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Craft Production and Socio-Economic Marginality: Living on the Periphery of Teotihuacán, México



Research Year: 2004
Culture: Teotihuacán
Chronology: Early Classic
Location: Teotihuacán Valley
Site: Site 520

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Abstract

This report presents preliminary results of archaeological fieldwork undertaken at Site 520, Teotihuacán, México between October 7, 2004, and February 17, 2005. Site 520 is a Teotihuacán Period ceramic production workshop located a short distance outside of ancient Teotihuacán. Field activities, consisting largely of surface survey and excavations, were carried out to collect data bearing on socio-economic interaction between the inhabitants of this site, located in the city's semi-rural periphery, and Classic Period Teotihuacán. The broader project of which this fieldwork forms a part was initiated in order to increase our understanding of the broader Teotihuacán state by investigating the degree to which and in what ways the economies of semi-rural hinterland settlements were integrated with the urban economy of the capital. A second objective was to contribute to general knowledge about prehispanic ceramic production, as well as other craft activities that draw on resources primarily available in the countryside; and to refine our characterization of settlements contemporary to and outside of the urban center of Teotihuacán.

These field operations were very successful. While lab analyses have not yet been carried out, it is anticipated that the data collected from this work will provide important new information regarding the socio-economic interaction between inhabitants of Site 520, and peoples living within the ancient city. Excavations confirmed that peoples from this site were engaged in ceramic production at a scale that would have surpassed local domestic demands. Funerary patterns and portable artifacts indicate that the inhabitants of this semi-rural settlement were to at least some extent socially and culturally integrated with peoples living within the city, and had access to some of the same imported goods as people living well within the city. Architectural remains, on the other hand, strongly contrast with the residential forms most typical of urban Teotihuacán.

Resumen

Este informe presenta los resultados preliminares del trabajo de campo arqueológico realizado en el Sitio 520, Teotihuacán, México entre el 7 de octubre del 2004 y el 17 de febrero del 2005. El Sitio 520 es un taller de producción de cerámica del Período Teotihuacano localizado a corta distancia fuera de la antigua ciudad de Teotihuacán. Las actividades de campo, consistentes mayormente en prospección y excavaciones, se llevaron a cabo para obtener datos acerca de la interacción socio-económica que debió existir entre los habitantes de este sitio, localizado en la periferia semi-rural, con los de la urbe Teotihuacana del Período Clásico. El proyecto integral del cual este trabajo forma parte tiene la finalidad de incrementar nuestro entendimiento acerca del estado Teotihuacano al investigar en qué grado y de qué maneras los habitantes de los asentamientos semi-rurales de la periferia se integraron a la economía urbana de la capital. Un segundo objetivo fue el de contribuir a nuestro conocimiento general acerca de la producción de cerámica prehispánica, y de otras actividades artesanales que se favorecieron con los recursos disponibles principalmente en la periferia; así como de

refinar nuestra caracterización de los asentamientos teotihuacanos ubicados en los márgenes del centro urbano de Teotihuacán.

Las operaciones de campo fueron muy exitosas. Aunque no se han iniciado todavía los análisis correspondientes, se anticipa que los datos recolectados con este trabajo proporcionarán importante información nueva respecto a la interacción socio-económica entre los habitantes del Sitio 520 y las gentes que vivían dentro de la antigua ciudad. Las excavaciones confirmaron que las gentes de este sitio participaban en la producción de cerámica en una escala que hubiera sobrepasado las demandas locales de consumo doméstico. Los patrones funerarios y artefactos portables, indican que los habitantes de este asentamiento semi-rural estuvieron, por lo menos en ciertos aspectos, integrados social y culturalmente con las gentes que vivían en la ciudad, y también que tuvieron acceso a algunas de las mercancías importados que los habitantes de la ciudad también obtenían. Por otro lado, los restos arquitectónicos contrastan fuertemente con las formas residenciales más típicas del centro urbano de Teotihuacán.

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Background

Teotihuacán ([Figure 1](#)) was one of the earliest and most long-lasting urban centers of the Pre-Columbian New World. It promoted unprecedented economic activity in Central México, developing into one of the region's most prosperous economies, and the core of a wide ranging exchange network. Although most research on production systems on Teotihuacán has emphasized activities at locations clearly within the urban settlement, evidence from the immediate periphery of the city indicates that people living on the fringe of the city were also engaged in the production of goods consumed within the urban center.

The Teotihuacán Mapping Project (TMP) survey of the 1960s (Millon 1973), in addition to mapping ancient Teotihuacán, recorded a series of sites that were later excluded from the Teotihuacán map because they were outside the threshold density of sites used to define the city's boundaries¹. These sites, which I will refer to here as 'semi-rural' to distinguish them from still more distant places in the rural hinterlands of Teotihuacán, lie within a short distance from the urban center. The degree to which

¹ The outer limit of the city was defined during the TMP survey so as to encompass the urban core and surrounding areas where the maximum space between structural remains or other evidence for significant occupation were less than 300 m; areas where spacing between remains exceeded 300 m were deemed to be outside the city (Millon 1973).

such sites should be regarded as part of urban Teotihuacán is a research question that this project hopes to contribute to.

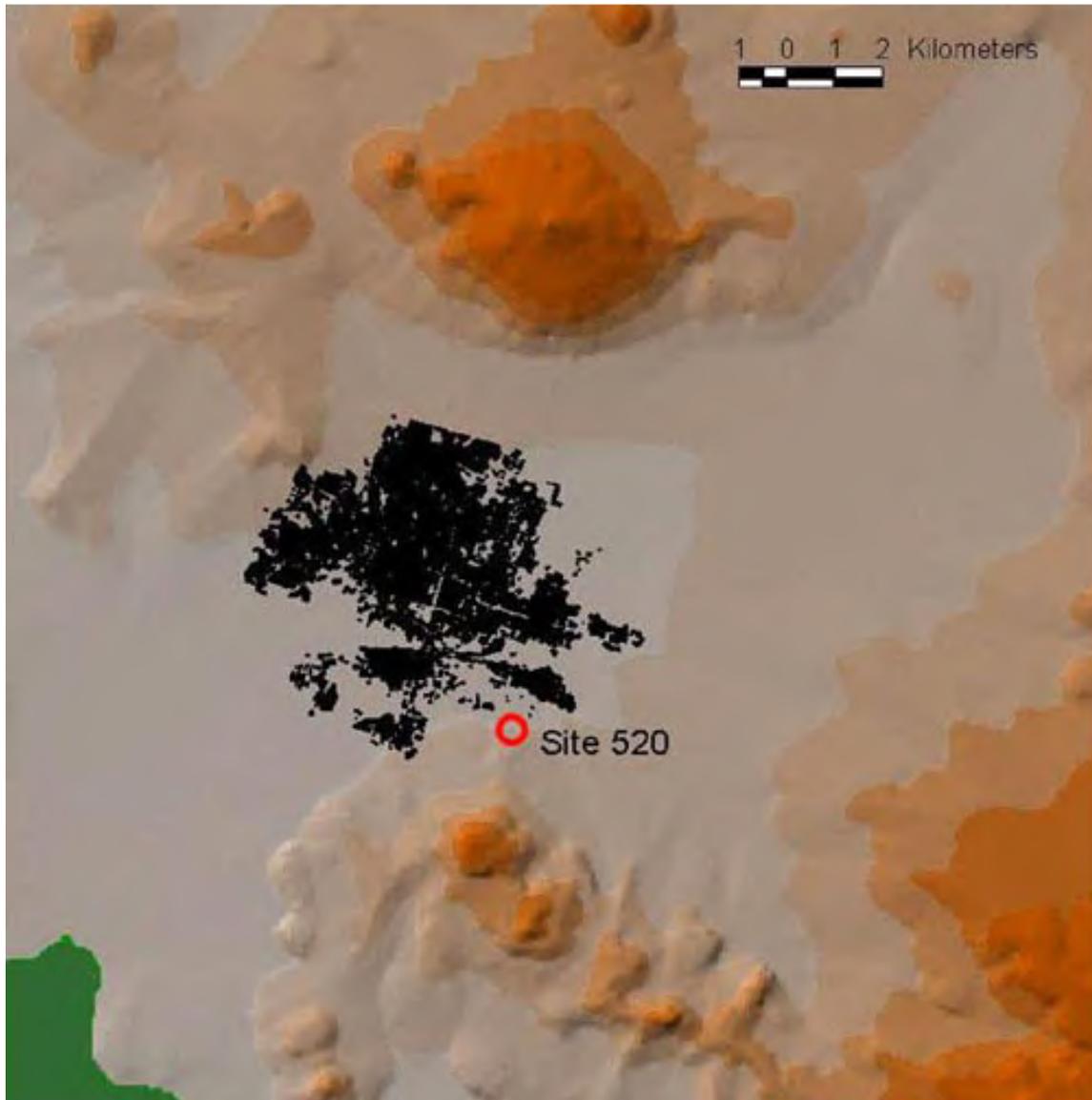


Figure 1. Location of Site 520 in reference to Teotihuacán and the Teotihuacán Valley (produced by Ian G. Robertson).

Ceramic and lithic artifacts from these scarce and dispersed semi-rural settlements were collected and analyzed in the 1960s in the same manner as materials from sites within the city. Among the artifacts recorded in the analysis tabulation sheets were ceramic production tools. These tools included "*lunates*" ([Figure 2](#)), a finger-sized, banana-shaped pottery object thought to have been made specifically for shaping ceramic vessels. In addition, flat, circular trays made of pottery that were likely used for

shaping or supporting the bases of certain kinds of ceramic vessels during manufacture were recorded. In this report, I refer to these artifacts as "molding platforms."



Figure 2. Lunate, pottery tool used to shape ceramic vessels.

A review of available tabulation sheets from all the TMP sites determined to be outside the city indicated that a number of them reported ceramic-making tools, in particular *lunates*, although the great majority contained only small quantities of this type of artifact—in most cases one or two. Site 520 was unique in exhibiting strikingly high proportions of *lunates*, and more molding platforms than other localities, suggesting the existence of a ceramic workshop in this place. The high density of ceramic shaping tools detected on the surface of Site 520 suggests a much larger scale of production than would be needed for domestic consumption. It is possible that inhabitants of Site 520 were engaged in the production of ceramics—likely consumed at the urban center—as a way of integrating themselves into the broader urban economy of Teotihuacán.



Figure 3. Site 520, located on 1:50,000 INEGI map TEXCOCO E14B21.

Site 520

Site 520 is located in the southeastern part of the Valley of Teotihuacán, very close to the slopes of the Patlachique range (Figure 3). It is situated approximately 3 km southeast of the Ciudadela (the southern part of the ceremonial core of Teotihuacán), and more than 500 m from the closest portion of the archaeologically defined boundary of the city. The land where Site 520 is located is known as the San José section of the ejido lands of the town of Santa María Coatlán, Municipality of Teotihuacán de Arista, Estado de México.

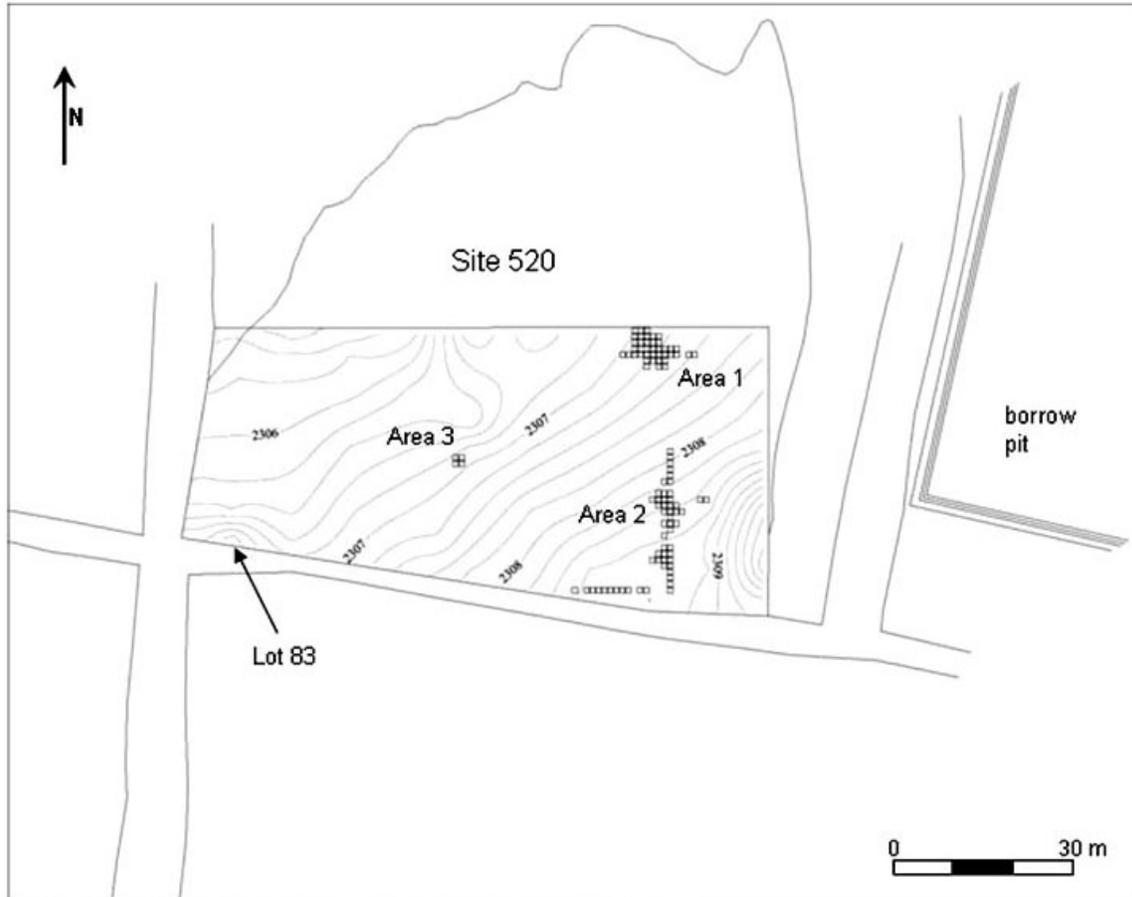


Figure 4. Boundary of Site 520, and Lot 83; and location of excavation units.

Site 520 is approximately three quarters of a hectare in size (Figure 4), but our work was concentrated in the southern portion of it (Lot 83), the only land we had permission to work on. Lot 83 has a length of 95 meters E-W by 35-50 meters N-S. It is delimited to the north by a field under bean cultivation, and to the west by an unpaved road that leads from Santa María Coatlán's cemetery to a small chapel built on the Patlachique mountain slope. Its southern limit is flanked by a drainage channel that is now used as a secondary road for accessing other fields in the vicinity. A short distance from Lot 83's eastern limit there is a very large, deep borrow pit, excavated some years ago to extract bedrock to use as construction material for a highway built from México City to Tampico. It is difficult to know if much destruction was caused to the eastern edge of Site 520 by the extraction of this material, largely because the area between Site 520 and the borrow pit is quite eroded by the passage of vehicles accessing nearby fields. Nevertheless, surface artifactual materials are only a light scatter on the northeastern edge of the boundaries of Site 520 (Figure 4) suggesting the occupation may not have extended far enough to the east to have been impacted by borrowing activities.

Lot 83 is currently used to cultivate *nopal* (*Opuntia*) plants for the seasonal production of prickly pear fruits. Although *nopal* plants are ubiquitous on the site, they are planted at

sufficient intervals that surface and excavation work could be carried out without much impediment. Ground visibility is quite good, despite the fact that the land is also covered with wild grass. Most of this grass was cut off at the beginning of the field season to make it possible to conduct artifact collection operations.



Figure 5. Topographic work at Site 520.

Methodology

Mapping and Topographic Work

With the assistance of topographers from the Zona Arqueológica de Teotihuacán-INAH, the surface of Site 520 was mapped between October 6 and 14, 2004 ([Figure 5](#)). In addition to creating a topographic map of Lot 83, a 5-meter grid was imposed in order to provide provenience for a systematic collection of surface archaeological materials, and subsequently for excavation. The grid was oriented to magnetic north, and grid units, or 'Sectors,' were organized according to a coordinate system, using an arbitrary point in the south-central part of Lot 83 as the origin. Sectors were assigned numbers increasing incrementally in cardinal directions from the origin (e.g. N4E1, S1W3). Three permanent cement datum points were set in different parts of the land and used as reference points during the field work.



Figure 6. Collecting artifacts from the surface of Site 520.

Surface Collection

Surface collection ([Figure 6](#)) was carried out from October 18 to 22, 2004 with the aid of four local fieldworkers, and two archaeology students. The unit of provenience for all collections was based on the 5-meter grid sectors. Within sectors, all archaeological artifacts were collected, but ceramic fragments smaller than 2 cm, were left on the surface unless they represented diagnostic elements (i.e. decorative elements, rim sherds). A total of 473 bags of surface materials were recovered, including ceramics, lithics, and special pottery-making tools. From October 23 to 28, 2004, all the artifacts were sorted and tabulated in the laboratory according to very basic categories such as material, and whether or not they were ceramic production tools. Results from this preliminary analysis allowed us to prepare density maps (illustrative examples shown in [Figure 7](#) and [Figure 8](#), below) that were used to aid in the selection of areas for subsurface excavation. These artifacts have not yet received more detailed analysis.

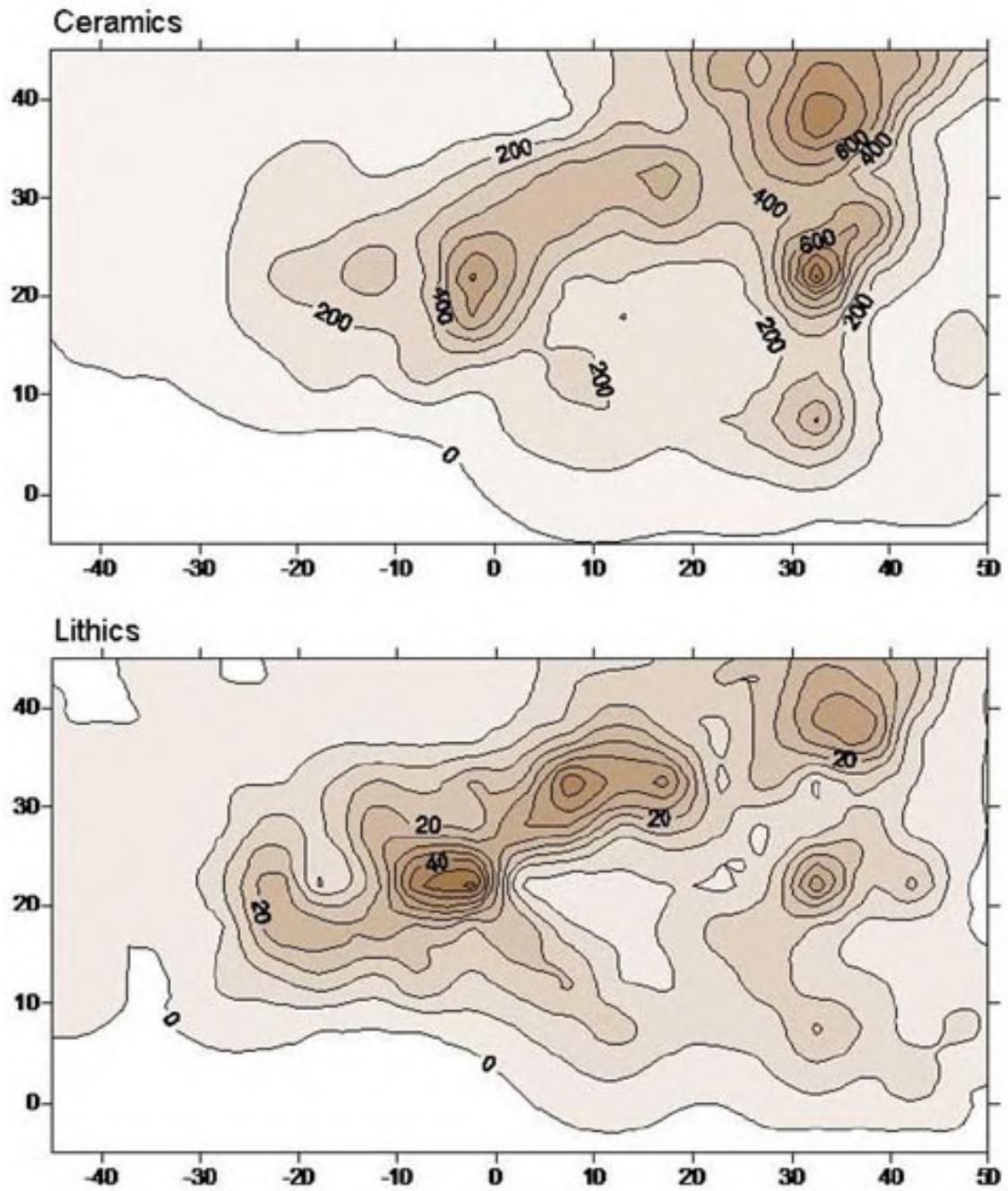


Figure 7. Site 520 surface artifact density: ceramics and lithics.

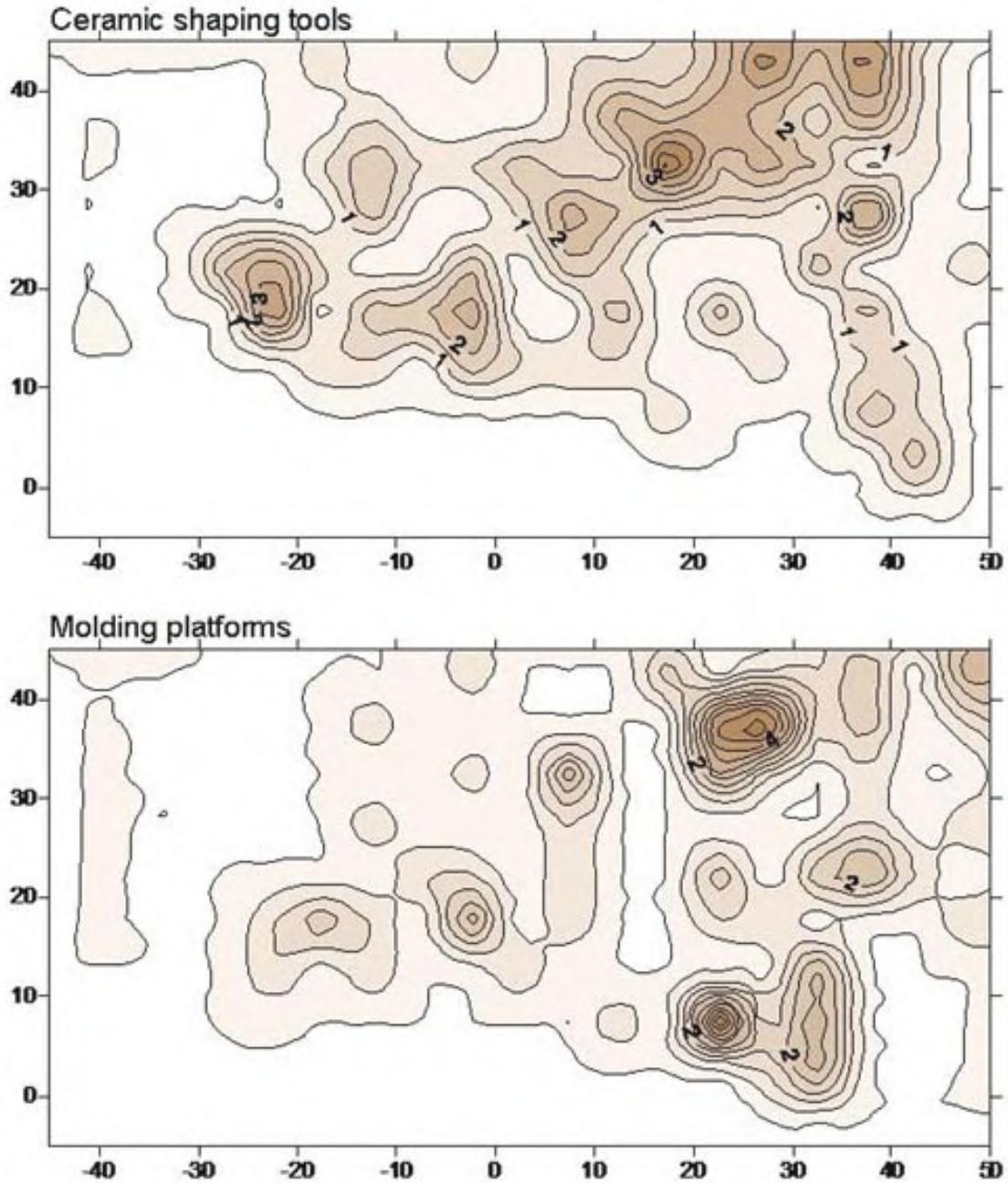


Figure 8. Site 520 surface artifact density: ceramic shaping tools and molding platforms.

Excavation

To provide greater spatial control, excavation was based on 1x1 meter units defined within the 5-meter grid sectors. Excavation units were numbered within sectors, starting with '1' in the SW corner, with numbers increasing from west to east within rows, and then from south to north.

Based partly on the density maps of surface materials, three main areas were selected for excavation. The two zones located toward the eastern part of this site were focused on because of high surface densities of ceramics and ceramic-making tools, and also because of the probability of deeper sediment deposits in the eastern part of the site.

Excavation was initiated in sector N9E6, and expanded into adjacent portions of sectors N9E7, N9E8, N8E6, and N8E7. The second excavation zone was placed further to the south, in sector N3E7 and expanded into portions of N4E7, N4E8, N5E7, N2E7, N1E7, N2E6, N2E5, and N2E4.

The third excavation zone, further to the west in sector N5W1, was selected because of elevated surface deposits of obsidian and the possibility that this area might provide an important interpretive contrast to results obtained from units further to the east. Due to time constraints, the lack of architectural or other features uncovered and the shallow deposits encountered, this last area was not explored beyond four excavation units.



Figure 9. General view of excavation area in the northeast part of Site 520.

A total of 100 1x1 meter units were excavated, half of which exposed sterile soil ([Figure 9](#)), typically at a depth of around 50 cm below the surface. The sterile soil is represented in the geology of the Teotihuacán Valley by volcanic bedrock known as *tepetate*.

Excavations were initiated on October 29, 2004. Work was carried out using small picks, and trowels. All the soil was sifted using 1/4-inch metal screen. A total of 12 temporary datum points were set in strategic places adjacent to the excavation areas to aid with three-dimensional recording, and their locations and depths were established with respect to Permanent Datum 2, which has an altitude of 2308.5 meters above sea level.

During the excavation operations, soil samples for paleobotanical analysis were collected from specific areas. All the charcoal observed during excavations was collected. A selection of these samples will be sent for C-14 dating.



Figure 10. Magnetometric survey at Site 520.

Magnetometry

Although not part of the initial research strategy, the opportunity arose in the course of the field season to have a magnetic radiometric geophysical survey carried out. This was done on January 6, 2005, by a group of doctoral students from the Department of Geophysics from Stanford University ([Figure 10](#)). The purpose of this operation was to determine if the magnetic susceptibility signatures of a suspected ceramic firing area detected during excavation were consistent with this interpretation (see description in Preliminary Results, next section), as well as to perform a reconnaissance survey throughout the unexcavated areas in Lot 83 in the hope of detecting other anomalies of potential interest. The broader survey was of limited utility, however, since the magnetic

anomalies detected in areas beyond the probable firing area were probably caused by the metallic stakes used to mark the grid set up for surface collection (Shragge *et al.* 2005).

Preliminary Results

Surface and excavated artifacts place the main occupation of Site 520 in the Tlamimilolpa phase (ca. A.D. 200-350) of the Teotihuacán Period (ca. 150 B.C.-A.D. 600). Distributional maps of surface artifacts (based on sherds, ceramic-making tools, obsidian tools, and rocks—possibly the remains of architectural structures), showed in general a heavier concentration of occupation toward the eastern part of Lot 83 ([Figure 7](#) and [Figure 8](#)). This pattern was also generally confirmed in the subsurface deposits. All architectural features excavated were located in this part of the site, while none were found in the squares opened in N5W1.



Figure 11. Architectural remains.

Architecture

No remains of the apartment compounds found in such large numbers within Teotihuacán were located through our excavations at Site 520. Instead, remains of what are probably examples of 'insubstantial structures'—simple dwellings thought to have been made of stone, adobe, and perhaps perishable materials (Cowgill *et al.* 1984)—were located in two different areas of the site. These appear to consist of vestiges of stone and clay foundations of smaller and poorly preserved structures ([Figure 11](#)) possibly made largely of perishable materials.

The structures located in the northeastern portion of Lot 83 may be more closely associated with craft-production, although they may also have been involved in some domestic activities. Structure EA#2, located mostly in Sector N4E7, appears to represent a domestic structure. Household artifacts (such as a groundstone *mano* fragment) were located in its vicinity. Burials are often associated with domestic spaces in apartment compounds within the city, and the three burials revealed by these excavations were associated with this structure as well.



Figure 12. Burial 1 and associated grave goods.

Burials

The three burials located during the excavations at Site 520 reflect similar patterns of funerary behavior documented at the ancient city of Teotihuacán. Burial 1, located to the south of EA#2 within Square N3E7.14, consisted of a single individual (possibly an adult) deposited directly on the surface of the bed rock or *tepetate* (Figure 12). The individual was in a flexed position and accompanied by a group of 29 ceramic vessels, a 'greenstone' bead, and a stone polisher—possibly a tool used during the manufacture of ceramics.



Figure 13. Burial 2.

Burial 2 (Figure 13) was located underneath EA#2, and consisted of a multiple burial of five individuals deposited in at least two different episodes into a pit cut into the *tepetate*. A number of objects were found in association with the individuals of Burial 2, including complete and broken ceramic vessels, fragments of figurines, and a 'greenstone' bead. Of particular interest are offerings of two complete *lunates* with clear wear marks, and a stone polisher, all tools used in ceramic manufacture.



Figure 14. Burial 3.

Burial 3 ([Figure 14](#)) was a fetus deposited within an outcurving bowl. This bowl was deposited in contact with tepetate in the eastern part of EA#2. Preservation of this individual is extremely poor. No offerings or other objects were included with this individual.

Evidence of Ceramic Manufacture

Large quantities of the *lunate* ceramic shaping tools were recovered from the surface (ca. 120) and from excavation (ca.170); around ten molding platforms were recovered from excavation. Most of the *lunates* or *lunate* fragments exhibit clear wear patterns. Along with these tools, large quantities of fired clay lumps—likely debris from ceramic manufacturing activities—were also recovered from both surface and excavated contexts. Although detailed analyses have not yet been carried out, the large amount of manufacturing tools and debris probably reflects a scale of production that exceeds the

local domestic needs of a rather small settlement such as Site 520. Products made at Site 520 were likely destined for consumption in other households within the ancient Teotihuacán city.

In Sector N2E7, we found a circular feature that was partially delimited with rocks and fired clay blocks. This feature contained large quantities of broken sherds, many belonging to the same vessels, and some exhibiting burned surfaces. These sherds were mixed with fired clay lumps, and stone pebbles. Small fragments of charcoal were also found within the circular feature. This structure may represent a possible ceramic firing location. In addition to the artifactual evidence, the magnetometry survey mentioned above shows that this area was associated with a strong magnetic anomaly consistent with an area exposed to intensive heat (Shragge *et al.* 2005).

The association of *lunates* and stone polishers in two of the burials found at the site is also significant. If it is assumed that functional tools buried with these individuals were likely to have been used by them during their lives, it can be inferred that these individuals were themselves ancient potters.

While it is not yet clear what kind of vessels was made at this location, the existence of flat molding platforms, and the large number of sherds from vessels with flat bases and either a vertical or outcurving wall, suggest that outcurving bowls and/or cylindrical vases may have been made here. More detailed analysis of artifacts will help test this hypothesis.



Figure 15. General view of the Teotihuacán Valley from the slopes of the Patlachique mountain. Cerro Gordo and pyramids in the background, Site 520 at the center of the photo.

Final Comment

In sum, surface and excavation operations at Site 520, Teotihuacán, México recovered data that will allow us to explore further the question of socio-economic interaction between a semi-rural settlement and the ancient city of Teotihuacán. Although firm conclusions await further analysis and interpretation, preliminary results confirm that inhabitants from Site 520 were engaged in ceramic production activities. The scale of ceramic production at this location probably exceeds what would be required for domestic consumption, and it is assumed that a portion of these ceramic products were consumed elsewhere—likely in the city.

Despite the proximity of Site 520 to the city, its inhabitants did not live in the type of architectural unit—the apartment compound—that was most commonly used in the city of Teotihuacán. However, the semi-rural residents of Site 520 followed the same general mortuary behaviors used by residents within the city, and also had access to other kinds of material culture common within the city (e.g., figurines), including some imported goods (e.g., Thin Orange pottery, greenstones).

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