

# Actuncan

## Archaeological Project



**Report of the third season**  
**2010**

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# **Actuncan Archaeological Project: Report of the 2010 Field Season**

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## Chapter 1: Research Questions and Methods

*Lisa J. LeCount (University of Alabama)*

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What role did households play in the institutionalization of kingship, and to what degree did Maya leaders usurp household authority during the Late Preclassic and Early Classic periods? To answer these questions, members of the Actuncan Archaeological Project examine the rise of hereditary kingship and the roles households played in the centralization of authority at the site of Actuncan, located in the upper Belize River valley near the modern town of Succotz. During this time span, many Maya sites became sufficiently large and complex to be considered states. The first royal dynasties were recorded in hieroglyphic texts at large sites such as Tikal and Copan, and rulers at smaller centers, such as Actuncan, actively commissioned the building of palaces, courts, temples, and elaborate tombs.

Although most archaeologists acknowledge that a suite of causal factors led to centralized authority among the ancient Maya, the intellectual debate is polarized between materialistic approaches that view elite control over the production and distribution of resources as the source of paramount power and ideational approaches that emphasize moral and religious constructs and knowledge as the source of centralized authority. To move beyond this impasse, members of the Actuncan Archaeological Project investigate organizational changes in households as rulers increasingly centralized their authority during the Late Preclassic and Early Classic periods. A household approach to understanding the institutionalization of Maya kingship is rarely explored, since most researchers investigating this question focus predominately on the monuments and tombs of rulers. The actions of rulers, however, cannot be fully understood without investigating households that held kin-based power through their control of land, labor and ancestral sources of religious authority. As independent sources of power, households are significant indicators of the successes and failures of political strategies to consolidate kingly authority.

Two major alternative hypotheses are tested. If rulers successfully instigated strategies that limited kin-based control over land, labor, and wealth, then once powerful families would have experienced a loss of wealth and status as measured by reductions in house sizes and luxury goods, as well as novel changes to domestic activities. Alternatively, it is also possible that in some smaller polities like Actuncan kin-based authority remained well-developed, and rulers were unable to consolidate authority over social groups. Indeed, if this was the case, then residential structures will illustrate consistent patterning in size and their members will maintain access to wealth over time.

Examining the affects of political authority on households requires the excavation of domestic structures and a Maya palace to document changing residential structure layout, size and prosperity through time. Specific field and laboratory tasks include 1) extensively excavating half of Actuncan households from the latest to earliest construction phases, 2) mapping the layout and size of each construction phase, 3) analyzing soil and plaster chemistry to determine shifting use of domestic space, and 4) analyzing artifacts to determine access to utilitarian and luxury goods. The goal is to chart the status and wealth indicators for seven different structures through Late Preclassic and Early Classic periods that span the rise of centralized authority at Actuncan.

### Research Background

Few studies attempt to view the institutionalization of Maya leadership from the perspective of households. Mayanists start with the basic assumption that descent and alliance played important roles in household organization (Haviland 1992; McAnany 1995; Sharer 1993; Watanabe 2004), and most agree that the Maya were corporately organized and, as such, formed large, multi-generational

households (Hammond 1991; Hendon 1991). Some have turned to more complex models to understand the organization of elite households, especially house (Gillespie 2000; Joyce and Gillespie 2000) or court models (Houston and McAnany 2003; Inomata and Houston 2001). Importantly, these models do not negate the importance of kinship as a factor for elite household organization and membership; rather, they emphasize the purposeful manipulation of inheritance, marriage, ancestors, and alliances to create and maintain the house.

Given the dynamic nature of Maya households, many Mayanists view them as task-focused residential groups whose members participated in activities located within the dwelling (Hendon 1996; Johnston and Gonlin 1998; Sheets 1992). This perspective has provided substantial data on craft production and consumption (Aoyama 1999; Inomata 2001; Inomata et al. 2002), subsistence strategies (Robin 2002a, 2002b; Sheets 2000), and ancestor worship (McAnany et al. 1999). A task-focused approach is appropriate for this research since changes to the use of domestic space, access to utilitarian and wealth items, and organization of domestic activities will inform archaeologists as to the role households played in the centralization of kingly power during the Late Preclassic and Early Classic periods. It is assumed that household growth patterns, domestic activities and access to wealth items reflect processes both internal to the household, as well as external to it. Without external demands from community and polity leaders for labor and resources, households should conform to cycles similar to those described by William Haviland's Developmental Cycle model (1988). Deviations from that model therefore reflect larger political processes at work on households.

In sum, Maya households should hold a key to understanding processes associated with the institutionalization of kingship. Many large households, especially those associated with founding families, might have had the most to lose in the social transformations associated with kingship. If leaders instigated strategies that limited control over land, labor, and wealth held by kin-based leaders, then the influence of many once powerful households would have contracted rather than expanded during the Late Preclassic and Early Classic periods. This process would be marked by the fragmentation of large households and the appearance others that look larger than expected given normal developmental cycles. Further, significant differences in domestic activities and artifact assemblages should be evident in the archaeological record since productive activities and exchange relations would have been reorganized. Alternatively, it is also possible that kin-based authority remained well-developed, and rulers were unable to consolidate authority over social groups. If so, then residential structures will illustrate consistent patterning in architectural growth and access to wealth over time. Therefore, the archaeological evidence for the institutionalization of Maya kingship should be written not only in the appearance of an aristocratic position with all its hereditary privileges and trappings of royal power, but in the reorganization of houses, wealth, and domestic practices.

## **Research Methods**

The project's goals are to intensively excavate and map seven structures---a range structure, three focal patio groups and three formal patio groups---roughly half the residential mounds evident on the surface of the site and test the rest of the remaining households. Project members will map each household construction phase through time and correlate construction phases with material remains to compare differential household growth, prosperity and domestic activity. Information concerning two previous excavation seasons (2000 and 2004) are not reported here, but these data are available in other publications (LeCount 2004; LeCount and Blitz 2001, 2005; LeCount, Blitz and Kelso 2005).

### *Excavation Contexts for 2010 Field Season*

The summer 2010 field season focused on investigating common and elite domestic structures. Project members conducted horizontal excavations of terminal architecture and deeper trenching of 1)

Structure 41 (Operation 6) located in Plaza D, 2) Group 1 (Operation 1) located in the northern neighborhood of the site, and 3) Group 4 (Operation 8) located in Plaza D. Don Perez and Dr. Angela Keller also remapped portions of the site and located permanent datums created by James McGovern to tie Actuncan's architecture into a growing GIS database begun by Jason Yaeger.

Excavations proceeded in the following stages:

Stage 1: A 1 x 1 m grid was superimposed on architectural groups using a total station and survey software. The coordinates of these units were recorded as electronic data for the creation of a GIS database. Topographic and architectural points were recorded for the creation of a new map.

Stage 2: Terminal architecture was defined by trenching around the substructures and superstructures to determine size and orientation of the building or group.

Stage 3: Terminal phase floors and features were exposed to establish the layout of the terminal construction. An architectural center point was determined for each building so as to guide deep trenches and future.

Stage 4: Structures of each domestic group were trenched to understand earlier construction phases and occupation.

Stage 5: Excavations will proceed to sterile to establish the layout of each construction phase and to recover artifact, plaster, soil, and other residue samples from each construction phase.

#### *Excavation methods*

Excavations were conducted by teams consisting of one excavator, one screener, and one graduate student supervisor. Whenever possible, excavation lots were dug in natural strata, unless the strata appeared to be deeper than 10 cm. If this was the case, lots were dug by arbitrary levels. Rarely did this occur, but in Operation 8 a deep pit was excavated by arbitrary levels.

Trowels were used for excavation unless the matrix became too rocky or compacted. All matrices were screened through a 1/4" screen and all cultural remains were collected. Volume of matrix was measured physically for each lot by using plastic buckets graded by cubic centimeter. If lot matrices were particularly rocky and volume could not be recorded by bucket, volume was estimated by multiplying lot height, width, and depth; but rarely did this happen.

Each operation datum was recorded using the Project's total station, as well as the location and depth of each lot, feature and architectural element. The Project located and established the UTM's for the original concrete XAP monuments so that we could tie our excavations into the valley wide database organized by Jason Yaeger. These data points served as the coordinates for the Project's GIS database used to analyze the distribution of artifact classes in two dimensional space. These data were organized by the field director, Dr. Angela Keller, and Don Perez, a Project crew member this year.

#### *Artifact sampling*

Both macro and microartifacts were recovered. Microartifact studies consist of the systematic recovery and analysis of small items from floors to understand ancient activities that took place on occupation surfaces. Microartifact analysis is rapidly becoming a common procedure in Europe (Miller-Rosen 1989, 1993; Rainville 2000), North America (Fladmark 1982; Hull 1987; Stein and Teltset 1989), and Mesoamerica (Feinman et al. 2006; Middleton 1998; Middleton et al. 2002; Middleton and Price

1996) to examine floor deposits because many such contexts have been carefully swept clean in prehistory, removing the macroartifacts typically studied by archaeologists. Site formation processes are important factors in the kinds of artifacts recovered on activity surfaces (Hayden and Cannon 1983; LaMotta and Schiffer 1999). The assumption is that microartifacts are more likely to represent activity sets since they were trampled into the soil matrix and swept into corners. Therefore, microartifacts may be more likely to represent activity sets than macroartifacts.

Microartifact studies consist of the systematic recovery and analysis of small items (Feinman and Nicholas 2004; Feinman et al. 2006; Middleton 1998; Middleton and Price 1996; Middleton et al. 2002). The Actuncan Archaeological Project follows procedures established by the Catalhoyuk Research Project since this highly stratified and densely occupied tell site is similar in site formation processes to Actuncan. There, 30-litre (7.93 gallon) samples are retrieved from floor deposits and wet sieved. Materials are separated into 3 different size ranges (> 4mm; <4mm and >2 mm; >2 mm) using graded screens. These size categories are then stored by artifact class, counted, and weighed to allow densities to be calculated. The Actuncan Archaeological Project uses the same procedure on dirt floor contexts, but also occupation deposits and middens. Some fill deposits are sampled to understand the standard sample profile (Cessford 2003). This sampling procedure will help determine if differences in samples relate to *in situ* activities or other factors.

At Actuncan, four-liter soil samples per above-floor and floor deposits are water sieved through fine mesh (1/16 inch). The 4 liter sample size is based on best use practices developed by Bernadette Cap. Wet materials were placed on clean fabric and left to dry. The dry materials were then sieved through a series of fine screens (1/4, 1/8 and 1/16 inch) to recover and sort into size grades all remains. Fill deposits were also sampled to document the standard profile of microartifact assemblages and determine differences in samples as they relate to *in situ* activities or other factors.

Macroartifacts will be analyzed for chronological control and productive activities. Work will continue to refine the ceramic sequence for the upper Belize River valley using microseriation techniques and radiocarbon dates (LeCount et al. 2002). Artifact assemblages also will be used to examine changing household status and activity sets (Feinman et al. 2002; Feinman et al 2006). The frequencies and ratios of artifact classes and types point to differences in activities across households and time. Differential distributions of rare items and luxury goods documents shifting access to goods that measure socio-economic status. In particular, increasing ranges in the size, form, composition or style of particular classes of good (like jade jewelry or decorated pottery) is an index of growing socio-political inequality (Lesure 1999). Crafting will be examined through a study of the context, concentration, scale, and intensity of production debris to understand if elites regulated the production of ritual items or status symbols and/or stimulated production of utilitarian goods for tribute or market exchange. Since direct measures of production are rare, petrographic analyses, standardization studies and artifact densities will be used as proxy measures to identify scale and intensity of production.

#### *Chemical Analyses of Soil and Plaster*

Soil and plaster chemistry data can identify locations within patio spaces and structures that were used for eating, cooking, and ritual activities (Barba 1986, 2007; Barba and Ortiz 1992; Manzanilla and Barba 1990; Wells 2004; Wells et al. 2000; Wells et al. 2007). Soil samples were taken to test for chemical concentrations in patios, structures, and adjacent off-mound areas. Phosphate concentrations are associated with preparation and consumption of foods, sodium and potassium compounds are generated by wood ash from hearths or kilns, and iron oxide and mercuric sulfide accumulate through the use of pigments, presumably during ritual activities or craft production. Plaster was sampled to understand activities on formally prepared floors by Kara Rothenberg (USF). Dr. Christian Wells visited the site for a week in May to teach all excavators sampling strategies for soil and plaster samples and supervised Rothenberg in soil sampling strategies.

Excavators collected soil samples from each 1 x 1 m unit for chemical analyses. Samples were sent to the University of South Florida (USF) for testing. Chemical compounds are extracted from samples using a mild acid-extractant (20 ml of dilute .60 molar hydrochloric acid and .16 molar nitric acid). All samples will be analyzed using a Perkin-Elmer 4300DV inductively coupled plasma-optical emission spectroscopy (ICP-OES) with Echelle-type grating. For calibration, known solution standards are run during analysis. Results are reported in parts per million of the element and subsequently converted to mg element per kg soil using the dry weights of the analyzed portions of the samples. Data are standardized by conversion to log (base 10) for comparability.

Another method for understanding organic residues in households is plaster chemistry. When plaster floors were encountered, point-samples (.25 gm) were taken using a 50 cm grid. At USF, samples are powdered, divided and exposed to chemicals to assay discreet amounts of phosphates, carbonates, pH, fatty acids, protein residues and carbohydrates. Phosphates correlate with organic materials; fatty acids and proteins residues are formed by meats, oils, fats or resins; and carbohydrates result from spilled substances high in starch and sugar. Chemical concentrations rather than absolute concentrations are recorded as many variables affect elemental levels in soils.

The results of soil and chemistry analyses are forthcoming. Although all samples shipped to the states were processed, the statistical and distributional analyses are not complete. However, they will be presented at the Society for American Archaeology in April, so the preliminary results will be presented to the Institute of Archaeology as a conference paper. More detailed analyses will be presented in the next few years.

### **Organization of Report**

Supervisors who excavated or mapped the site are responsible for documenting this season's finds. The following paragraphs present very brief introductions to the investigations.

One of the first tasks was to develop a mapping strategy that could easily integrate excavation data into a GIS database in order to make fine grain distribution maps of household artifacts and features. Because many of the *plazuelas* are rather small, Lisa LeCount and Angela Keller decided that excavation units also should be suitably small, settling on 1 by 1 m units. We also wanted to elaborate James McGovern's previous map to include more topographic data and correct Maler interpretations of some mounds (see Perez, Chapter 1). Don Perez initially focused on remapping Structures 41 and 29 and Group 5 since they appeared to need reinterpretation. Later, Keller and Perez worked to clarify the architecture and topography around the *aguada* when she realized the area's potential as a marketplace.

Caroline Antonelli and Kara Rothenberg continued excavations at Group 1 in the northern neighborhood of the site (Chapter 2). In previous years, testing indicated that the *plazuela* was founded in the Middle Preclassic period and was occupied continuously through the Late Classic period. This year we wanted to explore the terminal occupation surface of the patio and main platforms before continuing our vertical excavations below the last patio floor (Edwin's First Patio Floor). We already knew that Edwin's First Patio Floor was used as a building platform for many of the terminal structures, so the goal was to retrieve as much information about the platforms and surfaces that rested on top of it as possible. Interestingly, Edwin's First Patio Floor, which dates to the Early Classic, was the last plastered floor even though the Maya continued to occupy the area into the Terminal Classic Period and beyond. Dirt was either intentionally laid down over the plaster floor to function as a smooth flooring or it accumulated, perhaps unintentionally, over time. It was difficult to determine how many dirt occupation surfaces there were, but in the southwest corner of the patio there might have been at least two: one dating to the Terminal Classic and another dating to the Late Classic. This is not the only time dirt "floors" accumulated at Group 1; between the terminal and penultimate plaster patio floors is

another possible occupation surface. Mayanists do not generally recognize dirt floors, so it is not known how common this practice might have been. Rothenberg made a systematic sampling of the entire area, both on and off-mound, for soil chemistry and microartifact analyses.

The most unexpected discovery this year was the identification of a large platform supporting a C-shaped arrangement of superstructural elements previously mapped as Structures 33, 34, and 35. Rebecca Mendelsohn and Keller began a new set of excavations, Operation 8, at these structures (Chapter 3). The platform appears to be part of a group of structures that includes three small structures (Structures 36, 37, and 38), possibly shrines, in front and to the east of the main platform. The small structures face one another across a small, raised patio in the eastern portion of Actuncan North. The entire complex is separated from the residences in Plaza D by a low wall or step extending north to south from Structure 29 to Structure 39.

Initially, LeCount was perplexed by the layout and positioning of the group, waffling between interpreting it as a residential group related to the other elite structures to the west or an oddly placed civic structure backing Plaza C and Late Classic monuments. Because of its enigmatic shape and place, LeCount decided to explore the group. Excavations uncovered a gradually-sloping patio area and set of stairs that would have served as a semi-public area. Flanking this semi-public area were platforms on top of which there appears to be low benches, possibly once sheltered by perishable structures. This kind of C-shaped complex is commonly interpreted as a Postclassic or Terminal Classic *Popol Nah* or council house. This is the only known *Popol Nah* in the upper Belize River valley, and as such, it indicates that Actuncan was an important meeting place in the valley after the fall of other nearby centers.

A deep exploratory unit into the center of the platform revealed a well-preserved Early Classic structure that was truncated and completely engulfed by the Terminal Classic platform. Below this Early Classic structure is at least one more plaster floor, but the excavations stopped before sterile soil was found. The earliest lots contain a mixture of Middle Preclassic and Terminal Early Preclassic ceramic materials indicating that Actuncan was occupied around 1000 BC much like Xunantunich to the south and Cahal Pech to the east.

David Mixer directed excavations on Structure 41 (Chapter 4). During the Late Classic period Structure 41 consisted of a large pyramidal platform that supported a wide rear building platform upon which a bajareque superstructure was erected. Broad low terraces, some of which were plastered, were attached to all sides of the central pyramidal platform. On top of the summit the Maya constructed multiple versions of Structure 41-1<sup>st</sup>. During the Late Classic, the building platform held a large single roomed superstructure with three stone-faced benches; later, the Maya reworked this building by closing off the alley between the western and central benches. During the Terminal Classic period, the superstructure was razed and filled to create a level platform.

The style of construction below the summit is rather unusual. No evidence of a central south facing stairs was found as initially predicted by the orientation of the substructure, and terraces were found to wrap around the entire substructure creating multiple work or living spaces. On the southern terrace of Structure 41, Mixer identified a split level surface that was built in Samal phase (A.D. 600-670) of the Late Classic period. An Early Classic plaza floor runs under this terrace and the penultimate southern façade of the central pyramidal platform described above. The sloped terminal façade of the substructure was created by covering large chert cobbles and boulders with plaster. While the ceramics diagnostics place the construction of this façade to the Terminal Classic, the contexts from which the ceramics derive are not sealed. Therefore, many of the Terminal Classic diagnostics may come from the terminal structures on top of the summit, not the substructure fill of Structure 41-1<sup>st</sup>.

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## Chapter 2: Mapping Actuncan

*Don C. Perez (Brandeis University)*

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Among the aims of the 2010 field season at Actuncan was the creation of a topographic relief map of the site core. The site had been mapped previously by James O. McGovern, who created an excellent Malerized representation of the site in the early 1990's. Our objective was to integrate McGovern's previous work with new topographic data using updated mapping methods while correcting interpretations of some mounds in light of new reconnaissance of the area. During McGovern's field work much of the central portion of the site was in dense high secondary growth. Transects through this growth had to be chopped and visibility was poor. Today, more of the site is visible and it became evident to the project that revisions to McGovern's map were required.

An accurate depiction of both human-made features and the natural landscape on which they are situated is an essential first step in understanding how the ancient Maya used space. These features can now be modeled within a Geographical Information System (GIS) to facilitate interpretations. Therefore, our objective was not only to record the location of features in space, but to generate a set of data which can be analyzed using the GIS interface.

A Topcon GTS-220 Total Station and Carlson Surveyor data collector were used to map the visible architecture at the site including structural features exposed during excavation. In addition, the 1 x 1 m grids across all excavations were staked out using the Total Station.

### Previous Research

James O. McGovern began mapping Actuncan during his project's first season of investigations in 1992. During that season, mapping of the main structures on the acropolis in Actuncan South was completed. The following year the northern precinct was mapped after being identified in historical aerial photographs. Relying on these photos the crew cut transects from three baselines established by the property line fences erected by the local landowners which bisect the site on roughly east-west axes. The base lines and transects were transit mapped using a Total Station. The team moved into the civic core of Actuncan North by cutting dense secondary growth. A total of nine permanent mapping monuments were placed in strategic locations around the northern precinct and were transit mapped with the Total Station. The monuments are steel rebar embedded in concrete, and they serve as known points for the mapping of the structures and major features. They continued to be utilized during the 2010 field season.

McGovern reported that the varied topography of some regions of the site posed problems in the mapping process. Error increased as mapping extended to the south and east portions of the site where the topography was more extreme. All major mapping efforts took place during McGovern's 1993 field season. The following and final season consisted primarily of excavations.

### Current Research

James O. McGovern's work in the early nineties produced an excellent Malerized representation of Actuncan. Malerization is an interpretive method of map-making whereby an attempt is made to represent the dimensions, height, and orientation of mounded architectural features. The sides of mounds are represented as straight lines that often meet each other at right angles. This is an idealized rendition of what remains on the landscape and one can easily attain a sense for the magnitude and extent of a site by referencing the Malerized map.

Much like a topographic relief map, Malarized maps are two-dimensional representations of three-dimensional height. However, only the built landscape is usually depicted using these conventions. Often, Malarized representations of structures will appear as if they are floating in flat space and the topographic setting in which the site is situated is absent. Therefore, both topographic and architectural data are essential in interpreting the ways in which ancient peoples made use of the existing landscape. The primary goal of the 2010 mapping program was to create a detailed topographic relief map that could be used as a base layer for the Malarized drawings of the structures (Figure 1).

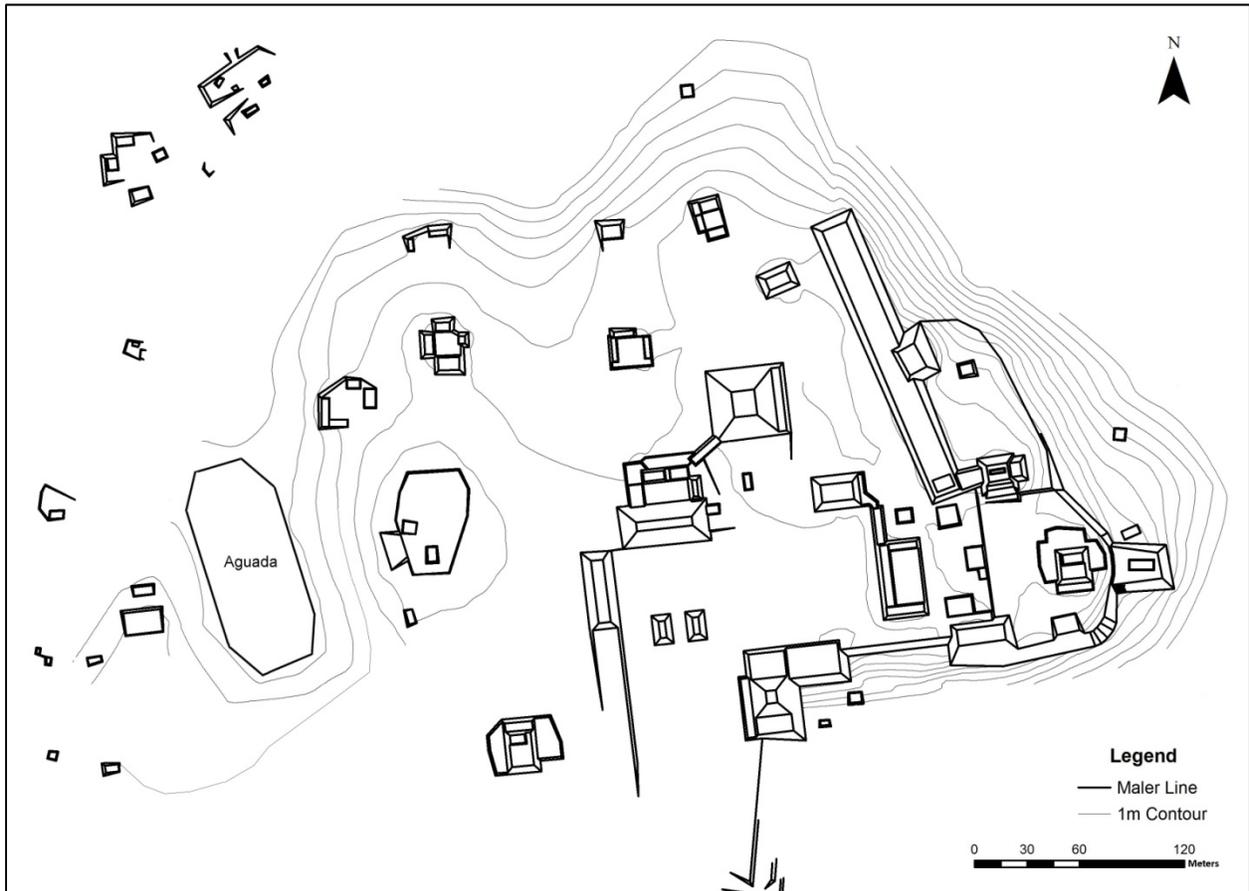


Figure 1. Revised map of Actuncan North.

The 2010 mapping efforts utilized several strategies. Given that the Total Station was not only dedicated to defining topography but also to excavation efforts, it was not practical to formulate a mapping strategy which extended for more than a day's work or could not be terminated if the Total Station was needed elsewhere. Therefore, efforts were primarily opportunistic. Fortunately, by the 2010 field season, most of the northern precinct at Actuncan had been cleared by the land owners for cattle grazing. The open land was conducive to ad hoc mapping.

During the 2010 field season, there were portions of the site that are covered by a degree of secondary growth. The property line which runs east-west through Structure 15, and separates most of the northern precinct from Actuncan South, is completely overgrown and mapping was not attempted in this area. This secondary growth extended northward beyond the property line in some areas and covered Structures 37, 38 and 39. In these areas, short paths were cut through the foliage in an attempt to define the topography of the mounds and natural landscape.

This strategy was successful in defining two small structures, Structures 38 and 37; however, Structure 39 is quite large and densely overgrown. Three short transects were cut and mapped across this mound along with several spot points taken in order to represent the mound topographically. A line of points were shot along a trail which was located a short distance down the slope, south of Structures 39 and 40. This helped to define the topographic representation of Structure 39 and the rest of this sloping area to the south.

The eastern zone of the site, consisting of Plaza D and Structures 29 through 42, was intensively mapped during the 2010 season. The topography of the land east and south of Structure 41 was mapped by shooting points on the breaks in topography and by shooting lines of points radiating out from the platform on which Structure 41 is situated.

McGovern had represented the area east of Str. 41 as an oddly shaped platform appended to Plaza D that supported a rectangular structure. Our findings confirmed this, and we discovered additional features in this portion of the site. There appears to be an additional rectangular structure to the north of the appended platform. We also identified a small staircase that extends down the southern side of Plaza D immediately east of Structure 41. These features were added as Malerized representations to the existing map of Actuncan.

Additional modifications to the landscape were noted off Plazas D and E to the east. During our mapping efforts in this area, we noticed that there appears to be some terracing below the southern and eastern edge of Plaza D. These modifications may be the result of subsistence activities associated with the residents of Structure 41. During the 2010 field season we were only able to shoot a few points in this area in order to construct a rough representation of the topography. More mapping needs to be done in those directions to understand the extent of the residential group.

The western portion of the site consists of what was designated by McGovern as Structures 67, 68 and 69 and the neighboring *aguada*. Structures 67 and 68 are situated on top of a natural rise that appears to be modified somewhat. This area has been interpreted by this project as a possible locus of a market place. Extensive topographic mapping was carried out in the area and the modified natural rise was added to the Malerized map of the site (Figure 2).

The natural rise is primarily earthen; however, Angela Keller and I identified a broad stone staircase that extends off its southeastern side. This staircase leads directly to the large depression feature that was first recognized as an *aguada* by McGovern in 1993. Our observations in 2010 support McGovern's interpretation. After a particularly hard rain during our field season, this feature held water to a depth of approximately 15 to 20 centimeters. The extent of this water was approximately 20 m east-west by 30 m north-south.

Efforts were made to topographically map the *aguada*. The majority of the southern portion of the feature was completely cleared; however, the northern part of the feature had a considerable amount of secondary growth. The extreme topography, the dense foliage, and standing water proved to be a challenge in mapping the area. Paths through the bush were cut and transects of points were shot down these paths in an effort to capture the shape of the *aguada* feature. We were moderately

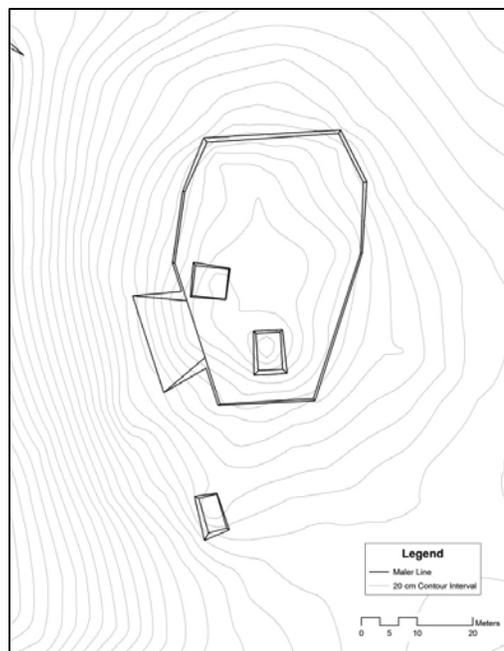


Figure 2. Structures 67 and 68.

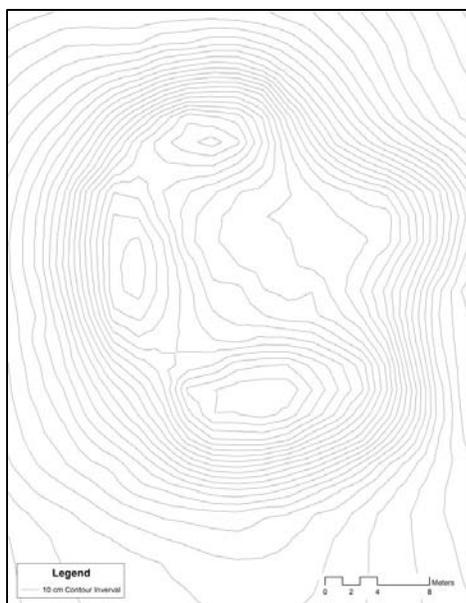


Figure 3. Topography of Group 1.

Approximately 65 to 75 percent of Structure 41 was staked out in 1 x 1 m units for excavation. The remainder of the mound was mapped with topographic points at roughly 1 m intervals. The topographic mapping expanded to roughly 2 m intervals at the northern and western extents of the mound. Group 1 and Structure 41 were thus topographically mapped using a fine-grained, “total coverage” method.

Group 4, which was the locus of Operation 8 (see Mendelsohn and Keller chapter), was mapped with less precision. A 68 m<sup>2</sup> area bisecting the major platform of Group 4 was staked out at 1m intervals for excavation. Another 27 m<sup>2</sup> area at the south of the structure was also staked for excavation. The staked areas comprised only 20 to 30 percent of the surface area of the group. The remainder was topographically mapped by taking points were along breaks in topography and changes in elevation (Figure 4). For instance, a ring of points were taken around the margin where the mound met the plaza floor around its perimeter. Another ring of points were taken along the upper-most margin of the mound thus defining the top and bottom of the platform. Similar tactics were employed to define the small structures on top of the elevated platform. This method provided an adequate topographic

successful in these efforts and the current map represents the feature in a preliminary manner. The *aguada* is large and somewhat rectangular at its southern-most extent, however as the feature extends to the north it becomes increasingly constricted and shallow. Keller hypothesized that dike or check-dam features may have been constructed in this area to control the flow of water held in the *aguada*.

As mentioned above, the Total Station was also utilized in the excavation efforts during the 2010 field season. The 1x1 m excavation units were staked out using the total station. The position of the each staked point was recorded with elevation data. In the case of Operation 1, the entire Group 1 *plazuela* was staked-out. This exercise generated a fine-grained topographic representation of the *plazuela* structures and supporting platform points (Figure 3, also see Rothenberg and Antonelli chapter for Malerized version). The mapping regime was expanded a short distance beyond the group, and points were shot at roughly 1 m intervals around the group to extend the fine-grain representation.

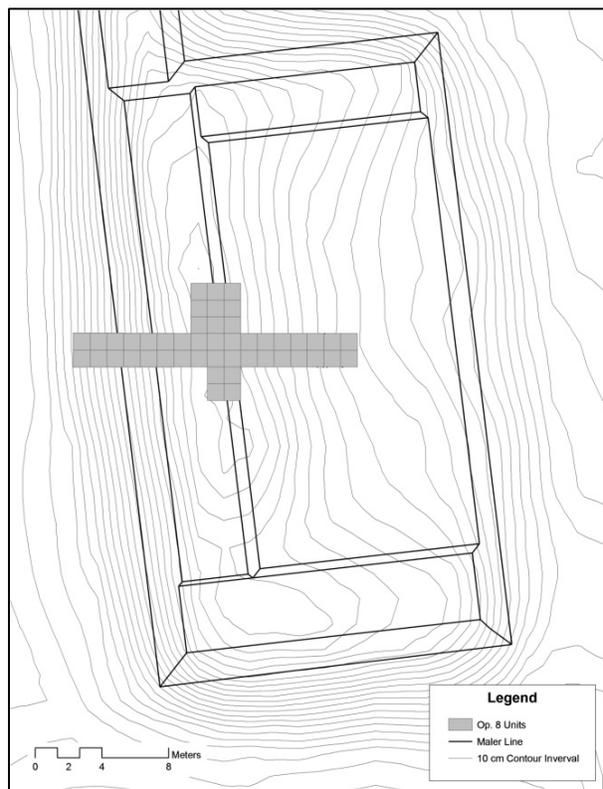


Figure 4. Group 4 topography and Maler reconstruction.

representation of the platform and smaller structures on top of it that for the C-shaped Structure.

The excavations carried out by David Mixter at Structure 41 led to a reinterpretation of the structure's architecture (see Mixter chapter). Most significant was the discovery of a short terrace appended to the southern edge of the structure; in fact, there was general agreement that the terraces on all sides of Structure 41 were misrepresented on McGovern's map of the site. The Malerized drawing was changed accordingly; terraces were added to the eastern and northern sides of the structure. These reconstructions are similar to those generated by McGovern for the architectural arrangement of Structure 73.

Excavations led by Rebecca Mendelsohn at Operation 8 (Group 4) also led to a reinterpretation of the group's architecture. These findings, in conjunction with more precise mapping efforts carried out by Angela Keller, produced a revised Maler drawing of the platform and associated structures (see Mendelsohn and Keller, this volume).

### Summary

During the 2010 field season we redefined and reinterpreted Structures 41 and Group 4 by combining detailed surface mapping and data from excavations carried out at these loci. In addition, Structures 29, and Structures 63 through 66 were reinterpreted and remapped from surface observations. Structures 67 through 69 were reinterpreted as being associated with a market place. Structures 67 and 68 are situated on top of a natural but seemingly modified raise. These new interpretations of the landscape were added to the Maler map. The *aguada* to the west of this feature was topographically mapped with greater detail than was done previously.

The topographic relief of most of the Northern Precinct was mapped by implementing our ad hoc strategy; however, we plan to complete additional work around the major architecture to create a more comprehensive representation. In addition, the current map would benefit from additional topographic mapping around the periphery of the site core in order to better situate the site on the landscape. Actuncan's site core sits on an escarpment above the Mopan River, located to the east. In addition, the terrain is quite varied in the north and northwest portions of the site. Representing these contours in greater detail would facilitate interpretations of ancient settlement patterns at the site.

### Chapter 3: Excavations at Group 1

Caroline Antonelli (State University of New York, Albany) and Kara A. Rothenberg (University of South Florida)

Group 1 is a residential plazuela group located northwest of the Actuncan civic core. The group consists of four structures, numbers 59, 60, 61 and 62, on a raised platform. It is the largest *plazuela* on the ridge top measuring 26.5 m north-south and 25.5 m east-west with a maximum height above ground surface of 2.5 m at the NE corner of Structure 59. Like most of the architecture in the Actuncan North portion of the site, Group 1 is oriented roughly 8 degrees west of true north. Group 1 was initially tested in 2001 and trenched in 2004 (LeCount 2004; LeCount and Blitz 2002, 2005; LeCount et al. 2005). The 2004 trench was placed into the northwest corner of the group, between Structures 62 and 59. These excavations uncovered a long occupation sequence beginning in the Preclassic and continuing into the Terminal Classic period. During the 2010 field season, three of the four mounded structures were investigated (Structures 59, 61 and 62).

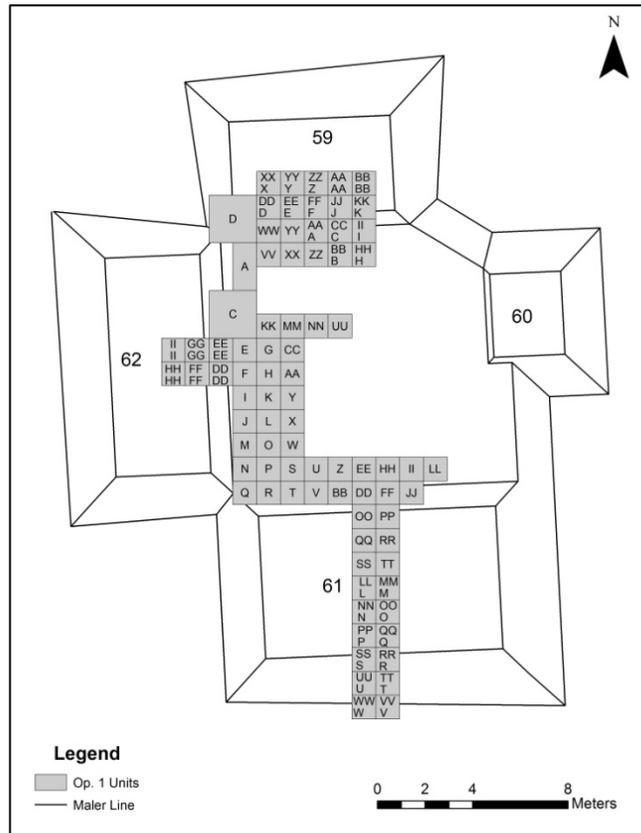


Figure 1. Malerized representation of Group 1 with structures and excavated units labeled.

Group 1 was chosen for excavation because it fits the research goals of the Actuncan Archaeological Project, which is to investigate organizational changes in households over time with special attention paid to the Late Preclassic and Early Classic periods, when local rulers began to take

power. To investigate temporal changes, both traditional excavation and microscale activity analysis using soil chemistry were conducted. The goals of the 2010 field season were to expose and delineate the most recent construction episodes of these three buildings, as well as to collect soil samples for activity analysis from the most recent occupation surfaces throughout the plazuela group. A total of 79 units measuring 1 x 1 m were opened (Figures 1 and 2). All units were subsumed under Operation 1.

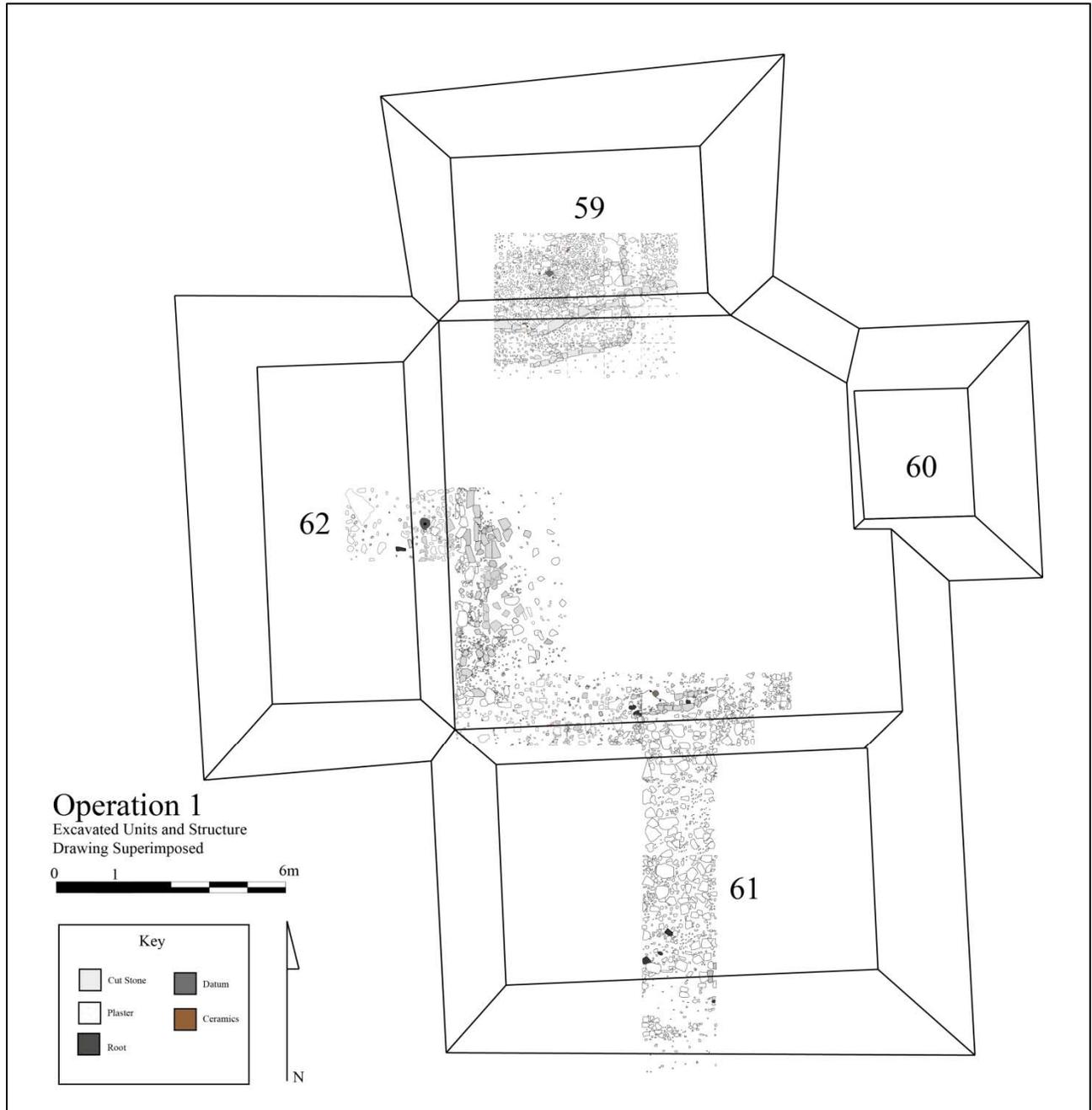


Figure 2. Composite image of terminal architectural features exposed in 2010.

## Patio Excavations

Units KK, MM, and NN were opened with the intent of creating a west-east trench through the middle of the plaza to recover artifact and soil samples on or near the terminal plaster floor (Unit UU was labeled, but never opened). The terminal patio floor (Edwin's First Patio Floor) had been previously identified by excavators in 2000 and 2004 extending across the patio and underneath Structure 59's Late Classic platform in Units A, C and D at 75 cmbd. Although the floor was well preserved where it was buried underneath later constructions, it was difficult to detect near the middle of the patio even in 2004. Ceramic analysis by Lisa LeCount at the time dated the construction of the floor to the Early Classic period. To date, no radiocarbon dates have been analyze to confirm this chronology.

This year, excavators collected a variety of artifacts, including an abundance of ceramic sherds and lithic material from various stages of reduction, as well as a small amount of jutes and obsidian blade fragments, in the deposits above the floor. After opening three units eastward into the center of the patio, however, it was clear that terminal plaster floor had not preserved well. Subsequent excavations focused on Structure 59.

## Structure 59

Structure 59 is the northern structure of the *plazuela*. We placed twenty 1 x 1 m units across the southern portion of Structure 59 in attempts to delineate the architectural layout of the structure. A plan view of the excavated units with wall numbers is shown in Figure 3. Elevations are displayed in Figures 5 - 8. The location and direction of elevation drawings are labeled with dotted lines in Figure 4.

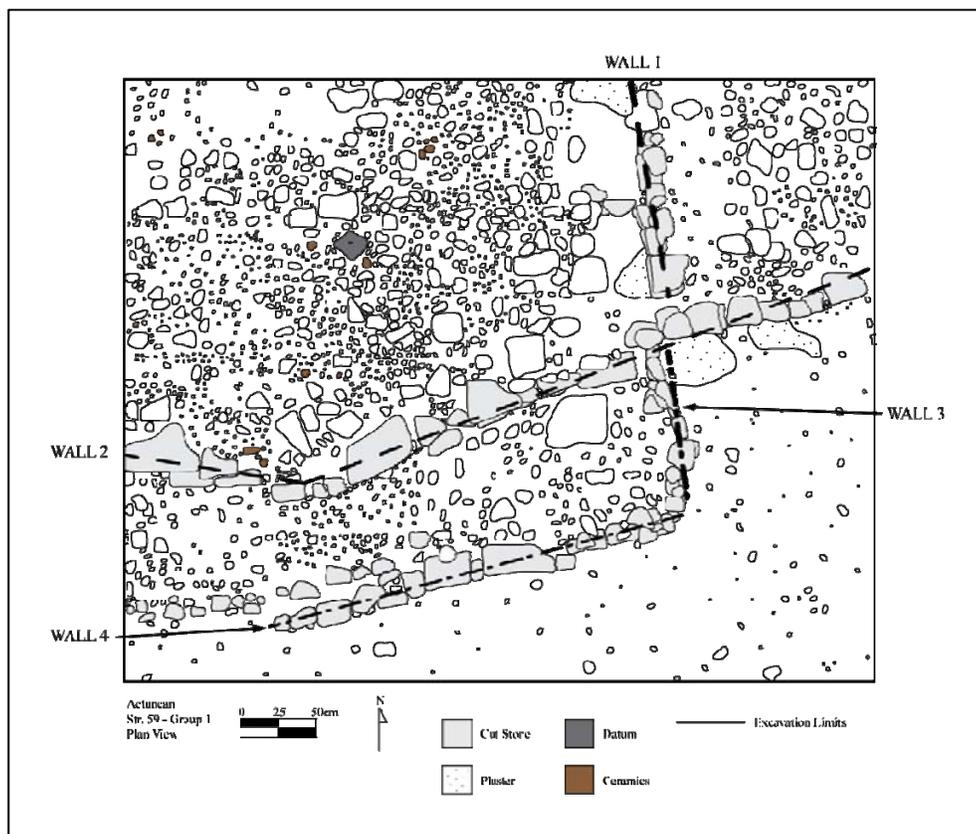


Figure 3. Plan view of Structure 59 with wall numbers displayed.

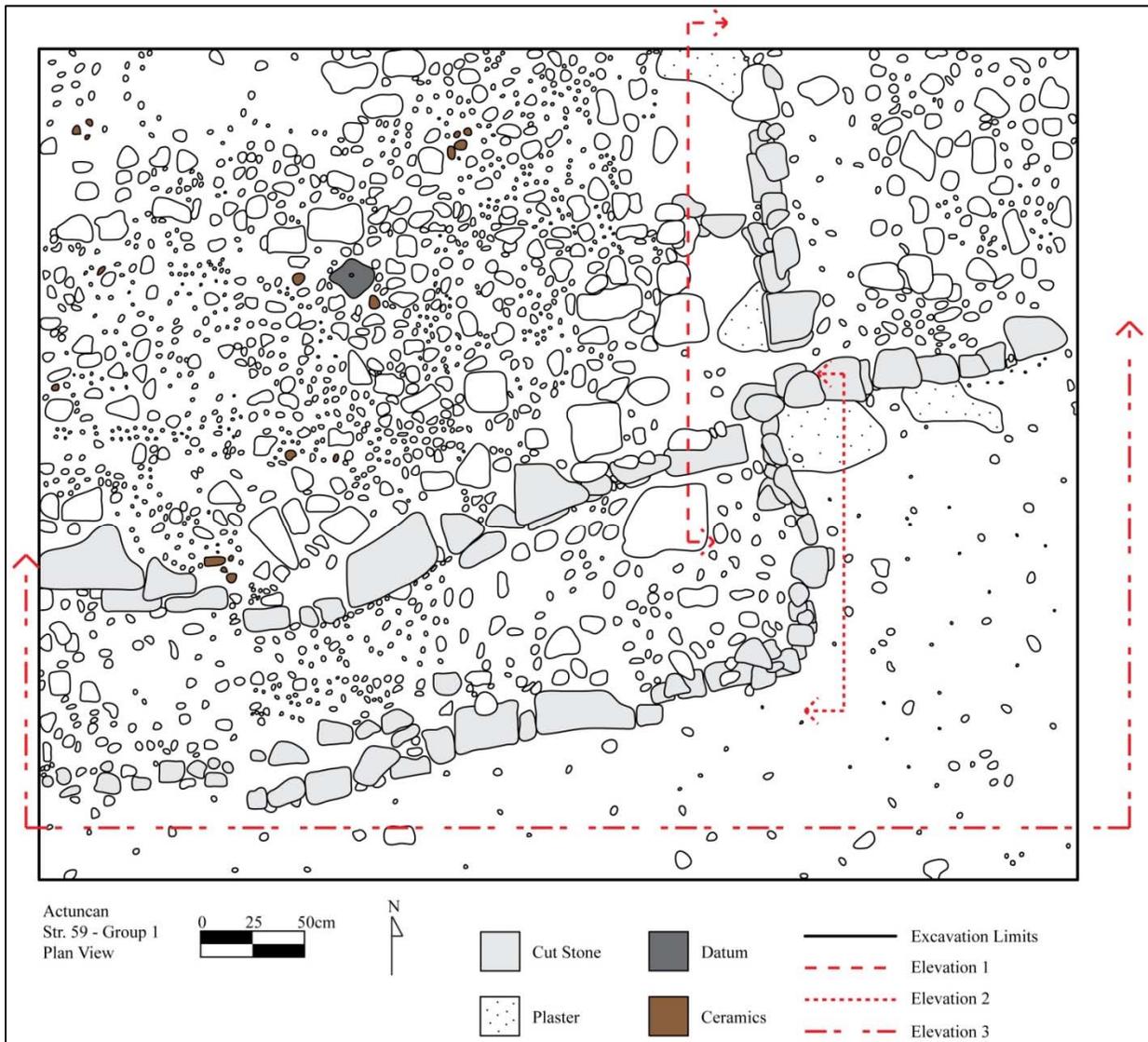


Figure 4. Plan view of Structure 59. Locations of elevation drawings are labeled with dotted lines.

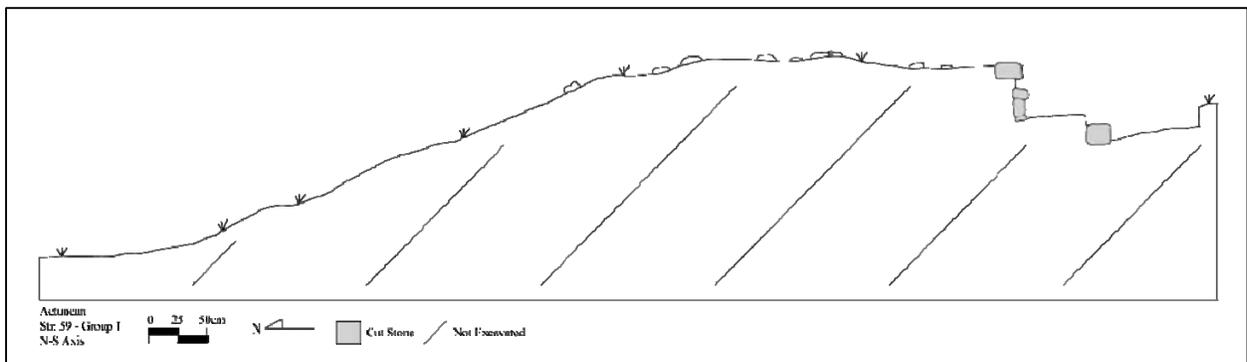


Figure 5. Profile through the middle of Structure 59, facing east including Units ZZZ, FFF, AAA, and ZZ (from north to south).

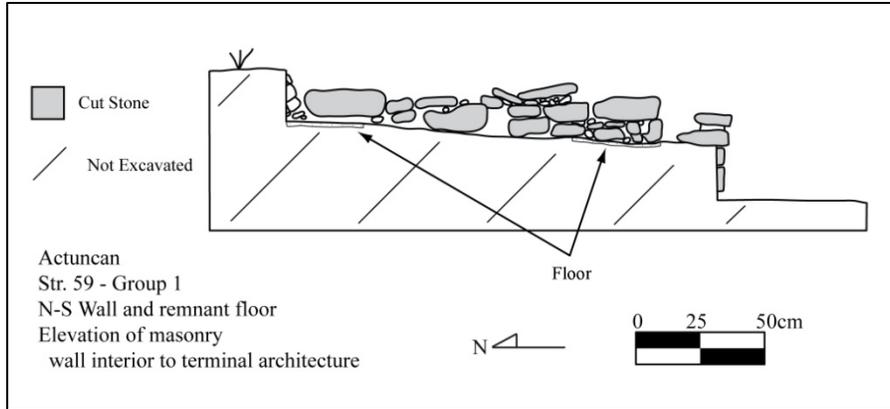


Figure 6. Elevation of the eastern wall of Structure 59, facing east, including Units AAAA, JJJ, and CCC (from north to south). Location is labeled “Elevation 1” in plan view, above.

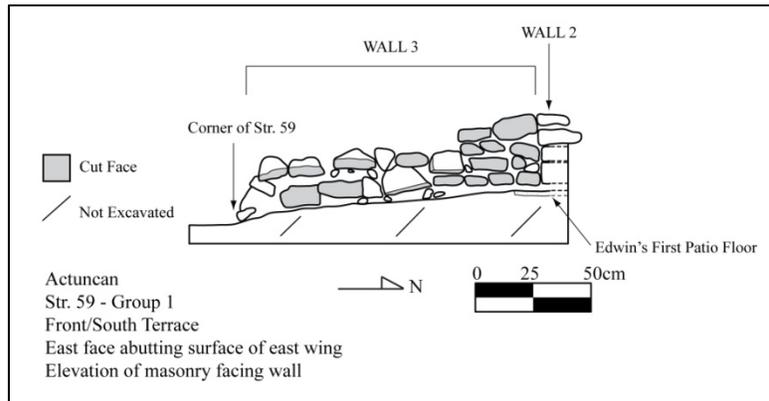


Figure 7. Elevation of the south terrace of Structure 59, facing west, including Units JJJ, CCC, and BBB (from north to south). Location is labeled “Elevation 2” in plan view, above.

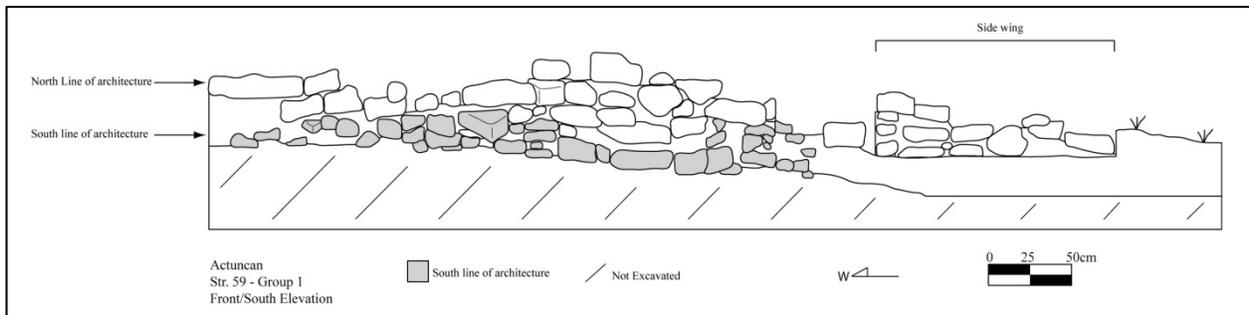


Figure 8. Elevation of the south face of Structure 59 and the eastern wing platform including Units VV, XX, ZZ, BBB, and HHH (from west to east). Note the cut stone façade facing west along the west face of the eastern wing (side wing of Wall 2). Location is labeled “Elevation 3” in plan view, above.

We placed Units VV, XX, ZZ, BBB, and HHH to reveal the front of the structure and its orientation. Excavators uncovered the front platform edge of the platform (Wall 4), which measures about 4 m in length east to west and is one to two stones high. We opened Unit HHH to uncover any remaining plaster fragments of Edwin's First Patio Floor, but excavators did not uncover any preserved plaster in this region. It appears that Wall 4 was built on top of Edwin's First Patio Floor. A later dirt-packed floor filled over the basal wall stones. Excavators collected a variety of artifacts from these units, including large quantities of ceramic sherds and lithic material from various stages of reduction along with small quantities of jutes, slate, and obsidian blade fragments. Overall artifact classes and ceramic dates from Structure 59 are discussed later in this section.

We opened Units WW, YY, and AAA to better understand the south extent of Structure 59, and its complex construction history. A line of cut stones (Wall 2) runs through these units, parallel to Wall 4, present in Units VV, XX, ZZ, and BBB, though higher in elevation. This second wall may lend evidence to suggest that the platform was stepped along its entire length at one time since Wall 4 was appended to Wall 2 after Wall 2's initial construction. Perhaps a previous construction was removed to allow the construction of Wall 4 or alternatively the extension formed by Walls 3 and 4 was one of many numerous small additions to the platform. From these units, excavators again collected large amounts of ceramic sherds and lithic material from various stages of reduction as well as small quantities of jutes and slate, though no obsidian.

We opened Units DDD, EEE, FFF, XXX, YYY, and ZZZ to collect material from the fill on top of the structure and to better date the terminal occupation of the structure. Again, excavators collected large quantities of ceramic sherds and lithic material from various stages of reduction as well as small quantities of jutes and obsidian, though no slate.

To define the eastern edge of Structure 59, we opened Units CCC, III, JJJ, KKK, AAAA, and BBBB. Additionally, we opened Unit III to determine whether any plaster from Edwin's First Patio floor was preserved in this area. Here, excavators uncovered an eastern wing of the structure as defined by Wall 1. Paradoxically, Wall 1, which was constructed of cut limestone blocks and cobbles, faces west as if it forms the western wall of a platform located just east of center platform of Structure 59. However, there is no east facing wall of the center platform, so the relationship of Wall 1 to the core fill of Structure 59-1<sup>st</sup> remains somewhat of a mystery for now. It is possible that the ancient Maya removed the east facing retaining wall of the center platform to build up the eastern wing structure. During the 2004 excavations of Group 1, a matching western wing was defined in Unit D. The many low walls with their odd angles and precarious abutments speak to the frequent and numerous additions the ancient Maya undertook as they built the northern structure of the *plazuela*.

At present, it appears that the lower "wing" terraces to the east and west sides and the south front of the structure were appended after construction of Structure 59-1<sup>st</sup>. Plaster from Edwin's First Patio Floor was found preserved in front of the east wing, directly underneath parts of the collapsed wall (in Units JJJ and KKK). Preserved plaster was also found on top of central platform of Structure 59-1<sup>st</sup>, west of the eastern wing, in Units JJJ and AAAA (Figure 6). Like the western (Structure 62) and southern structures (Structure 61), Structure 59 was built atop Edwin's First Patio Floor, though a later prepared dirt floor, dating to the Late Classic period, is evident abutting the front of the structure. The dirt floor is likely the occupation surface associated with the use of this building. In 2004, Lisa LeCount found a dirt floor in Unit D/5 and D/14 at the same level, where it extended underneath the western wing of Structure 59's platform. Therefore, the western wing of Structure 59 may pre-date the eastern wing.

Artifacts from surface and use-related contexts at Structure 59 are abundant and varied. Along with ceramics, we recovered very large amounts of lithic debris from multiple stages of reduction, slate, groundstone, bark beater fragments, and obsidian. The diversity of artifact classes indicates that many

activities were occurring in this small space, and that Structure 59 might have functioned as a multi-use workshop area (See Table 1).

Table 1. Quantity of Artifact by Class from Structure 59.

Unit	Count of Artifacts by Class				
	<i>sherds</i>	<i>lithics</i>	<i>jutes</i>	<i>slate</i>	<i>obsidian</i>
VV	934	191	7	0	1
WW	485	56	0	0	0
XX	672	391	1	0	1
YY	345	96	2	1	0
ZZ	781	323	4	0	2
AAA	1291	383	2	2	0
BBB	815	297	0	0	2
CCC	1769	919	2	1	0
DDD	0	0	0	0	0
EEE	140	7	1	0	0
FFF	107	9	0	0	0
HHH	1001	317	0	1	1
III	1069	309	0	1	2
JJJ	890	233	2	1	1
KKK	796	298	1	4	3
XXX	243	41	1	0	0
YYY	328	76	1	0	1
ZZZ	246	51	0	0	0
AAAA	741	127	1	0	0
BBBB	155	69	0	1	0
<i>Total:</i>	<i>12808</i>	<i>4193</i>	<i>25</i>	<i>12</i>	<i>14</i>

Ceramic material from the fill of Structure 59 dates almost exclusively to the Late Classic period. This pattern suggests that the intense modification of the building occurred within a relatively short time span, rather than across many time periods, and speaks to the idea that the creation of space was constantly changing to fit household needs. Interestingly, significant quantities of Terminal Classic period ceramics have been found at both Structures 61 and 62, and yet Terminal Classic diagnostics are scarce at Structure 59. This suggests that although the *plazuela* group was occupied during the Terminal Classic period, residents were not intensively using Structure 59. If the space was being used during this time, it was being used for activities that did not require many tools. Alternatively, debris was deposited elsewhere, such as off the northern side of the platform. It is also possible that the Terminal Classic occupation surface on Structure 59 has eroded away. However, the fact that Terminal Classic diagnostics are found sitting on the dirt surfaces of the patio at other areas in Group 1, especially in the saddle between Structures 61 and 62 (see discussion below), suggests that this is not the case. Although the Terminal Classic diagnostics found across the southern portion of Group 1 may not be *in situ*, they still indicate the patio group was occupied at this time.

### L-Shaped Trench in Southwest Corner of Patio

In order to define the patio-facing sides of Structures 61 and 62 and the last occupied floor of the central patio, we opened a large L-shaped series of 1 x 1 m units at the juncture between the two structures (Figure 9). The clearing excavations began on the southern edge of the 2004 north-south trench (labeled D, C, and A in Figure 1), located west of Structure 59 and north of Structure 62. In the 2004 excavations, multiple stages of construction were noted on the eastern edge of Structure 62. To better define the layout of the terminal architecture observed in 2004, we placed units directly south of the 2004 trench.

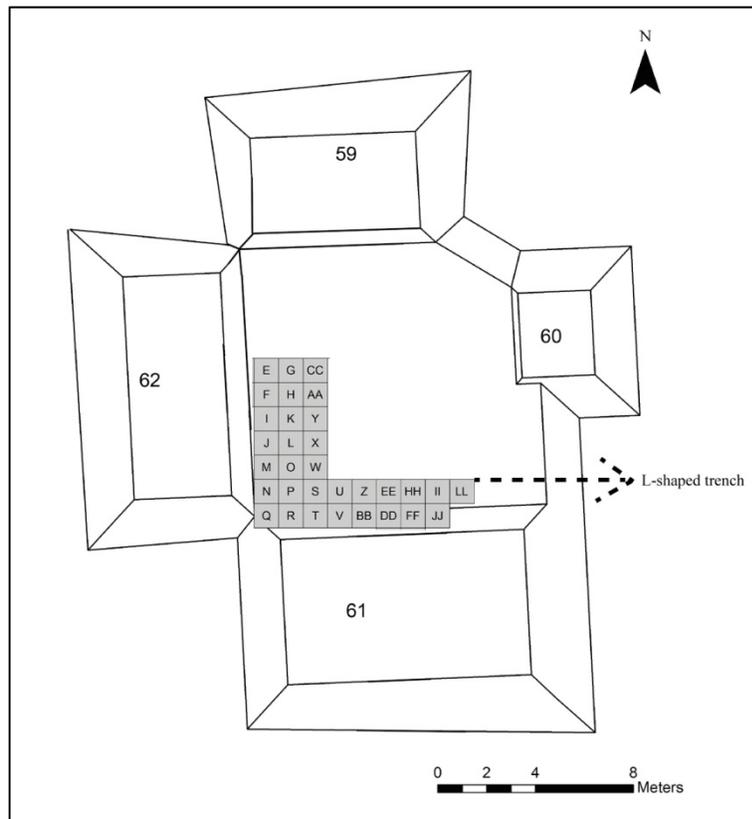


Figure 9. L-shaped trench excavation along western and southern limits of patio.

Subsequently, we added several more 1 x 1 m units to the east, along the northern face of Structure 61. The patio-side facade of Structure 61 was much more difficult to define than that of Structure 62. Excavations continued across from west to east (2 m wide north to south) past the central north-south axis of the Structure 61. Units included in this branch of the L-shaped trench were U through JJ and LL. The front façade of Structure 61 was uncovered in the second phase of excavations of Structure 61, when a north-south trench was excavated along the central axis of the structure. This is described in greater detail below.

Four walls were uncovered during excavations of the L-shaped trench (Figure 10). Walls 5 and 6 represented two patio steps up to a larger platform along the western side of Structure 62. One possible

balustrade stone was uncovered near the center of these steps up. There was a lot of out of place stones that collapsed to the west, up to 3 m away. Walls 7 and 8 were uncovered along the northern side of Structure 61. These walls were at a greater depth than Walls 5 and 6 (Figure 11).

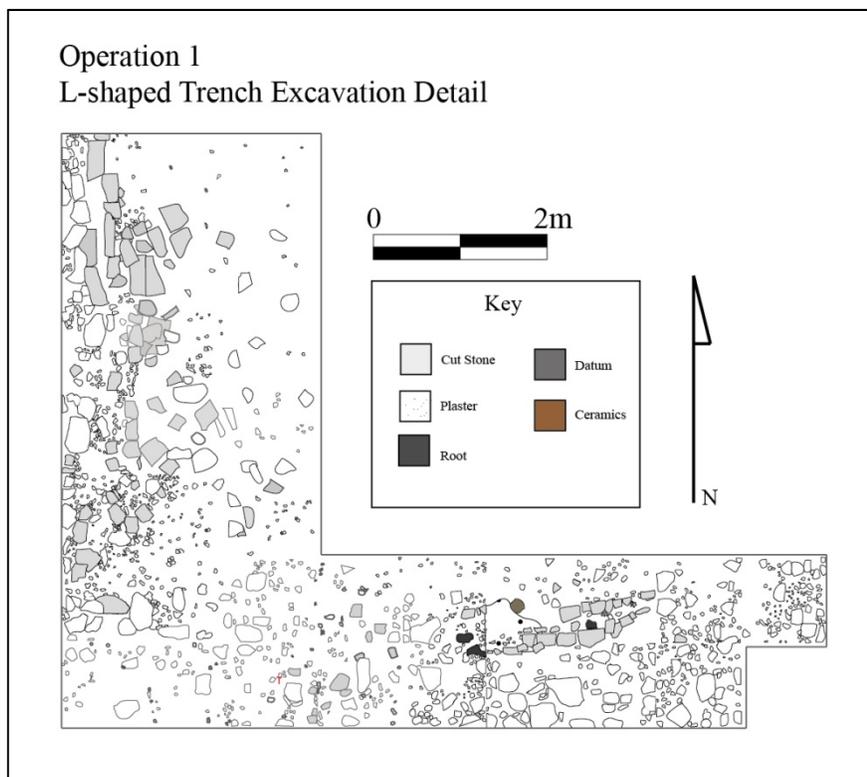


Figure 10. Detailed plan view of terminal architecture uncovered in patio excavations (Units E – JJ, LL).

Most excavations in the patio and along the faces of Structures 61 and 62 did not exceed two lot depths per unit (approximately 10 cm below surface and 30 cm bd). The goal for excavating these units was twofold: (1) to expose the inward-facing terminal architecture of Structures 61 and 62, and (2) to identify the terminal floor of the interior patio. Therefore, excavations were shallow. After the overburden and disturbed surface had been removed, no plastered terminal floor was uncovered. Using the profile of the 2004 trench (which was reopened at the start of the season) it appeared that there was a dirt floor that overlay the last plaster floor (Edwin's First Patio Floor). This dirt floor had a matrix of mostly small cobbles (less than 5 cm in diameter). Soil samples were taken from this level and likely represent the terminal living surface.

### Structure 61

Structure 61, the southern structure, is the tallest structure in the *plazuela* group. Units were initially opened along the northern side of Structure 61 to understand the patio-facing façade. The patio-side front of the structure appeared to be even more collapsed than that of Structure 62, with large cobbles (10 to 50 cm in diameter) strewn over the structure. Initial clearing excavations failed to yield definitive retaining walls or stairs on the northern side of the structure. The large cobbles might

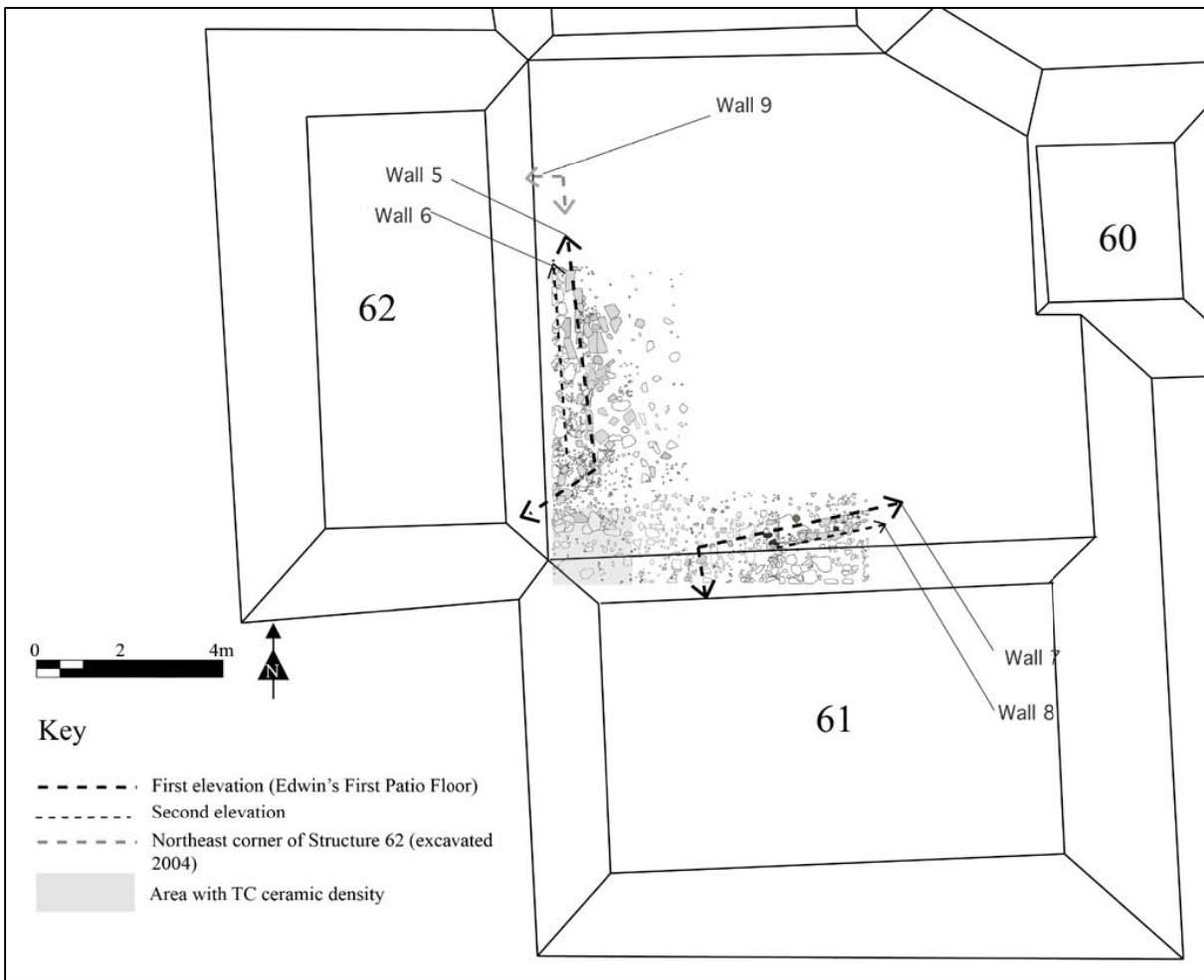


Figure 11. Plan view showing terminal architecture in the southeast corner of patio.

have once formed a staircase but we could not detect any clear patterning to them. One reason for the lack of patterning is the damage caused to the structure by the cows following the fence (Figure 12).

Early in the season looters dug a 50 cm hole into the structure 3 m south of its northern edge. This hole revealed that Structure 61-1<sup>st</sup> was largely constructed from a dry fill of large cobbles. Although unfortunate, the looter's hole helped to redirect our attention away from the degraded northern edge of the structure to the construction sequence of Structure 61 (Figures 12 -17). In order to investigate the construction of Structure 61, a trench was started in the patio directly north of the structure. Excavation proceeded south into the structure.

These excavations uncovered two low, front steps beneath the cobbles on the north side of the structure. The low steps were constructed of two lines of small cut stones. At the base of the step, excavators uncovered an eroded fragment of plaster which seems to correlate with Edwin's First Patio Floor upon which most of the Late Classic period architecture in the group was built. At present, we suggest that the northern steps on Structure 61 were a Late Classic construction. It appears that the Terminal Classic occupants dismantled most of Structure 61-2<sup>nd</sup> down to Edwin's First Patio Floor and built a larger structure using large cobble fill over it. Figure 16 shows the south elevation of Structure 61 with the stairs in the foreground and the cobble fill behind and above. The stones that form Walls 7 and 8 are level with the packed dirt floor, and Edwin's first patio floor lips up to the very bottom stones. This

stratigraphic pattern continues on the southern side of Structure 61 as well. Following the same excavation method as the northern side, the southern half of the north-south trench began south of Structure 61 and continued northwards into architecture. In Units SSS and RRR a wall of cut stones were encountered in lot 2 of the units (Figure 17).

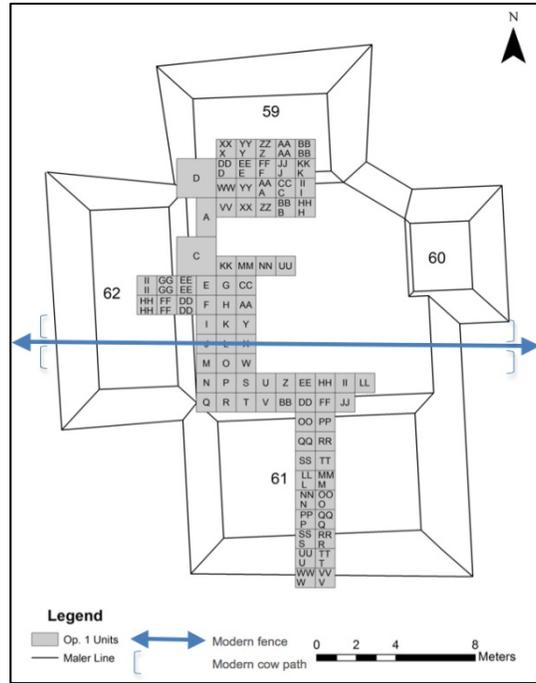


Figure 12. Operation 1 units showing location of modern fence line and cow path.

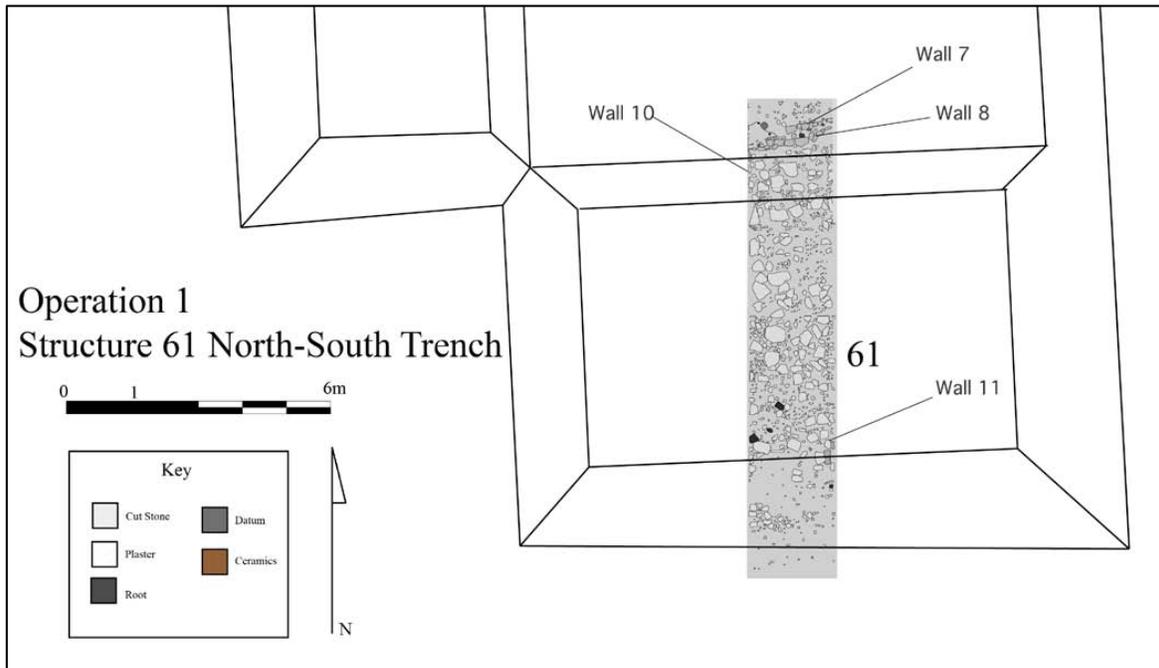


Figure 13. Terminal architecture within trench through central axis of Structure 61.

Wall 11 was uncovered in Units 1SSS/2 and 1RRR/2 and was likely a retaining wall for Structure 61 (Figure 14). It is unclear whether the Wall 11 was constructed in the Late Classic and maintained by Terminal Classic residents during their reworking of Structure 61, or if it was put in place by the Terminal Classic builders to secure their large cobble fill. The ceramic quick sort data obtained from Lisa LeCount may help us understand the sequence of construction of the wall, and the structure as a whole. Results of the ceramic quick sort of three lots ---1HH/2, 1HH/3, 1EE/3, and possibly 1SSS/3---date the large cobble fill to the Terminal Classic period.

Excavations into the center of the structure were limited by time and likely will be revisited in future seasons. At present it appears that a Late Classic construction was razed by later occupants (possibly in the Terminal Classic) and topped with platform constructed with large cobbles to increase Structure 61's size. The large cobble fill was uncovered on the northern edge of the structure, but due to time constraints we were unable to complete the trench on the south side of the structure.

Wall 11 appears to be a retaining wall located on the southern side of Structure 61. Future excavations behind Wall 11 may reveal whether the cobble fill that is visible on the northern side of the structure is the same as that along the southern edge of the structure. If this is the case, it is possible that Wall 11 was a later edition, built to retain the large cobble fill.

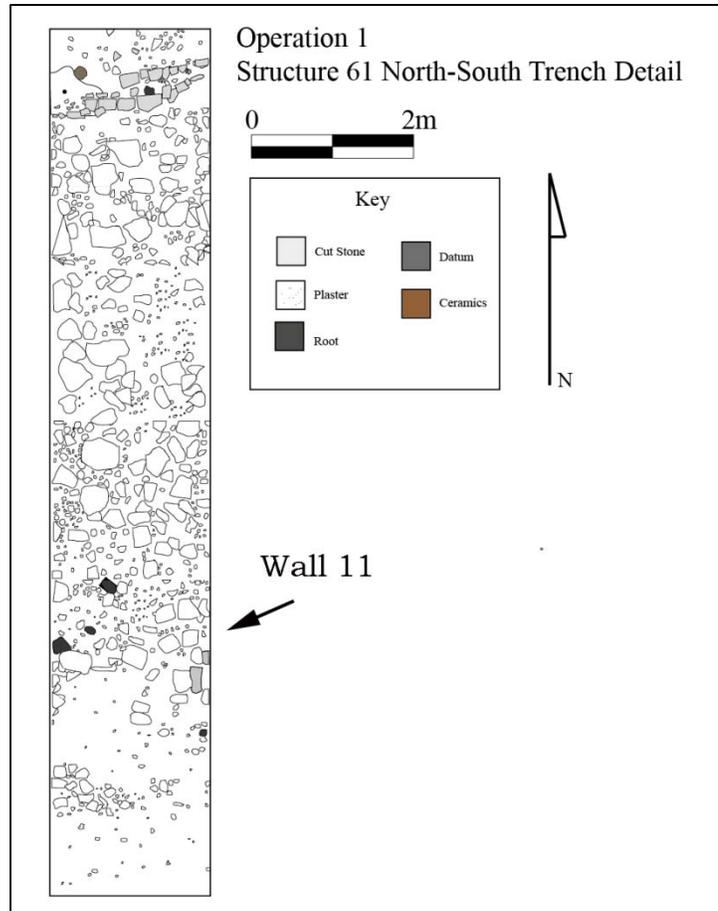


Figure 14. Terminal architecture encountered in trench of Structure 61 from Units EE and HH in the north to Units VVV and WWW in the south.

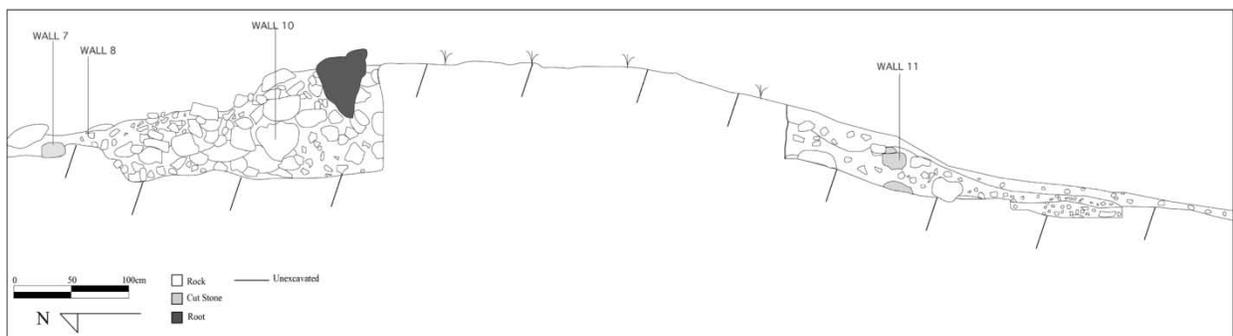


Figure 15. Western Profile of axial north-south trench into Structure 61.

The last occupants of Structure 61 (and possibly Operation 1 as a whole) are difficult to distinguish in the archaeological record since the top of every structure is much eroded. Very little Postclassic or Colonial era material was found within the first excavated levels. This may be due to the profound disturbance that modern land use patterns have caused to the site, but it also might be due to a low density of occupation in the later time periods from the Terminal Classic period onward. Beneath the surface lots, some Postclassic material (including a scroll foot recovered in Unit T/2) were recovered, but Late and Terminal Classic materials make up the majority of dated artifacts in these lots.

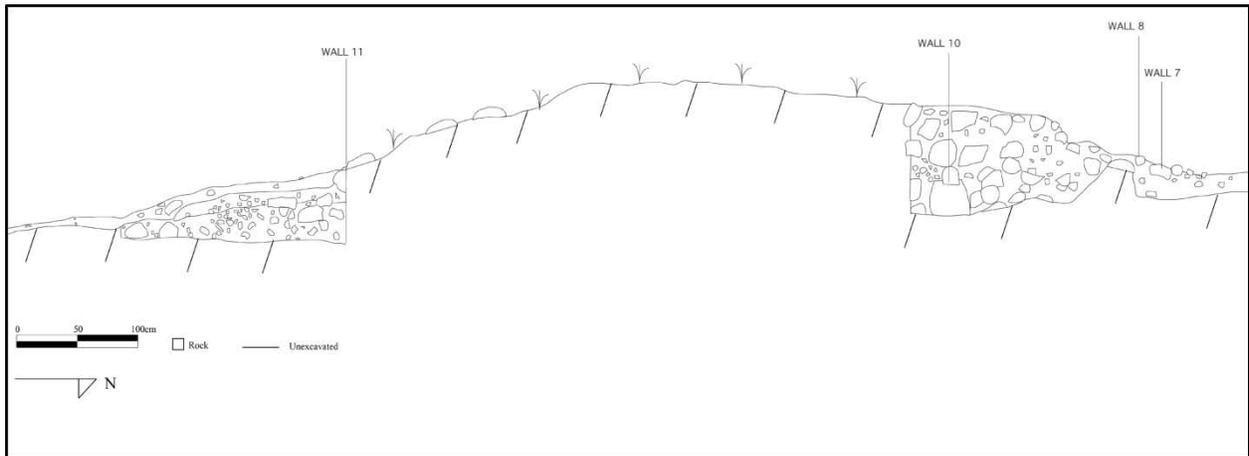


Figure 16. Eastern Profile of the axial trench into Structure 61.

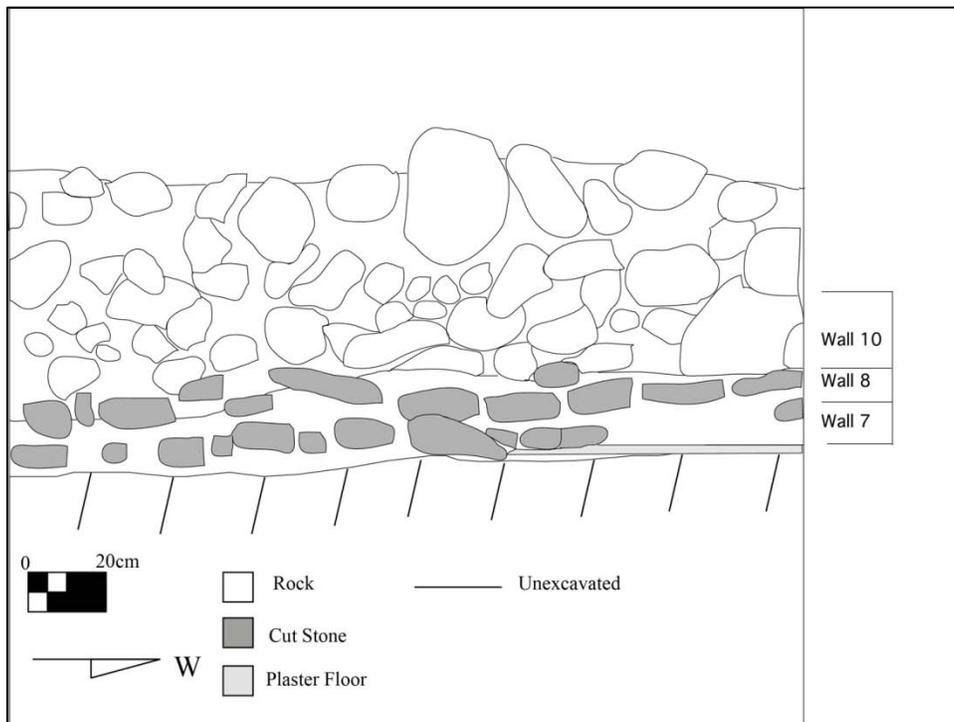


Figure 17. Northern wall (Walls 7, 8, and 10) elevations.

## Structure 62

Structure 62 is the western mound in the *plazuela* group, and the second-largest structure in the group. In 2004, the northeast corner of Structure 62 was identified in a north-south trench comprised of units A, C, and D (see Figure 1). In the summer 2010 season, the eastern side of the structure was exposed, and an east-west trench was placed along the central axis of the structure. The 2010 excavations focused on defining the terminal architecture.

Excavations along the east face of Structure 62 revealed Wall 5 as a step up to a large platform and Wall 6 as a cobble retaining wall to that platform. Wall 12 was likely an earlier retaining wall of cut stones (Figure 19). Walls 5 and 6 may have been added on as later additions to expand the size of the platform of Structure 62 (Figures 20). Based on the positioning of these stone alignments, the building's terminal façade was constructed by placing the cobble retaining wall along the exterior edge of the structure platform and then facing the cobble wall with small cut stones. Subtle remnants of plaster suggest that the cut stones were plastered originally. In addition, a single large cut stone was found near the center axis of the building. Although another has not been uncovered, it is possible that this stone functioned as a balustrade for a small staircase in the center of the structure. The basal course of cut stones for the final façade was placed slightly lower than the packed dirt floor (determined to be the terminal surface) and the last plaster floor (Edwin's First Patio Floor) lips up to the stones approximately 5 cm above the bottom edge of the basal course of cut stones. This follows the same pattern that was observed in the 2004 trench profile.

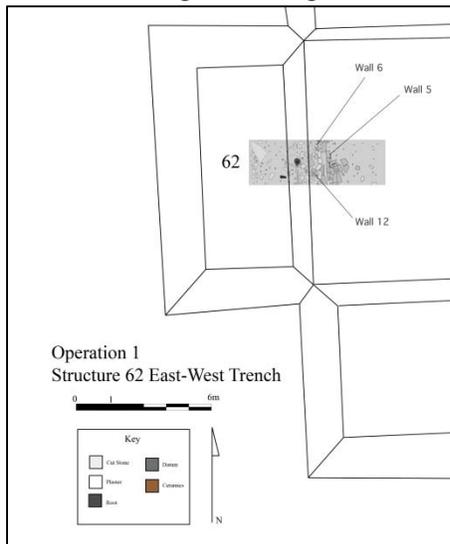


Figure 19. Context of east-west trench through central axis of Structure 62.

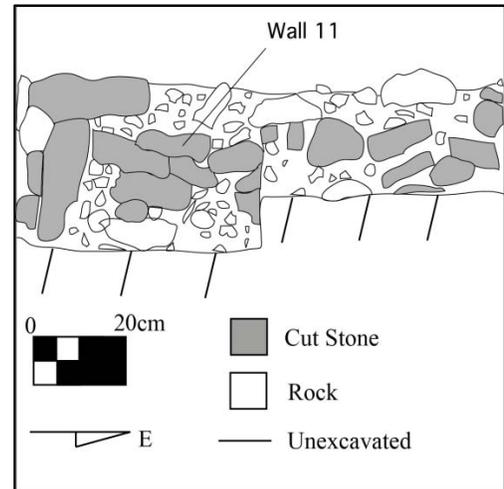


Figure 18. Southern wall elevation.

Although the patio-facing, eastern façade of Structure 62 was less disturbed than that of Structure 61, excavators noted significant damage near the southeastern corner of the structure caused by cows walking along a path near the modern fence line. Cut stones, likely part of the structure's eastern façade, were found displaced up to 2 m east of the structure.

Late in the season, an east-west trench along the central axis of Structure 62 was opened to help understand the terminal construction phase (Figure 21). No large cobble fill was observed in the substructure of Structure 62, unlike the construction at Structure 61 to the south. Ceramic materials recovered from the axial trench indicate that the terminal structure was used in the Late Classic with limited evidence of Terminal Classic period occupation. Illustrated in Figures 20 and 22 is Wall 12, located directly west of the cobble retaining wall that is associated with the penultimate facade eastern edge of the structure. This wall is aligned along the same axis as a wall that was observed in the 2004 excavation trench profile (called the Str. 62-1<sup>st</sup> terrace wall). The wall in the 2004 trench likely dates to the Late Classic II Hats' Chaak phase. This indicates that in the Late Classic an addition may have been added to the front of Structure 62-1st, similar to the small Late Classic period additions identified along the southern edge of Structure 59. The ceramic materials associated with the east-west trench are mixed. We have identified

terminal construction phase (Figure 21). No large cobble fill was observed in the substructure of Structure 62, unlike the construction at Structure 61 to the south. Ceramic materials recovered from the axial trench indicate that the terminal structure was used in the Late Classic with limited evidence of Terminal Classic period occupation. Illustrated in Figures 20 and 22 is Wall 12, located directly west of the cobble retaining wall that is associated with the penultimate facade eastern edge of the structure. This wall is aligned along the same axis as a wall that was observed in the 2004 excavation trench profile (called the Str. 62-1<sup>st</sup> terrace wall). The wall in the 2004 trench likely dates to the Late Classic II Hats' Chaak phase. This indicates that in the Late Classic an addition may have been added to the front of Structure 62-1st, similar to the small Late Classic period additions identified along the southern edge of Structure 59. The ceramic materials associated with the east-west trench are mixed. We have identified

some Terminal Classic markers in between Walls 5 and 6. Other materials date to Late Classic II and I. It is unclear at present whether the Terminal Classic ceramic material is directly associated with construction, occupation of the structure or residue from nearby occupation on Structure 61.

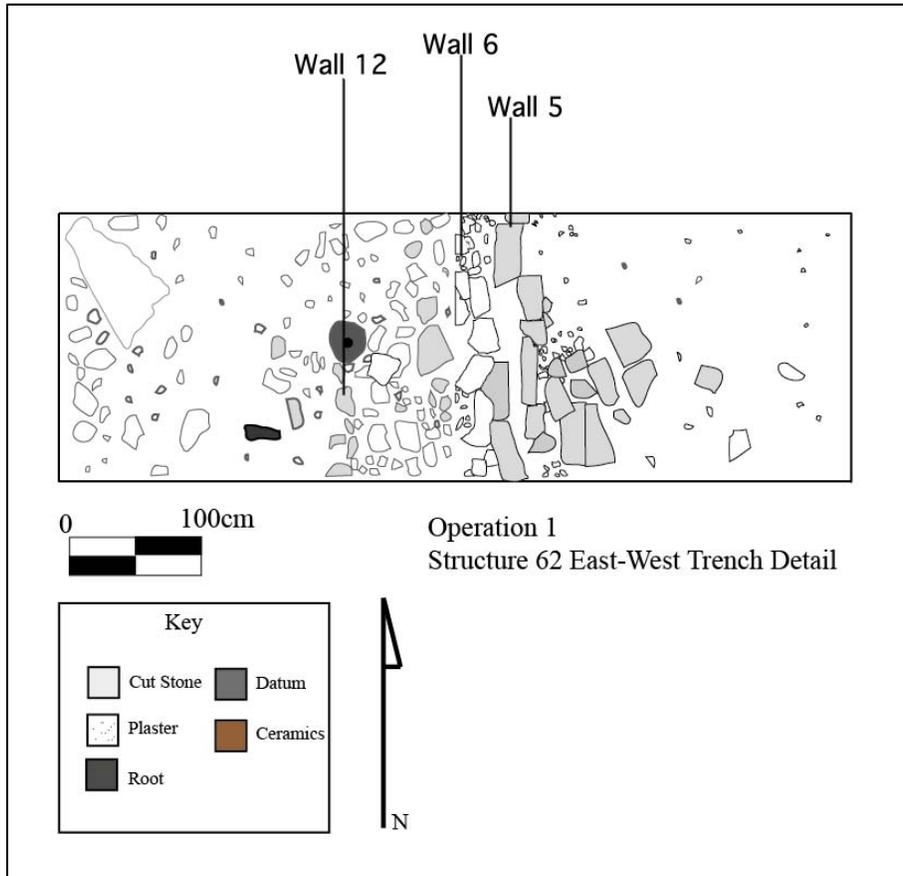


Figure 20. Plan of east-west trench through central axis of Structure 62 (Units E, F, G, H, AA, CC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII).

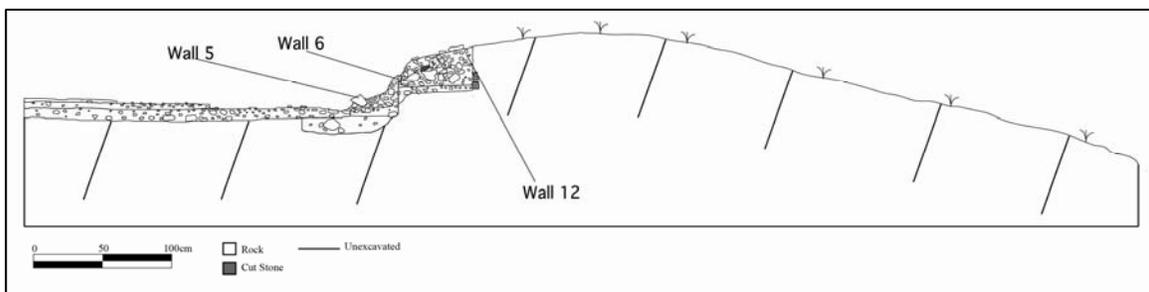


Figure 21. Northern profile of Structure 62.

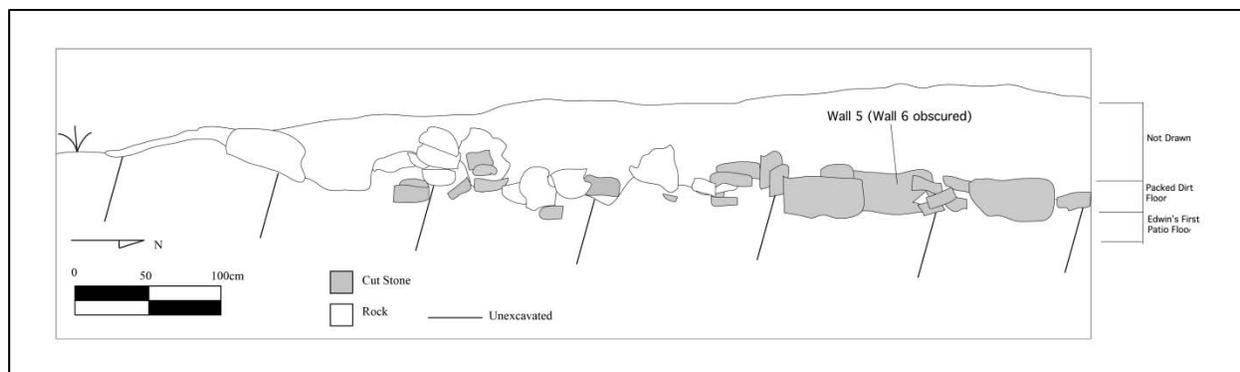


Figure 22. Elevation drawing of Structure 62, facing west.

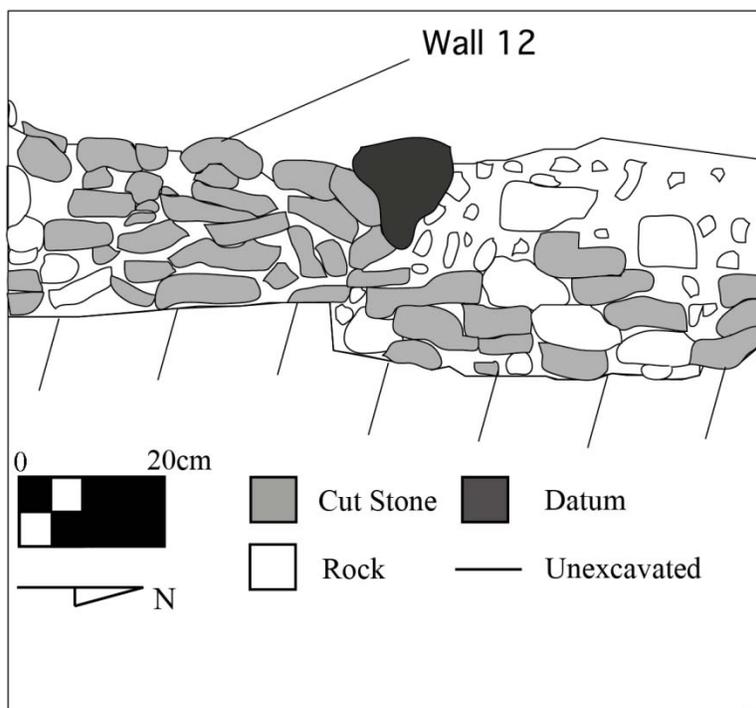


Figure 23. Western profile elevation of Structure 62 (Walls 5 and 6 removed, Wall 12 shown).

### Excavation in the Southwest Corner of the Patio

While excavating the southwest corner of the patio a line of cobbles and a packed dirt surface was found in Units N, P, Q, and R. The area is shown shaded on Figure 5 and is the corner of the patio formed by Structure 62 and Structure 61. Several hypotheses have been proposed for the use of this area including a path, a midden area, a makeshift structure for keeping animals or goods, or a shelter for squatters after the abandonment of the *plazuela* by its Late Classic inhabitants. The ceramic material that is associated with this area has thus far been mostly Terminal Classic diagnostic with a scattering of

some Late Classic types. Saddle areas such as these at the junctures of patio structures are often thought to be candidates for the final resting place of trash swept from the working interior of the patio group. The varied ceramic material found in the saddle suggests that it may very well have been a trash collection area. Forthcoming results of soil analysis samples collected this season may shed some light on the pattern of use associated with this area.

### Soil Chemical Residue Analysis & Microartifact Samples

Previous studies of human-altered soils and sediments have shown that specific activities leave characteristic chemical signatures on prepared soil and plaster surfaces (see Middleton and Price 1996, Wells 2006 and Wells et al. 2007 for in-depth descriptions). Soil chemical residue analysis allows researchers to examine spatial distributions of elements, some of which were deposited as parts of ancient activities. Thus, soil chemistry studies may help us understand ancient activity patterns and loci of specific activities.

In the 2010 season, Kara Rothenberg collected 304 soil samples for soil chemical residue analysis. These samples were collected from as depth roughly 3 to 5 cm below the present ground surface where we encountered remnants of ancient occupation surfaces, dating to the Late Classic and, in some cases, the Terminal Classic periods. Each sample was taken from the center of the delineated 1 x 1 m grid throughout the plaza group (Figure 24). Some areas on the grid were unable to be sampled due to modern plant growth. Soil chemical residue analysis should allow us to investigate activity loci throughout the group and guide future excavations. Soil analysis is currently ongoing. In future seasons, we plan to collect additional soil samples for activity analysis from earlier time periods to investigate spatial use and change through time. Additionally, four liter bulk samples for microartifact analysis were collected from every distinct cultural context. Microartifacts will be used in conjunction with soil chemistry to investigate small-scale activity patterns.

In summary, we excavated three of the four structures present in Group 1. Additionally, we collected soil samples to be used for activity analysis using soil chemical residue analysis. Excavations show that Group 1 was occupied during the Late and Terminal Classic periods and perhaps also during the Postclassic period. More excavations that continue deeper into the structures at Group 1 will give a better understanding of construction phases.

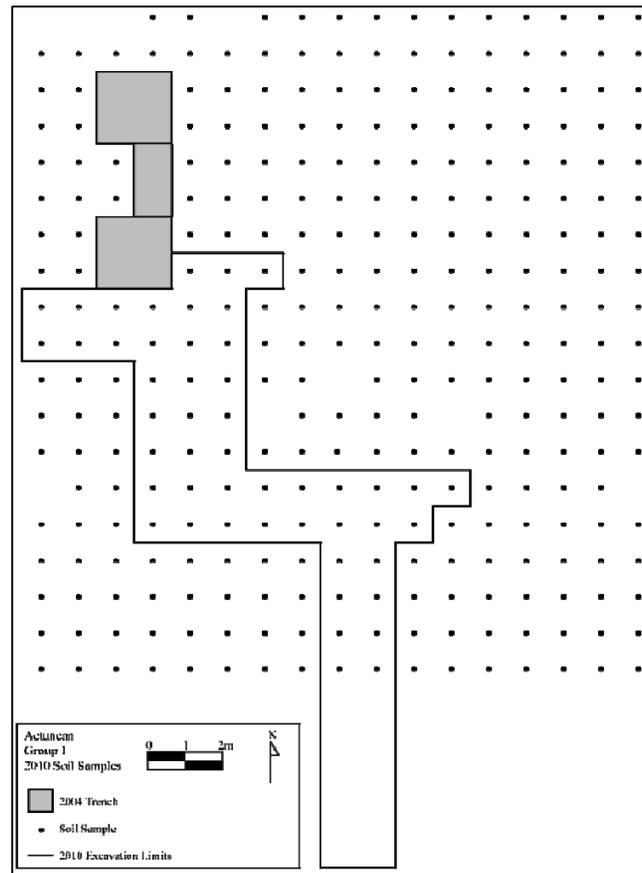


Figure 24. Location of soil samples collected throughout Group 1.

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## Chapter 4: The 2010 Excavations at Group 4

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*Angela H. Keller* (University of Texas, Arlington)

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This year the project commenced a new set of excavations, Operation 8, at a set of structures dividing Plaza C from Plaza D. We began Operation 8 with the placement of test excavations into a large platform supporting a C-shaped arrangement of superstructural elements previously mapped as Structures 33, 34, and 35 (McGovern 1993). The platform appears to be part of a group of structures, Group 4, which also includes Structures 36, 37, and 38 (Figure 1). The large platform supporting Structures 33, 34, and 35 is also connected at its northwest corner to Structure 31 by means of a smaller construction, Structure 32. While test excavations have been carried out on and around nearby structures, including Structures 26, 31, and 32 (McGovern 1993), to our knowledge, no previous excavations have taken place on Structures 33, 34, and 35.

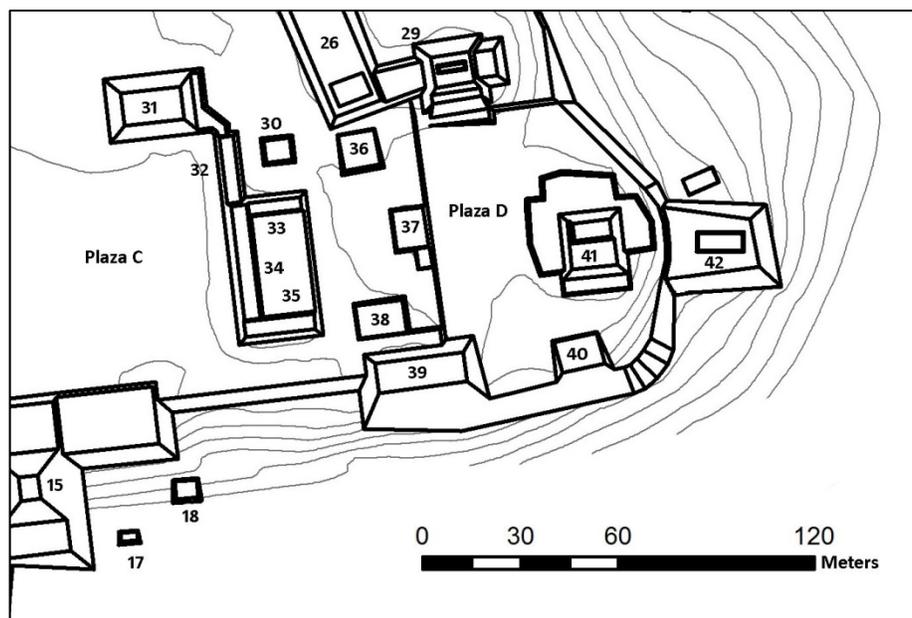


Figure 1. Overview of Group 4 (Structures 33 through 38).

### Goals

Group 4 was selected for test excavation this year because of its unusual design and placement in the eastern portion of the civic center. The group was originally interpreted as a probable elite residential group impinging upon the civic architecture of Actuncan North. Before excavation, Group 4 seemed oddly placed in relation to the larger civic design of Actuncan. Due to the group's placement in what would otherwise be considered the center of Plaza C and its orientation away from the plaza, the group does not conform to the expected norms of Classic-period architecture.

While visiting the Actuncan Project this year, Dr. Richard Leventhal suggested that the oddly placed group might represent an entirely Postclassic complex centered on the platform with a C-shaped superstructure, not a Classic period household group as originally suspected. This proposal was further

supported by Prudence Rice's (1986: 310) observation that "Postclassic architecture that does occupy a portion of an earlier, formally arranged mainland group is most likely to be located in the formerly open patio or plaza. There is little evidence that these buildings were positioned in any significant alignments with earlier structures." Therefore, this season we have operated under the assumption that this arrangement represents a Terminal or Postclassic C-shaped structure, as described by Bey et al. (1997). If true, this evidence would stand in stark contrast to James McGovern's (1994: 120-121) initial assertion that the "dearth of any Terminal Classic material at Actuncan North strongly supports our contention that the site was abandoned at the end of the Late Classic II period," although there existed a continued occupation at Actuncan South in the Terminal Classic.

The presence of a late C-shaped structure allowed us to expand on some of the initial aims of the Actuncan Archaeological Project, permitting us to explore the occupation of Actuncan from both the rise *and* fall of the institution of divine kingship. Discovery of early occupation levels below Structures 33, 34, and 35 suggest that Group 4 may have been occupied intermittently from the institutionalization of kingship to the collapse of this political office.

Our goals for Operation 8 were threefold. First, we hoped to better delineate the architectural forms of Structures 33, 34, and 35. Through horizontal excavations, we hoped to discover architectural elements that would help us determine the form and function of the C-shaped structure. These data would help us gain insight into the question: to what degree did leaders practice coalition building and exclusionary practices? Second, we hoped to collect materials from the C-shaped structure to help date the structure and any possible underlying occupation levels. We set out to challenge McGovern's initial conclusion that Actuncan North was abandoned during the end of the Late Classic II period. Finally, excavations of Structures 33, 34, and 35 would help to elucidate manifestations of occupation at Actuncan as Maya kingship collapsed. While we succeeded in the collection of materials to help date the occupation, there is still considerable work that must be done before we fully understand the role of Structures 33, 34, and 35 within the context of Actuncan and the greater Belize valley.

### **Protocols and Methods**

The inauguration of excavations at Operations 8 first began with Belizean workers clearing the mound associated with the C-shaped structure with machetes. The area was then gridded to magnetic north, which fortuitously aligned nicely with the north-south orientation of the structure. Stakes were placed at 1 meter intervals over the center of the mound and were extended outward as excavations progressed. Two trained archaeological crews of local workers performed all excavations. This year, we placed an axial line of 1 x 1 m units east-west atop the platform starting near the geographical center of the platform and ending near the western edge of Structure 34. We began clearing units from the center of the C-shaped structure extending our excavations westward. We also extended our horizontal excavations to the north and south of this axis along the highest extent of Structure 34 (Figure 2). Vertical excavations were also conducted in Units A through F at the eastern extent of our excavations.

Throughout the excavations all excavated material was screened through 1/4" mesh and all artifact types were collected in the field as well as washed, sorted, counted and weighed in the laboratory. Four liter samples were taken for microartifact analysis from all lots associated with a surface and some associated with fill. These samples were wet screened and dry screened through three different fractions. Additionally, soil and plaster samples were taken on every surface for future multi-element soil analyses. Ceramic sherds that appeared to be good candidates for residue analysis were wrapped in aluminum foil and not permitted to be cleaned. Carbon samples were also collected in aluminum foil. Preliminary analyses of the ceramics from all lots were conducted by Lisa LeCount during the season. However, in-depth analysis is still needed for all classes of artifacts. Before the close of the season, all field data, notes, and inventories were entered into the Actuncan Archaeological Project

database and all forms and drawings were digitized. All artifacts were placed into storage in a facility at the Clarissa Falls resort outside of San Ignacio with the exception of most soil and microartifact samples, which have been brought to the United States for analysis.

## Terminal Architecture

### Structural Evidence

The large platform supporting the C-shaped superstructure is approximately 1,278 square meters in area, and has a volume of roughly 1,618 cubic meters. From surface inspection, the central portion of the platform appears to be a continuous stair, allowing open access to the platform. Along the west, north, and south sides of the platform, raised areas suggest superstructural features, originally mapped as three long structures, Structures 33, 34, and 35 (McGovern 1993).

Just centimeters below the present ground surface (less than 5 centimeters in the case of most lots), our clearing excavations revealed a prepared surface sloping gently up to the west toward Structure 34. This sloped surface consists of densely packed small stones no more than 2 cm in size. In areas (Units A-F) where we dug below this surface it became clear that the substructural platform was quite carefully constructed with size-sorted fills (Figure 3). A probing unit revealed that the sloped platform surface was constructed using a fine, wet-laid fill packed atop a fill layer containing medium-sized stones, which in turn rested on a large cobble fill. Our findings are consistent with Rice's descriptions of Postclassic platforms (Rice 1986:305). The care taken in placing these distinct fill layers suggests to us that the same care was probably taken for the surface. We suspect that the surface was likely plastered, although we have yet to find any preserved plaster remnants on the platform. Alternatively, Rice (1986: 305) suggests that Postclassic platforms may have contained silt-clay flooring, which is prone to erosion.

Vertical excavations at Operation 8 also yielded an earlier construction at this location (see below). The buried structure was cropped for the construction of the aforementioned sloped surface. The structure was cropped above its ninth course of stones to conform to the slope of the prepared surface. Fine, light-colored, clay loam fill was packed against the wall and used for roughly the first meter of fill, presumably to aid in the preservation of what was left of the structure (Figure 4). Next, builders laid four alternating strata of very large limestone and cobble fill (25 to 50 cm) and silty loam soil before placing the last finely prepared layers of the floor ballast for the sloped surface. Interestingly, included in one of these fill levels (Analytical Unit 6) was the distal end of a small greenstone celt fragment.

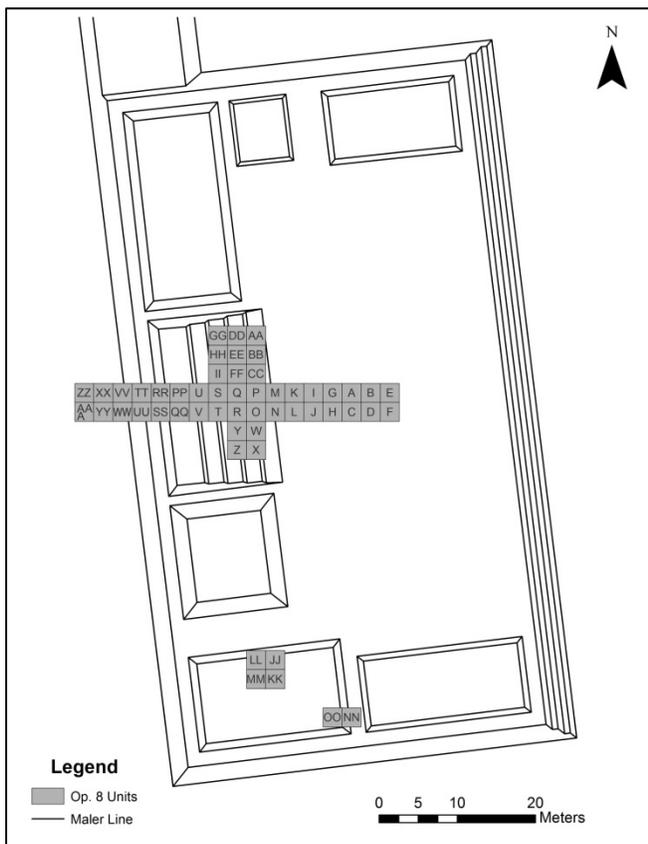


Figure 2. Placement of units on Malizerized map.

Along the western edge of the platform we identified the remains of a superstructural feature constructed at the apex of the sloped surface. This structure was identified by a concentration of limestone pieces of varying size, with some dressed stones as large as 50 cm. The concentration of stones runs along the north-south axis of the western side of the patio group, in correspondence with Structure 34 of McGovern's original map of the site. Unfortunately the architecture in this area is poorly preserved, as many stones have been upturned and displaced through the action of roots, cohune palms, and fallen trees. The poor preservation of the structure has made the layout and construction of the building difficult to interpret.

As with Terminal and Postclassic period C-shaped structures found at other sites (e.g. Ek Balam, Seibal, Uxmal, etc.) we expected to find a bench along the axis of the building. In an attempt to define such a bench, we followed a number of dressed stones, but thus far none of the stones on Structure 34 appear to be arranged like a bench. To better understand the scrambled superstructural elements, we extended clearing excavations to the north. Rather than finding a long bench, this larger exposure revealed evidence for a probable central stair consisting of four broad steps rising up from the sloped platform surface. The steps were constructed from large cut stone slabs, possibly robbed from Classic building façades nearby, and dry-laid to form shallow steps with risers no more than two courses of stone high (Figure 4). The apparent lack of mortar has resulted in the exceeding poor preservation of this feature.

After working for a number of weeks at Operation 8, we began to consider that the architecture of the platform might not be as straightforward as McGovern's map suggests. In particular, we noted that the mounds around the western, northern, and southern extents of the patio are differential in their heights. In an attempt to better develop our understanding of these mounds, we also opened up several units at near the southern and southwestern edges of the platform. One set of four units (JJ-MM) was placed in what we originally expected to be a corner formed by Structures 34 and 35. This area was selected as a potential midden area, where we hoped to gather more materials to help date the construction. However, the excavation of this area instead yielded a concentration of limestone pieces of varying size, similar to the limestone rubble detected for Structure 34. However in this case, the steps are associated with the front of the southern structure, Structure 35. Another set of test units (NN and OO) were purposely placed to investigate a line of seven nicely preserved limestone blocks. We can see from the excavation of these units that another line of stones exists beneath the limestone blocks exposed on the surface, perhaps representing a bench

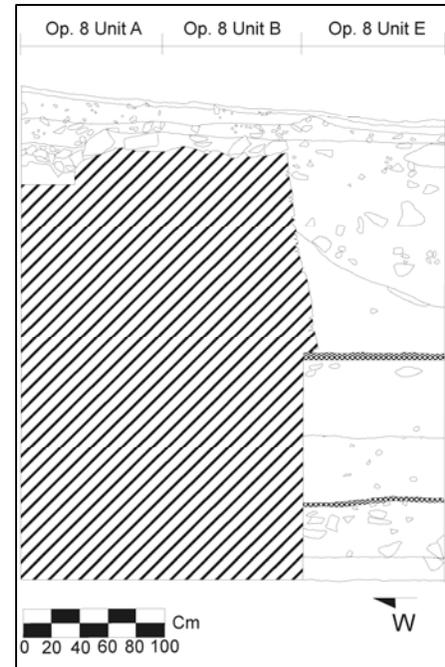


Figure 3. Northern profile of Units A, B and E showing finely prepared terminal surface and earlier floors.



Figure 4. Structure 34 steps (8AA, DD, and GG/2).

that may have been partially constructed with perishable materials (Figure 5). Unfortunately, however, these units have done little to help us improve our understanding of the architecture. They yielded very few cultural materials and ambiguous stone features. Additional excavations in this area have been cancelled for now, but may be resumed in future seasons.

After careful consideration, Angela Keller suggested that the C-shaped superstructural elements atop the platform may be more complex than previously understood. Further excavations may reveal more structures along the edges of the platform rather than the three long structures that McGovern’s reconstruction illustrates. We suspect that the C-shape of the mounds is formed by several distinct platforms, some with possible low benches, arranged around a central stair or stepped feature (Figure 6). Notably, each of the platforms differs slightly in height, size, and construction technique. Some appear to be built with large cut stone blocks, others with small blocks, others with cut slabs, and still others with large river cobbles.

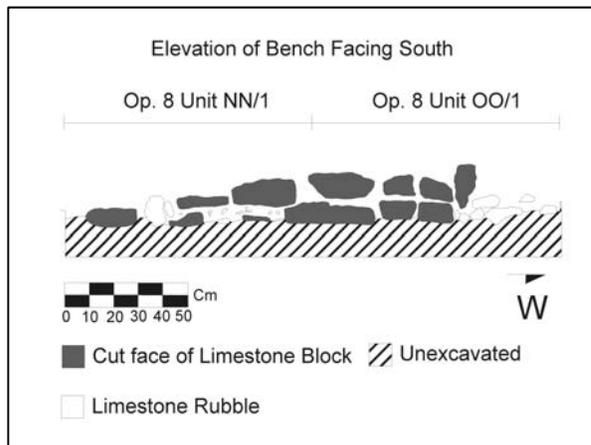


Figure 5. Elevation of Structure 35’s bench facing south (Units OO and NN).

### Artifactual Evidence

Very few artifacts were collected from the surface of the platform and associated structures. This fact suggests that the platform was a well maintained, essentially “clean” space, unlike the debris-filled household spaces excavated elsewhere at the site. The lack of debris may indicate that the platform served a civic or administrative function. While perhaps indicative of the function of the structure, the small number of ceramic or lithic temporal diagnostics has made dating the architecture particularly difficult.

The types of the ceramics found within in the fill strata appear to suggest that the wall of the buried structure was truncated and the area was raised to create the terminal platform between the end of the Late Classic period and the Terminal Classic period. Due to the small quantities of materials found, ceramics from the structures have failed to provide a more specific chronology. A couple of sherds are suggestive of the Postclassic period. However, continuity in styles between Terminal Classic and Early Postclassic ceramics makes this distinction difficult to make (Aimers 2004). At this time, we feel that we can only definitively date the C-shaped structure to the Terminal Classic period. This being said, all results are admittedly preliminary, and we have not yet ruled out the possibility that future ceramics or AMS radiocarbon dates may date the C-shaped structure to the Postclassic period.

### Discussion

The evidence of a Terminal Classic C-shaped structure at Group 4 suggests that Actuncan experienced continued use and on-going construction even after the fall of Maya kingship at the end of the Classic period. This is consistent with evidence from Actuncan South, where Structures 7, 8, and 9 were still used, perhaps even undergoing construction during the Terminal Classic period (McGovern 1993). But our findings are in stark contrast to McGovern’s conclusion that Actuncan North was abandoned at the end of the Late Classic II period (McGovern 1994).

In design and construction, Group 4 appears wholly different from documented Classic period architectural features at Actuncan. In fact, the group is quite similar to a Terminal Classic to Early Postclassic complex at the site of Ek Balam, Yucatan. At Ek Balam, Structure GS-12-1 is interpreted as a platform with a C-shaped bench facing two small shrine structures. Similar platforms with C-shaped walls, benches, and superstructural elements have been documented in late Terminal Classic to Early Postclassic contexts at numerous sites in the northern lowlands (e.g., Ek Balam, Uxmal, Sayil) and at southern lowland centers such as Seibal, Lamanai, and island sites in the Peten Lakes region (Bey et al. 1997:238). Rice (1986: 307) describes the construction of C-shaped structures as “double-line” constructions in which two facings retained a core of smaller undifferentiated fill. Perishable structures sat upon these foundational structures. It seems likely that this construction technique is similar to that found at Actuncan’s Structure 34. The large concentration of limestone pieces varying in size and with no particular orientation speaks to such a rubble core. However, while the abundance of well-cut facing stones may be representative of Rice’s double-line construction technique, no lines of stone were conclusively found in excavations this year. This is perhaps due to the poor preservation caused by tree growth on and around the structure.

The function of C-shaped structures has been debated by a number of scholars. Gair Tourtellot and Jason Gonzalez, for example, suggest that C-shaped bench structures represent house patterns at Seibal (Tourtellot and Gonzalez 2004, Tourtellot 1988). Rice, on the other hand, suggests that single-room C-shaped structures may have been used as reception halls (Rice 1986: 313). Similarly, Bey and colleagues suggest that Structure GS-12 may have served as the primary administrative building in the Sacrificios Group at Ek Balam during the Terminal Classic period (Bey et al. 1997:239), as does Marilyn Masson and Robert Rosenswig, who also suggest an administrative function for their C-shaped structure, Structure 1, at Laguna de On (Rosenswig and Masson 2001). While excavations of the C-shaped structure at Actuncan are still preliminary, the lack of artifacts on the platform does seem to conform to administrative use.

As with other buildings and groups constructed after the Classic period, Group 4 at Actuncan appears to sit within but apart from the earlier Classic site (Bey et al. 1997). Group 4 is, more accurately, a site within a site: a new public space carved out of the earlier civic center. The surrounding Classic buildings are not incorporated into the design of the Postclassic complex as useable structural elements. Rather, the Classic buildings seem to serve as a potent landscape within which the Postclassic Maya constructed a new type of civic space using new architectural cannons reflecting profoundly altered socio-political circumstances.

### Earlier Construction

#### *Structural Evidence*

In addition to our horizontal excavations of the architecture, we selected a 2 x 2 m area roughly at the center of the platform to dig a small trench.

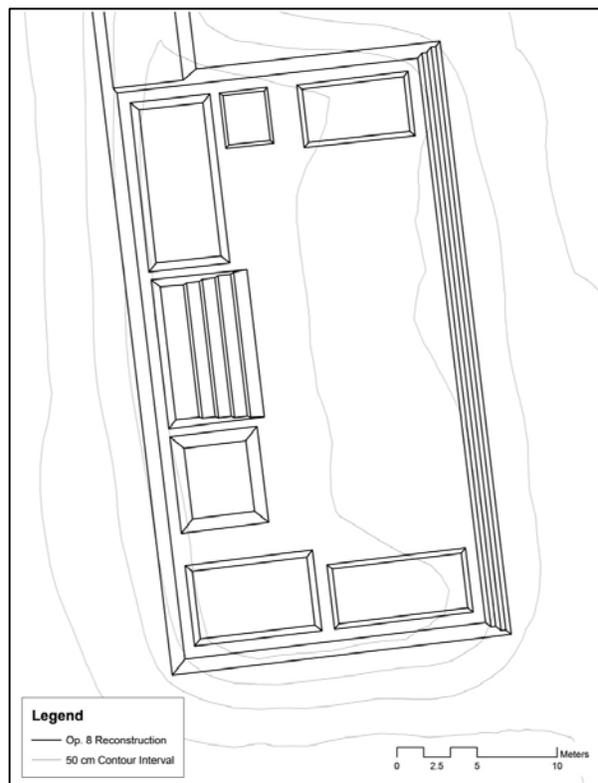


Figure 6. Group 4 reconstruction by Angela H. Keller.

Our aim was to better understand the age and construction of the platform. Additionally, as C-shaped structures were often constructed atop buildings from earlier phases (Bey et al. 1997; Rice 1986: 310) it was expected that we might find an earlier structure underneath the center of the patio.

Approximately 40 cm beneath the platform floor, we discovered a double-line of large cobbles and limestone blocks running from north to south through our units. Directly to the east of this we discovered an additional north-south line of cut stones (Figure 7). This pattern prompted an eastern expansion of our trench to uncover these stones, which based on their nicer facing and eastward sloping face, are suspected to be a substructural platform edge. The double line of stones represents a construction or retaining wall for this structure. This construction technique is consistent with von Falkenhausen's (1985: 129) description of Early Classic architecture: "In early Maya architecture, stone masonry always encloses an amorphous core. This is not only true of the substructure facades, but the thick walls of Early Classic monumental superstructures also consisted of masonry shells enclosing a rubble fill hearting." The construction of a limestone wall backed by a core of chert and limestone structural supports is also reminiscent of other structures (e.g. Structure 4) associated with the Early Classic at Actuncan (McGovern 1994).

We continued to dig outside to the east of the wall in an attempt to better define the architecture. These excavations yielded a very well preserved wall that extends down 9 courses and roughly 1.3m into the fill (Figure 8). Facing stones used for the construction of the wall are large measuring between 40 and 60 cm in width and 15 and 20 cm in height. Wall courses are divided by layers of chinking, consisting of small limestone pieces roughly measuring 5 to 10 cm in size. However, no evidence was found of mortar securing the stones in place. Additionally, small traces of red paint on a few of the wall stones may suggest that the wall was once painted. Many pieces of plaster with red surfaces were found in the fill outside the wall. However, there was no direct association found between these pieces and the wall.

The base of the wall rests on a plaster floor (designated in the field as Glen's first floor and seen Figure 3) that is roughly 4 cm thick. The floor is supported by a ballast of small stones roughly 5 cm thick extending 2 to 3 cm below the plaster surface. The process of laying plaster floors before building the actual architecture is consistent with Early Classic building techniques, and differs markedly with the Late Classic technique of constructing buildings before laying floors (von Falkenhausen 1985: 130-132). The floor contained a small darkened area on the plaster, roughly 20 cm in diameter and adjacent to the wall, which presumably occurred as a result of burning. Additionally, a large ceramic sherd was discovered embedded in the floor and special care was taken in its collection. It is suspected that this floor represents the surface of an Early Classic plaza.

We continued our vertical excavations in only one 1 x 1 m unit, Unit E, so as to preserve the plaster floor uncovered in Unit F. Fill below the plaster floor was extremely clayey in texture and incorporated a range of colored inclusions. These inclusions were yellow, white, red, and black and presumably resulted from clay, limestone, ceramics, and burnt materials. This clay-like fill continued for approximately a meter before we

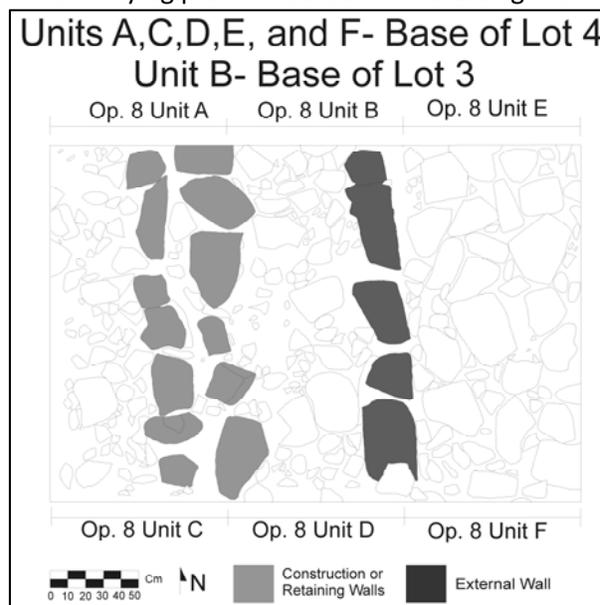


Figure 7. Façade and retaining walls of buried Early Classic building.

encountered another floor. There was a notable proliferation of objects just before reaching Glen's Second Floor, including a Mars Orange ware spout to a chocolate pot. This floor consisted of a thin layer of marl covering a layer of cobbles, roughly 4 to 10 cm in size. Because the layer of marl was so thin, many of the cobbles could be seen poking through, creating an uneven surface. The discovery of an earlier occupation in this location is not altogether surprising, as it has often been noted that the first step of Early Classic architecture is the destruction of a previous building's superstructure (von Falkenhausen 1985:129). Notably, this floor appears at the same elevation as the raised patio floor to the east, the rise of which bisects Plaza D. This suggests to us that the entire platform for the C-shaped structure was built as a single construction episode, completely encasing the earlier building.



Figure 8. Façade of buried Early Classic building.

Excavations continued below the level of this floor into fill that continued to be very clayey. Limestone pieces of a large variety of sizes were found in the fill, ranging from 6 to 40cm. We removed this fill to the next soil change, which appeared as a darker clay fill. It was at this stage that we ended the excavations. Our termination of Operation 8 for the 2010 season was not due to a lack of evidence of cultural materials. Instead, we finished digging because we ran out of time. All evidence seems to suggest that more cultural levels exist below our last excavation lot. We are hopeful that in future seasons the project will be able to continue to excavate in this area and determine definitively how many levels of occupation exist at Group 4.

### Artifactual Evidence

Small samples were taken from the fill inside the innermost line of the double wall (Analytical Unit 13). These ceramics date to the Early Classic period, seemingly supporting our conclusion that the retaining and façade walls were constructed during the Early Classic. Ceramic from the plaster floor (Glen's first floor) and the fill below it are diagnostic of the Classic period. However, fill below this floor contains abundant amounts of Protoclassic pottery. According to LeCount, ceramics from this analytical unit include a number of waxy golden brown and red monochromes body sherds most closely associated with Paso Caballo Waxy types, such as Quacco Creek Red and San Felipe Brown, and some sherds with glossy orange slipped sherds indicative of Holmul I style. No Usulután Ware or mammiform feet have been found in this excavation, however, such "Protoclassic" types were found in Group 1 in 2001 (LeCount and Blitz 2001). The presence of both Floral Park and Mount Hope ceramic complexes suggests that perhaps the floor was constructed during the transition between Preclassic to Classic occupation, sometime between 50 BC and A.D. 400, based on Brady and colleagues chronology (Brady et al. 1998). This phasing would put the ceramics in line with the style of Early Classic wall and construction techniques discussed above. Radiocarbon dates will better date this construction.

Ceramics from the floor constructed of marl and cobbles (Glen's second floor) suggest that it was laid down during the Late Preclassic period. Types found in association with this analytical unit include Sierra and Polvero, although a few Terminal Late Preclassic diagnostics cannot be ruled out. Ceramics from this fill are also representative of many early periods, including the Late Preclassic,

Middle Preclassic, and Terminal Early Preclassic. Many of the sherds collected also resembled sherds from the Xunantunich Cunil type collection and those illustrated by Jaime Awe (1992) and David Cheetham (2005). As we were forced to finish excavation this year before reaching a culturally sterile layer, it is not clear whether these sherds originate from a structure under the Early Classic structure or elsewhere at the site. Nevertheless, the presence of such early ceramics is indicative of the long history of occupation at Actuncan, a history that now appears to have begun earlier than initially thought! We hope that future excavations at Group 4 and other locations in Actuncan will provide a more detailed history of the earlier occupations of the site.

### **Discussion**

Initial colonization of the Belize valley is believed to have begun as early as 1000 BC (Awe 1992; Garber 2004); therefore, initial occupation at Actuncan would date to at least to this time. While this date must still be confirmed by more vigorous ceramic analysis, AMS dates, and continued excavations, the potential implications for this are not to be understated. Actuncan, it appears, may be among the first sites to have been settled in the Belize valley, having been settled before populations grew and dispersed during the Middle and Late Preclassic periods. Ceramics seem to indicate that the site was continually occupied through all phases of the Preclassic and into the Early, Late, and Terminal Classic.

The Early Classic occupation at Group 4 is of particular interest to the Actuncan Archaeological Project, as the Early Classic period in the Belize valley is considered an enigma to many (LeCount and Blitz 2001). The discovery of Early Classic sherds from inside the structure have aided in our understanding of the occupation of the site by yielding some Early Classic sherds, but many more are necessary before significant strides can be taken toward this goal. Therefore, it seems likely that future excavations at Group 4 may help to better define Early Classic ceramic assemblages in the Belize Valley.

The presence of an Early Classic building below the C-shaped structure lends evidence to suggest that the Terminal Classic Maya chose this location to build their administrative center because of its early significance. Further excavations at Group 4 hold the potential for us to identify the function and importance of the Early Classic structure and earlier occupation levels at this site. Only then will we be able to posit why Terminal Classic builders selected this site as the location for their C-shaped structure.

### **Preliminary Results**

With so little of the early occupation levels exposed from Group 4, it would be too hasty to draw conclusions about the people living or working at this part of the site. A bit more can be suggested about the individuals who constructed the Terminal Classic component at Group 4. However, it must be remembered that all results and inferences at this stage are very preliminary.

Various arguments have been made concerning the ethnicity and origin of Terminal Classic and Postclassic peoples in the southern Maya lowlands (Aimers 2007). Although our data are entirely preliminary, the diversity of platform construction in the C-shaped arrangement and the orientation of the Postclassic architecture suggest that the Postclassic complex was constructed by local peoples, not an invading force. The diversity of the superstructural platforms speaks to a diversity of interests and traditions that would not be expected in a migrating group.

Further, the orientation of the Postclassic structures matches that of the buried Early Classic building. All are approximately 11 degrees west of magnetic north, or 8° W/N (true), with a 3° declination. A majority of the architecture in Actuncan North shares this same orientation. The use of a common orientation may indicate that the builders of the Postclassic complex were local people,

converging on the center of Actuncan to form a new, confederated authority in a place with a deep history of local rule.

While it is clear that the C-shaped architectural form present in Group 4 represents profound stylistic and sociopolitical changes, it is unclear what the source for this architectural layout would have been. Rice and Rice (2004) suggest two alternatives for their appearance of C-shaped structures in the Peten. First, the commencement of C-shaped structures may represent the presence of migrants who fled Late Classic raiding and endemic warfare in the Petexbatun region or Rio Pasión riverine zone. Second, ceramic and architectural links to the Puuc region in the north suggest a southward progression of architectural ideas, if not actual migration of people (Rice and Rice 2004: 132). Given our current understanding of the C-shaped structure at Actuncan, it seems most likely that northern people or ideas from the Puuc region reached the Belize valley and influenced the traditions of local people living at the site. However, more excavations are needed in Group 4 before we can conclusively determine the role this C-shaped structure played at Actuncan and its reflection of greater political and stylistic change in the Maya world.

Actuncan, like Barton Ramie, Baking Pot, Tipu, and Caracol, are now understood as having significant populations after the fall of Maya kingship (summarized in Aimers 2007). The discovery of Terminal Classic material at Group 4 necessitates a reevaluation of McGovern's assertion that this portion of the site was abandoned at the end of the Late Classic II period and more exploration of its Terminal Classic and Postclassic occupations.

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## Appendix A: Analytical Units for Operation 8

Table A.1. Analytical Units with their Lots, Cultural Contexts and TPQ Dates.

Analytical Unit	Associated Lots	Cultural Context	TPQ date
1	8A/1-8K/1	Sloped patio floor	Late Classic
2	8L/1-8W/1, 8Y/1, 8AA/1-8II/1 8AA/2, 8DD/2, 8GG/2	Structure 34	Postclassic?
3	8A/2, 8A/3, 8B/2, 8C/2, 8C/3, 8D/2, 8D/3, 8E/2, 8E/3, 8F/2, 8F/3	Fill below sloped patio floor	Terminal Classic
4	8A/4, 8C/4	First line of the double wall and interior fill time of structure truncation	Late Classic
5	8B/3, 8D/4	Second line of double wall and interior fill	Postclassic?
6A	8E/4, 8F/4	Fill to the outside of the exterior wall: Level of large stone fill and dirt	Terminal Classic
6B	8E/5, 8F/5	Fill to the outside of the exterior wall: Level of large stone fill and dirt	Terminal Classic
6C	8E/6, 8F/6,	Fill to the outside of the exterior wall: Level of large stone fill and dirt	Terminal Classic
6D	8E/7, 8F/7, 8E/8, 8F/8	Fill to the outside of the exterior wall: Fine dirt	Terminal Classic
7	8JJ/1, 8KK/1, 8LL/1, 8MM/1	Surface corner of the Structure 35	Classic
8	8NN/1, 8OO/1	Structure 35	No diagnostics
9	8E/10	Glen's first floor- plaster	Classic
10A	8E/9, 8E/11, 8E/12	Fill below Glen's first floor: Darker clayey fill	Protoclassic?
10B	8E/13, 8E/14, 8E/15	Fill below Glen's first floor: Lighter clay fill	Protoclassic?
11	8E/16	Glen's second floor- Marl and cobbles	Protoclassic
12A	8E/17, 8E/18	Fill below Glen's second floor: Large stones	Late Preclassic
12B	8E/19	Fill below Glen's second floor: Dark grey- green soil	Middle Preclassic
13	8A/5, 8A/6	First line of the double wall and interior fill- time of structure use	Early Classic

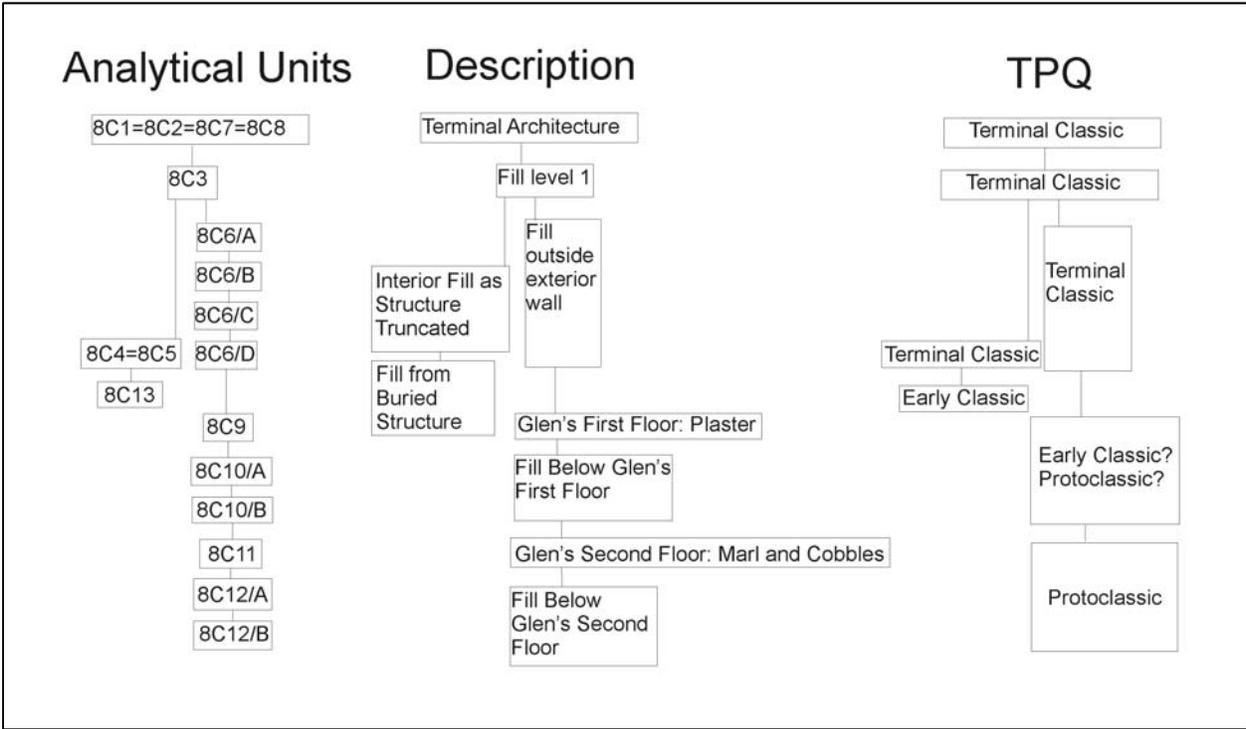


Figure A.1. Harris Matrix of Operation 8 lots.

## Chapter 5: The 2010 Excavations on Structure 41

David W. Mixter (Washington University in St. Louis)

As part of the 2010 field season of the Actuncan Archaeological Project, horizontal excavations were initiated on Structure 41. Previous testing of Structure 41 in 2004 revealed that this structure contained multiple construction episodes beginning in the Late Preclassic (LeCount and Blitz 2005), a pattern which made this large residential house a good choice for large scale excavations to understand shifting patterns of the household growth and practices of affiliation from the Late Preclassic to Early Classic periods. Excavations in 2010 included a program of surface clearing aimed at determining the terminal architectural and the initiation of a trench into the structure aimed at documenting the structure's construction history.

Structure 41 is a large platform located on the eastern edge of Plaza D in the north portion of the site (Actuncan North) (Figure 1). Architecturally, Structure 41 appears similar to several other large structures at Actuncan, such as Structures 29 and 73. Lisa LeCount and John Blitz (2005; LeCount et al. 2005) have hypothesized that these structures are large, elite households. The substructure of each of these houses consists of a large pyramidal platform, which supported a wide rear platform upon which a masonry or perishable superstructure was erected. In this report, architectural terminology is based on descriptive terms established by Loten and Pendergast (1984) and subsequently elaborated on by Loten (2007). The primary pyramidal platform will be called a supplementary platform, while the elevated rear platform will be called a building platform since it is a substructural element that matches the rough footprint of the superstructure. The substructure may refer to any element of the structure below the superstructure. Typically, these houses also have attached terraces to the sides and back of the central pyramidal platform. Terraces are distinct from platforms because they only protrude from one side of the structure. All houses of this form at the site appear to be oriented at 8 degrees west of true north, as is most of the civic and residential architecture in Actuncan North. Although Structure 41 is located along the eastern edge of Plaza D, it does not appear to face west towards the plaza. Rather, the building platform and front terrace appear to face south toward the acropolis of Actuncan South. A low L-shaped terrace, about 1.5 meters high, wraps around the west and north sides of the structure, and a lower terrace protrudes from the eastern edge of the structure. Excavations in 2010 revealed an additional low terrace, about 60 cm high, on the southern side of Structure 41. The eastern and southern terraces were not previously noted in James McGovern's original site map (2004), and only after detailed topographic mapping of the structure this year did they become evident (Figure 2). On the surface, the most noticeable

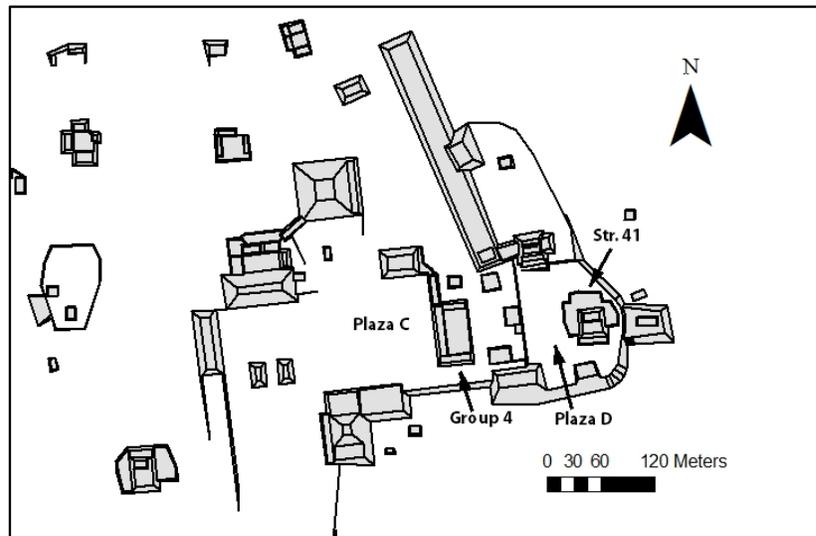


Figure 1. Location of Structure 41 in Actuncan North.

feature of the structure is the deposit of limestone and chert boulders on the steep slopes of the supplementary platform, between the main platform and the surrounding terraces. One goal of this year's research is to investigate whether this feature is a function of collapse or *in situ* construction.

### Previous Research

Structure 41 was originally identified and mapped by James O. McGovern (1993) as part of his survey of Actuncan North. He hypothesized, based on form and spatial arrangement, that Plaza D and the structures around it form an elite high-status residential complex. However, Structure 41 faces south, towards the ceremonial center of Actuncan, not into Plaza D, as would be expected for this settlement type (Ashmore 1981; Ashmore and Wilk 1988; LeCount 2009). In 2004, LeCount and Blitz (2005; LeCount et al. 2005) placed test excavations off the northern edge of Structure 41 in order to determine the structure's construction history by documenting stratified deposits and sequences of floors. These excavations identified two phases of plaster floor construction on the structure's northern terrace and uncovered the poorly constructed northern wall of the substructure. The later floor dates to the Early Classic, while the earlier floor dates to the transition from the Late Preclassic to the Early Classic. The northern wall of the substructure was found sitting on top of the Early Classic floor. This wall and the large cobble fill it retained appear to have been constructed during the Late Classic. Further up the substructures at the northern edge of the summit, several courses of cut stone blocks were found placed precariously on top of this large rubble construction fill. This line of stone probably represents the back wall of the structure's building platform. These test excavations date the initial construction of Structure 41 to at least the Late Preclassic; however, based on the size of the structure and deep excavations elsewhere at the site (Mendelsohn and Keller, this volume), I suspect that earlier construction phases exist buried under floors near the center of the pyramidal structure. Furthermore, the lack of façade stones found in the earlier test excavations suggest that Late Classic construction was either relatively unstable or victimized by later stone robbing.

### Goals of the 2010 Research

LeCount (2009, this volume) suggests that by looking at the developmental trends of specific households during the Late Preclassic to Early Classic transition, we should be able to see how households participated in royal strategies to consolidate power. Comparative research of household dynamics from across Actuncan should reveal the shifting social and political positions of specific

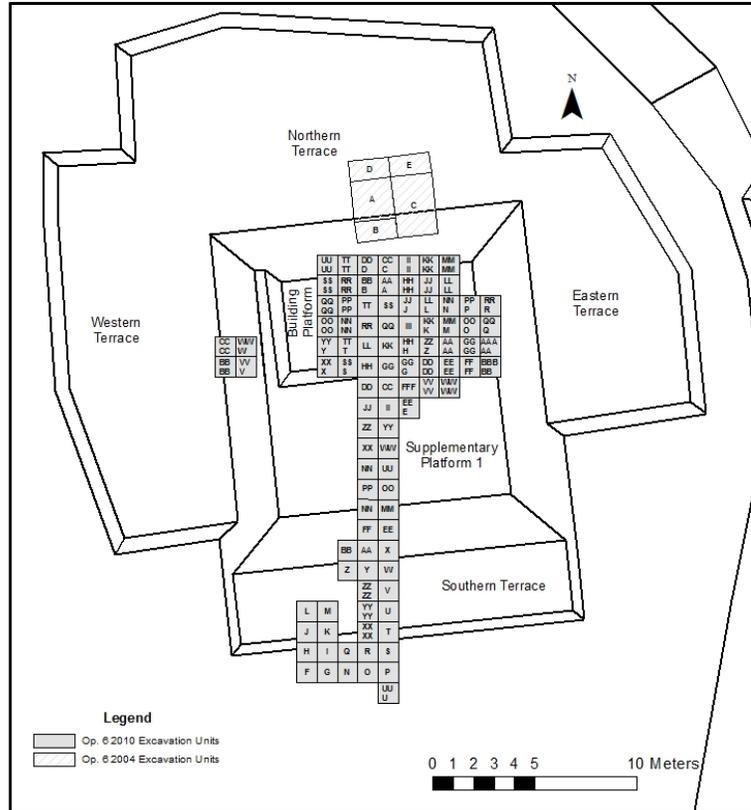


Figure 2. Map of Structure 41 and excavation units.

households in relation to the local installment of a divine king. During the 2010 season, extensive research began on two of these households, Actuncan Group 1 (Antonelli and Rothenberg, this volume) and Structure 41.

Unlike Group 1, Structure 41 is not organized around a patio; therefore, its layout does not conform to a formal patio group as defined by Wendy Ashmore (1981) and described by William Haviland at Tikal (1988). Instead, this style of domestic architecture aligns more closely with Class K dwellings (Tourtellot 1988a, 1988b) and may have housed single nuclear families. Single mounds play an important role in Haviland's developmental model (1988). He suggests that single mounds represent the homes of founding families within a newly established community; later these families grew in size and complexity adding new buildings and additions to the original structure. Based on this model, Mayanists typically infer that single mounds housed nuclear families, while larger groups were the homes of extended families occupied over generations. However, his model does not effectively account for large, single mounded residences such as Structure 41 at Actuncan. Instead, these households may have been organized as elite estates similar to those described by Levi-Strauss as a "house" (Gillespie 2000, LeCount this volume). In house societies, a single elite family occupies a grand primary residence, while a limited number of associated kin live within much more modest, segregated living spaces.

My research on Structure 41 is focused on two primary research aims following the framework of LeCount's broader project goals (LeCount 2009, this volume). Excavation and mapping at Structure 41 aim to 1) define the architectural arrangements and the developmental history of this household's architecture and 2) determine the changing range and spatial organization of household activities over time. The remapping of Structure 41 and the surrounding urban landscape (Perez, this volume) contributes heavily to our current interpretations of this household. We now recognize that the primary platform was surrounded on all sides by low, wide terraces, which could have been used as activity areas. Furthermore, off Plaza D to the east of Structure 41, two small structures were identified that may have served as the residences of secondary kin or house servants or as kitchen or storage structures. Additionally, a cleared and leveled area next to these small structures may have served as a small kitchen garden for the inhabitants of Structure 41. These findings may support the house model interpretation for Structure 41.

Based on prior research, I expected to find that the terminal construction of Structure 41 would date to the Late Classic; however, broad horizontal clearing on top of Structure 41 revealed substantial Terminal Classic deposits, possibly associated with the Terminal Classic construction of Group 4 to the west (Mendelsohn and Keller, this volume). As a result, a secondary goal of the excavations was to record this late use of the Structure 41 platform. This final construction phase of the platform is known as Structure 41-1<sup>st</sup>. Excavations directed towards these goals began in 2010 and will continue in 2011. The following presentation of this research represents a preliminary accounting of data and presentation of interpretations.

## Methods

Excavations were undertaken by local excavators working in teams of two. All excavated material was sifted through ¼ inch screen. All artifacts not falling through the screen were collected in the field and brought back to the project lab for processing. Beginning a week into the excavations, 4 liter bulk soil samples were systematically collected from many contexts. These samples were collected prior to screening so as to provide an accurate sample of material of all size classes. The samples were then processed in the lab according to project protocols (LeCount, this volume). Bulk samples were collected from all modern surface contexts excavated after initiating this program, as well as ancient floor surfaces. Further, samples were collected from all types of contexts in order to identify whether

different contexts have different microartifact signatures. Microartifacts collected from surface contexts are currently being analyzed by the author at Washington University in St. Louis. Additionally, soil and plaster samples were collected from all ancient floors for chemical analysis in order to identify activity locations.

Excavation units were laid out using a 1 x 1 m grid according to protocols established for provenience control as part of the general Actuncan Archaeological project. The 1 x 1 m units are considered appropriately fine grained for organizing contexts into analytical units that can be recorded and analyzed using GIS models. The grid was laid out prior to excavation by the survey team led by Don C. Perez utilizing a Total Station. Each 1 x 1 m square was assigned a unit letter based on the order of excavation. After reaching unit Z, name assignments continued with unit AA, BB and so forth. Lots were excavated by recognizable cultural contexts, each of which was assigned a lot number within a unit. When the depth of a lot exceeded 10 cm in depth, a single cultural context may have been divided into multiple lots in order to maintain maximum control over artifact provenience.

These recording protocols resulted in the excavations being split into a remarkable number of lots. In order to create a more coherent understanding of how the archaeological record was formed and to analyze materials by cultural contexts, lots from multiple units were lumped together into analytical units. Each analytical unit represents the entirety of a certain context as found in the archaeological record and can be seen as proxies for coherent depositional events. Analytical units should contain deposits which have the same cultural context and are spatially contiguous. I have provided a Harris Matrix, which describes the depositional sequence of Structure 41 in terms of defined analytical units (Appendix A, Figure 1).

Since the results presented in this report are preliminary and excavations on Structure 41 are ongoing, exposed architectural features are labeled using identifying features, which don't imply any temporal or stratigraphic order. In this report, floors have been named after Belizean workers who excavated the structure, walls have been labeled using colors, and terraces have been labeled after the color-coded walls that forms the terrace edge. I use the category "wall" in a broad, non-interpretive manner to indicate any architectural alignment of stones. In this report, most walls are used to contain architectural fills of stone cobbles and rubble.

## **The Excavations**

The 2010 excavations of Structure 41 are part of Operation 6, begun by LeCount and colleagues in 2004, and are guided by several different research strategies. The first goal was to uncover the terminal phase of construction along a 2 m wide swath down the center of the structure in order to understand the relationship between its terraces, Supplementary Platform 1, the building platform and superstructure. Second, we placed a test pit into the plaza south of Structure 41 in an effort to determine the chronology of this plaza and to find stratigraphy that we could follow north towards Structure 41. Third, following the same 2 m wide swath, we trenched north from the plaza test pit into the substructure along the final plaza floor. Fourth, I uncovered a large portion of the terminal architecture on top of Structure 41 in order to understand the organization of the superstructure and evaluate the possible uses of these spaces. Finally, I opened a 2 x 2 m test pit off the west side of the platform to determine the interface between the central platform and western terrace.

### *Excavations into the South Terrace of Structure 41*

Based on the structure's southern orientation and morphology, I initially hypothesized that the primary access point would be from a central staircase on the southern edge of the mound. My plan was to begin excavating in Unit F and dig northward following the top of the structure's collapse talus until I hit the front of the platform or an outset staircase. I began my excavations at this location based

on a rough line of large (25 to 50 cm) chert and limestone boulders running east to west across the southern face of the platform that appeared at the time to be the remains of a broad southern staircase. However, excavations revealed only more collapse debris and no indication of the edge of a staircase or front façade. Further, excavations north and east of Unit F also revealed that no central staircase existed in either the terminal or penultimate constructions of Structure 41's substructure. Rather, excavations uncovered a line of boulders that form a retaining wall, labeled Red Wall, which held together the fill of the southern terrace. We regrouped and decided to refocus our excavations on trenching north along the centerline of the structure to locate the terminal façade of the main pyramidal substructure further up slope.

Before continuing our search for the terminal façade, however, I had to understand the arrangement and construction history of the Southern Terrace. Surface excavations south of the mound were divided into two separate analytical units by the Red Wall. South of the Red Wall, collapse

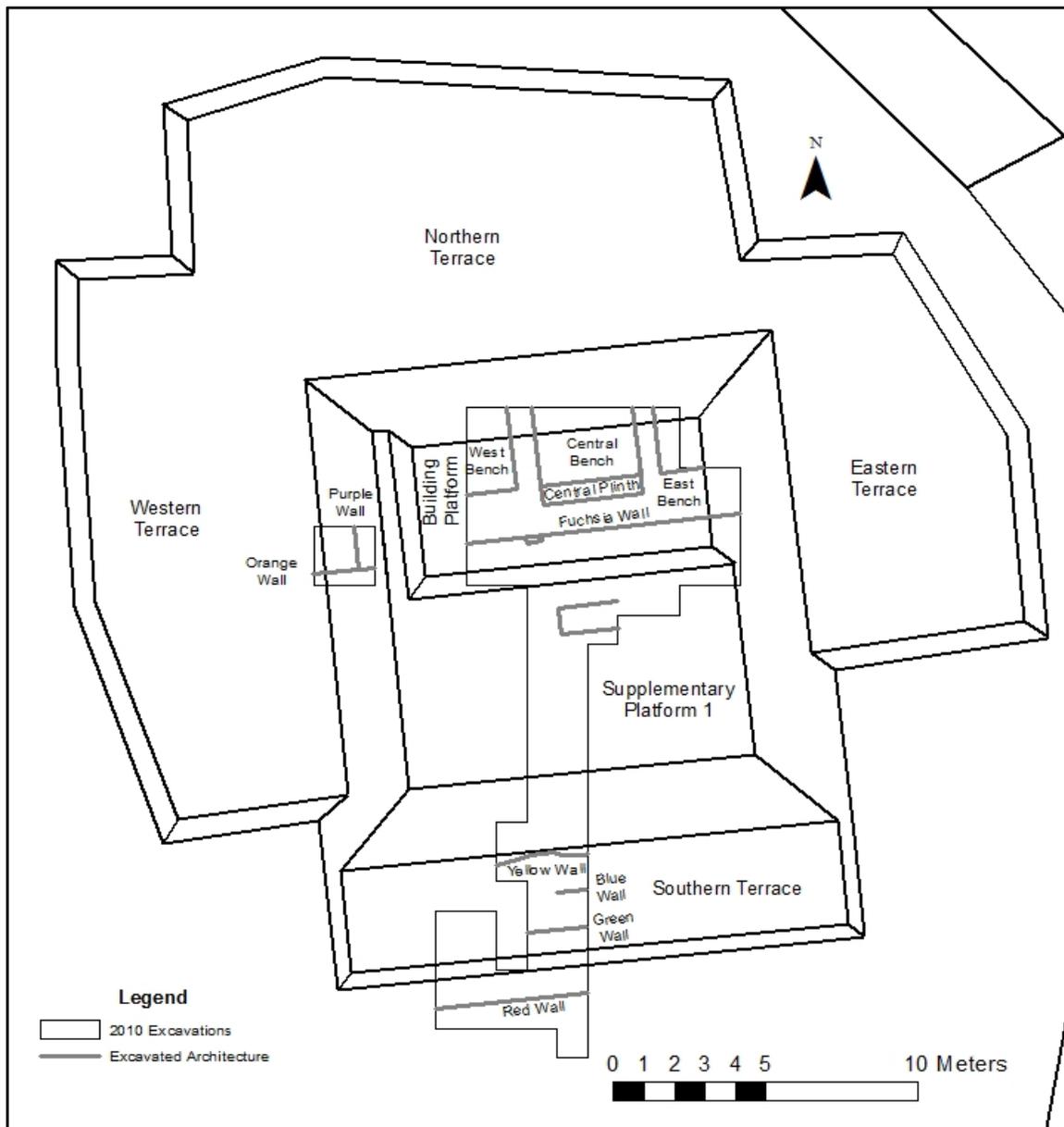


Figure 3. Excavated architectural features.

material from this wall was found overlaying Plaza D. Excavations running north from the Red Wall revealed a double tiered terrace leading to the façade of the structure's main platform (Figure 3). Evidence for the antiquity of Plaza D was provided by excavations in two 1 x 1 m units (6UUU and 6P) south of the retaining wall. Here, excavations revealed an accumulation of collapsed materials from Structure 41 laying on top a sequence of plaza floors. The upper most analytical context, Structure 41 South Plaza Surface, consists of undisturbed modern soil and vegetation. This context represents the modern humus, which rests on top of the collapse of the ancient structure. Below this humus, two different layers of fine sediments were found. These contexts contained a large amount of limestone inclusions, which appear to have been deposited as a result of colluvial erosion or sheet wash that brought down debris from higher up the structure. These two layers of sediments are differentiated by a change in soil color from 10YR 3/1 to 10YR 4/2. Lot 6O/2 contained a small greenstone pendent carved in the image of a god head likely washed down from its place of abandonment further up the structure or from within a fill layer. Importantly, the pendent attaches a certain level of wealth and affluence to the inhabitants of Structure 41. In addition to the ubiquitous small-sized ceramic and lithic artifacts, the sheet wash deposits included small quantities of obsidian and daub. Daub was found in small quantities across these excavations and they likely represent the remnants of *bajareque* construction used to construct the walls of a building on top the central platform. Below these two layers of sheet wash, a talus of chert cobbles and limestone rubble rests just to the south of the remains of Red Wall. This section of limestone rubble represents the collapse of the southern terrace's retaining wall following the structure's abandonment.

The collapse and sheet wash sit on top of a heavily eroded plaster plaza floor surface I call Joey's Floor, which was lain directly on top of a set of interlocking paving stones made from high quality hard limestone. South of the retaining wall, the plaster surface has eroded entirely away and only the paving stones remain. Based on ceramics from contexts sealed below the paving stones, this plaza surface appears to date to the Tzakol 1 ceramic phase, the first part of the Early Classic period. In the plaza all that remains of the plaster floor is a thin layer of dense, sticky clay sediment that contains a large amount of small eroded bits of plaster, remnants of the now largely eroded floor. Sitting directly atop the stone pavers was large amounts of small gravel ballast (<1 cm) on which the plastered plaza floor would have been constructed. Joey's Floor continues north underneath the retaining wall, a fact that supports the suggestion that this floor predates the construction of the low terrace off the southern edge of Structure 41. It appears as though Joey's Floor is the last version of Plaza D constructed. Later inhabitants of Structure 41 continued to utilize the same plaza floor, potentially even after the total degradation of the actual plaster.

Prior to the construction of Joey's Floor, the level of Plaza D was raised 25 cm with the addition of a 10 YR 5/3 clay loam fill. Materials from this fill were used to date Joey's Floor to the Early Classic. This fill contains a small amount of limestone gravel, but is mostly just clay loam sediment. Beneath this fill we encountered the penultimate plaza floor called Toby's Floor. This floor appears to be heavily eroded and was preserved only in the northeast corner of Unit P. This plaster floor appears to be about 8 cm thick. In the remainder of Units UUU and P, we encountered a thin layer of small limestone gravel, which appears to have been used as ballast for this earlier floor. Excavation concluded at the level of this floor due to the arrival of the end of the season. Continued excavations in this test pit are scheduled for the 2011 excavation season.

#### *Excavation Trench into Structure 41's Substructure*

From test excavations into Plaza D, we began a 2 m wide trench north towards Structure 41 following Joey's (plaza) Floor (Figure 4). Excavating through Red Wall (a retaining wall) into the Red Terrace, we discovered that Red Wall was roughly constructed out of limestone boulders and large chert cobbles. If this wall was ever faced by cut blocks they must have been entirely robbed in antiquity.

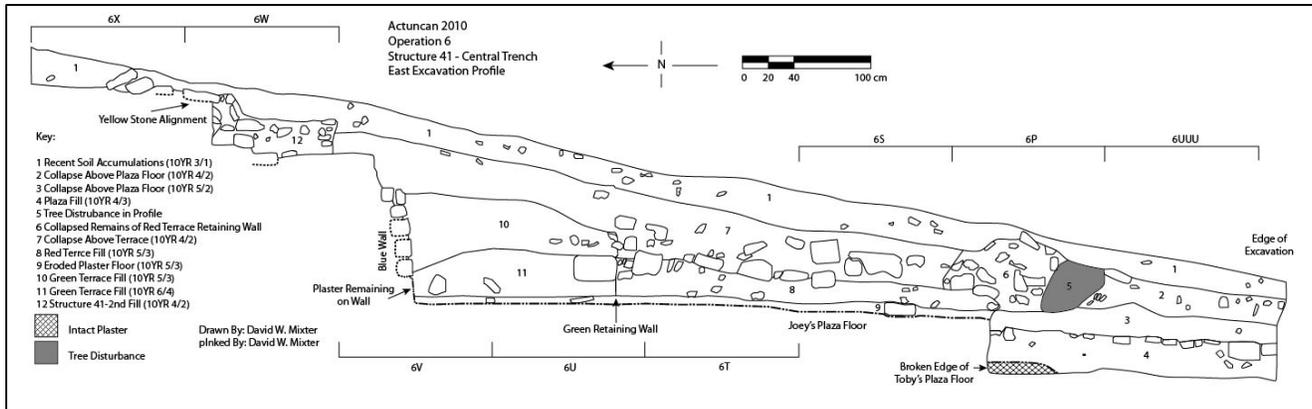


Figure 4. East profile of lower portion of the north-south axial trench.

However, I would not be surprised if this poor construction was more a symptom of the conditions of life at Actuncan during the Late Classic when the people of this site may have been subservient to the kings of the Xunantunich polity than a function of its construction style. In the eastern profile, we did see three roughly cut block that appear to be stacked on top of each other within Red Wall. We interpreted these stones as the original face of the Red Wall and the large stones to the south of this rough alignment as wall collapse. Red Terrace is the lower of two stepped terraces attached to the southern part of the substructure. North and above Red Terrace is a second terrace appended to the southern flank of the central platform, which is contained by Green Wall.

The stratigraphy encountered on top of the remains of the Red Terrace in Units S, T, U, V, XXXX, YYYY, and ZZZZ is similar to that found to the south of the Red Wall. The modern humus layer overlays a layer of fine materials washed down from the top and sides of the structure. The sheet wash layer consists of small (< 3 cm) gravel deposited on a slope. This slope wash sits on top large rubble and chert collapse that has fallen from another retaining wall (Green Wall) on top of Red Terrace. This collapse slopes from the face of the Green Wall to the north down towards the Red Wall.

Red Terrace appears to have been surfaced with earth rather than plaster since large boulders appear to have easily penetrated the surface of the terrace when Green Wall collapsed leaving no evidence of plaster. Alternatively, the wall's collapse may have occurred after a substantial amount of time when the plaster surface of the terrace had already eroded away. Regardless, the interface between these two layers is not terribly clear. Part of our interpretative problem was that the initial 1 m wide trench we excavated (Units P, S, T, and U) was too small to understand the jumble of cobbles resulting from the poorly preserved Red Wall and the collapse of Green Wall, which was difficult to distinguish from the fill of Red Terrace beneath the collapse. Further, the area we choose to excavate appears to have been heavily disturbed. This disturbance is poorly understood, but whatever happened it appears to have affected the 1 m wide section we excavated along a north-south axis of the substructure. This disturbance is also highly evident in the differential preservation of the Green Wall found in Units U and YYYY (Figure 5). The disturbance is very unfortunate because it leads to a lack of clarity as to the height and location of the Red Terrace surface.

I expanded the excavations to a 2 m wide trench and found Red Terrace was much better preserved to the west of the original excavations. The western profile of the widened trench clearly delineates two strata: the clay loam terrace fill and the limestone and chert cobble collapse overlaying it (Figure 6). Furthermore, a possible layer of gravel floor ballast was visible in the southern portion of the profile. This ballast may indicate that the surface of Red Terrace was at one time plastered. The terrace fill consists of a clay loam with relatively few limestone inclusions. Based on ceramics within the fill, the construction of Red Terrace appears to date to the early Samal phase (A.D. 600-670) of the Late Classic

period. This surface appears to have been continually used throughout the Late and Terminal Classic since there is no evidence that it was modified during the use life of the later structures atop the central platform.

The fill of the lower southern terrace rests on top of the Early Classic plaza floor (Joey's Floor). At the interface between the fill and the floor, we encountered a thin layer of clay sediment that appears to have incorporated weathered plaster from the decomposing floor adding to the sediment's clay content. Unlike those encountered in the Plaza D excavations in Units UUU and P, the plaster of this floor is well preserved beneath Red Terrace, and because of this good preservation plaster chemistry samples were taken from the surface of the plaster floor in excavation Units S, T, U, B, XXXX, and YYYY.

The upper retaining wall, Green Wall, forms the front of Structure 41's second (and higher) southern terrace (Green Terrace). It was found in much better shape than Red Wall. This wall consists of neatly stacked large limestone and chert boulders, their most naturally flattened faces facing south. Despite the lack of cut stones, Green Wall appears to have been well constructed and is quite stable. Within our 2 m wide trench, the wall was found well preserved to a height of 80 cm in the western portion of the trench. In the disturbed eastern section, only the basal course of stones remained. Based on the mass of collapsed stones found laying on top of Red Terrace and findings detailed below from Units W, Y, and Z further north in the trench, this retaining wall may have risen another 10 to 20 cm above its current height, likely forming a terraced activity area (Green Terrace), which was much higher than Red Terrace below it.

The basal stones of the Green Wall do not sit on Joey's Plaza floor. Instead, the retaining wall appears to have been footed into the fill of the clay loam fill of the Red Terrace, about 18 cm above the top of Joey's Floor. This stratigraphy indicates that the Red Terrace was constructed first on top the Joey's (plaza) Floor, with Green Terrace constructed on top of it. Green Wall was footed about 20 cm into the Red Terrace to provide a solid foundation for this second construction. Based on the similar

construction techniques of the two walls and the typical Maya practice of remodeling so as to entirely cover the old construction phase, it seems likely that both platforms were constructed at one time. However, it remains a possibility that the lower terrace was exposed for a time prior to the construction of the upper terrace.

In Units U and V, located in the east portion of the trench, we excavated through Green Wall and its terrace fill to expose the earlier construction located behind it.

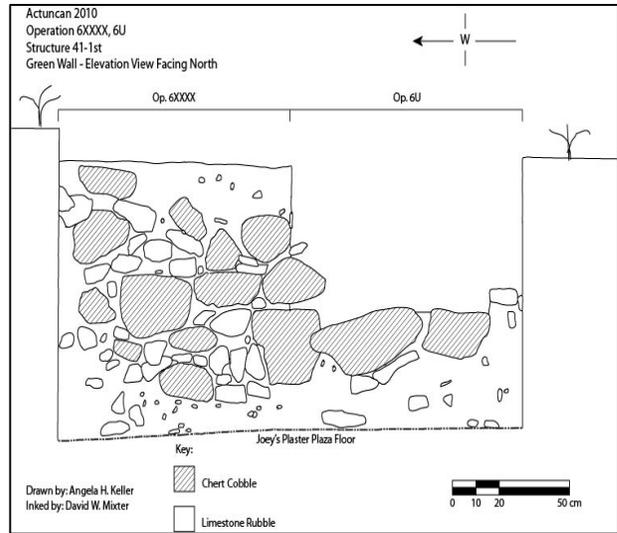


Figure 5: Green Wall elevation facing north.

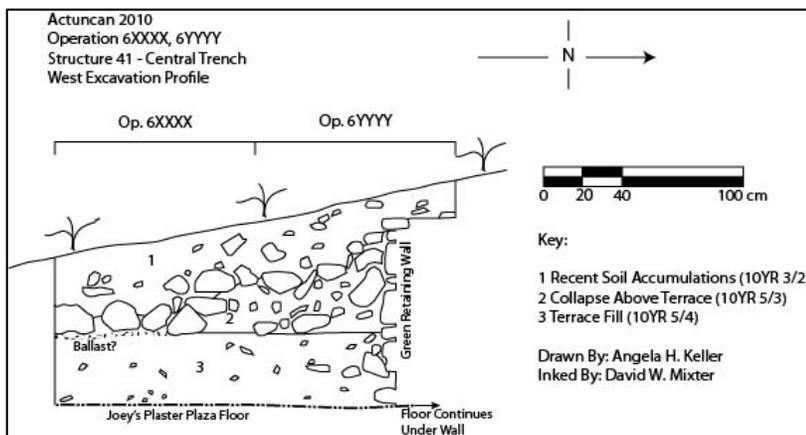


Figure 6. West profile of axial trench.

Protected by these carefully built constructions, the face of the southern platform edge of Structure 41's penultimate construction phase, tentatively labeled Structure 41-2<sup>nd</sup>, was found relatively intact (Figure 7). We found the platform face approximately 1 m north of Green Wall in Unit V. This slightly battered wall (Blue Wall) was constructed of cut stone limestone blocks between 10 and 15 cm in height interspersed with small cobble-sized stones. The wall was originally plastered, the remnants of which remained stuck to the substructure façade. The Early Classic plaza floor appears to continue north below this wall indicating that the wall postdates the construction of this plaza surface. Only five courses of stone remain and a pocket of dark, organic soil visible above the extant top of the wall suggests that a tree may have done damage to the wall. Unfortunately, excavations into the substructure fill of Structure 41-2<sup>nd</sup> didn't penetrate deeply enough to ensure secure, sealed contexts so the specific date of this construction remains unknown; however, it must post-date the plaza floor (the Tzakol 1 Joey's Floor). Therefore, it likely dates to the middle or late Early Classic period.

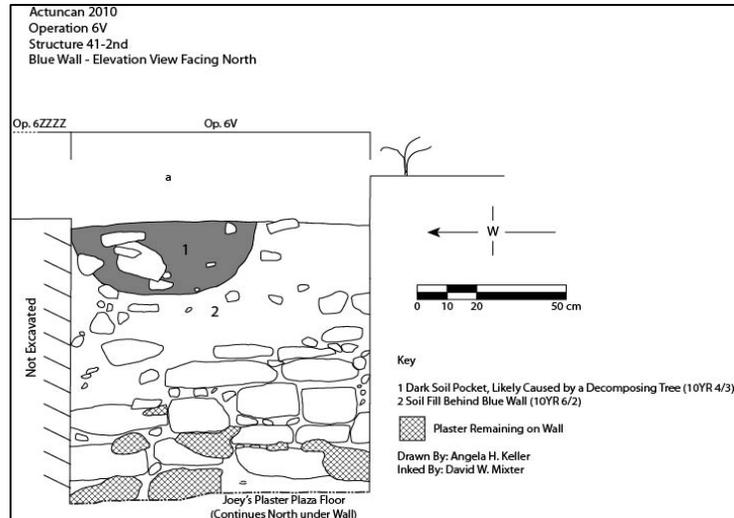


Figure 7. Blue Wall elevation.

Behind Blue Wall we excavated a 3 x 1 m section (Units W, Y, and Z) in order to explore the substructure fill of Structure 41-2<sup>nd</sup>. These contexts may be quite disturbed as evidenced by the possible tree disturbance described in the last paragraph. This tree appears to have been centered in Unit W. Beneath the present day surface we encountered a layer of large cobble collapse that tumbled from the structure's façade above. This collapse collected in front of a very rough line of cut stones (Yellow Wall) that is only one course high. While the stones are very disturbed and barely coherent as a wall, I suggest that they represent the back edge of Green Terrace and the base of the Structure 41-1<sup>st</sup>'s substructure façade.

Below the boulder collapse of Structure 41-1<sup>st</sup> and between the Yellow Wall and the Blue Wall, excavations encountered layers of large rubble fill laid neatly into flat, horizontal layers separated by layers of loose soil matrix. This fill may be related to the construction of Structure 41-2<sup>nd</sup>, in which case, the top of this construction phase was likely truncated in the construction of Structure 41-1<sup>st</sup>. While we excavated 30 cm down into this fill, we never reached the top of the remaining portion of the Structure 41-2<sup>nd</sup> wall. Additionally, the tree disturbance reached into this fill, heavily disrupting the findings in Unit W and part of Unit Y. As a result, the ceramics from these lots are not necessarily a good indicator of the date of this fill episode.

Between the two levels of rubble fill in Unit Y the base of a vase was discovered, which appears to have been intentionally reworked into a square shape (Figure 8). This vessel had been placed upside-down within in the fill and was associated several burned limestone cobbles. The vessel likely forms a small cached offering placed in the fill during construction.

#### *Structure 41's Southern Substructure Façade*

At the start of the excavations, Structure 41 was covered in large limestone and chert boulders measuring 25 to 50 cm in diameter protruding from the modern surface around the eastern, southern

and western sides of the substructure. Excavations along the centerline of Structure 41 described above continued north from Yellow Wall into these boulders on the southern edge of the substructure. These boulders rest on a slope that angles up from the top of Yellow Wall to the modern surface of Supplemental Platform 1. Excavations into this feature continued along the same 2 m wide trench excavated to the south of it sampling a 2 x 6 m area between Yellow Wall and the top of the mound.

Excavations revealed that the southern façade of the supplementary platform no longer remains. The large boulders seen from the surface appear to be the fill of the final construction phase of Structure 41-1<sup>st</sup> spilling out of the collapsing substructure. While the ceramics diagnostics places the construction of this façade to the Terminal Classic, the contexts may not be secure. We excavated only 15 cm down into this fill, and the nature of the large boulder fill may have allowed for the intrusion of later ceramics. Many of the Terminal Classic diagnostics may derive from the terminal structures on top of the summit, not the substructure fill of Structure 41-1<sup>st</sup>. While most of the boulders appear to be from the core of the structure, the presence of plaster found directly on the surface of some provides evidence to suggest that the builders of Structure 41-1<sup>st</sup> substructure used a hitherto unknown construction technique to build their façades (Figure 9). Rather than applying plaster to limestone blocks, Structure 41-1<sup>st</sup>'s sloped façade may have been constructed by coating boulders with plaster. LeCount and Blitz (2005:5) also noted this kind of technique on northern façade of Structure 41 and, possibly, along the western façade of Structure 19's low platform. This construction technique may



Figure 9. Plastered chert cobble.



Figure 8. Structure 41 offering between floors.

represent a local innovation that did not conformed to Late Classic architectural canons at other nearby sites. Alternatively, it is possible that it represents a Terminal Classic building style. Few Terminal Classic elite houses have been excavated in the upper Belize River valley so little is known about how they might have built their houses. Regardless, this building technique led to the instability of the façade and resulted in boulders spilling out of the substructure.

#### *Excavations on Top of the Platform*

Excavations on top of Structure 41 focused on clearing as much of the summit's surface as possible in order to determine the architectural arrangement of its terminal construction and identify the location of superstructural elements. The summit is not level rather it consists of a raised building platform in the north that sits and Supplementary Platform 1 to the south. The multi-level summit measures approximately

10 x 10 m in size; however, due to erosion, it was likely longer off the southern edge in antiquity. Figure 2 shows a reconstruction of the original dimensions of the structure. The supplementary platform consisted of a large, flat, open space. The terminal plaster floor which likely once sat on top of this platform has eroded away leaving only the small gravel ballast it once sat on. In total, 60 m<sup>2</sup> of the platform were exposed.

Units YY and ZZ mark the transition between Structure 41's southern façade and the surface of the summit as it remains today. The edge of the summit is marked by the presence of a layer of small gravel ballast overlying the large boulder fill emerging from the collapsed façade discussed above. Based on the local tradition of masonry platform construction, the original edge of the supplementary platform was likely further south and constructed of neatly stacked boulders and possibly cut-limestone blocks all of which were coated in plaster. Based on excavations in Units YY and ZZ, the supplementary platform surface appears to have been constructed by placing a layer of flat stones between the large boulder fill of the substructure and topping these with gravel floor ballast and a plaster floor. Excavations in Units CC, FFF, II, and EEE revealed the tops of several large boulders emerging from the fill below the gravel. These boulders are roughly arranged into a C-shape and may be the edge of a truncated masonry wall from a previous construction phase. Further excavation is required to confirm or deny this interpretation. Regardless, the small gravel floor ballast covers the platform up to the edge of the elevated rectangular building platform. In Units YYY, XXX, SSS, HH, GG, GGG, DDDD, EEEE, FFFF, and GGGG the collapse of the building platform which consists of large chert and limestone cobbles covers the gravel ballast of the floor. In Units AAAAA and BBBBB the eastern edge of Supplementary Platform 1 was discovered in the form of several large faced stones roughly aligned from north to south.

Along the northern edge of Supplementary Platform 1 is a moderate-sized building platform measuring 5 m north-south by 8 m east-west and 25 to 30 cm high. This platform formed the base of the Structure 41 superstructure. Even though the surface of the building platform was almost entirely exposed in our excavations, it proved to be a complicated area to investigate due to multiple small renovations associated with Structure 41's superstructural architecture.

The excavations of this building platform consisted of three stages. First, we removed the modern humus layer to reveal a large, flat deposit of rubble and chert cobbles covering most of the building platform. This layer of cobble fill created a large platform known as Structure 41-1<sup>st</sup>-A. This construction obscured the remains of a Late Classic building (Structure 41-1<sup>st</sup>-B) below it. The masonry of this superstructure appears to have been truncated to about 20 cm above the Building Platform and then filled with rubble. The second phase of our excavations was designed to excavate through Structure 41-1<sup>st</sup>-A in order to determine the architectural arrangement of Structure 41-1<sup>st</sup>-B prior to its truncation and burial. These excavations revealed a complex architectural arrangement obscured by a number of small renovations. Since we have only the lower 20 cm of Structure 41-1<sup>st</sup>-B's walls determining the entire sequence of construction is challenging; however, generalizations about the structure's form and the specifics of certain renovations can be made. Third, a test excavation into the center of the building further confirms the complex construction of the structure and provided a baseline for dating Structure 41-1<sup>st</sup>-B.

As noted above, initial excavations of the building platform revealed a level section of limestone rubble and chert cobbles which covered the entirety of the building platform. Cut blocks visible at the top of this fill layer define the southern edge of 41-1<sup>st</sup>-B's building platform and the tops of several walls which were truncated before the fill was added to create 41-1<sup>st</sup>-A. If the rubble and cobble fill of 41-1<sup>st</sup>-A was originally capped by a prepared plaster or soil surface, it has since eroded away. The presence of a high density of small lithic debris within the surface lots indicates that the building platform was an intentionally constructed space. In addition to the filling, the construction of Structure 41-1<sup>st</sup>-A is marked by the addition of a 1 m deep extension on the southern edge of the building platform. This extension was constructed out of large limestone and cobble boulders without the aid of a formal cut

stone retaining wall. Instead, the edge of the extension was constructed of carefully placed limestone rubble and chert cobbles in a similar fashion to Green Wall discussed earlier. The construction of the extension can be tentatively dated to the Terminal Classic based on ceramics recovered from its fill. It seems likely that the extension, which covers the cut stone block edge of Str. 41-1<sup>st</sup>-B's building platform, was constructed simultaneously with the cutting and filling activities to the north as a coherent construction episode. Although ceramic evidence from contexts on top of the building platform is sparse, I would tentatively date this to the Terminal Classic based on its association with the construction of the extension. Due to the poor construction techniques used to build the extension, much of the fill collapsed into Units YYY, XXX, SSS, HH, GG, GGG, DDDD, EEEE, FFFF, and GGGG, as noted above.



Figure 10. Chert eccentric found in 6RR/1.

The terminal layer of chert and limestone associated with the filling episode on the building platform presented an interesting interpretative problem. While I have interpreted this material as a discrete construction episode, I will mention alternative interpretations here. First, it may be collapse from what I have call Str. 41-1<sup>st</sup>-B. This hypothesis is supported by the presence of low, one-course high stone alignments, the tops of which can be seen among the chert and limestone rubble fill. However, the level nature of the deposit makes the placement of the rubble appear to be intentional. Furthermore, these stone alignments don't appear to be the bases of masonry walls. Instead they appear to be the facings of masonry benches which would have been constructed within a perishable structure. It appears as though the Terminal Classic occupants of the site eliminated the Late Classic building in order to create a large, multilevel platform at the summit of Structure 41 made up of Supplementary Platform 1 and the Building Platform. The capping may have been associated with termination rituals for the structure. This idea is supported by the presence of hundreds of small chert flakes spread across the top of the rubble situated around a chert eccentric on the western side of the structure (Figure 10). Alternatively, this deposit could also have been the result of repeated ritual activity associated with events at the newly constructed Group 4 on the other side of Plaza D (Mendelsohn and Keller, this volume). Ongoing analysis of macro and microartifacts is directed at sorting through these Terminal Classic possibilities.

In the second step of investigating the building platform, we removed the materials associated with Structure 41-1<sup>st</sup>-A: the southern extension of the building platform and the fill found between the visible cut stone alignments. Behind the extension we uncovered the southern edge of Structure 41-1<sup>st</sup>-B's building platform known as the Fuchsia Wall. This wall consists of well constructed cut limestone blocks supplemented by small limestone chinking (Figure 11). The wall consists of a single course of stones in most places; however, in some places the single course is formed by two courses of smaller stone blocks. The wall is level with the exception of a tree root disturbance in Unit LL. Originally, it would have been covered in stucco plaster; however, the plaster has eroded away. In Units LL, HHH, and KKK the edge of a plaster floor, known as Marlon's Floor, was found emerging from beneath the building platform. This plaster floor must predate the construction of Structure 41-1<sup>st</sup>-B. The articulation of this remnant plaster with the Fuchia Wall and the surface of Supplementary Platform 1 suggests that it may be part of the plaster floor that once covered the Supplementary Platform. Since

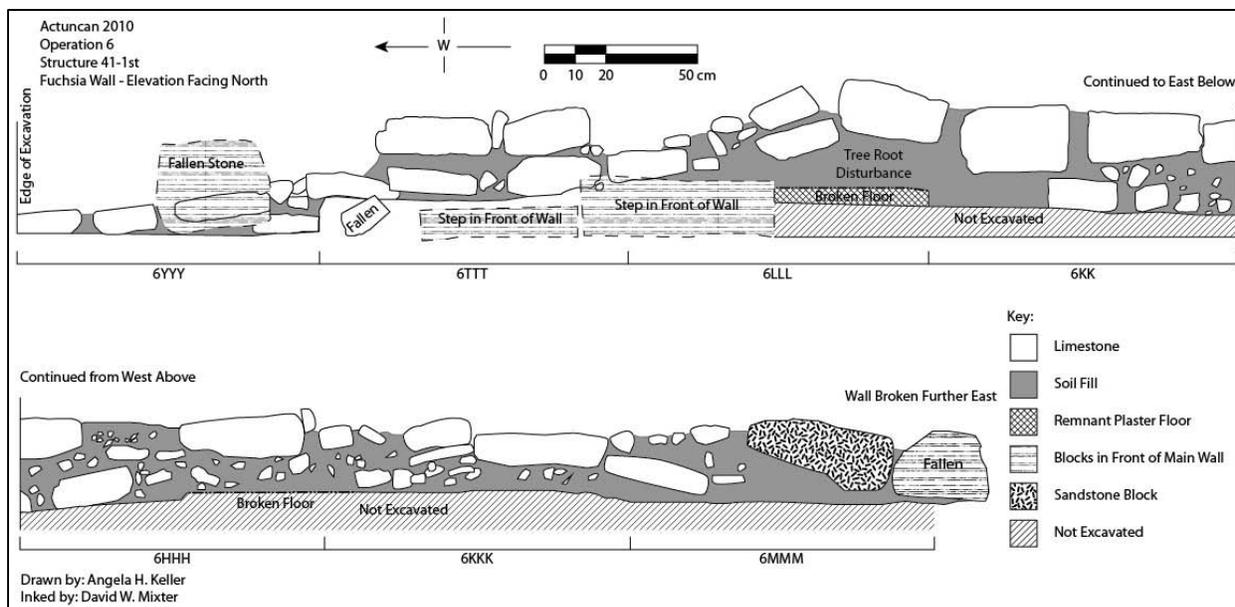


Figure 11. Fuchsia Wall elevation.

the floor continues beneath the building platform it seems likely that a previous version of the platform (which would be Structure 41-1<sup>st</sup>-C) will be found beneath Structure 41-1<sup>st</sup>-B. Either the floor was intentionally cut and removed prior to the construction of 41-1<sup>st</sup>-A or the structure was abandoned for a time prior to this construction of the extension during which time the floor eroded or broke away prior to the reoccupation of Structure 41. Based on the lack of the floor under the southern extension constructed as part of Str. 41-1<sup>st</sup>-A, I favor the abandonment theory.

Below the cobbles covering the building platform we were able to clear several lines of stones in order to begin to make sense out of the Structure 41-1<sup>st</sup>-B superstructure. Based on the layout of the *in situ* cut stone blocks, the building was a large structure facing south with three benches located in a single large room measuring approximately 4 by 9 m. A single step leading from Supplementary Platform 1 to the building platform was discovered in front of Fuchsia Wall in Unit LL. The location of the western step may hint at the access points to the superstructure in other places. The construction of Structure 41-1<sup>st</sup>-A appears to have destroyed matching steps located near the center and east end of Fuchsia Wall. However, the eastern step's former location may have been marked by large (50 cm in diameter), flat sandstone boulder found in Unit MMM used in place of a limestone block in the construction of Fuchsia Wall. The use of this large exotic stone may hint at an intentional termination of the eastern step.

Clearing along the lines of cut stones, the outlines of the western and central benches were determined. The edges of the eastern bench proved to be enigmatic due to a complex palimpsest of renovations on that side of the structure. Figure 12 shows the arrangement of the low walls that form the edges of the benches. We determined that the jumble of large stones between stone alignments were likely benches based on the square shape of the stone alignments and the three large upright stones found in Wall D. The central bench was constructed using large stones on the east and west edges (Figure 13). Unfortunately, the eastern edge of the bench is poorly defined due to two large trees that disturbed both the central and eastern benches. The rectangular western bench was constructed by placing rubble fill within a bin of cut masonry stones. Unlike the western bench, the central bench is fronted by a low, intermediate level plinth in front of the bench, known as Wall F. Between Wall B of the western bench and Wall D of the central bench a narrow 0.7 m wide alley was formed. The bottom

of the alley is plastered, forming Edwin's Floor. This floor curls around the southern corners of the west and central benches in Units PPPP, TT, RRRR, and BBB and likely covered the entire surface of the building platform.

While the rough arrangement of Structure 41-1<sup>st</sup>-B's superstructure can be determined, the building underwent a series of complex renovations during the structure's occupation that are difficult to understand. All of these little renovations have been tentatively lumped under the 41-1<sup>st</sup>-B construction phase pending better understanding.

Attempts to find an alley between the central and eastern benches in Units NNN and LLL proved to be challenging. While our excavations attempted to follow visible lines of stone, we were unable to follow these lines and expose well constructed masonry faces as we had been able to do between the western and central benches. These excavations were further frustrated by the disturbances caused by two trees in this area.

One curious renovation was easy to discern. At some point following the original construction of Structure 41-1<sup>st</sup>-B, the alley between the eastern and central benches was blocked off at the southern edge. A wall facing north (Wall C) was found at the entrance to the alley. The articulation of Wall C with Walls B and E demonstrate that Wall C post-dates the construction of the western and central benches. Furthermore, Wall C was constructed on top of the plaster floor that covers the surface of the building platform. Apparently, the occupants of Structure 41 closed off the alley between the western and central benches after they were initially built.

The true nature of the structure remains enigmatic due to the lack of evidence for masonry architecture and the near total destruction of the superstructure. The lack of cut-limestone wall and corbel arch stones in the Terminal Classic fill of the building indicates that the building platform likely supported a perishable *bajareque* superstructure, possible footed into the masonry edges of the benches and the central plinth. The recovery of daub from many contexts on the structure and within the collapse on the southern and western sides of the structure supports this possibility.

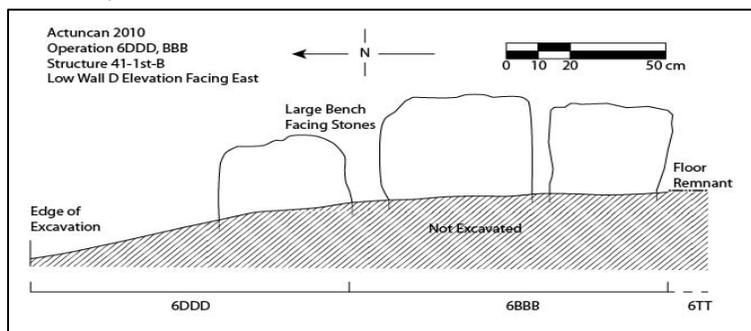


Figure 13. Low Wall D elevation (after field drawing by Angela H. Keller).

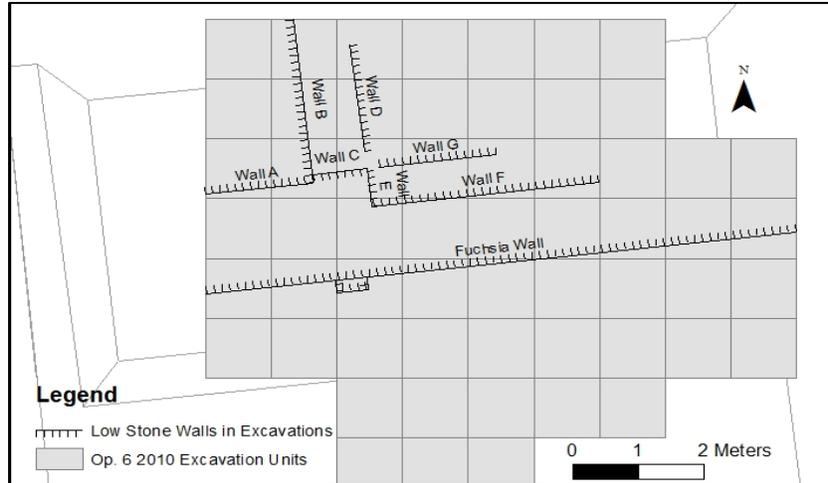


Figure 12. Schematic of low walls on summit of Structure 41.

The third phase of excavation strategy consisted of testing the central bench. The aim was to date the construction of Structure 41-1<sup>st</sup>-B based on fill material and to evaluate the construction history within this one section of the platform. Excavation into the bench was focused within Units AAA, HHHH, and the northern edges of Units SS and JJJ. We excavated an area slightly wider than 2 x 1 m. The fill of the bench

consisted of about 10 cm of large cut stones that had been repurposed as fill. Beneath these stones we uncovered the eroded remnants of a plaster floor, known as Cruz's Floor, around the edges of the excavation area within the confines of the central bench. This floor was poorly preserved in Units AAA and SS and well preserved in the eastern portion of Units HHHH and JJJ. In Units AAA and SS, two *in situ* cut-limestone blocks about the remains of Cruz's floor. These blocks are the remnants of a previous, poorly understood construction phase. In Units HHHH and JJJ Cruz's Floor appears to have been intentionally cut in antiquity. As seen in Figure 14, the blocks in Units AAA and SSS form the western edge of the cut and the eastern edge is defined by the remnants of Cruz's floor. The fill within the cut consists of small (1-5 cm in diameter) limestone rubble and chert cobbles. An initial review of ceramic material from this fill indicates a high proportion of drums and other forms associated with ritual activity. I terminated excavation 28 cm below Cruz's Floor at a level white limestone marl surface likely associated with an earlier construction phase. The discovery of the cut floor filled with ritually charged ceramic forms points to a possible dedicatory function in this location.

The southeast corner of Cruz's Floor in Units HHHH and JJJ was heavily burned. While this blackened area may have been caused by ritual activity, it was more likely caused by the recent burning of a large cohune tree that grew on this part of the mound. Burnt tree roots could have left soot marks on the floor in this area.

Excavations into the central bench of Structure 41-1<sup>st</sup> failed to provide a more specific construction date beyond that of the Late Classic period. The evidence of post-construction disturbance in this area is strong, so the Late Classic *Terminus Post Quem* derived from the ceramics may well refer to material from a later disturbance. Regardless, the fine masonry work used to construct the Structure 41-1<sup>st</sup>-B building platform suggests a Late Classic date, which is corroborated by the presence of Late Classic ceramics. Since I don't believe we have excavated any clean fill deposits from this construction, I suggest that this date should be considered preliminary.

Across the surface of the Structure 41-1<sup>st</sup>-A building platform, microartifact samples were collected. Ongoing analysis of this material is focused on determining the function and construction of the building platform and the kinds of activities that took place there.

#### Excavations on the Western Edge of Structure 41

After no central southern staircase was discovered, excavations were redirected to the western edge of Structure 41 to look for a possible side staircase. The location of excavation, just off the western

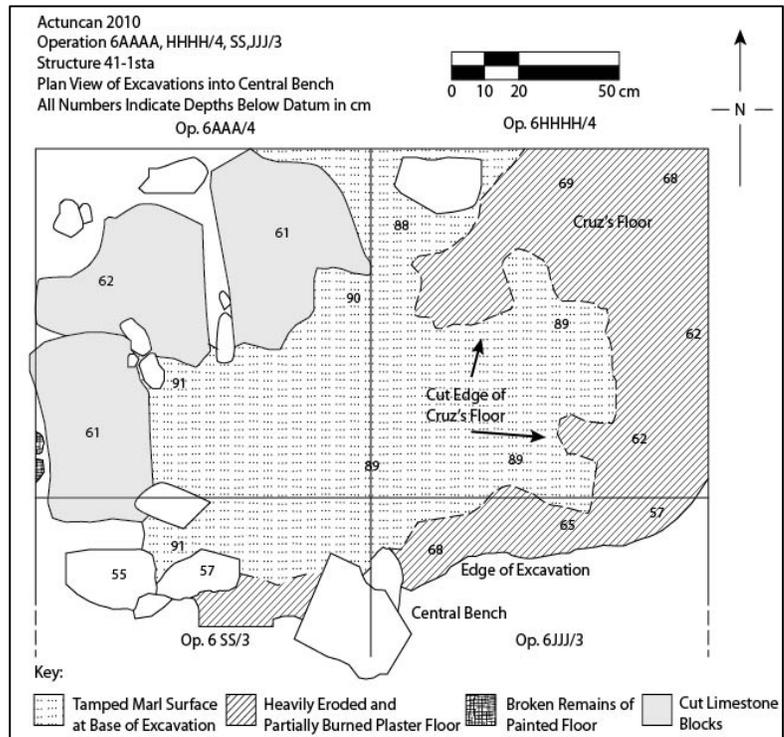


Figure 14. Plan view of excavation into central bench (after field drawing by Marlon Cocom).

edge of the building platform, was chosen due to the presence of a small depression in the modern ground surface. Furthermore, the excavation location was positioned just north of the edge of the massive boulder fill of the substructure discussed earlier. A 2 by 2 m excavation was initiated to investigate if this location contained a side staircase and to understand the edge of the boulder fill.

Our excavations unveiled the construction of a possible wide step or sequence of wide terraces that may have composed the western edge of the structure. A wall, one course high (Purple Wall), forms the western edge of the

Structure 41-1<sup>st</sup> Supplementary Platform 1 (Figure 15). This wall was probably originally multiple courses high, possibly as much as 60 cm, based on a small remnant of plaster floor possibly associated with the platform surface found on top of the wall in Unit WWW. At the base of the Purple Wall, we found a 1.5 m wide terrace (Maroon Terrace), which appears to be one of two or three broad steps leading from Structure 41's western terrace up to the top of the platform. At the western edge of Maroon Terrace is a line of large (40 cm long) cut limestone blocks facing towards the west. This line of stones is called Maroon Wall after the terrace. Both the terrace and supplementary platform wall appear to have been plastered at some point, however, most of the plaster is now gone.

In order to expose the tread of the Maroon Terrace, I excavated through a layer of collapse from the Purple Wall located higher up the Structure 41 platform. This material consisted of medium sized limestone rubble (6 to 25 cm in diameter).

On the southern edge of these excavations, we clipped the edge of the large boulder fill found around the southern portion of Structure 41-1<sup>st</sup>'s substructure. This is the same protruding rubble fill excavated in the southern trench into the structure. The large boulder fill appears to be contained by a rough retaining wall (Orange Wall) built from large limestone and chert boulders carefully placed together with the flat sides facing north in a similar fashion to the retaining wall between the Green Terrace on the southern side of the substructure. This retaining wall indicates that many of the boulders found strewn across the southern portion of structure represent *in situ* fill from an intentional construction phase, not solely collapse.

I suspected that the Purple Wall and Maroon Terrace predated the large boulder fill and Orange Wall. In order to test this proposition, I excavated behind Orange Wall to see if Purple Wall continued south beneath the boulder fill. It turns out that Purple Wall does not continue south of Orange Wall, a fact that lends evidence to suggest that the large boulder fill is likely contemporaneous to Purple Wall and Maroon Terrace. Rather than a later add-on, the large boulder fill appears to be part of the original construction of Structure 41-1<sup>st</sup>.

I would suggest that the sequence of terraces located on the substructure's west side may, in fact, have served as the primary public access point to the platform surface. Large, wide steps, while uncommon in residences, might have been adopted by this elite residence as a symbol of the house's

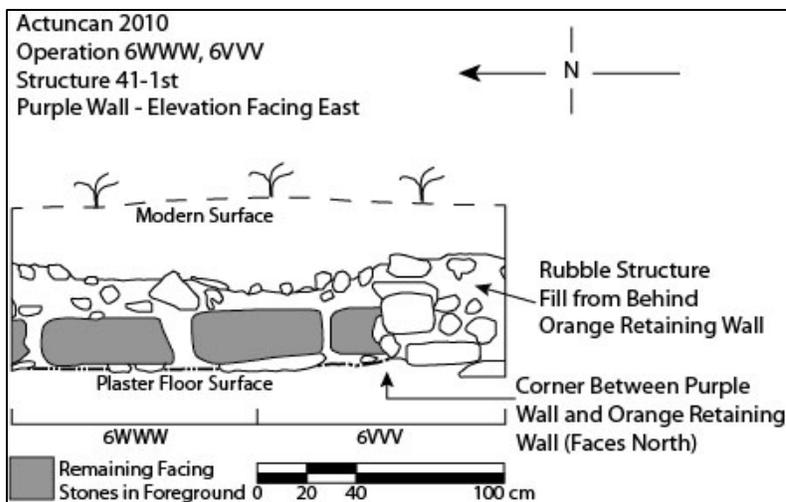


Figure 15. Purple Wall elevation (after field drawing by Don C. Perez).

civic duties and power. I would hypothesize that a set of more moderately sized steps will be found off the eastern side of the structure leading to auxiliary structures below (see Perez, this volume).

### Preliminary Conclusions

Excavations on Structure 41 during the 2010 field season have contributed to a preliminary understanding of the final phases of the structure. During the Late Classic period Structure 41 consisted of a large pyramidal platform that supported a wide rear building platform upon which a perishable bajareque superstructure was erected. Broad low terraces, some of which were plastered, were attached to all sides of the central pyramidal platform. Access to the summit appears to have been from the west, and possibly the east, rather than the south as would be suggested by the orientation of the pyramidal platform. Like other houses of this form at Actuncan, Structure 41 appears to be oriented at 8 degrees west of true north, as is most of the civic and residential architecture in Actuncan North.

On top the primary platform the Maya constructed multiple versions of Structure 41-1<sup>st</sup>. During the Late Classic, the building platform held a large single roomed superstructure with three stone-faced benches. Over time, the Maya reworked this building by closing off the alley between the western and central benches. The Terminal Classic occupation of Structure 41 was marked by a change in the structure's use. The superstructure was razed and filled to create a level platform using construction techniques that lacked the typical quality usually associated with the Classic Maya. This lack of time and effort in construction may indicate that the Terminal Classic Maya may have experienced a period of economic difficulty during the later occupation of the structure.

Evidence of ritual activity on top of the structure suggests that either the structure was ritually terminated or that it continued to have ongoing ritual functions associated with the construction of Group 4 during the Terminal Classic period (Mendelsohn and Keller, this volume). The presence of two Postclassic ceramic scroll feet (Figure 16) suggests that the structure continued to be occupied for quite some time. Analysis of microartifact samples collected from across the surface of the Structure 41 platform aims to understand this enigmatic final phase of the platform's occupation.

This year's excavations laid the groundwork for continuing excavations to be initiated during the 2011 season. Following the project goals described by LeCount (this volume) continuing work on Structure 41 will aim to reveal the Early Classic occupation of the structure and to determine if the structure was residential in nature during Actuncan's heyday.



Figure 16. Postclassic scroll foot from 6HH/2.

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Appendix A

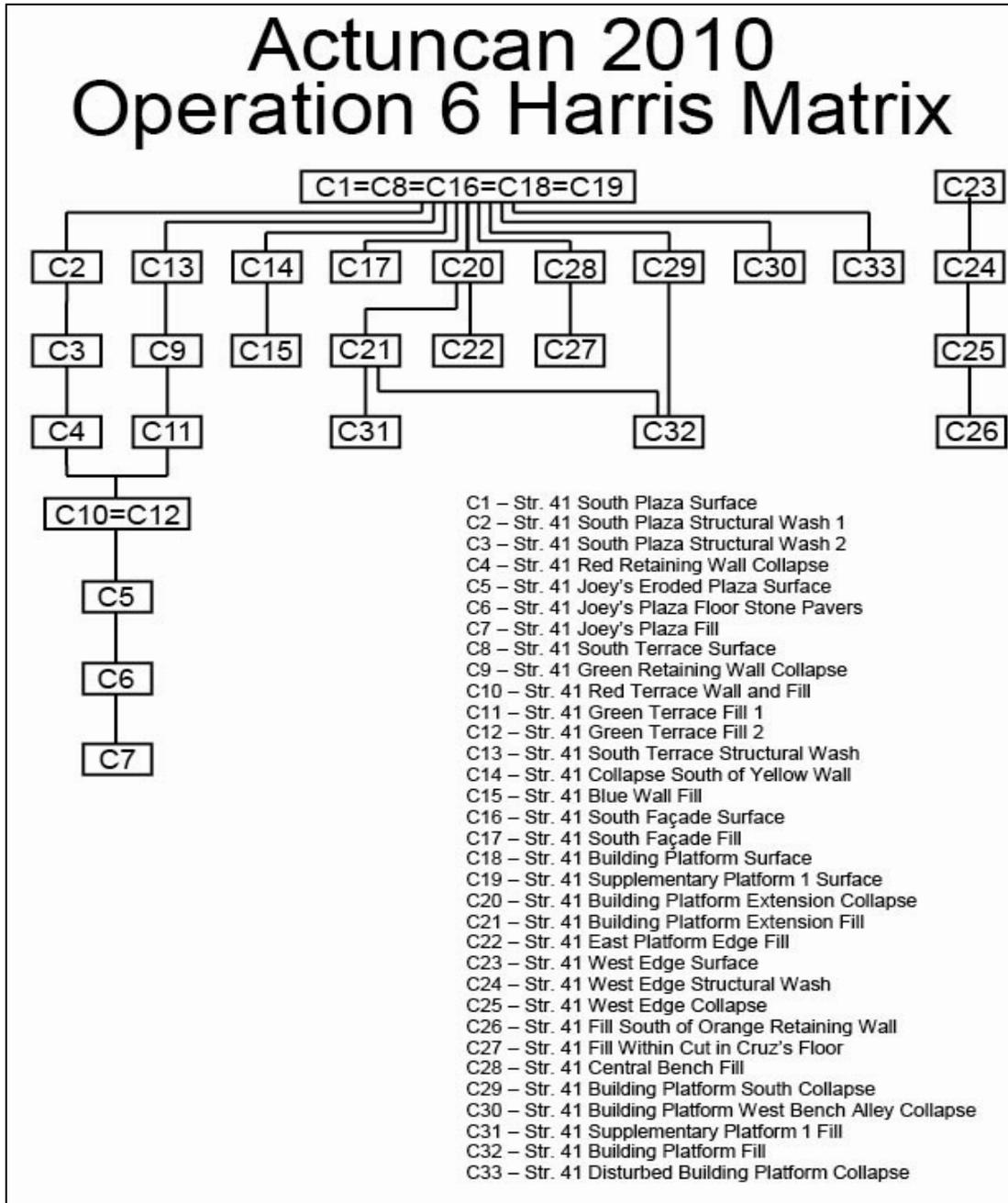


Figure A1. Operation 6 Harris Matrix of 2010 excavation lots.

Table A1. Operation 6 Analytical Units.

Harris Matrix Code	Analytical Unit Name	Lots Included (Unit/Lot)	<i>Terminus Post Quem</i>
C1	South Plaza Surface	F/1, G/1, N/1,O/1, P/1	Postclassic
C2	South Plaza Structure Wash 1	F/2, G/2, O/2,3, P/2,3, UUU/2	Postclassic
C3	South Plaza Structure Wash 2	F/3,4, O/4, P/4,5,6, UUU/3,4	Terminal Classic
C4	Red Retaining Wall Collapse	P/8,9,10,11, O/5	Late Classic I
C5	Joey's Eroded Plaza Surface	P/7,13, UUU/5, S/4, T/8	Late Classic I
C6	Joey's Plaza Floor Stone Pavers	P/14, UUU/6	Late Classic I?
C7	Joey's Plaza Fill	P/15,16, UUU/7,8	Early Classic/ Tzakol 1
C8	South Terrace Surface	H,I,J,K,L,M,Q,R,S,T,U,V,W,X,Y,Z, AA,BB,XXXX,YYYY,ZZZZ/1	Terminal Classic
C9	Green Retaining Wall Collapse	S/2, T/4,5,6, U/5,7, XXXX/3,4, YYYY/3,4,6	Late Classic II
C10	Red Terrace Wall and Fill	P/12,13, S/3, T/7, U/6, XXXX/5, YYYY/6	Late Classic IIb
C11	Green Terrace Fill 1	V/4,5,6,7	Not Established
C12	Green Terrace Fill 2	U/8,9, V/8,9	Not Established
C13	South Terrace Structure Wash	XXXX/2, YYYY/2, ZZZZ/2, T/2,3, U/2,3,4, V/2,3	Late Classic II
C14	Collapse South of Yellow Wall	W/3, Y/2, Z,2	Terminal Classic
C15	Blue Wall Fill	W/4,5, Y/3,4	Not Established
C16	South Façade Surface	X,AA,BB,EE,FF,MM,NN,OO,PP,UU,VV, WW,XX/1	Not Established
C17	South Façade Fill	X,BB,EE,FF,MM,NN,OO,PP,UU,VV,WW,XX/2, AA/2,3	Postclassic
C18	Building Platform Surface	HH,GG,KK,LL,QQ,RR,SS,TT,GGG,HHH,III,JJJ, KKK,LLL,MMM,NNN,OOO,PPP,QQQ,RRR, SSS,TTT,AAA,BBB,CCC,DDD,ZZZ,AAAA, DDDD,EEEE,HHHH,IIII,JJJJ,KKKK,LLLL, MMMM,NNNN,OOOO,PPPP,QQQQ,RRRR, SSSS,TTTT,UUUU/1	Terminal Classic, Possibly Postclassic
C19	Supplementary Platform 1 Surface	YY,ZZ,II,EEE,DD,CC,FFF,VVVV,WWWW, FFFF,GGGG,AAAAA,BBBBB,XXX,YYY/1	Classic?
C20	Building Platform Extension Collapse	GG,HH,XXX,YYY,GGG,SSS,TTT,AAAA, EEEE,FFFF,GGGG,OOO/2	Postclassic

C21	Building Platform Extension Fill	GG/3, HH/3, KK/2, LL/2,3,4, HHH/2, KKK/2, MMM/2, ZZZ/2, AAAA/3	Terminal Classic, Possibly Postclassic
C22	East Platform Edge Fill	FFFF/3, GGGG/3, AAAAA/2, BBBBB/2	Not Established
C23	West Edge Surface	VVV,WWW,BBBB,CCCC/1	Late Classic II
C24	West Edge Structure Wash	VVV,WWW,CCCC/2	Late Classic
C25	West Edge Collapse	VVV/3,4,5, WWW/3,4,5, CCC/3,4, BBBB/2,3,4,5	Terminal Classic
C26	Fill South of Orange Retaining Wall	VVV,BBBB/6	Terminal Classic
C27	Fill Within Cut in Cruz's Floor	SS/3, AAA/4, JJJ/3, HHHH/4	Late Classic
C28	Central Bench Fill	SS/2, AAA/2,3, JJJ/2, HHHH/2,3	Late Classic II
C29	Building Platform South Collapse	QQ,RR,TT,III,NNNN,OOOO,QQQQ/2 KKK,MMM,PPPP/3	Late Classic II
C30	Building Platform West Bench Alley Collapse	BBB,DDD,PPPP,RRRR,TTTT/2, TT/3	Late Classic IIb
C31	Supplementary Platform 1 Fill	AAAA/4	Not Established
C32	Building Platform Fill	OOO/3, MMM/4	Note Established
C33	Disturbed Building Platform Collapse	LLL,NNN/2	Not Established