, 103). This places the primary means of access to the Avenue at the Ciudadela, directing pedestrians first past the state’s headquarters and then depositing them at the foot of the Avenue with an impressive view of the complete monumental program against its mountainous backdrop.

Whether or not the Ciudadela was included in the original master plan, the complex was effectively incorporated into the Avenue’s visual and symbolic agenda, finalizing the impact of the monumental program. The monumental structure that predates the Ciudadela corresponds approximately to the early construction phases of the Moon Pyramid, supporting the possibility that when the plan for enlarging the Moon Pyramid and building the Sun Pyramid was made, the concept for a monumental structure at the southern point also existed. It therefore seems likely that the construction of monumental architecture at the Ciudadela’s location had been planned; however, the ruler responsible for its construction could easily have modified the plan to suit his own agenda. Cowgill believes the Ciudadela represented “new ideas about the symbolism of monumental architecture,... also [representing] a new direction in political organization and the ideology underwriting the highest political authority” (1992, 106). Building a palace-like structure would appear to go against the previous ideas of depersonalization and invisibility of the individual, with an overt demonstration of power and authority. The regime responsible for the construction of the Ciudadela introduced a program of construction and imagery that contrasted with that of its predecessors, while integrating the monument into the architectural program of the Avenue of the Dead.

## Symbolism

Symbolism at the Ciudadela responded to the religious symbolism of the Sun and Moon Pyramids, completing the materialization of the cosmos by representing the Underworld through its visual iconography and physical location. A close association with water and symbolism of the Underworld are evident in the location and architecture of the Ciudadela. The Río San Juan and the Río San Lorenzo were both modified and worked into the plan of the city. Part of the Río San Lorenzo was shaped, judging by its unnaturally straight course, and Millon and Cowgill believe it had a specific directional significance (cited in Sugiyama 2005, 42). Río San Juan was clearly modified and integrated directly into the layout of the southern portion of the city. The channelization of the Río San Juan might have been partially for functional reasons, such as drainage, transportation, and water supply, but its physical and ideological relationship to the Ciudadela, as well as a probable association with the calendar system based on TMU measurements, indicates the river was also symbolically significant (Sugiyama 2005, 47). Similar to the incorporation of the mountains into the visual program of the Avenue of the Dead, the manipulation of water—such a crucial source of life—further demonstrated the might of the Teotihuacan state.

On the other hand, the symbolism of the Feathered Serpent Pyramid demonstrates a distinct agenda, probably reflecting the character of a new regime. The facades of the FSP display alternating images of the Feathered Serpent and another symbol, the identity of which is still the subject of debate. The face of the serpent is surrounded by feathers that resemble both the petals of flowering crops, associating with the harvest, and the rays of the sun. A principal deity at Teotihuacan, the Feathered Serpent symbolized both water and fertility. Through depictions of shells and hearts, water and blood were often indistinguishable and “metaphorically

overlapping” (Sugiyama 2005, 65). The second symbol has been proposed to represent a variety of deities, most commonly the Storm God Tlaloc, but more recent and more convincing interpretations identify the second figure also as a serpent. Taube (1992) interprets the figure as a War Serpent and Sugiyama (1992) initially suggests the figure is the Feathered Serpent wearing a headdress. Influenced by the Mesoamerican concept of Cipactli, a Primordial Crocodile, associated with cosmogonic and calendrical significance, Sugiyama modifies his interpretation to the idea of a crocodile, rather than the Feathered Serpent. In Mesoamerican ideology, the crocodile is a recurring figure, symbolizing fertility:

Fertility is birth, it is life; it is what crocodiles do. One of the tasks of crocodiles with nature is to search for life: they search for water, a crucial element for the fertility of the earth; like a terrestrial element they can obtain it in the sources of water, and like a celestial element, through rainfall. Therefore, the crocodile is terrestrial, celestial, and from the underworld as well. (Pacheco and Ortiz 1975, 5)

In this way, the image of a crocodile directly connects the Feathered Serpent Pyramid to the watery symbolism of the Ciudadela and underworld, while celebrating the fertility and life brought to the people of Teotihuacan. In collaboration with the Sun Pyramid celebrating the origin of the divine contract, and the Moon Pyramid emulating Sustenance Mountain, the imagery of fertility at FSP seems to continue the celebration of the divine in supplication for sustenance.



Figure 3.2 Sculpted heads of FSP facade. From JK23JK23 2013.  
<[https://commons.wikimedia.org/wiki/File:Temple\\_of\\_the\\_feathered\\_serpent\\_detail.jpg](https://commons.wikimedia.org/wiki/File:Temple_of_the_feathered_serpent_detail.jpg)>.

However, the symbolism at the FSP diverges from the original symbolic program of the Sun and Moon Pyramids. The headdress worn by the crocodile extends the symbolism of the FSP to include the military and the ruler himself. Clara Millon (1973) demonstrates that the tassel headdress symbolizes authority and leadership, in association with the military, and represents the Teotihuacan ruling establishment within and beyond the city. Although the individual is still not depicted, in true Teotihuacan fashion, the headdress seems to indicate the divine sanction of a ruler, serving as “an earthly manifestation of the authority of that deity” (Sugiyama 2005, 67). This association with divine authority and military support brings in another aspect of the symbolism at the FSP, which would visibly connect the military and the ruler to the pyramid and its representations.

The interconnected symbolism of water and blood, fertility, authority, and the military reveals how the symbolic program at the FSP integrated new concepts of power into the traditional ideology. The sacrifices conducted in the pyramid as dedications to its construction reflected the reciprocal imagery of blood and water. They might have signified the humans feeding the gods, as part of their divine contract to sustain the universe. The emphasis on fertility and sustenance in connection to power and militarism, expressed through imagery and mass burials, introduces a new tone to the monumental construction at Teotihuacan. Such drastic measures might indicate trouble in the city. With the great increase of population and the relocation of rural populations to the city, there might have been food shortages. The erection of the FSP could represent an attempt to satiate the gods, while signaling the beginning of a new regime and legitimizing its authority. The effectiveness of this is seen in the city's response, which will be discussed later.

The construction of the FSP was accompanied by a large-scale mortuary program. Although not all predicted burials have been excavated, the burial complex is expected to contain more than 200 individuals (Sugiyama 2005, Cabrera et al. 1991). The large quantity and the ambiguous nature of the burials at the Feathered Serpent Pyramid produce "one of the most complicated complexes found to date, since it possibly contains both dedicatory and elite burials" (Sugiyama 2005, 87). In order to interpret the symbolic significance of the buried individuals, we must understand who the individuals were and how they related to Teotihuacan and the FSP. The geographic identities and the social statuses of the individuals included in what was evidently a mass-sacrifice of great ritual importance, suggest a reflection, perhaps idealized, of the Teotihuacan military system within the political and social landscape of the city. As Filini proposes, the Feathered Serpent imagery of the pyramid's sculptures, "in conjunction

with the burial of sacrificed warriors and the elaborate offering denotes possibly ‘the dramatization of rulership, through which warfare was deliberately proclaimed and justified with divine reference’ (Sugiyama, 2011: 169), materializing the need for continuity in the social order” (Filini 2015, 102). By bringing the military into the symbolism of the FSP, the pyramid multi-functions as a representation of the regime and its military prowess, in addition to the divine. In this way, the symbolic program of the FSP brings together the tradition of celebrating the cosmos and the divine at Teotihuacan and the anomalous proclamation of a new regime commanding military control beyond Teotihuacan.

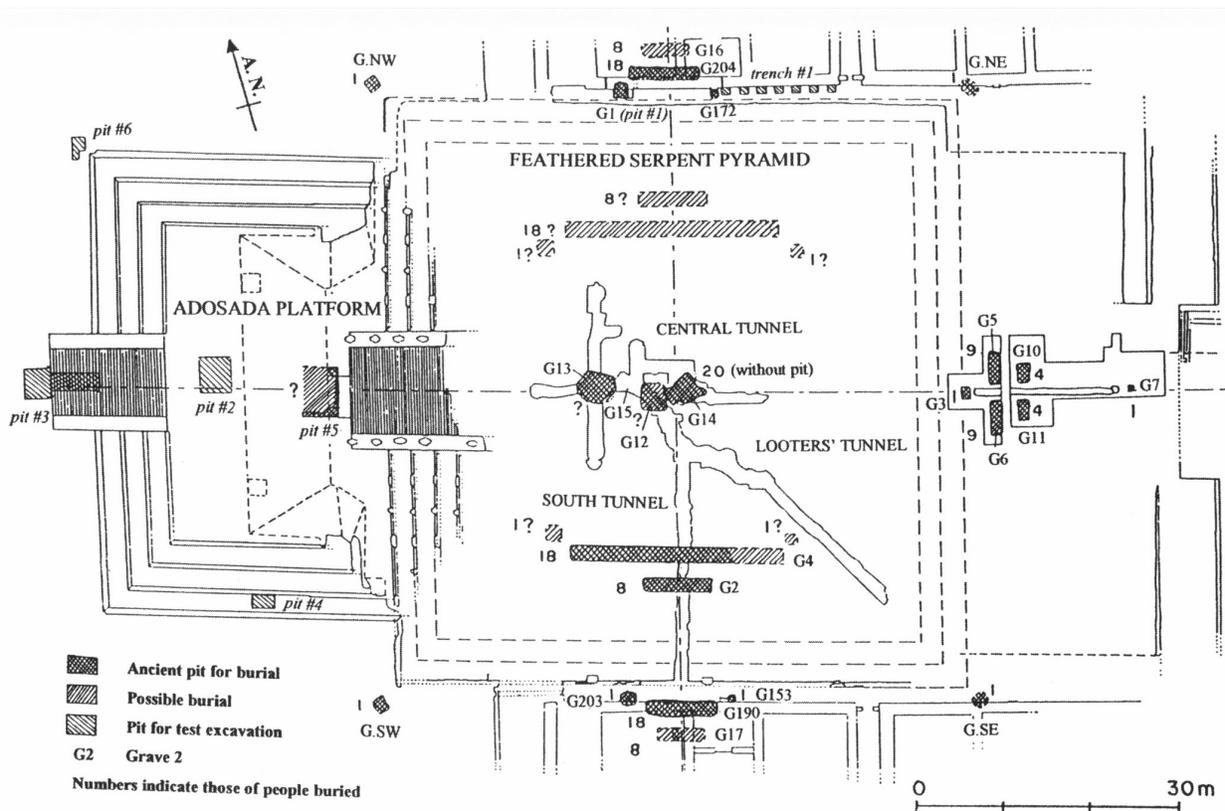


Figure 3.3 Plan of the Feathered Serpent Pyramid. From Sugiyama 2005.

### Feathered Serpent Pyramid Mortuary Program

Under the direction of Cabrera, Cowgill, and Sugiyama, the burials at the Feathered Serpent Pyramid were excavated in 1988-1989 as part of a project to explore the yet unexcavated

areas of the complex. The project revealed a large number of burials, as well as a series of looting tunnels through the interior of the pyramid. The conclusion of the project determined the FSP was built in a single construction phase, with dedicatory burials placed consistently throughout the process in symbolically significant locations, arrangements, and positions.

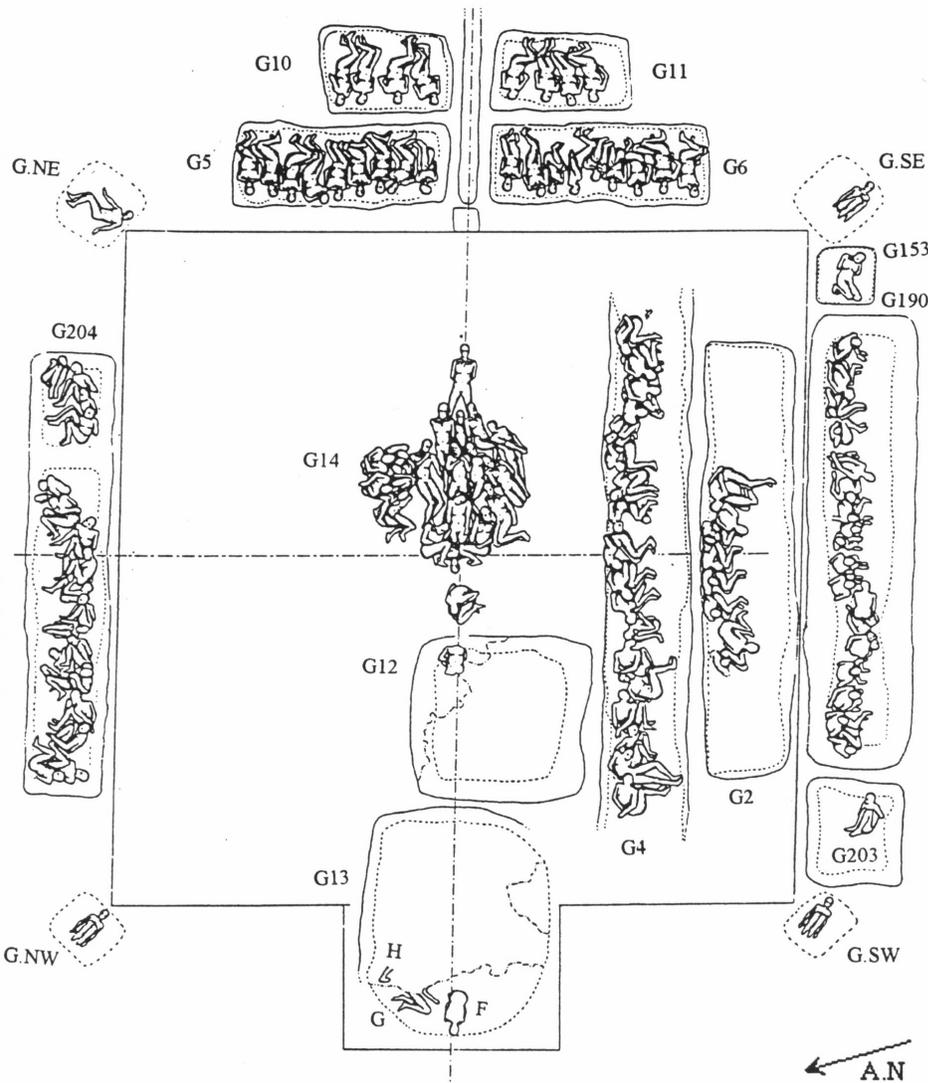


Figure 3.4 Plan of reconstructed body positions of FSP burials. Burials enlarged out of proportion with pyramid. From Sugiyama 2005.

Immediately to the south of the pyramid precisely on the north–south central line of the pyramid is Grave 190. This burial included a row of 18 males, most sitting with their backs to the pyramid, their arms crossed at the wrist behind their backs, as if bound. Among the obsidian

projectile points, worked shell, and human maxillae and mandibles (both real and shell copies) that accompanied the bodies, were slate disks, which probably would have contained pyrite mirrors (White et al. 2002, 220). Karl Taube (1992) discusses numerous symbols that these mirrors might have represented, including, among others, water, fire, and eyes. One function of the mirror, which is confirmed by iconography in murals, is in the armament of soldiers. Taube claims, “At Teotihuacan, mirrors were identified with war shields to such a degree that frequently it is difficult to tell them apart” (1988, 192). Mirrors were also worn by Teotihuacan warriors on the chest and lower back, as a form of protection against either supernatural powers or physical blows in battle (192). This close association between mirrors and warriors suggests already the vocation of these sacrificial victims of the Feathered Serpent Pyramid. Cabrera et al. observe that the young ages of the males (primarily in their late teens or twenties), the weapons and accessories, the absence of ceramics, and their positioning as guardians indicate their military status (1991, 89).

Grave 17 lies parallel to Grave 190 and contained eight individuals, who were buried with fewer offerings. Additionally, two rectangular pits were found at both ends of 190, with a single individual buried in each. These two graves were dug into the subsoil and then sealed by the lowest floor of the pyramid (Sugiyama 2005, 93). Their placement below the initial floor confirms the burials were part of the construction process of the pyramid, probably construction dedications.

To the north of the pyramid, Graves 204, 16, 172, and 1 form the mirror image of the southern exterior burial group. Many of the individuals in these graves had their arms tied behind their backs. According to Sugiyama, the data supports the theory that these exterior burials were formed later in the construction of the pyramid (2005, 94). It would make sense

that the interior and exterior burials didn't happen at the same time, and were instead laid out as the construction of the pyramid progressed, starting with the core and working outwardly.

Continuing the symmetrical patterns of these burials, Graves 5, 6, 10, and 11 form the equivalent burial group on the eastern exterior of the pyramid. Unlike the north and south groups, however, these burials are bisected by a small trench that runs east–west, the function of which is unclear. Analysis by White et al. of the oxygen-isotopes revealed distinct geographic origins among these individuals. Except for two, all of these individuals had lived at Teotihuacan for a substantial amount of time. Of the two exceptions, one came from perhaps the lowlands and the other from the Valley of Oaxaca. The enamel of these soldiers, as well as those in the southern exterior graves, showed that they had spent their childhoods in other locations, before moving to Teotihuacan. Most probably moved from the Guatemalan highlands or from Michoacán. Only two of the soldiers had been at Teotihuacan their whole lives (White et al. 2002, 220). Cabrera et al. point out the significance of these results, in that one of these individuals originally from Teotihuacan, was previously thought to be a foreigner, due to his small stature and high degree of cranial modification (1991, 80). The confusion of local and foreign attributes implies a degree of ethnic merging at Teotihuacan. Foreigners would have brought cultural practices, such as cranial modification, with them to Teotihuacan. Rather than being rejected or abandoned, many foreign customs would have been maintained and even adopted by Teotihuacanos, as seen in artistic and mortuary practices throughout the city.

Graves 10 and 11 contained 4 individuals each, generally of younger age and possibly all females. The individuals lay on their backs, legs semiflexed, heads towards the pyramid, and their hands behind their backs (Cabrera et al. 1991, 81). The oxygen-isotopes of two females sampled from Grave 10 proved to be local residents, although tooth enamel suggested one had

relocated within the Basin of Mexico. Two females were also analyzed from Grave 11 and were shown to have resided in the same location for a substantial amount of time, perhaps in the same place where most of the soldiers in the corresponding Burial 6 lived (White et al. 2002, 229).

How precisely the women in the outer, smaller, and more poorly ornamented graves correlated to the soldiers is unclear, but they might represent servants or partners.

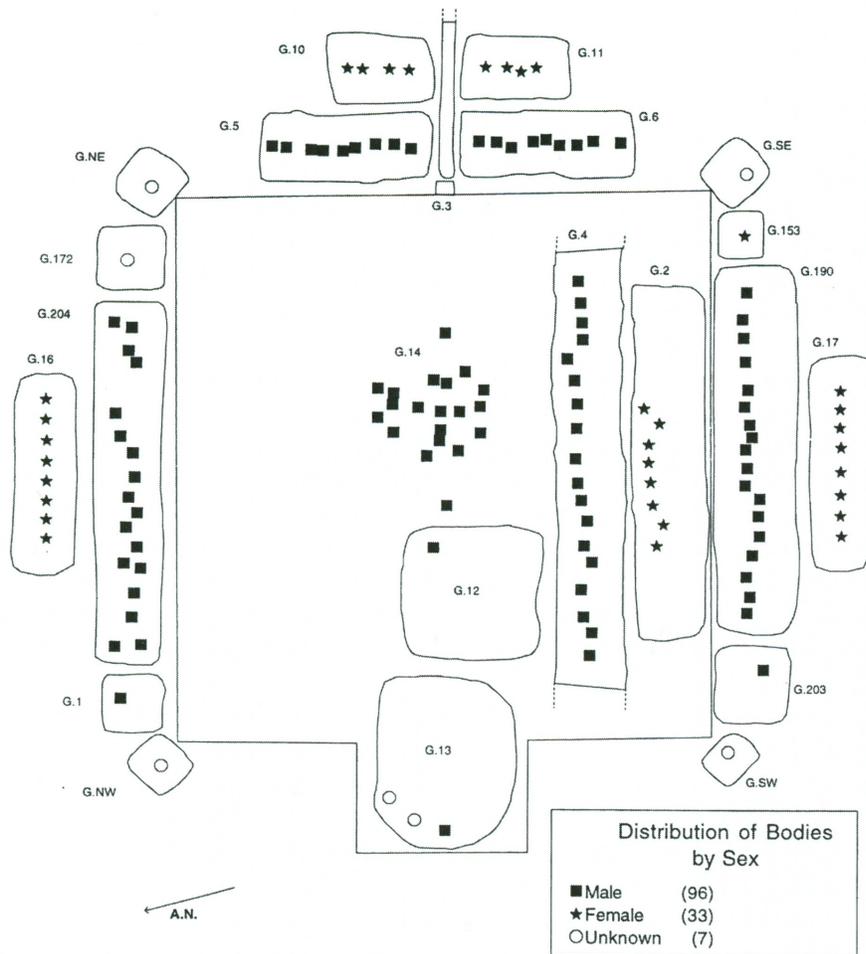


Figure 3.5 Distribution of FSP burials by sex. Burials enlarged out of proportion with pyramid. From Sugiyama 2005.

In the interior of the pyramid, are Graves 2 and 4, which again reflect the complementary arrangement of the linear graves on the northern, eastern, and southern exteriors. Graves 2 and 4 are 10 m and 13.5 m north of the southern facade, respectively. Grave 2 was a shallow, multiple

grave with rough vertical stone walls. The 8 individuals buried here were arranged in a row, heads toward the center, in flexed positions, and some with their hands behind their backs. Offerings included projectile points and shell disks and beads (Cabrera et al. 1991, 82). The grave was filled with rocks and mud after the interment. Grave 4, which is much longer, contained 18 individuals in a row. The number of ornaments and offerings was much greater than in Grave 2 and the burial types were similar to those of Graves 190, 204, 5, and 6 (Sugiyama 2005, 92). The individuals were also positioned with their heads toward the center of the pyramid, but were accompanied by projectile points, one slate disk per individual, carved shell beads, and human and canid jaw bones, several forming necklaces (Cabrera et al. 1991, 82). The  $\delta^{18}\text{O}$  values of the bones of the Grave 4 soldiers indicate they had been living in Teotihuacan for a while; however, the tooth enamel revealed that only one of these soldiers had grown up at Teotihuacan and the others came from two different foreign regions. One group came from a location with  $\delta^{18}\text{O}$  values lower than any known Mesoamerican sites, while the other hailed from highland Guatemala (White et al. 2002, 226). Graves 2 and 4 were worked directly into the construction fill of the pyramid and they share the burial patterns of the exterior graves.

By tunneling from the southern facade, Sugiyama's team reached the interior graves at the core of the pyramid. Burials 12 and 15 are considered by Sugiyama to have predated the construction of the Feathered Serpent Pyramid. Stratigraphic evidence shows that Grave 15 was the earliest burial and was associated with the Pre-Ciudadela substructures found below the pyramid. A partial animal cranium was found placed in the position of the heart of an individual, suggesting the sacrificial removal of the heart and possibly that human sacrifice had occurred on this location before the erection of the Feathered Serpent Pyramid and its mass sacrifices

(Sugiyama 2005, 89). The ruler responsible for the construction of the FSP might have wanted to engage with the previous structure and the significance it held, possibly as a site associated with sacrificial ritual, by including Burial 15 and continuing the practice of human sacrifice on a much larger scale.

Grave 12 was also originally not part of the FSP construction project. The grave is a 3 m x 3 m pit dug into the subsoil, located 3 m west–southwest of the center of the pyramid. This deviation from the otherwise precise and symmetrical plan points to its earlier existence. Although the grave was almost completely looted, fragments of bones and artifacts indicate it contained a multiple burial and was of high-status. Before its reuse in the FSP, Grave 12 might have been an elite grave in an earlier structure. The original grave was repurposed and sacrifices were probably added for the FSP construction, judging by an incomplete skeleton found in the corner with his hands behind his back. When construction of the nucleus of the FSP began, the grave was covered and sealed (Sugiyama 2005, 89).

The other two central interior burials, Graves 13 and 14 were both part of the FSP construction plan, probably to celebrate the commencement of the project. Grave 14 was found intact and included 20 adult males. The design of this grave is unique because rather than the typical pit grave, the individuals were laid out on the hard subsoil and covered with rocks and mud. The grave was defined by an arrangement of rocks forming a dome-like shape, which was subsequently covered by the vertical walls of the pyramid's nucleus (Sugiyama 2005, 90). The individuals buried in this grave were also arranged in an unusual form that probably possessed ritual, symbolic significance. The bodies were tightly packed and overlapping, and the group was aligned to the east–west axis. The heads of the individuals seem to have been pointed towards the leading, easternmost individual, presumably conferring him special honor. While

the offerings of the burial were exceptionally rich, the majority of the objects were distributed throughout the grave and laid on top of bodies with no association to specific individuals (Cabrera et al. 1991, 85).

The oxygen isotopic data for the skeletons of Grave 14 demonstrate a great deal of geographic displacement and diversity. In fact, none of the individuals seem to have lived at Teotihuacan for long as adults, with bone  $\delta^{18}\text{O}$  values similar to those of lowland or coastal regions. Enamel  $\delta^{18}\text{O}$  values show that all but three grew up in foreign locations, before moving elsewhere. One individual, who grew up in Teotihuacan later moved to the lowlands or coast (White et al. 2002, 229). The frequent relocation of these individuals might have had something to do with their vocation, if they were in fact soldiers. Their role in the military could help explain how a group of 20 individuals, from geographically diverse childhood homes and living primarily outside of Teotihuacan, came to be included in the most sumptuous multiple burial at the Feathered Serpent Pyramid.

Grave 13 is a large, deep pit located 9 m west of the pyramid's center on the east–west centerline. Unfortunately, the grave was looted and only one complete and one partial skeleton remained in undisturbed fill. Some grave goods were recovered, revealing the high-status of the burial. The undisturbed individual, an unusually robust adult male, was interred face down with his knees pulled up to his chest beneath him, and was surrounded by an arrangement of stones, “which apparently was intended to serve to protect and/or isolate this individual in a real/and or symbolic sense” (Cabrera et al. 1991, 83). Millon suggests that Grave 13 probably contained the burial of the ruler responsible for the building of the FSP (Millon 1992, 362). However, Sugiyama believes Grave 13 was a multiple burial, too similar to Grave 14 to represent the contrast you expect between a sacrificial and royal tomb (2005, 234).

Based on the oxygen isotopic analysis, White et al. provide additional insight. The similar  $\delta^{18}\text{O}$  bone and enamel values show the individual grew up and lived in the same area—possibly the Guatemalan highlands or Michoacán. Additionally, among the offerings found in the grave was a wooden baton, with feathered serpent heads carved on both ends. “The almost unavoidable impression is that the piece is related to the ‘manikin scepter’ carried by many Maya rulers” (Cabrera et al. 1991, 84). In the context of the FSP with its diverse mortuary rituals and treatments, Grave 13 undoubtedly contained numerous sacrificial victims symbolically arranged. The limited evidence recovered from the grave, the central location and the large size of the grave supports Grave 13 being a unique and high-status burial with its own ritual treatment. The possible burial of a Mayan elite offers a potential answer to the singularity of the grave features and also indicates the influence and integration of foreigners at Teotihuacan.

The 1988 excavations uncovered a large pit on the west and principal side of the pyramid, 2 m west of the stairway, and exactly on the east–west centerline. No offerings have been found in the pit and only bone fragments were recorded by an early excavation in 1939 because the pit was completely looted before or at the time of the construction of the Adosada platform; however, many offerings were discovered in front of the stairway and in the platform, which were probably originally associated with the pit (Sugiyama 2005, 95). Cabrera et al. acknowledge that the pit, known as Pit 5, “probably contained remains of great significance including, possibly, some individual of great importance” (1991, 88). Sugiyama adds that due to its location, the pit might have been covered by a low platform or altar at the foot of the stairs. The pit would also have been accessible after construction of the pyramid had been completed, making it a very likely location for the burial of ruler who built the FSP (Sugiyama 2005, 95). Looting of this grave coincided to the abandonment of the Ciudadela, the covering of the

pyramid's west facade with the Adosada platform, and the burning and defacement of the pyramid, suggesting the burial was of particular importance and probably held a wealth of offerings. Despite the limited evidence, it seems very possible that after the conclusion of the FSP construction and series of mass-sacrifices, the person responsible was buried at the foot of the pyramid.

The positioning of the buried individuals (most with their hands bound behind their back) indicates sacrificial victims; the stratigraphy and fill of the graves indicates the burials were a part of the construction process, suggesting dedicatory offerings to the construction of the FSP; the gender and ages of the individuals makes them likely candidates for military status; and the grave offerings (primarily projectile points and slate disks) support their roles as soldiers. The role of the females is unclear, but their positioning coordinated to the soldiers and their poorer status suggests that they were perhaps servants or partners. The question of a royal burial remains unanswered due to the extensive looting of the pyramid, although the targeted looting of the center graves at the approximate time of the pyramid's destruction and covering of the facade some time in the 4th century CE might indicate the pointed removal of the ruler responsible for the building and sacrificial program. At the very least, the looting of these graves indicates an exceptional richness of the grave offerings in these evidently important and unique burials. Sugiyama proposes that the ruler responsible for the pyramid was buried on the exterior, in the more accessible pit in front of the stairway (2005, 235). The accessibility of this grave location supports the idea of burial after the completion of the FSP construction. The rich offerings of the interior graves might then instead indicate burials of elite individuals of high status or receiving particular honor.

Determining how the buried individuals died and how they came to be buried in the pyramid poses another challenge. Cabrera et al. point out that no evidence of recent trauma has been detected on the bones, as one might expect of a more violent cause of death (1991, 80). They might have been victims; volunteers, chosen to be sacrificed as a sign of honor; or individuals who died of natural causes and were brought to the FSP for a burial (Sugiyama 2005, 96). Serrano et al. 1997 suggest they were foreign captives, however this previously common belief is contradicted by the geographic identities of the individuals (cited in White et al. 2002, 229). However, almost all of the buried individuals lived, at some point in their lives, in Teotihuacan for a significant period of time and could not have been enemies captured and sacrificed. They might have been “royal guardsmen, or low-status Teotihuacanos dressed as soldiers (Cowgill 1992; Sugiyama 1995)” (White et al. 2002, 218). The individuals serving as royal guardsmen is less convincing without a pronounced royal grave. Dressing up low-status individuals with rich grave offerings and military garb is not supported by evidence and would contradict the extravagant symbolism of power and divinity expressed by the FSP. The buried individuals were most likely soldiers in the Teotihuacan military, of varying status levels.

Cowgill (1992) discusses military action early in the city’s development, already in the Patlachique phase (150 BCE–0). While the military appears more clearly in symbolic depictions later in the city’s history, its presence and function would initially have been significant before being celebrated in visual representations. Hassig describes the effectiveness and scale of Teotihuacan’s army, having a “maximum offensive army [of] almost 39,000 men and [an] effective army [of] almost 66,000– a force unmatched in Mesoamerica at that time” (Hassig 1992, 85). The army would have consisted of both commoners and elites; because of their status, elite soldiers used atlatls and “could be dispatched at virtually any time because they were

not farmers” (47, 53). Clara Millon (1973) proposed a system of military orders represented by animals. Anna Headrick (2013) works this concept into a sociopolitical “trinity” of a ruler, elite lineages, and military orders. Cowgill agrees these orders “may have been sodalities that crosscut kin ties and provided politically important cohesive institutions” (Cowgill 1997, 146). By the time of the Feathered Serpent Pyramid, the role of the military may have been largely symbolic, “representing the grandeur of the Teotihuacan state both to its own population and to foreigners,” as its necessity for conquests and campaigns diminished (Cowgill 1992, 213).

The oxygen-isotope values taken from bone and tooth enamel samples of the FSP individuals demonstrate a surprising range of geographic origins and migrations. The geographic diversity of childhood and adult living locations of the pyramid’s individuals supports the idea of foreigners involved in the military. White et al. conclude, “These residence patterns indicate that, in addition to the possibility of having a locally based military career, the state probably also engaged in regionally interactive recruitment” (2002, 230). This recruitment might have been an aspect of the state’s more direct and assertive efforts to bring skilled people to the city. Another possibility is that children were brought to Teotihuacan by their migrant parents and, after growing up in the city, later joined the military (230). Whether recruited from afar or from within the city, foreigners were considerably well represented in the military. The geographic diversity of the FSP soldiers supports the presence of a multiethnic population at Teotihuacan. Unfortunately, until further research can determine cause of death and more is understood about the state, elites, and the military at Teotihuacan, the picture of who the FSP individuals were will remain incomplete.

## Response to the Feathered Serpent Pyramid

Attempting to understand the motivations behind and the reactions to the construction of the FSP gives a perspective into the transformations the city was undergoing as a result of its recent rapid population growth. At some point after the completion of the Feathered Serpent Pyramid, the administrative center shifted away from the Ciudadela to the Avenue of the Dead Complex, located halfway between the Ciudadela and the Sun Pyramid, around the Late Tlamimilolpa phase. Cowgill suggests that the successors of the ruler at the Ciudadela might not have been content with the facilities and shifted to a new complex (Cowgill 2007, 290). However, this shift in government appears to have been motivated by a more aggressive response to the FSP. Not long after its completion, parts of the FSP were damaged, the temple topping the pyramid was demolished and burned, and ritual burning took place at the base of the staircase. The remains of this destructive episode were then used in the fill of a new adosada platform, which covered most of the western stairway and the old west façade. Millon and Cowgill agree the Ciudadela was built by a “highly autocratic ruler” and the destruction of his pyramid was a reaction, which resulted in a shift to “a more collective political system” (Cowgill 2007, 290). The marked defacing of the pyramid and the looting of the royal or elite graves seems to reflect an aggressive response to the predecessor’s regime.



Figure 3.6 Western facade of the FSP partially covered by the Adosada platform. From jschmeling. <[https://commons.wikimedia.org/wiki/File:Teotihuacan-Pyramid\\_of\\_the\\_Feathered\\_Serpent\\_3022.jpg](https://commons.wikimedia.org/wiki/File:Teotihuacan-Pyramid_of_the_Feathered_Serpent_3022.jpg)>.

How soon after the completion of the FSP this event occurred is not clear. However, several of the serpent heads in the facade were not completed before being painted with red stucco and some of the heads were heavily damaged but stucco was later reapplied, suggesting the final stages of the construction project might even have been interrupted. Cowgill (1992) sees this event as evidence of an iconoclastic episode, which culminated in the ritual burning at the base of the stairway of the FSP before the new platform was built over the facade. The burning here might have been connected to the burial in front of the stairway, which Sugiyama suggests contained the ruler responsible for the FSP and which was thoroughly looted before the new platform was constructed.

The unprecedented mass sacrifice at the FSP and the suggestion of rulership in the imagery introduces a political motivation diverging from the symbolic program of the Sun and Moon Pyramids. The emphasis on fertility through feathered serpent symbolism suggests the possibility of dissatisfaction amongst the population and a ruler's attempt to both appease the gods and reaffirm his authority. A lack of successful results might have prompted growing concern and anger towards the regime represented by the FSP. The population of Teotihuacan evidently did not approve of the regime distinguished by its mass-sacrifices. Additionally, this reaction sparks "an institutionalization of an effective restrained on despotic rule" through "powerful ideological and institutional checks on the glorification of personal power," as proposed by Millon in 1988 (Cowgill 1992, 109, 212). This resulted in the rise of more collective government and a shift from monumental construction to the building of non-elite residential architecture throughout the city.

## **The Apartment Compounds**

Following the conclusion of monumental construction along the Avenue of the Dead, finalized with the Ciudadela and Feathered Serpent Pyramid, the focus of monumental building programs shifted from the public to the domestic sphere. Beginning in the 200s, construction activity in Teotihuacan was concentrated on the apartment compounds, growing out from the Avenue in all directions. Attention was redirected from the realms of the divine, ruling, and elite to the living conditions of the rest of the population. More than 2,000 multifamily apartment compounds were built to house almost the entire city— a population estimated anywhere between 100,000 and 200,000 people (Millon 1964; Cowgill 1997; Sanders 2008). The Teotihuacan apartment compound represents “one of the most densely populated residence types of the ancient world” (Carballo 2011, 152). The estimated population size will probably increase with the discovery of more apartment compounds and more insubstantial structures, in which the poorest and least visible members of society lived (Cabrera Cortés 2011). The earliest compounds were built during the Early Tlamimilolpa phase (200-300 CE); however, most compounds are dated to the Late Tlamimilolpa phase (300-400 CE). Compounds were still being built into the Early Xolalpan phase (400-550 CE), but by the fifth century, apartment compounds were pervasive throughout Teotihuacan (Millon 1981, 206).

Little is known about the earlier residential buildings, which were fully razed and replaced with the apartment compounds; however, they probably would have resembled the earth and adobe houses of Tetimpa, discovered by Plunket and Uruñuela (1998) beneath the volcanic ash (Cowgill 2007, 274). Spence et al. point out that “The thoroughness with which apartment compounds replaced earlier residences everywhere in the city raises the possibility of some degree of coercion by the state” (2005, 164). The state’s involvement in the planning of the

apartment compounds is apparent in the overall conformity of the structures. From the Avenue of the Dead out to the outlying areas, where space was not an issue, the houses adhere to the Teotihuacan orientation of 15.5° east of north and to the city grid. The compounds were built quite substantially of “rubble walls faced with thick concrete covered with lime plaster” (Cowgill 1997, 140); if the population built the apartment compounds without state direction, one would expect to see the disparity in socioeconomic status reflected in construction quality and design. The planning and resources required for the construction of the apartment compounds attest to the state’s role in the execution of the project.

### Monumental Program

The apartment compounds would have fit into the monumental program of the Avenue of the Dead and the state’s agenda. Freestanding walls were erected amidst many of the compounds, particularly nearing the Avenue. Whether or not these walls served another purpose isn’t certain, but, together with redirected waterways, they would have effectively directed the movement of pedestrians through the city (Cowgill 1997, 140). The city streets are “short and discontinuous” and lined with the windowless walls of the apartment compounds or these additional freestanding walls (Morton et al. 2012, 395). As a result, the contrast between the narrow, dark, and probably often busy streets and the open, public areas would have produced a noticeable effect. Most significantly of course, the experience of emerging from an alleyway onto the expansive, monumental, and breathtaking Avenue of the Dead, would have been impressive. Your attention would immediately have been directed upwards, to the pyramids and to the heavens, reaffirming the divine associations of the Avenue’s monumental program. Morton et al. describe how the apparent disorganization of the apartment compounds, despite the

foundation of a city-wide grid and standard orientation, still fit into the broader picture at Teotihuacan:

The ‘unintelligible’ status of the Teotihuacan grid means that, for an individual experiencing the city grid, their local environment would provide little instruction concerning the arrangement of the city as a whole: we might contrast this with the readily intelligible (though dauntingly intricate) system of a modern metropolis such as Manhattan (Blanchard & Volchenkov 2008). There is therefore little in the way of local spatial reinforcement for the patterns of community and authority suggested by the larger system. In such an environment, the representation of the city as a macrocosm of the household may have provided congruity to the system. Peoples’ daily household practice would have served as an intelligible and hence, stabilizing, reminder of the Civic system of authority. (395)

In this way, the architecture of the city represents the distinct public and domestic realms. The construction of the apartment compounds was probably intended to increase the state’s ability to control and maintain order within the population by creating organized private spaces, protected from the commotion and chaos of a bustling metropolis by windowless compound walls. The compounds allowed the population to essentially be partitioned into smaller, more manageable units that could also foster a greater sense of community and comfort within the compound.

While the state clearly played a part in the planning and regulation of the apartment compounds, there was also a high level of variability in the internal organization of the compounds. The diverse interiors of individual compounds demonstrate that “There must have been a good deal of structure that was the result of ‘bottom-up’ self-organizing process (Robertson 2001),” allowing the inhabitants to accommodate their household, crafting, and ritual needs (cited in Cowgill 2007, 262). This internal flexibility within the rigidity of the compound structure, instituted by the state, reflects the changeability of households and residential units in Teotihuacan. Cowgill echoes Millon, explaining “such residential flexibility seems the only way to make the fixed dimensions of apartment compounds compatible with the inevitable fluctuations in compositions over time of individual domestic units” (2008, 91).

Additionally, apartment compounds were typically rebuilt or modified to some degree at least two or three times over its course of occupation, most likely to accommodate the dynamic household sizes and activities (Cowgill 2007, 274).

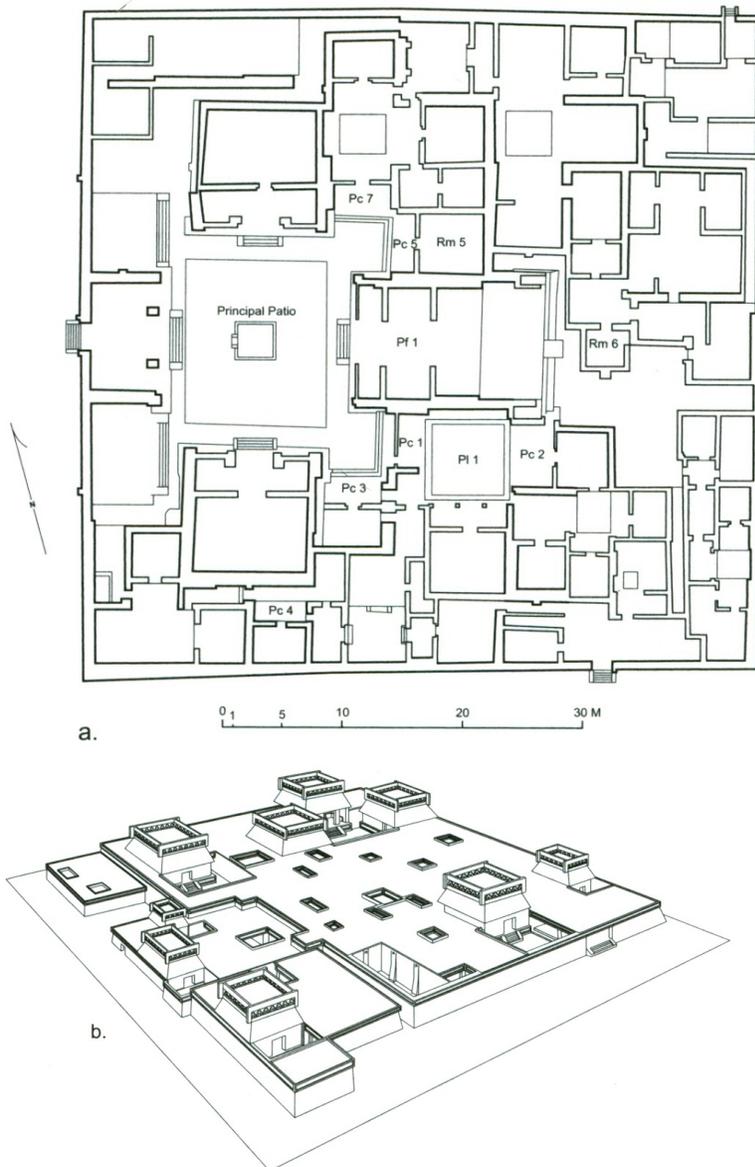


Figure 4.1 Examples of apartment compounds: a) Yayahuala; b) reconstruction of Tetitla. From Headrick 2013.

## Architectural Organization

The fundamental features of apartment compounds were relatively uniform, although flexible in their internal arrangement. The basic layout of an apartment compound consisted of a series of one-story rooms, corridors, courtyards, patios, and porticos, surrounded by a high, windowless wall. These outer walls were constructed of stone, surfaced with concrete, and faced with lime plaster. Within the compound— named for this enclosing wall— distinct units existed, which Millon identified as apartments (1981, 203). Each compound contained an approximately square courtyard surrounded by platforms on three or four sides. These platforms were about a meter high, with talud-tablero profiles, and on them stood the apartment rooms, with inward-facing porticos (Cowgill 2007, 275). The courtyard, which would have been accessible to all inhabitants, usually contained at least one temple platform or altar at its center. The openness of the courtyard, as well as the numerous patios throughout the compound, would have provided ventilation and light and allowed rainwater to be collected. Beneath the concrete and plaster floors lay an interconnecting system of drains, which carried water either out to the streets or to storage reservoirs in the compound. Apartments were connected by a series of alleys and shared common spaces, such as areas for food preparation and storage, identified by excavations of earthen kitchen floors with shallow hearths (Millon 1981, 203). A compound around 60 m wide probably housed somewhere from 60 to 100 or more people, divided among the different households (206). While a wide range of compound sizes existed in the city, 50 to 60 meters square was common (203). The floorplan of each compound was unique and therefore most likely designed by or with the intended inhabitants in mind. It was common for apartment compounds to be rebuilt at least twice, mostly likely to accommodate the dynamic household sizes and activities (Cowgill 2007, 274). However, even with multiple modifications over time,

the “layouts appear to have been maintained for 100 years or more” (Millon 2003). This indicates apartments maintained continuous habitation and use by a family or otherwise related group through generations, adjusting the structure to accommodate their needs.



Figure 4.2 (*left*) Multiple phases of stairways in apartment compound.

Figure 4.3 (*right*) Multiple layers of plaster in apartment compound.

### Internal Organization

At the foundation of a household is the family— it provides the most natural formation of a residential unit. The early houses at Teotihuacan undoubtedly followed this tendency. Our understanding of household organization at Teotihuacan comes primarily from the burial practices within the apartment compounds. The selection of individuals, and their respective statuses, conveyed through grave offerings and burial location, indicates an emphasis on lineage. The architectural and symbolic programs of the Avenue of the Dead, demonstrate the celebration of the city’s relationship to the world of the divine. The physical proximity to both the cave of origin and the mountains reaching into the heavens emphasizes a symbolic proximity to the gods

themselves. The Teotihuacanos were effectively proclaimed the closest descendants of the gods. This emphasis on ancestors is evident in burials, as the Teotihuacanos “seem to have regarded the burials in apartment compounds as ancestors who were meant to dwell with living kin” (Manzanilla 2002, 57). Pasztory suggests that “The gods themselves were not immortal, and remained within this cycle of death and rebirth (1983)” (quoted in Sugiyama 2005, 15). Key markers of social status at Teotihuacan reflect this emphasis on proximity to the divine; for example, higher status compounds tend to be nearer the Avenue of the Dead, and the highest status burials within compounds are near the altar in the main courtyard.

Following this celebration of ancestry, the fundamental organization of the apartment compound was lineage-based. As a result, social differentiation within an apartment compound would have been at least equal to, if not greater than, between different apartment compounds. Particularly in the earlier phases of the apartment compound’s history, this “degree of social differentiation within apartment compounds may tell us much about the nature of that social unit as an inegalitarian, hierarchically organized social group in which members of particular sub-groups apparently held positions of relatively higher status than most of their co-residents” (Sempowski 1987, 128-129).

While households certainly developed out of familial units, as the city grew, and these families with it, household organization became increasingly more complex. Sanders agrees “that such lineages existed from the very beginnings of the history of Teotihuacan, but [it is probable] that the members lived in loosely organized neighborhoods in the Tzacualli and Early Teotihuacan phases of the history of the city” (1996, 674). The construction of the apartment compounds introduced a physical limitation to the constantly changing and growing household. Millon describes the apartment compound as a kind of paradox, that because of the rigidity of the

architectural unit, the occupants must have constituted a highly flexible social unit (1981, 208). With each new generation, the arrival of so many foreigners, and the general shift from agricultural to specialized crafting activities, “lineages may have coalesced into larger corporate entities with communal land ownership, occupational specialization, and shared veneration of ancestors and patron deities centered at domestic shrines” (Carballo 2011, 152). Although continued through ritual, to much of the population, the celebration of ancestors and direct lineages would have lost some of its importance as a source of status. Elites, on the other hand, might have continued to emphasize their inherited status and connection to the original Teotihuacanos, setting themselves up for failure, as the rest of society transitioned with the economic growth of the city.

Much as the lineage was the fundamental organization of a household, “the household was the fundamental unit of production in premodern societies” (Carballo 2011, 144). Understanding the organization of an apartment compound must, therefore, take into consideration the economic activities as well as the “shared flexible and highly varied kinship ties” (152). The residents of a compound are often described as belonging to “corporate kin groups,” which indicates relation as well as shared economic, social, or ritual responsibilities (Manzanilla 2002, 55). As with the ancestor worship, “ritual and ceremony were undoubtedly important mechanisms for promoting group cohesion and solidarity” (56). Cultural, ritual and burial practices continued to play a significant role in apartment compounds, even as economic activities increased. The collective identity of the inhabitants would have established the apartment compounds as social units in the competition within the developing socioeconomic hierarchies. As a result, this “Collective action on the part of households... stimulates and responds to broader-scale change within a larger social universe,” which is becoming

increasingly apparent in the history of Teotihuacan and the organization of its apartment compounds (Carballo 2011, 166-7).

Carballo (2011) describes the recent developments and advances in household archaeology of Mesoamerica, demonstrating how more effective studies of the household can greatly improve our understanding of a society. An example of changing approaches, “Recent ethnographic and historical work has attempted to deal more directly with questions of change, variation, and dynamism in household organization” (Ashmore and Wilk 1988, 3). Households are rich sources of evidence and particularly useful at Teotihuacan, where residential structures are so significant and where the organization of society and politics has been notoriously elusive.

#### Foreign Barrios

*Barrios* are neighborhoods, defined “as relatively homogeneous units composed of members affiliated through kinship, craft specialities, ethnic identity, and/or religious ties” (Cowgill et al. 1984, 182). These neighborhood units are not consistent throughout Teotihuacan, however, and demonstrate great variety in their organization. Barrio types include a wide range, “between relatively homogeneous barrios at one extreme, and, at the other extreme, highly differentiated areas of the city that may not have been organized as barrios at all” (182). These barrios stand out because they reveal shared characteristics between apartment compounds and a level of organization beyond the individual compound. Examining the relationship of the apartment compound to the barrio helps illustrate the trends and transformations at the compound and city-wide level.

As Rebecca Storey points out, demographic studies at Teotihuacan have been severely limited due to a concentration of excavations on the public buildings around the Avenue of the Dead and a lack of recovered human skeletal remains (1992, 71). Recently the archaeological

focus has shifted to the residential architecture and mortuary practices beyond the avenue of the dead. New approaches and technologies have shed new light on the multiethnic character of many compounds at Teotihuacan and revealed the extensiveness and pervasiveness of foreigners' integration into the population of Teotihuacan. These new investigations include analysis of DNA and of strontium, oxygen, and carbon isotope ratios in bone and tooth enamel from buried skeletal remains in apartment compounds.

As stated by Manzanilla, "The existence of multiple kin and ethnic groups throughout the city's long period of occupation is evidenced by diverse burial patterns" (2002, 62). Location, rituals, and offerings varied between apartment compounds but followed general Teotihuacan practices of seated or flexed burials beneath compound floors in earthen pits. The social status of these buried individuals, signified by location and format of the burial, took factors including descent, gender, age, and occupation, into account to varying degrees. Foreigners were integrated into Teotihuacan society and their burials demonstrate the diverse levels of assimilation. They were often buried in the customs of their homeland, but frequently incorporated elements of Teotihuacan mortuary practices, depending generally on the individual, apartment compound, or barrio (62).

In the apartment compounds, we see "a social process where elements of one society are assimilated into another society resulting in a new social form or in a change of cultural traits, or what Clack (2011:228) calls 'the amalgamation of formerly discrete worldviews, cultural meanings, and in particular religion'" (Rodriguez 2013, 16-17). I believe this accurately describes much of what occurred at Teotihuacan. There would have been a merging of cultures, so much so that a distinct Teotihuacan culture or identity is not discernible in the archaeological record. The clear evidence of foreign practices represents an exception not the rule— meaning

these would be examples of foreigners with exceptionally strong ties to their homeland or a strong desire to maintain their original heritage. Those foreign residents who were more intermediately and more completely assimilated into Teotihuacan culture and society would effectively disappear from the archaeological record, and “Even those who maintained a distinctive identity may have become archaeologically invisible, relying on the specialized workshops and market system of Teotihuacan for their material goods and living the standardized apartment compounds...” (Spence et al. 2005, 156). The grouping of foreigners in barrios, indicated by our incomplete and rapidly evolving record, was not a result of separating foreigners from Teotihuacanos, but rather a result of natural processes and self-inflicted grouping. Newcomers to the city would have fit in where there was space— physically, this would generally have been on the less-densely populated peripheries of the city and culturally, they would have joined relatives or acquaintances already in the city or been drawn to ethnic neighborhoods, filled with immigrants with shared cultures or experiences. This is a phenomenon observable today in cities around the world. In this way, the growth and development of Teotihuacan might have been more similar to that of a contemporary city like New York City, for example, than previously considered. We see today also that individuals, families, and neighborhoods retain and celebrate their heritages to varying degrees. Much in the way the United States is seen as a melting pot, Teotihuacan attracted, embraced, and accumulated foreign practices and ultimately created a new and unique urban character and cultural identity. With further excavations and new scientific methods of analysis, our understanding of cultural identities in the ancient metropolis will continue to grow.

The significance of these ethnic barrios at Teotihuacan is becoming increasingly evident as the factors in their development, such as foreigners and craft specialization, are compared to

the changes of social, economic, and political organization throughout the city. Filini describes how “The establishment of specialized workshops and ethnic neighborhoods inside the city limits, as well as Teotihuacan-related enclaves in culturally distinct settings in other regions, all characterize aspects of the city’s urbanization processes” (2015, 110). The socioeconomic organization at the apartment compound and barrio levels reflect the organization of Teotihuacan society on a larger scale. The changes within the apartment compound can be examined as a model, but also as a driving force, of the transformation of the city throughout its dynamic history.

A small sample of “architectural complexes or barrios have been partially excavated: Yahualala, Xolalpan, Tlamimilolpan, Tetitla, The Ventilla, Oztoyohualco, Tlajinga, The Oaxaca Barrio and Merchants’ Barrio, among others” (Rodriguez 2013, 20-21). I have chosen to discuss two apartment compounds– Tlajinga 33 and Teopanacazco– within two barrios marked by the presence of foreign inhabitants and high levels of craft activity. The compounds are located in different parts of the city and display different internal practices and developments over time, giving a sense of the variety of foreign barrios and apartment compound in the city. These barrios have not been as extensively discussed as, for example, the Merchants’ and Oaxaca Barrios, for example, but have been the sites of recent DNA and isotopic studies, the results of which add to our understanding of Teotihuacan’s changing society and the latter half of its history.

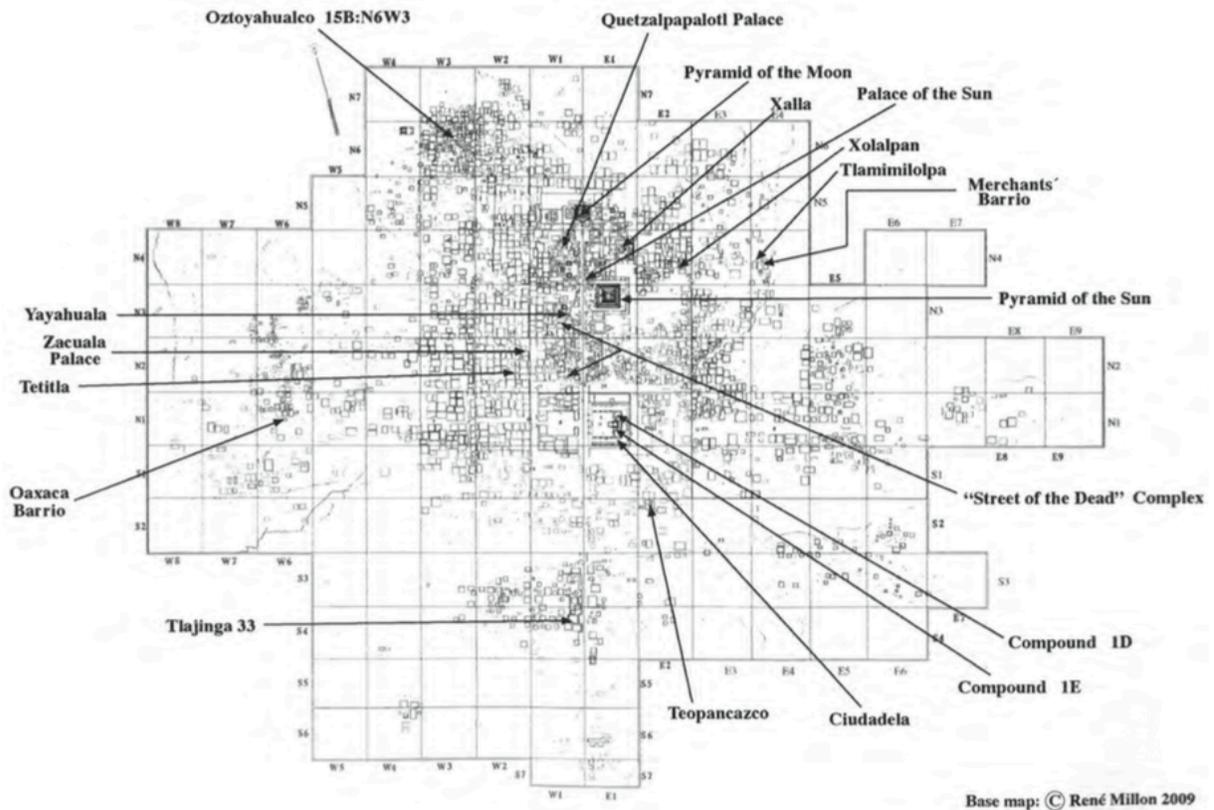


Fig. 4.4 City plan showing location of Tlajinga 33 and Teopanazgo. From Manzanilla and Chapdelaine 2009.

### Tlajinga 33

On the southern edge of the city is the Tlajinga neighborhood, which has been identified as a crafting barrio. Tlajinga 33 is an apartment compound in this neighborhood, “was not an ethnic compound in an ethnic barrio, but a conglomeration of local residents and diverse immigrants whose role was to produce crafts” (White et al. 2004, 193). Tlajinga 33 represents a compound of relatively low status, demonstrated by its architecture and artifacts. The construction included sparing use of cut stone, stucco, and lime plaster, using instead primarily adobe bricks (Sanders 2008, 121). Tlajinga 33 was occupied beginning in the Early

Tlamimilolpa phase (200-300 CE) through to the Metepec phase (650-750 CE), during which time it experienced three construction phases (Storey 1992, 50). A workshop area was identified in the compound's open courtyard, with a packed earth floor and clearly separated from the domestic spaces. The compound appears to have initially been producing lapidary artifacts—semi-precious greenstones, marine shell, slate and onyx used in jewelry and decorative objects—for trade in the local market of Teotihuacan, judging by the volume of raw material debitage. While too great for only the compound's needs, the production amount was not significant enough to indicate long-distance trade (Widmer 1991, 131).

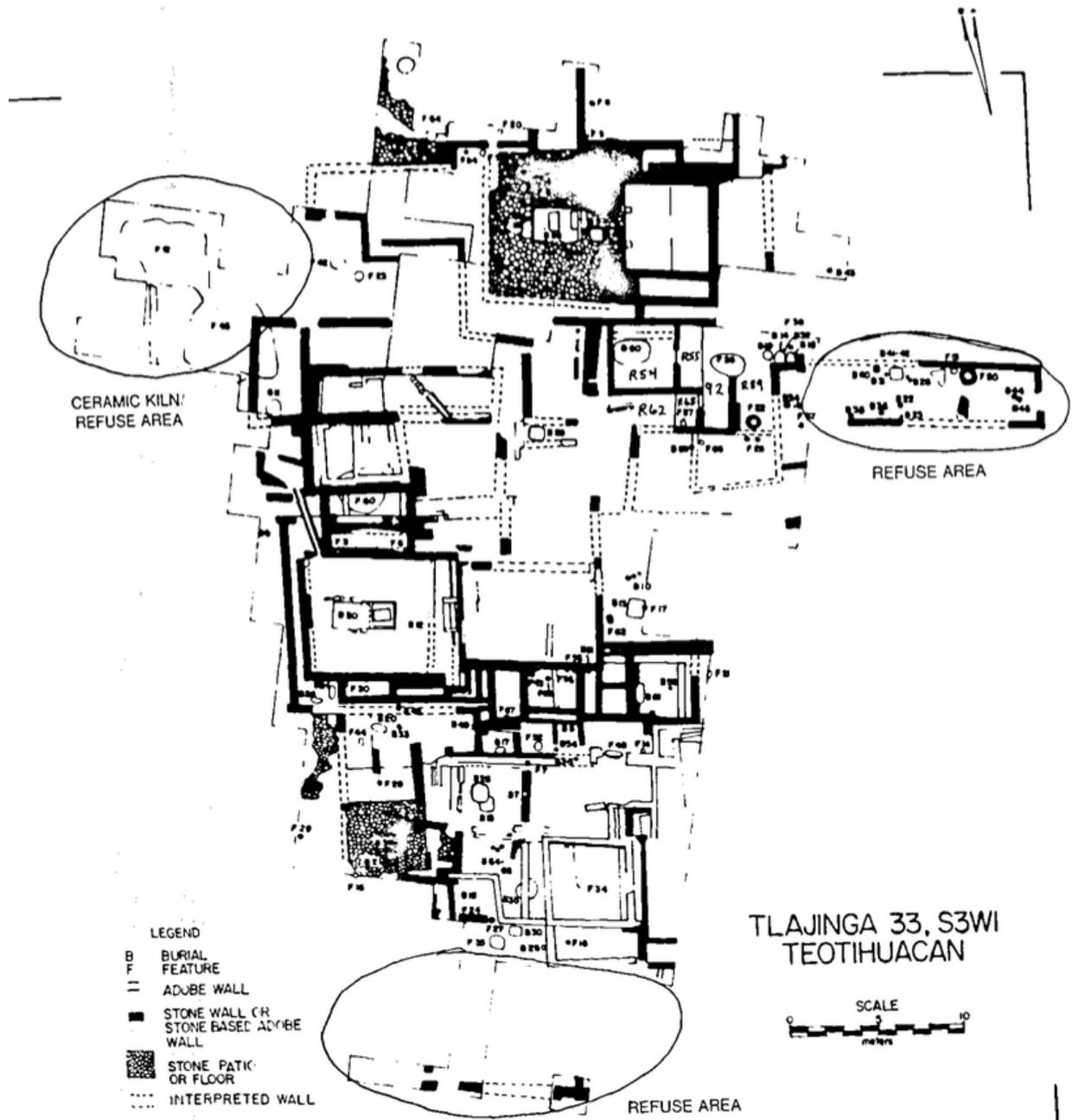


Figure 4.5 Plan of Tlajinga 33. From Widmer 1991.

Later in its occupation, in the Late Xolalpan phase (500-650 CE), the compound adjusted its manufacturing to include ceramics. In addition to jewelry, part of the compound was now producing San Martin Orange vessels— craters and amphorae used for food production and

storage. Modifications to the apartment compound supported the addition of this craft, evidenced by the kilns outside the compound wall and roofed craft areas within for manufacturing and drying of the ceramics (Sanders 2008, 119). Krotser and Rattray (1980) claim this specialization was characteristic of the Tlajinga neighborhood at this late point in Teotihuacan's history, indicating higher organization of ceramic production at the barrio level (cited in Storey and Widmer 1999; White et al. 2004). This transformation and organization of the barrio was probably directed by an intermediate elite who assumed control of the barrio and its economic production. As a result, products became more standardized and status differentiation within the compound diminished (White et al. 2004, 179). This shift in status is evident in the later burials of the compound.

Graves in Tlajinga 33 were located in seven different areas. Making up the most common burial locations, 22 individuals were found buried in rooms (33%), 14 under activity areas (21%), and 12 under an altar (19%). Other burials included 7 individuals within walls, 4 in patios, 1 in the courtyard, and 5 outside the compound. The division of burials in public areas (27) and domestic areas (33), was approximately equal (Storey and Widmer 1999, 206); however, the graves in public areas tended to contain a higher quantity and quality of offerings and to "exhibit greater energy expenditure in their construction" (White et al. 2004, 179). Notably, in an examination of the chronological phases, Storey demonstrates a decrease in public burials and a shift to more private locations over time (1992). The distribution of sex among the adults, males (19) and females (14), was also fairly even, but the age distribution of the individuals revealed 30.9% were middle-aged adults of 35-49 years and 35.3% were perinatals or infants under 1 year (Storey 1992, 83, 85).

The grave goods accompanying the burials displayed a wide variety of artifacts and materials and an even greater range of quantity, with some burials containing no objects to others containing several thousand. Ceramic vessels were the most common object, followed by stone tools, and obsidian blades were found with 18 individuals, but again varying in quantity, anywhere between 1 and 30 in a grave. Some exotic or long-distance trade items were found, including artifacts of marine shell, serpentine, jadeite, slate and mica; and other items included bone needles, figurines, ground-stone tools, censers, and worked faunal bone. The disparity of grave goods “undoubtedly underlies status differences in this compound” (Storey and Widmer 1999), 207). The individuals of higher status were predominantly middle-aged or older adults, whereas children rarely showed signs of higher status. The distribution of grave offerings “seems to indicate that status within the compound was largely achieved” (Storey 1991, 116). Within the apartment compound, “there would have been few differences in wealth and power, status would have been based on some form of achievement, and close ties among the residents would have tended to reduce distinctions and their effects (e.g., differential access to food)” (White et al. 2004, 192). Skill and accomplishment in crafting activities would have been particularly important to a community centered around craft specialization and production. However, this status organization also transformed over time, with the changing role of craft production in the barrio and of socioeconomic status in the city.

A sample of 25 individuals of the Tlajinga 33 were further studied by White et al. using “Stable carbon isotope ratios in bone collagen and oxygen isotope ratios in bone and enamel phosphate” (2004, 176). The results of this analysis revealed 29% of the inhabitants had grown up outside of Teotihuacan, but most had been living in the city for a while before their death. The distribution of status among the foreign individuals did not show a differentiation of status

dependent on their foreign or local upbringing, as the average status was relatively high but some were also found in middens or fill (176). The diets of foreign and locally born individuals in the compound were also not differentiable, indicating assimilation of the Teotihuacan lifestyle. The diets did, however, demonstrate an increase in maize consumption and a decrease in diet variety over time, possibly indicating that the state had increasing difficulty “ensuring sufficient provisions for the residents of the city” (186). There was a notable increase in variability of bone and enamel  $\delta^{18}\text{O}_p$  values during the Late Tlamimilolpa phase (300-400 CE) and Early Xolalpan phase (400-500 CE), which represents a marked increase of immigrants to the compound; the immigrants to Tlajinga 33 most likely came from Michoacán in West Mexico (185). This increase in immigrants at Tlajinga 33 might indicate that “because of an extremely high infant mortality rate, the community would have needed immigrants to maintain its population” (Spence et al. 2005, 177). This is a tendency that has been noticed in the greater Teotihuacan population as well, as high infant mortality has been revealed by numerous excavations. Cowgill (1992) and Pasztory agree “immigration may have been essential for the life of the city” (1992, 297). The barrio would have recruited “individuals, especially males, already familiar with the craft specialization practiced in a particular compound” (White et al. 2004, 194). The recruitment of more immigrants might have been directed by the intermediate elite overseeing the barrio and who would have been greatly invested in the success of the apartment compounds.

Randolph Widmer examines the construction phases of Tlajinga 33 and the evolution of the structure to suit the craft specialization, first lapidary and later ceramic. The final construction phase began in the Late Xolalpan phase (500-650 CE) and saw the substantial addition of stone masonry and plastered concrete (1987, 349). With the switch to stone and plastered floors, drains became necessary and were also added (352). In the center of the

courtyard, an altar was built on a platform, under which a shaft was cut 2 meters into the tepetate to a one meter square chamber, containing five adults (354). This L-shaped shaft tomb represents the “most extensive and carefully cut tomb” in the compound (White et al. 2004, 190). It also closely resembles the design of shaft tombs of the Pacific West Coast, quite unlike typical Teotihuacan burial features. However, another apartment compound, site 19:N1W5, is known to have been occupied by immigrants from Michoacán and contains a similar tomb. Interestingly, the offerings in the Tlajinga 33 tomb were entirely Teotihuacan artifacts. Finally, teeth samples from two of the tomb’s individuals demonstrate the high  $\delta^{18}\text{O}$  enamel values associated with those of the Michoacán area (White et al. 2004, 191-2). This high status tomb in Tlajinga 33 provides an excellent example of how effectively foreigners were integrated into Teotihuacan’s socioeconomic system. It also demonstrates a display of status on a new level.

In this late phase of the compound, production at Tlajinga 33 was controlled at the neighborhood level. The high status burials in the shaft tomb were clearly set apart from the much more equalized burials of the rest of the compounds inhabitants. Storey describes the socioeconomic transformation within the compound, reflected by the burials:

With a shift of effort to ceramic production, and perhaps a de-emphasis on the lapidary craft, higher status during Late Xolalpan-Metepec periods may have been concerned ultimately with the administration of the compound, possibly involving the marketing of the ware and representing the Tlajinga 33 compound in the organization of the Tlajinga barrio. Accordingly, craft skill no longer played a large role in determining status. (1991, 116)

Individuals assuming command of the administration of production resulted in a redistribution of wealth and status. Power fell into the hands of intermediate elites controlling entire neighborhoods, while the individual apartment compound was reduced to a single unit of production within this broader system. The occupants of the compound no longer displayed great differences in status among themselves. They became workers under an elite’s control and

the profits no longer flowed directly to them. Status no longer celebrated skill, but was now instead reserved for the intermediate elites administering the affairs of the compound.

### Teopancazco

Teopancazco is an apartment compound, considered to be a multiethnic neighborhood center. It is located nearer the city center, southeast of the Ciudadela, although still in an area with a relatively low density of apartment compounds. The barrio demonstrates occupation starting in the Tlamimilolpa Phase (200-350 CE) and was occupied through to the Metepec Phase (550-650 CE). The barrio is unique in its layout of functional spaces, which, unlike those of multifamily apartment compounds, included distinct areas designated for “ritual, specialized craft production, military personnel, and food preparation for workers, as well as possible medical and administrative sectors” (Manzanilla 2015, 9211). Manzanilla examines the relationship between this barrio and the Gulf Coast of Mexico, evidenced in many of the 116 burials, through shared work and symbolism. She proposes a scenario in which intermediate elites of Teotihuacan conducted trade with various regions between Teotihuacan and the Gulf Coast and some of these clients served as full-time specialists, living and working in Teopancazco (2015, 9211).



The groups compared came from what is known as the “Teotihuacan corridor to the Gulf Coast,” including Hidalgo, Tlaxcala, Puebla and Veracruz, and from the Maya and Oaxaca regions. The results of this comparison showed little difference between the groups and the barrio, indicating “genetic proximity” and a close relationship with Teopancazco (11). Although, the populations from the Gulf Coast corridor demonstrated a noticeably closer relationship to Teopancazco than the Oaxaca and Maya (14). The relationships to these regions are confirmed by the evidence of Teotihuacan’s presence. Architecture, burial practices, and ceramics in Teotihuacan styles show that the exchange of culture and resources flowed in both directions, characterizing the nature of Teotihuacan’s external influence and foreign affairs. The foreign character of Teopancazco might have been a direct result of the Teotihuacan state’s efforts to control the Basin of Mexico. The population was brought to the city not only so people could be more easily regulated, but also to acquire control of “a large sustaining hinterland for the support of its large urban center, by means of trade, political and possible human networks” (14).

The 116 formal burials discovered in Teopancazco revealed numerous unique traits. Firstly, 32% of these individuals were decapitated, demonstrating differential burial treatments. Secondly, many newborn babies were found buried in the northeastern sector, which suggests, according to Manzanilla, that one function of the compound was childbirth attention for women (2015, 9211). Thirdly, unlike the other more domestic apartment compounds that have been excavated, the ratio of male to female burials was drastically unequal, with only 15% of the individuals being female (9211). However, many of these women demonstrated special funerary treatment and were associated with specific tasks and crafts conducted at Teopancazco. These burials demonstrate that the women involved with this neighborhood center were active participants in the craft production, most likely related to garment manufacturing, as indicated by

the inclusion of needles in their burials (Manzanilla 2015, 9213). Notably, the major products of the compound were elaborate garments and headdresses worn by intermediate elites, and the cotton, with which these were produced, was made in the Gulf Coast region (9211, 9210). These burial characteristics reveal the role of foreign relations and the concentration on specialized crafts in the compound; Teopancazco demonstrates a type of compound organization clearly different than the multi-family, lineage-based model.

A comparison of the genetic data within the compound also revealed an interesting pattern. Due in part to the emphasis on lineages in research of household organization, until the study by Álvarez-Sandoval et al., the differences in genetic diversity between males and females of an apartment compound had not been examined. The results of their comparison demonstrated a pattern of neolocal postmarital residence (2015, 13). This indicates couples reestablished themselves in a new location, away from either of their families or previous households. Many of the residents of Teopancazco might have fit the neolocal pattern, in which “foreign people with high degrees of mobility are correlated with exchange systems” (13). The craft production at Teopancazco and its location near the city’s core suggest the barrio was controlled by an intermediate elite. Increasingly, intermediate elites were actively “foster[ing] the movement of sumptuary goods and the arrival of workers from diverse homelands for a range of specialized tasks” (Manzanilla 2015, 9210). The residents of Teopancazco were effectively hired as full-time craft specialists by an intermediate elite.

Interestingly, analysis of many of the buried individuals at Teopancazco revealed paleopathologies associated with nutritional stresses during infancy. “It is significant that 29% of the individuals in our sample had suffered dietary stress during their infancy but managed to overcome it,” presumably by migrating to Teotihuacan (Manzanilla 2015, 9213). If conditions in

their homeland were poor or unstable, moving to Teotihuacan would have been an appealing prospect. Teotihuacan had fostered a reputation as a thriving multiethnic metropolis with economic opportunities and the promise of improved quality of life through its monumental construction and symbolic program; the foreigners living in the city would have served as a natural communication network to promote this reputation. Moving to Teotihuacan to work as a craft specialist for an intermediate elite would have presented an excellent and very attractive opportunity to foreigners.

Occupation at Teopancazco began in the Tlamimilolpa phase (200-350 CE), when the apartment compounds were first constructed. The initial population of the barrio consisted of primarily local people and foreigners from the Teotihuacan corridor, as evidenced by its early genetic diversity (Álvarez-Sandoval et al. 2015, 11). At the end of the Tlamimilolpa phase, the genetic diversity of Teopancazco increased and was accompanied by differential in burial rituals; this might indicate the arrival of foreigners arriving from a greater variety of homelands. This might have been a result of expanding trade routes conducted by Teopancazco. However, this increase in genetic diversity was slight, confirming the existence of an already diverse population in the early stages of the neighborhood and a continuation of Teopancazco's relationship with the populations of the Teotihuacan corridor to the Gulf Coast (11-12).

#### Rise of a Merchant Class

As seen in the change in mortuary treatment and architecture in the apartment compounds, the centralization and craft specialization of entire compounds and barrios reflected the shift of power structures both of the apartment compound and the city. The apartment compounds reveal an equalization of internal status and an overall decline in wealth. However, with this “increasing social homogeneity” amongst the general population, a select group of

individuals rose to a new status level (Sempowski 1987, 127). This was the rise of a merchant class, which gained authority in economic affairs and presented a threat to the status of the ruling elites of the city. While the ruling elite maintained control of precious raw materials transported from afar, such as “jadeite from the Motagua region in Honduras- Guatemala, and mica from the central valleys of Oaxaca,” the intermediate elites gained control of the materials used by the general population; these sumptuary goods provided to Teotihuacan’s society included “pigments, cosmetics, slate from different sources, greenstones, travertine, limestone, flint, and foreign pottery” (Manzanilla 2015, 9213-4). With the rise of this class in society, definitions of status within the apartment compound changed as well. Instead of the natural status differentiation within the household, based on achievement and role in the family, Teotihuacan society as a whole became stratified and distinct status groups were defined.

Teopancazco, for example, probably “acquired products directly from the Gulf Coast without the intervention of the state, which is indicative of an increasingly strong merchant class at Teotihuacan” (Fillini 2015, 114). Teopancazco became the neighborhood center, which would have “facilitated administration over city residents and also reduced the administrative costs and thus would have been part of the strategies of the state government. It seems likely that this strategy was successful for a while and the state administrative system was consolidated” (Murakami 2010, 32). The organization of the apartment compounds into barrios was probably initially supported by the state, as it fit into original designs of the apartment compounds to help regulate the population. However, the rise of intermediate elites was not anticipated and ultimately would bring about the fall of the state.

The unforeseen transformations of Teotihuacan’s society may have been the result of the foreigners incorporated into the city. As Manzanilla describes, “multiethnic relations involve

consensus-building, cooperation, and the construction of complex corporate organizations that capitalize the abilities, expertise, and different points of view of the different groups. These dynamic entities may provoke a momentum in societies where obsolete conservative institutions resist change” (Manzanilla 2015b, 9174). Teotihuacan’s social organization was remarkably dynamic in great part due to the constant flux of foreigners and the exchange of ideas.

With the rise of a merchant class, Teotihuacan society was reorganized around economic activities and attempts by the elites to legitimize their sovereignty or elitism were incompatible and were rejected. Competition between these intermediate elites, and consequently between apartment compounds, would have created tensions, instability, and hostility within the city. To the lower class, the distinction of classes was particularly significant because “shortages and/or inflated prices of certain goods had resulted in differential access among groups to the material symbols of relatively higher status,” sinking the lower class into poverty, while the elites accumulated and displayed even more wealth (Sempowski 1987, 129). The jockeying for power and wealth at the upper levels of society left the rest of the population excluded, neglected, and oppressed by these competitive and domineering forces. By the 6th century CE, the population of Teotihuacan was divided, unstable, and growing increasingly agitated.

### Collapse

The first episode in the collapse of the great city occurred when “The major ritual and administrative buildings along the Street of the Dead were set on fire in A.D. 550 (24, 64), and the sculptures inside palatial structures... were shattered (65)” (Manzanilla 2015, 9214). While a variety of interpretations have been proposed in the past to explain the event– the most prominent being foreign invasion– the clear targeting of the central precinct and the lack of evidence of attacks by external forces, point to a disturbance from within the city. The power of

the elites had consistently declined over time as intermediate elites rose to challenge their authority. Manzanilla suggests that there was an “intervention on the part of the state to control the entrepreneurial movements of the intermediate elite” (2015, 9214). The population might have been responding to this attempt to reassert dominance and regain control. As we saw earlier with the defacing, looting, and covering of the Feathered Serpent Pyramid, the population of Teotihuacan was resistant to overly forceful rulership. The destruction of Teotihuacan’s monument core appears to be the result of an uprising against the ruling entities represented by the Avenue of the Dead.

## Conclusion

This paper traces the role of foreigners at Teotihuacan through the city's complicated history. Foreigners promoted growth and change throughout Teotihuacan's history, within religious, political, and socioeconomic contexts. The arrival of immigrants not only made the rise and rapid growth of the city possible, but they also maintained the population despite an extremely high infant mortality rate. The early refugees fleeing the eruptions of Popocatepetl supplied the labor force to construct the monumental center and inspired much of its symbolic agenda. The Avenue of the Dead was designed as a comprehensive visual program to celebrate the political and religious messages of the state and city. Through the construction of monumental architecture— such as the Sun and Moon Pyramids— integrated into the surrounding natural landscape, Teotihuacan promoted itself as the center and origin of the universe. The symbolic portrayal of a successful contract with the gods and the receiving of their favor was particularly appealing to the immigrants forced from their homelands by the fiery destruction of volcanic activity, easily interpreted as the wrath of dissatisfied gods. Through this manipulation of natural disaster and landscape and the impressive construction of architectural marvels, Teotihuacan expanded its population, size, and reputation.

The presence of foreigners at Teotihuacan influenced the character of the population and in turn influenced how the population responded to political events. The Ciudadela and the Feathered Serpent Pyramid were constructed at the southern end of the Avenue of the Dead, representing the Underworld and the completion of the Avenue's architectural and symbolic program. The mass sacrificial program of the Feathered Serpent Pyramid was quickly followed by the targeted burning of the superstructure, destruction and covering of the façade, and the relocation of the administrative center. Around this time, the volcano Xitle erupted, population

at Teotihuacan flourished, and the construction of the apartment compounds began. The resulting decentralization of government and the construction of housing for the population mirror the large scale shift in focus from public, sacred and monumental to domestic domains. These apartment compounds housed most of the population in roughly standardized structures with flexible interiors to accommodate the inhabitants and their needs, including crafting activities. The rise of economic practices within the apartment compounds was largely a result of the assimilation of foreigners skilled in specialized crafts. Foreigners brought with them new skillsets, materials, and ideas, which helped promote the competition between apartment compounds necessary to propel economic growth in the city. The natural tensions generated by the merging of different ideas and cultures served as a driving force behind the social, economic, and political transformations evident particularly in the latter half of Teotihuacan's history.

The presence and assimilation of foreigners in the population is apparent in the diverse ritual and mortuary practices and objects seen in the apartment compounds. Tlajinga 33 and Teopancazco represent apartment compounds within foreign barrios displaying different internal structures and economic activities. Tlajinga 33 lies at the southern periphery of the city, where many foreign neighborhoods formed. The compound demonstrates a distinct reorganization with the addition of ceramic manufacturing and the concurrent accession of an intermediate elite to power. Teopancazco is located nearer the Avenue of the Dead and its architecture and burials indicate the barrio was maintained by intermediate elites recruiting foreigners for their specific crafting abilities. In both cases, intermediate elites assumed control of the compound and craft specialization was paramount. The rise of the merchant class introduced citywide social stratification and resulted in tensions throughout the population. The first episode in the collapse of the city left the ritual and administrative buildings along the Avenue of the Dead in ruins,

when the population revolted against the state's attempts to reassert its authority. From the rise to the fall of the city, foreigners were an integral factor in the social, economic, and political structures of Teotihuacan.

This project unifies our broader understanding of Teotihuacan, developed over the past half-century, with the most recent findings concentrated on the burials in apartment compounds. Future excavations of apartment compounds, with a concerted effort to recover and analyze mortuary remains, would expand our knowledge of economic and ritual trends and transformations within Teotihuacan society. Improving our understanding of household organization and the character of Teotihuacan's multiethnic population will help develop our conception of the enigmatic Teotihuacan state.

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