Excavations at Structure TL5 (N1W6) in the Oaxaca Barrio, Teotihuacán

Research Year: 2003
Cultures: Zapotec and Teotihuacán
Chronology: Pre-Classic to Classic
Location: San Juan Teotihuacán, Teotihuacán, México
Site: Oaxaca Barrio (Tlailotlacan)

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Introduction

Teotihuacán (México) was the New World's first plural society. The state is thought to have emerged in approximately A.D. 150 and prior to its collapse in approximately A.D. 650 had established ties throughout Classic Period Mesoamerica (e.g. Cowgill 1997). The types of interaction between Teotihuacán and other polities ranged from social-political alliances to legitimize elite status and facilitate interregional trade to the settlement of colonies at strategic locations within long-distance exchange networks (e.g. Braswell 2003; Santley 1989; Winter *et al*. 2002). The Teotihuacán presence at foreign sites had a local counterpart in the form of several foreign barrios located at the city's periphery. These included the Merchants' Barrio, settled by individuals from the Gulf Coast and Maya areas; the West Mexican Barrio, whose inhabitants' cultural affinities link it to both West México and Oaxaca; and the Oaxaca Barrio, a migrant community with ties to the Oaxaca Valley (e.g. Gomez 2002; Millon 1973; Rattray 1987; Spence 1992). Studies as to the barrios' relationships to their respective society (or societies) of origin and to the Teotihuacán state are ongoing, but findings show that these culturally discrete communities had varied sociopolitical structures and demographic components (e.g. White *et al*. 2004).

The Oaxaca Barrio was a Zapotec *enclave*–a culturally distinct occupation that is demographically representative of the society of origin and constitutes a minority group located within the boundaries of a foreign state (cf. Spicer 1966). Defined as a whole society, the Oaxaca Barrio differed, for example, from the Merchants' Barrio, which is believed to have been occupied by a single demographic component, namely traders from the Gulf Coast and Maya areas (e.g. Clayton 2005; Rattray 1990). Previous studies of partially excavated apartment compounds show that barrio inhabitants maintained a distinct domestic and mortuary tradition that integrated Oaxaca Valley and Teotihuacán practices (e.g. Rattray 1993; Spence 2002; Spence and Gamboa 1999). We do not, however, know the enclave's practices at the community level. Nor have we been able to resolve the chronological debate. Researchers agree that the barrio was first settled around the 3rd century A.D., at about the same time that a large-scale urban renewal program transformed Teotihuacán and relocated its residents into apartment compounds, but disagree markedly on the length of occupation (e.g. Millon 1973; Paddock 1983; Rattray 1993, 2002; Spence 1992; 2002).

This report describes FAMSI-supported archaeological research in 2003 at Structure TL5 (5:N1W6 on the Teotihuacán map) in the Oaxaca Barrio (Millon *et al*. 1973:70). The archaeological project focused on the enclave's public identity and evaluated the extent of its religious and political autonomy (e.g. Santley *et al*. 1987). Other project goals were to refine the existing chronology for the barrio and evaluate historical reasons for its presence at Teotihuacán. The excavation simultaneously served as a salvage project,

since we anticipate further urban development of this area, which is located outside the protected archaeological zone in the modern town of San Juan Teotihuacán. This report includes: a discussion of field and laboratory methods, a brief description of artifacts and features, a chronology based on ceramics and radiocarbon dates, architectural floor plans of what was most likely the main temple for the enclave; and the results of the preliminary petrography of a select pottery sample of which chemical analysis is ongoing.

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The Oaxaca Barrio: Earlier Studies

The Oaxaca Barrio, or *Tlailotlacan*, was a Zapotec enclave located roughly three kilometers west of the Avenue of the Dead, toward the western edge of the city. The enclave was identified during the 1962-1971 Teotihuacán Mapping Project (TMP): an intensive survey of 30 square kilometers in and around the city that generated artifact and architectural data shown on 1:2000 scale maps (Millon 1970, 1973). The Zapotec occupation was discovered via high concentrations of Oaxaca-style gray wares localized in quadrants N1W6, N2W6, and N2W7 on the Teotihuacán map (Millon *et al*. 1973). Five of the dozen or so apartment compounds with Oaxaca affinities have been partially excavated. Excavations were conducted at Structure TL7 (N1W6) in 1966 under the direction of John Paddock and Evelyn Rattray from the Universidad de las Américas, México, and in 1967-68 by Rene Millon and Juan Vidarte for TMP (Millon 1967, 1973, 1981; Paddock 1983; Rattray 1987). INAH salvage excavations at Structure TL69 (N2W6) were realized by Patricia Quintanilla in 1981, and at TL1 (N1W6) and TL20 (N1W6) in 1992 by Luis Gamboa Cabezas (e.g. Quintanilla 1985; Spence and Gamboa 1999). The most extensive excavations were conducted by Michael Spence in 1987 and 1989 at Structure TL6 (6:N1W6), an apartment compound located directly west of TL5 (e.g. Spence 1992).

The inhabitants of the Oaxaca Barrio lived in typical Teotihuacán-style apartment compounds and utilized local commodities. The enclave's archaeological remains are almost indistinguishable from other areas of Teotihuacán, except for the production of gray wares using a kiln-based technology foreign at Teotihuacán but ubiquitous in Oaxaca; and the use of tombs and stone-lined cist burials typical of Oaxaca but unlike Teotihuacán's simple pit interments (e.g. Rattray 1993; Spence and Gamboa 1999). Other evidence of the inhabitants' foreign origin is found in the use of Zapotec-style ceremonial objects, such as incense burners and urns, and figurines (Caso *et al*. 1967;

Martinez and Winter 1994). Studies of skeletal morphology and isotopic signatures support an argument for biological homogeneity among barrio inhabitants as well as sustained social interaction among the barrio, the Oaxaca Valley, and other Zapotec enclaves at El Tesoro, Acoculco, and Chingu in the area of Tula, Hidalgo (e.g. Crespo and Mastache 1981; Spence 1994; White *et al*. 2004).

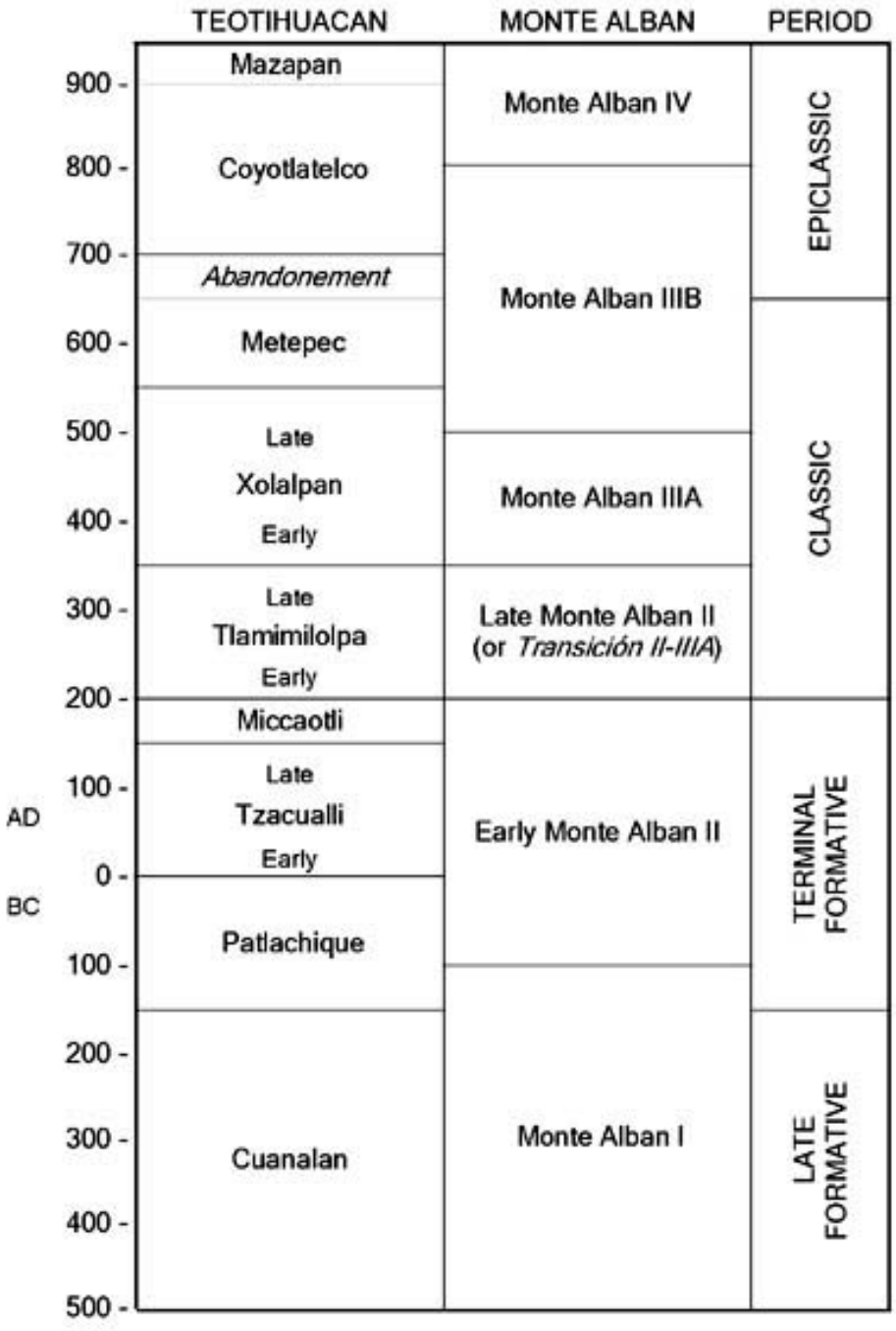

Table 1. Chronology.

The barrio's foreign ceramic assemblage includes locally manufactured Zapotec-style vessels that are comparable to types G2, G3, a G12 variant, G21, and G35 in the Caso *et al*. (1967) classification system for Oaxaca Valley pottery. The barrio's assemblage does not include the full repertoire of Oaxaca Valley gray wares from corresponding chronological phases but rather a small range of domestic gray wares (e.g. Rattray 1993).

Types G2 and G3 are poor chronological markers that span the entirety of the Monte Albán (MA) chronology (Table 1, shown above). Type G12, defined by a double-line incised rim with or without a combed bottom, is ubiquitous in the Oaxaca Valley from 300 B.C.–A.D. 100 (MA I–Early MA II); and it seems that the non-combed-bottom variant continues in lesser frequencies up to A.D. 450 (e.g. Fienman *et al*. 1989). Types G21 and G35 are diagnostic of later time periods: G21 occurs from A.D. 200-350 (Late MA II) and G35 dates to A.D. 200-900 (Late MA II–MA IV). In the Oaxaca Barrio the above-mentioned types co-occur. Yet, types diagnostic of MA IIIA, namely G23, and later periods are absent. The earliest reliable radiocarbon dates cluster around A.D. 200; the earliest was obtained from a small altar platform thought to be the structure's earliest architectural feature (Spence 1998:288-289). There are only a few later dates: the most recent date of A.D. 455 is associated with a burial offering recovered from Structure TL7 (7:N1W6). Unfortunately, this feature lacks Zapotec-style artifacts with which to reliably support the continuation of a Oaxacan presence (Rattray 1993:15, 26-30, 2002:140).

The chronological debate, which began during the TMP, stems from the co-occurrence of Zapotec-style Late Monte Albán II ceramics with Teotihuacán types diagnostic of the Xolalpan phase (ca. A.D. 350-550). The apparent ceramic anachronism is usually attributed to either a social phenomenon or some unresolved problem in the ceramic chronology. Spence (2002), for example, favors a long period of occupation, arguing that barrio inhabitants continued to manufacture Zapotec-style pottery types after they were abandoned in the Oaxaca Valley as distinctive cultural marker of the enclave's ethnic identity. On the other hand, the ceramic anachronism could be explained as an artifact of the archaeological record given the site's characteristically shallow and mixed deposits; an argument that supports a short period of occupation (e.g. Paddock 1983).

The Oaxaca Barrio: Structure TL5 Excavations

The TL5-2003 project carried out by the author was motivated by Michael Spence's identification of the TL5 mound as a likely public structure based on test excavations conducted during TMP as well as findings from his own excavations at TL6 (Spence 1992; Wallrath 1966). I designed the TL5 project to examine (1) the enclave's public (or corporate) identity by exposing the floor plan of what was believed to be the Oaxaca Barrio's main temple. If TL5 was a temple, its technological and stylistic attributes should provide some insight into the religious and political identity of the barrio and how

it changed through time (cf. Hegmon 1998). Thus, the primary objective was to contribute to a more holistic understanding of the barrio community by focusing on the public sphere in order to complement what we know about its domestic practices (e.g. Spence 2002). The project (2) further examines the long-standing debate on the barrio's chronology, which ultimately would help us understand Monte Albán's and Teotihuacán's "special relationship," the nature of which remains unknown (Millon 1973:42), and to subsequently (3) evaluate existing models and generate new ones as to the nature of the Zapotec occupation at Teotihuacán. Lastly, the project (4) also serves a pressing need to recover information on TL5 since modern urban development threatens this part of the site. The TL5 excavations were carried out during 2003, when approximately 300 square meters were exposed revealing the complete floor plan for Structure TL5 as well as a section of an adjacent structure not previously identified by the TMP.

Figure 1. Victor Manuel Sarabia and Gladys.

Field Methods

The excavation of Structure TL5 was carried out in April and May of 2003 (Figure 1, shown above). The field maps and notes generated by the TMP and Spence's 1987/1989 excavation results were used as general references. The excavation grid

was oriented to magnetic north. The ground was stripped and all surface archaeological materials were collected. Horizontal excavations were carried out in one meter square units and a total of 300 square meters were exposed, revealing the complete floor plan for TL5. This was accomplished by locating the corners of the structure and following first exterior and then interior walls. Features were completely excavated. Five 2 × 2 meter units within the structure and one 1 × 3 meter and four 2 × 2 meter units in the patio between TL5 and TL6 were excavated to tepetate (approximately 110 centimeters below ground surface). The 2 × 2 meter units excavated in the patio created a trench leading from the patio into the center of the TL5 interior. This was done in order to examine the profile and identify construction phases. All units were excavated following natural stratigraphy, except for the 1 × 3 meter patio unit that was excavated in 10 centimeter increments to establish greater stratigraphic control.

Deposits below the 20 centimeter plow zone were systematically passed through 0.5 centimeter mesh screens. Archeological materials (pottery, lithics, shell, daub, etc.) were collected in cloth bags and coin envelopes. All datable material (carbon, ash, wood, bone) and sherds with organic residue were recorded in situ when possible and collected in sterile sample bags. Soil samples for flotation, pollen, and phytolith analysis were taken from all culturally meaningful units. Every meter square unit excavated was drawn at 1:20 cm scale, including all foundations and non-architectural features. The strata profiles for units excavated to bedrock were drawn at a 1:20 cm scale; three within the structure and one in the stratigraphic unit located in the plaza. Additionally, digital photographs were taken of all excavation units and features.

Laboratory Methods

Artifacts were washed, sorted, re-bagged, and cataloged according to provenience (e.g. TL5001) and material (TL5001 Shell), and are currently stored at the Teotihuacán Mapping Project laboratories in San Juan Teotihuacán, México, which are overseen by the Arizona State University. Approximately 1,800 sherds were exported to the United States for attribute, chemical (ICP-OES and INAA) and petrographic (XRD and optical microscopy) analyses. An attribute study of all Zapotec-style pottery was completed in spring 2006. Additionally, 12 sherds have been analyzed via XRD. The latter study was carried out by the author at the Department of Marine Geology and Geophysics at the Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, Florida. The results are presented in the following pages.

Preliminary Results: Architecture and Other Features

The excavations determined that Structure TL5 had three construction episodes, two dating to the Classic Period (Figure 2 and Figure 3) and one to the Postclassic Period.

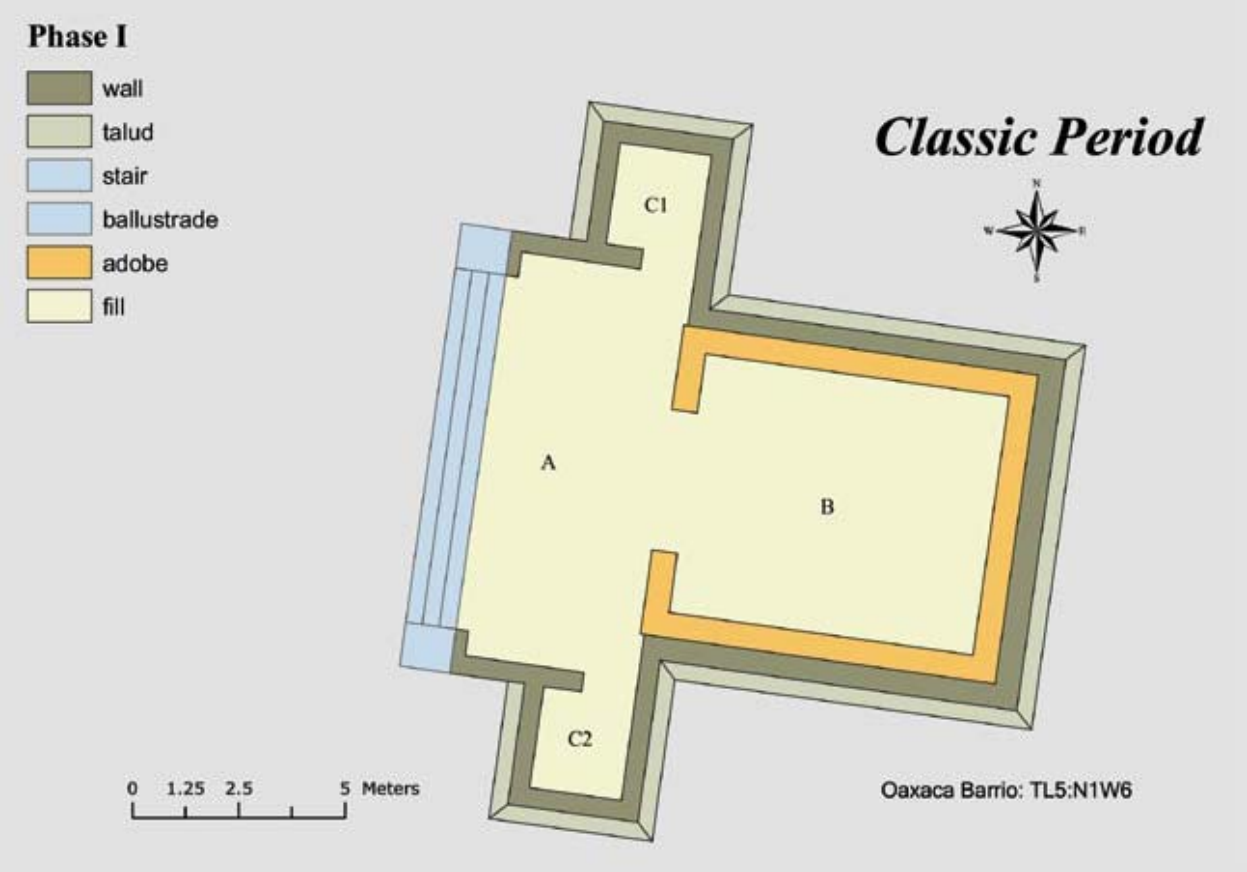

Figure 2. TL5 Classic Period Phase 1 Structure.

Classic Period

The Phase 1 structure consists of an exterior room/platform (A) that measures approximately 3.5 × 10.5 meters, leading into an interior room/platform (B) measuring approximately 10.5 × 8.5 meters. Two small rooms/platforms (C1 and C2), that measure approximately 3.5 × 3.5 meters, flank the north and south sides of *A* and *B*.[1] The structure, which measures a total of 272 square meters, is oriented 8 degrees east of magnetic north (14 degrees east of true north). TL5 was accessed from the west through a wide staircase (approximately 10.5 meters from balustrade to balustrade) leading up from the patio.

The Phase 2 structure is a larger version of the earlier construction, measuring 323 square meters, albeit with slightly different dimensions and orientation. Room/Platform A is approximately 3.5 × 10.5 meters (or the same dimensions as the Phase 1

[1] The south small flanking platform/room (*C2*) was almost completely destroyed by Postclassic Period construction. However, remnant foundation stones suggest it was the mirror-image of *C1*.

structure), B is approximately 12 × 10.5 meters, and *C1* and *C2* are approximately 4 × 4 meters.

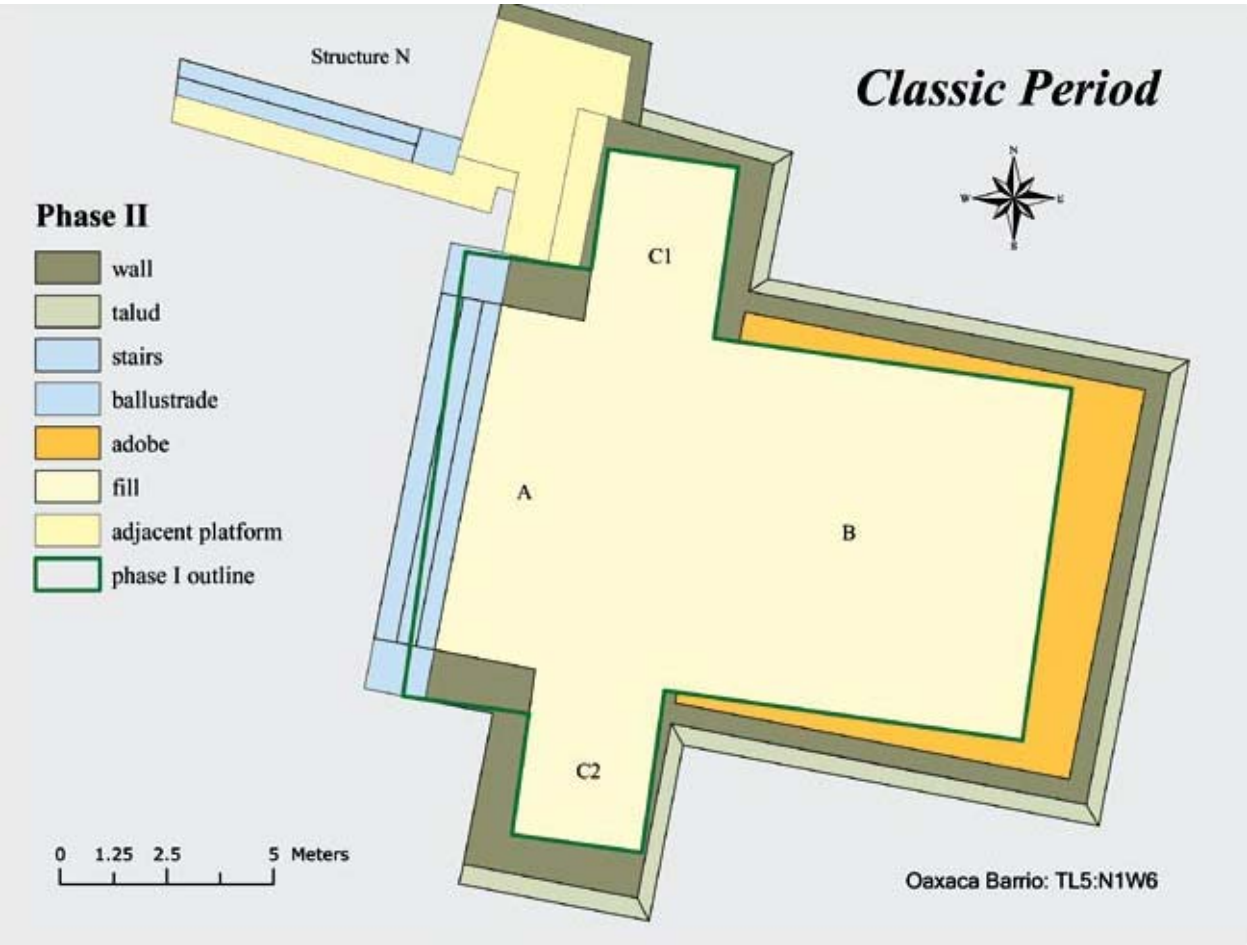

Figure 3. TL5 Classic Period Phase 2 Structure.

The expansion of TL5 during Phase 2 was concentrated on the east, or the back of the structure, possibly in order to avoid encroaching onto the patio. This building was oriented 11 degrees east of magnetic north (17 degrees east of true north), except for the northern small room/platform, whose north east-west wall was oriented 16 degrees south of magnetic east (22 degrees south of true east) resulting in a noticeable asymmetry. Structure TL5 was a free-standing structure during Phase 1, but the Phase 2 structure was flanked to the northwest by 'Structure N,' which may have served as a priestly residence, that was annexed to TL5 via an auxiliary platform. Structure N had a 22 degree orientation and seems to have been built during Phase 2 or later (the Phase 2 asymmetrical orientation of TL5's northern room/platform may reflect a structural compromise necessary to link 'Structure N' and TL5).

A talud-tablero façade was Teotihuacán's hallmark architectural element (e.g. Braswell 2003). Structure TL5 included plaster-finished taluds (with a 29.8 degree slope) on the north, east, and west façades. If a tablero had been present, it may have been destroyed during later occupations. We did not find evidence of columns or altars, but these too may not have been preserved. A capped-drainage system is located on the north side of the staircase. The drainage system may have functioned during Phase 1, but the construction of Structure N and the auxiliary platform may have required that the drain be blocked and a new drainage system be located elsewhere in Phase 2.

The Phase 1 plaster staircase was well-preserved by its Phase 2 successor, which was little more than rubble (Figure 4). The staircase, that ran the length of the structure and had wide, recessed balustrades, was atypical; Teotihuacán staircases tended to be smaller in length and centered relative to the platform with narrow balustrades that were flush with the steps (Ruben Cabrera, personal communication 2003).

The TL5 floor plan most closely resembles two-room temples from the Oaxaca Valley, specifically a few examples defined by small rooms on opposite ends of the main two-room structure. Parallels in Oaxaca include Structures 35 and 36 at San José Mogote and Structure 16 at San Martin Tilcajete, as well as Structure IA at Chiapa de Corzo, Chiapas (e.g. Marcus and Flannery 1996). TL5's orientation was neither that of Teotihuacán (15.5 degrees east of true north) or Monte Albán (8 degrees west of true north). The significance of TL5's orientation and variance between Phase 1 and 2 is unclear; it may reflect an administrative change or a social phenomenon, such as the adoption of a new ideological principle, or simply a functional decision.

The TL5 construction techniques are comparable to those of Teotihuacán (Hueda-Tanabe 2004; Morelos 1993). The foundations were built using local sedimentary rocks and *tepetate* (the local name for a subsurface volcanic tuff); gravel and cultural debris were used as fill. Adobe blocks were used to separate the Phase 2 walls from Phase 1, and the Phase 1 walls from interior fill. Surfaces were finished by applying an 8-centimeter think layer of concrete (made-up of ground volcanic scoria, or *tezontle*), which was then smoothed over with lime-plaster. While Mesoamerican building technologies share many similarities, one notable difference between those of Teotihuacán and the Oaxaca Valley is that the former is characterized by the use of a concrete sub-surface which is then plastered, whereas in the latter a plaster finish was applied directly to a compact earthen surface.

Figure 4. Classic Period Staircase.

Postclassic Period

The Postclassic occupation was not the subject of this study. However, it is an important discovery and thus is briefly described here. The Postclassic structure (Phase 3), also a temple, was built on top of earlier TL5 foundations. Although the architecture is poorly preserved, we were able to recover the following information. The Phase 3 structure has a different floor plan and orientation than Phases 1 and 2. Dual staircases (approximately 5.3 meters each) are located on the south façade. These possibly led to separate rooms or temples, similar to the twin temples of the Templo Mayor at Tenochtitlán. Another Postclassic attribute is the direct application of plaster to masonry. As with other Postclassic Period structures built outside the Aztec capital, construction techniques are characteristically poor. A total of 37 clavos were found through the excavated area around the structure. These are bullet-shaped ground stone artifacts, measuring approximately 20 × 10 centimeters, that made up part of the façade of the structure (Ruben Cabrera, personal communication, 2003).

Several interesting Postclassic features were uncovered. The most remarkable was an offering (Feature 01) located at the top of the platform between the dual staircases. This consisted of a semi-circular stone-lined cist, measuring approximately 16 × 14 meters, with multiple infant burials. This may be similar in ritual symbolism to the child burials of Offering 48 at the Templo Mayor (Mexicon 2005). One fully-articulated primary burial in

fetal position was located at the bottom of the cist. Three disarticulated burials consisting only of crania, most likely secondary interments, were located above the primary burial. Each individual cranium was covered with a well-fired painted bowl. All individuals were approximately one year of age (Spence *et al*. 2006). Offerings include 12 fancy vessels, including eight polychrome bowls, two miniature bowls, one vase, and one stirrup-spout vessel, as well as three beads (two turquoise and one alabaster) and three copper bells (see Mexicon 2005: 84 for discussion of a similar find).

Preliminary Results: Ceramics Studies

Preliminary ceramic analysis suggests that Oaxaca-style gray ware accounts for approximately 3 percent of the pottery recovered at TL5 (cf. Rattray 1993). The gray ware recovered during the TL5-2003 project was comparable to Oaxaca Valley types G2, G3, G12 (the non-combed bottom variant), G21, and G35 (Figure 5).

An unexpected find, was the recovery of several sherds that are stylistically similar to A6, A10, and G15/16 (Figure 6). Although these Monte Albán types were recovered from fill, their presence suggests an earlier Zapotec occupation. Other Zapotec-style artifacts include figurines and *sahumadores*; all dating to the end of Early Period II–Late Period II. Excavations Level 1 (plow zone: approximately 0–20 cm below ground surface) is highly mixed, containing Tlamimilolpa to Coyotlatelco phase Teotihuacán ceramics as well as Aztec and a few colonial wares. Levels 2–4 (approximately 20–80 cm below ground surface) consist mostly of Tlamimilolpa phase ceramics but also include Tzacualli, Miccaotli, and Xolalpan wares (later phase ceramics are an insignificant component). Additionally, as noted by Rattray (1993), there is a significant density (percentage to be determined) of Thin Orange and Granular wares.

Petrographic (x-ray diffraction and optical microscopy) and chemical analysis (inductively coupled plasma–optical emission spectrometry) are ongoing. To date, 12 Zapotec-style potsherds have been analyzed via x-ray diffraction (XRD). The samples were prepared and analyzed by the author at the Department of Marine Geology and Geophysics at the Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, Florida, under the direction of Dr. Peter K. Swart. What follows is an overview of the samples, sample preparation methods, analysis, and preliminary results.

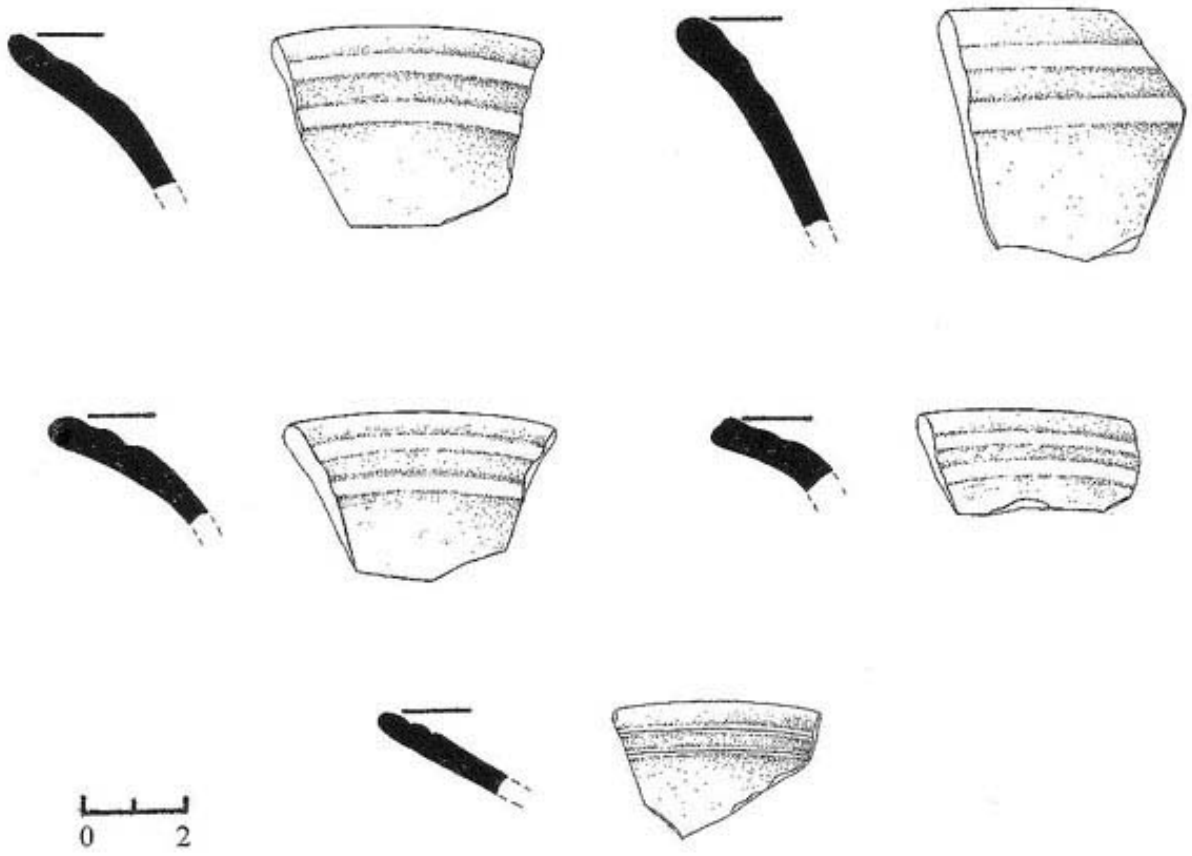

Figure 5. TL5 Zapotec-style G12 bowls.

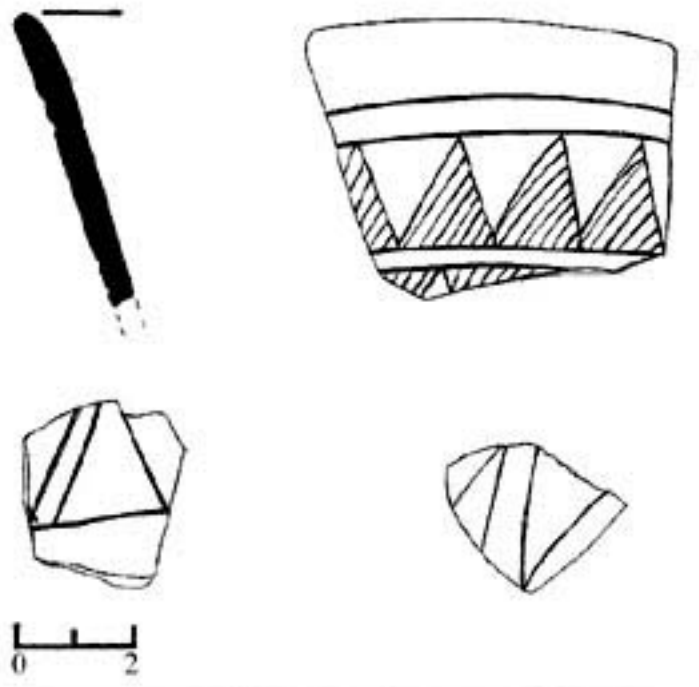

Figure 6. TL5 Zapotec-style G15/16 bowls.

Samples

Nine samples from the TL5-2003 excavations (060601-09) and three samples from El Tesoro surface collections (060610-12) were analyzed. The TL5 samples consisted of one type G3; two G15/G16 types; and five G12 non-combed bottom types (four with widely-spaced, shallow incised lines that are u-shaped in cross section and one narrow-spaced, relatively deep incised lines that are v-shaped cross-section). The El Tesoro samples correspond to two G12 types (both with widely-spaced, shallow incised lines that are u-shapes in cross-section) and one A6.

Sample Preparation and Analysis

Approximately 4 grams of sample were broken-off from each potsherd using pliers. Previously-exposed surfaces were removed using a hand-held drill with a diamond drill-bit. Each potsherd sample was then sonicated for 45 minutes, rinsed in distilled water, allowed to dry in a desiccator, and ground to a fine-grain powder (~3 uM) using an agate mortar and pestle. About 200 mg of each sample was reserved and the remainder was heated in a muffled furnace at 1050°C 15 minutes. A slurry was made of

both the non-heated and heated aliquots by mixing approximately 100–200 mg of the dry sample with a few drops of distilled water, which was then smear mounted on a glass slide and allowed to dry at air temperature (e.g. Buhrke *et al*. 1998). The samples were analyzed using a Pananalytical X'Pert Pro diffractometer with a Cu X-rays tube, a diffraction angle (θ) range of 2° to 70°, and 0.005° 2 (θ) step-size. Precision and accuracy were obtained by using an internal standard (NIST 1633b) and 6 sample replicates. Diffraction patterns were analyzed with the aid of X'Pert Pro analytical software and NIST Inorganic Crystal Structure Database (ICSD).

Results

The G12 pottery associated with TL5 is typical of the Oaxaca Barrio; outcurving to straight-walled bowls with widely-spaced double-line incising without combed bottoms. The five samples analyzed may represent two technological groups in both the non-heated and heated samples (Table 2). Group 1 (sample 060603): quartz is the primary phase with plagioclase as a secondary phase and forsterite (an olivine) as a minor phase (the forsterite 100% peak may in fact be a quartz subsidiary peak). Group 2 (samples 060602, 060606, 060607, 060608): plagioclase is the primary phase with quartz as a secondary phase and magnetite as a minor phase (the magnetite 100% peak may be a subsidiary peak of a plagioclase). Types G3 and G15/16 are consitent with Group 1 and A10 is similar to the Group 2 mineralogy. Three non-heated samples (060602, 060605, 060608) have a secondary phase with 100% peaks at 25.6°–25.9°, which are absent in the heated sample; this is most likely a zeolite (analcime, epistilbite, or fibroferite) reflection, other minerals with similar patterns are barite, strontianite, and spodumene; of these only the zeolites and strontianite structures would be altered when heated to 1050°. It is worth noting that the samples with the zeolite component correspond to the better finished vessels, and include types G3, G12, and G15/16. Two samples contain the clay minerals illite and montmorillonite/smectite, which amorphous to X-rays after heating to 1050°C and their diffraction patterns disappeared. The minor hematite component present in the heated sample indicates the presence of iron in the original sample. The El Tesoro samples are similar to TL5's Group 2, but also contain minor amounts of enstatite, tridymite or loweite. The plagioclase minerals present in TL5 pottery are most likely andesine, anorthite and albite, whereas El Tesoro may include labradorite (cf. Ruvalcaba-Sil *et al*. 1999; Tenorio 2005). In sum, preliminary results suggest at least two technological groups with either a plagioclase or quartz as the primary temper mineral. Any further interpretation in the absence of a larger sample number and on-going integrated chemical-petrographic studies would be premature.

Table 2. Mineralogy of Zapotec-style Pottery from the Oaxaca Barrio and El Tesoro						
Lab Sample Number: a) Prefired b) Postfired at 1050°C	**Ceramic Type: Caso *et al.* (1967)**	**Double-line Incising**	**Pre-fired/ Fired: 1050°C 15m**	**Primary Phase(s)**	**Secondary Phase(s)**	**Minor Phase(s)**
060601	A10	Shallow incising, u-shaped cross-section	Pre-fired	Plagioclase*	Quartz	*Magnetite?*
			Fired at 1050°C for 15m	Plagioclase*	Quartz	*Magnetite?*
060602	G12	Fine incising, v-shaped cross-section, line spacing	Pre-fired	Plagioclase*	Quartz, Zeolite**	*Magnetite?*
			Fired at 1050°C for 15m	Plagioclase*	Quartz	Quartz, *Magnetite?*
060603	G12	Shallow incising, u-shaped cross-section	Pre-fired	Quartz	Plagioclase*	*Forsterite?*
			Fired at 1050°C for 15m	Quartz	Plagioclase*	*Forsterite?*
060604	G15/16	NA	Pre-fired	Quartz	Plagioclase*	*Forsterite?,* Illite/ Montmorillonite
			Fired at 1050°C for 15m	Quartz	Plagioclase*	*Forsterite?,* Hematite
060605	G15/16	NA	Pre-fired	Quartz	Plagioclase*, Zeolite**	*Forsterite?*
			Fired at 1050°C for 15m	Quartz	Plagioclase*	*Forsterite?,* Hematite
060606	G12	Shallow incising, u-shaped cross-section	Pre-fired	Plagioclase*	Quartz	*Magnetite?*
			Fired at 1050°C for 15m	Plagioclase*	Quartz	*Magnetite?*
060607	G12	Shallow incising, u-shaped cross-section	Pre-fired	Plagioclase*	Quartz	*Magnetite?*
			Fired at 1050°C	Plagioclase*	Quartz	*Magnetite?*

			for 15m			
060608	G12	Shallow incising, u-shaped cross-section	Pre-fired	Plagioclase*	Quartz, Zeolite**	*Magnetite?*
			Fired at 1050°C for 15m	Plagioclase*	Quartz	*Magnetite?*
060609	G3	NA	Pre-fired	Quartz	Plagioclase*	*Forsterite?,* Illite/ Montmorillonite
			Fired at 1050°C for 15m	Quartz	Plagioclase*	*Forsterite?,* Hematite
060610	G12	Shallow incising, u-shaped cross-section	Pre-fired	Plagioclase*	Quartz	*Magnetite?, Enstatite?, Tridymite or Loweite?*
			Fired at 1050°C for 15m	Plagioclase*	Quartz	*Magnetite?, Enstatite?, Tridymite or Loweite?*
060611	A6	Shallow incising, u-shaped cross-section	Pre-fired	Plagioclase*	Quartz	*Magnetite?, Forsterite?, Enstatite?, Tridymite or Loweite?*
			Fired at 1050°C for 15m	Plagioclase*	Quartz	*Magnetite?, Forsterite?, Enstatite?, Tridymite or Loweite?*
060612	G12	Shallow incising, u-shaped cross-section	Pre-fired	Plagioclase*	Quartz	*Magnetite?, Forsterite?, Enstatite?, Tridymite or Loweite?*
			Fired at 1050°C for 15m	Plagioclase*	Quartz	*Magnetite?, Forsterite?, Enstatite?, Tridymite or Loweite?*

*Plagioclase: albite (disordered or low), andesine, anorthite (disordered or sodian, disordered), or labradorite.

**Zeolite: analcime, epistilbite, or fibroferite, or other minerals, specifically barite, strontianite, spodumene (of these only the zeolites and strontianite would lose its structure at 1050°C);*minor minerals in italics are uncertain due to overlapping peaks with primary phases.*

Chemical Formulas:

Albite (disordered): $NaAlSi_3O_8$
Albite (low): $NaAl_{0.91}Si_3o_8$
Andesine $(Na,Ca)(Si,Al)_4O_8$
Anorthite (disordered): $CaAl_2Si_2o_8$
Anorthite (sodian, disordered): $(Ca, Na)\ (Si, Al)_4O_8$
Labradorite: $(Na_{0.4}Ca_{0.6})\ Al_{1.6}Si_{2.4}O_8$
Analcime: $NaAlSi_2O_6 \cdot H_2O$
Epistilbite: $CaAl_2SiO_4 \cdot {}_6H_2O$
Fibroferite: $Fe(OH)SO_4 \cdot {}_5H_2O$
Barite: $BaSO_4$
Strontianite: $SrCO_3$
Spodumene: $LiAlSi_2O_6$
Quartz: SiO_2
Forsterite (Olivene): Mg_2SiO_4
Illite: $K_{0.7}Al_{2.1}(SiAl)_4O_{10}(OH)_2$
Montmorillonite (Smectite): $(Na,Ca)_{0.33}(Al,Mg)_2Si_4O_{10}(OH)_2 \cdot {}_nH_2O$
Magnetite: Fe_3O_4
Hematite: Fe_2O_3
Enstatite: $MgSiO_3$
Tridymite: SiO_2
Loweite: $Na_{12}Mg7(SO_4)_{13} \cdot {}_{15}H_2O$

Preliminary Results: Radiometric Dating

Three charcoal samples were selected for AMS dating (Table 3): One, recovered from inside a capped drainage system located at the base platform, dated to 1750±40 BP (Beta-190519) and a later age of 1680±40 BP (Beta-190518) came from another sample recovered from fill at the base of the platform. These calibrated dates suggest that the initial construction of the temple took place during Teotihuacán's Early Tlamimilolpa phase (Late Monte Albán II in the Oaxaca Valley). An AMS date of 568±37 BP (AA63363) was obtained from a third charcoal sample associated with the primary infant burial; this and the pottery, tentatively identified by Michael Smith (personal communication) as Aztec III, date the burial to the early Late Postclassic Period.

Table 3. TL5 (5:N1W6) Radiocarbon Dates					
Lab Sample Number	**Material**	**Context**	**Convent. Age**	**1 σ cal/68% prob**	**2 σ cal/95% prob**
Beta-190519*	Carbon	Drain	1750±40 BP	Cal A.D. 240-350	Cal A.D. 220-440
Beta-190518*	Carbon	Fill	1680±40 BP	Cal A.D. 340-410	Cal A.D. 250-430
AA63363**	Carbon	Burial	568±37 BP	Cal A.D. 1315-1420	Cal A.D. 1300-1430
*Beta Analytic					
**Arizona State University					

Discussion and Conclusions

The preliminary findings of the 2003 excavations at Structure TL5 suggest that the Oaxaca Barrio's public identity was at least partially based on the political and religious symbolism, if not the institutions, of the Zapotec homeland. Furthermore, the presence of a Zapotec-style temple at Teotihuacán suggests that this community maintained a political and religious autonomy, at least in terms of community leadership (cf. Blanton *et al*. 1996). One common assumption concerning the relationship between Teotihuacán and Monte Albán may need revision. It is usually assumed that the Oaxaca Barrio was settled by people from Monte Albán or that the state was responsible for their presence at Teotihuacán (e.g. Smith and Lind 2006). However, the archaeology of barrio does not warrant these assumptions. Spencer and Redmond (2004) document Monte Albán state-sponsored settlements along the transport route linking the central and southern highlands, but none of their ceramic markers or architectural features are present at the barrio. Furthermore, while it is clear from mortuary practices that the barrio had Zapotec elites, they did not adopt–as one would expect with state-sponsorship–the elite ceremonial wares associated with the Monte Albán capital. The specific place of origin for the barrio migrants was as likely to be the Dainzú area in the eastern Oaxaca Valley which shares more similarities with the barrio than does Monte Albán (Bernal and Oliveros 1988; Fowler and Paddock 1975); alternately, the barrio's inhabitants might have had multiple sources of origin reflecting inter-societal marital patterns between Zapotec communities and multiple migration episodes from varied places in the Oaxaca Valley.

The radiocarbon dates and ceramic chronology from the TL5-2003 excavations indicate that the construction of the temple occurred around the same time as the Teotihuacán urban renewal program in the 3rd century A.D. (Millon 1973). TL5's radiocarbon dates, two construction episodes, and the lack of Monte Albán IIIA pottery, support Paddock's (1983; Fowler and Paddock 1975) argument that the period of Zapotec occupation lasted to ca. A.D. 350; at least as defined by the presence of Zapotec-style pottery. The origin date for the barrio is still a matter of conjecture due to the likely limited scale of the earliest occupation, and the destruction of this early evidence during Teotihuacán's

urban renewal program. However, one can reasonably argue that the barrio was first settled around 200 B.C. (Late MA I) by a small group of a few families, who are archaeologically relatively invisible; evidence for this early settlement would exist only as traces, such as a few diagnostic ceramics that ended up as fill associated with a later building, such as TL5 (cf. Anthony 1990). This suggested earlier chronology for the barrio's initial occupation correlates with the presence of other Zapotec settlements in Mesoamerica (e.g. Balkansky 2002; Spencer and Redmond 1997). While some of these were likely state-sponsored communities, the changing inter-polity dynamics on the large scale may have created the sociopolitical environment that fostered the migration of a few groups seeking to exploit some aspect of a new interregional economy. The production of a few Zapotec-style domestic wares can be attributed to women who moved to and from the homeland and other Zapotec enclaves and manufactured types that were part of a Zapotec household ceramic industry. On-going chemical and petrographic studies on the Oaxaca Barrio's Zapotec-style pottery will yield data on compositional and technological groups, which in turn will allow us to address questions on migration and ethnicity relative to production industries across successive generations.

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