# Mono y Conejo

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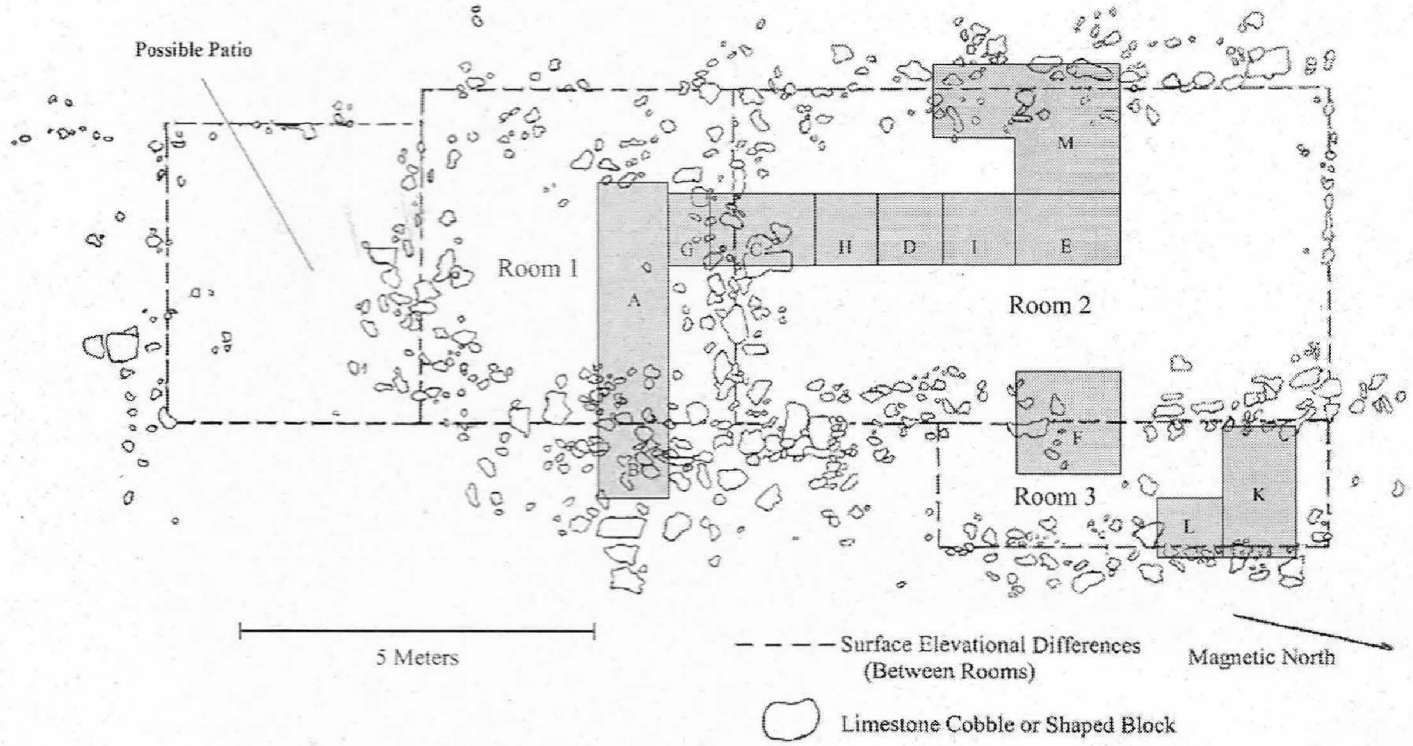


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# Editorial Statement

*Mono y Conejo*: *the Journal of the Mesoamerican Archaeological Research Laboratory* publishes contributions on original research throughout greater Mesoamerica. *Mono y Conejo* provides a public medium for the description and reporting of anthropological interests. Felixible in format, the journal accepts and publishes works on archaeology, art history, ethnohistory, and related cultural-historical issues. Published at irregular intervals, each issue constitutes a single volume.

## Editors of the Journal


| | | | |
|---|---|---|---|
| **Fred Valdez, Jr.** | **fredv@mail.utexas.edu** | **ph: (512) 471- 5946** | **fax: (512) 232-7050** |
| **Brett A. Houk** | **brett.houk@ttu.edu** | **ph: (806) 742-2401** | **fax: (806) 742-1088** |


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*Cover figure: Plan view, F.B. B., Chawak But'o'ob, Belize.*

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## Special Report



# From the Editors

## Introduction to Volume 7

This year, 2011, is the first time that we are able to publish two volumes of Mono y Conejo. We are especially pleased that Jonathan Hanna and Stanley Walling have provided a manuscript that serves as a complete volume and "Special Report."

The residential terraces from the site of Chawak But'o'ob, a site near the southern portion of the Rio Bravo tract, serve as the center of the study presented. We are privileged that this paper reviews two significant seasons of research, gives us excavation details, and a summary of their research findings/interpretations.

The kind of research presented and discussed is particularly valuable as it represents investigations of areas most often ignored in archaeological studies. The site and associated terraces are remarkably small and by some standards, invisible. We are fortunate to have this study available for our comparative investigations and to remind us of the Maya units so often forgotten—but those that made civilization possible.

Brett A. Houk
Texas Tech University

Fred Valdez, Jr.
The Univesrity of Texas at Austin

# Special Report

## Summary of Research on the Residential Terraces of Chawak But'o'ob, Belize: The 2006 and 2007 Seasons

Jonathan A. Hanna
Rio Bravo Archaeological Survey

Stanley L. Walling
Community College of Philadelphia

### Introduction

This report summarizes the 2006 and 2007 seasons of research on the Residential Terraces of Group B, Chawak But'o'ob, Belize (Figure 1). This complex is a group of six closely spaced parallel terraces at the southern end of Group B (Figures 2 and 3). The 400 linear meters of terracing here were the most intensively and substantially occupied of the four kilometers of Prehispanic terracing of all types that occur in relic form at the site (Hanna et al. 2006; Walling n.d.).

Excavations and other investigations in 2006 and 2007, which were under the supervision of Jonathan Hanna, Residential Terrace Director, were part of the larger investigation of the southern section of the site by the Rio Bravo Archaeological Survey, directed by Stanley Walling. Investigations of other sections of the site have been reported elsewhere (e.g., Walling 2011; Walling et al. 2006; Walling and Davis 2006). The investigations on the Group B Residential Terraces at Chawak But'o'ob during 2006 were concisely summarized in the 2006 site report (Walling et al. 2007). A detailed account of the 2006 fieldwork will precede the 2007 research summary.

### 2006 Season Overview

During the 2006 season, research in Group B focused on two areas of the Residential Terraces: Foundation Brace B on Terrace 5, and the gap between F.B. E and F.B. J on Terrace 3. On F.B. B, a large, 5.5 m x 1 m trench was completed along the north-south axis of Rooms 1 and 2, connecting all the 2005 test units (141-C, D, and E) along this line. The trench was also merged with the 2004 trench (141-A and B) running east-west in Room 1. The objective of this new N-S trench was to create a continuous profile of Foundation Brace B, clearly showing the construction history and stratigraphy of the structure's evolution and expansion. Additionally, we anticipated that investigations might reveal evidence of habitation, such as burials. No burials were encountered in the excavations, but during this and the subsequent season, relic double walls, the remains of successive floors, possible hearths, and various utilitarian artifacts were found within levels of construction fill, all of which supported our initial hypothesis (based on the architectural layout) that the structure was residential.

Additionally, the quality of artifacts recovered from F.B. B and the Residential Terraces in general (with marine shell, high quality chert, obsidian, and other imports) is much higher than the local assemblages in other parts of the site. Of particular note were the lithics, which included high quality blue and white chert (in the forms of debitage, bifacial points, and large blanks) as well as microliths of clear, gray-banded obsidian. Large ceramic sherds of Late Classic vessels, including handles, rims, and bases, were also found in abundance, though slips were still rather uncommon; patterns or designs were almost completely absent (Lauren Sullivan, personal communication 2007). Also of note was the large, drum-shaped stone that may be an interior house altar - found in Room 3 during Operation 141-K. Two or three vessels—one of which has been dated to the Terminal Classic Tepeu 3 phase—may have been ritually smashed near the altar. This stone, and subsequently the room itself, may therefore be an early form of the house shrines and oratories seen predominantly in the Postclassic period, a century or more after the abandonment of Chawak But'o'ob. Finally, the excavation of a terrace edge (141-J) was also undertaken in 2006, though not completed until the 2007 season. (For this reason, the summary for 141-J will be offered in the 2007 section, below).

### 2006 Excavation Summaries

#### *Operation 141-G: Foundation Brace B, Room 1*

*Location*: North-central section of Room 1, between 141-A (2004) and 141-C (2005)

*Dimensions*: .5 m (north-south) x 1 m (east-west)

*Long Axis Orientation*: 78 degrees east of north

*Excavation Director*: Jonathan Hanna

*Excavators*: Alison Jones, Billy Lewis

*Principal Recorder*: Billy Lewis

*Figures*: F.B. B Plan View (Figure 4); East Wall Profile, Op 141 N-S Trench (Figure 5)

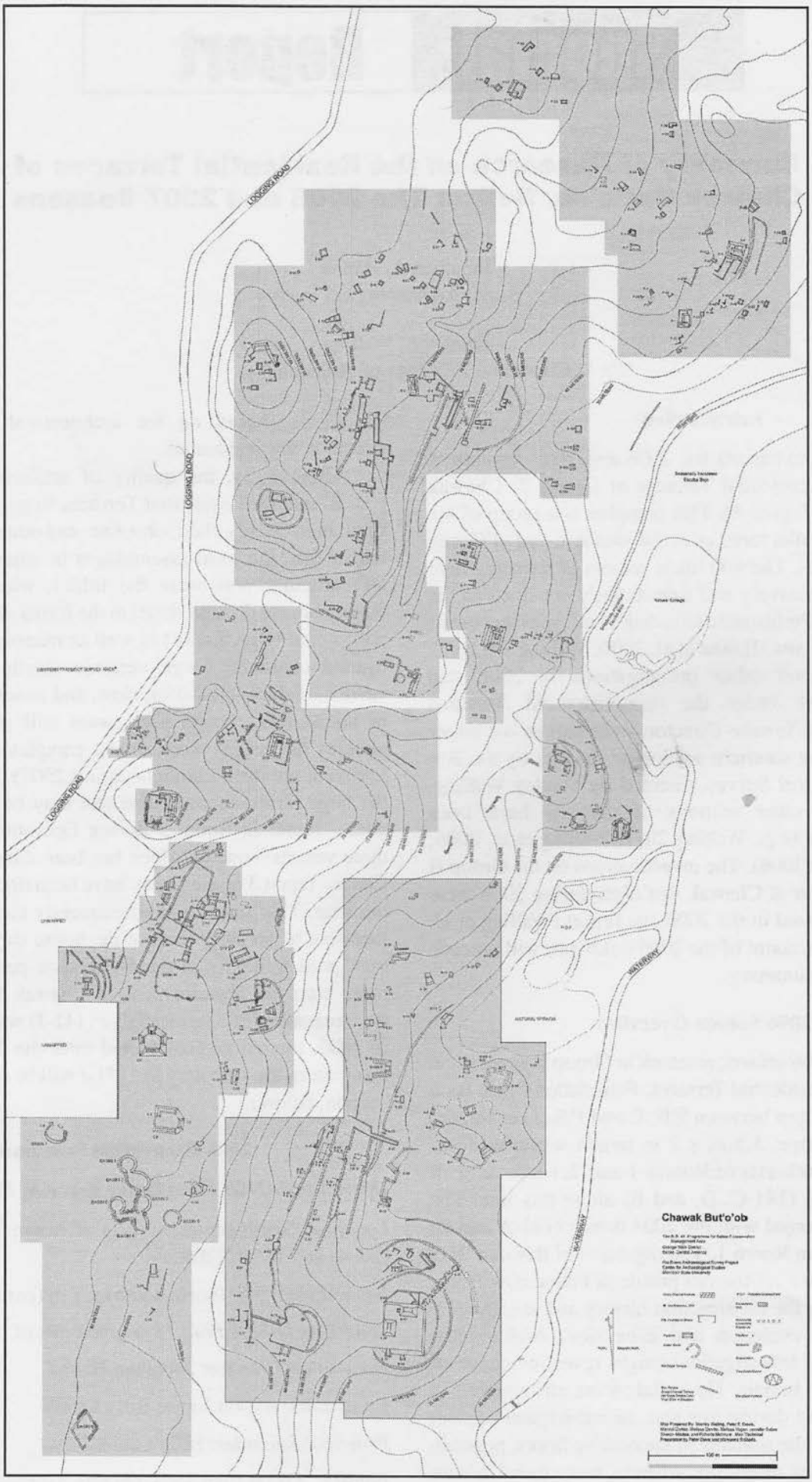



**Figure 1.** Draft Map of Chawak But'o'ob with Group B and other groups highlighted.

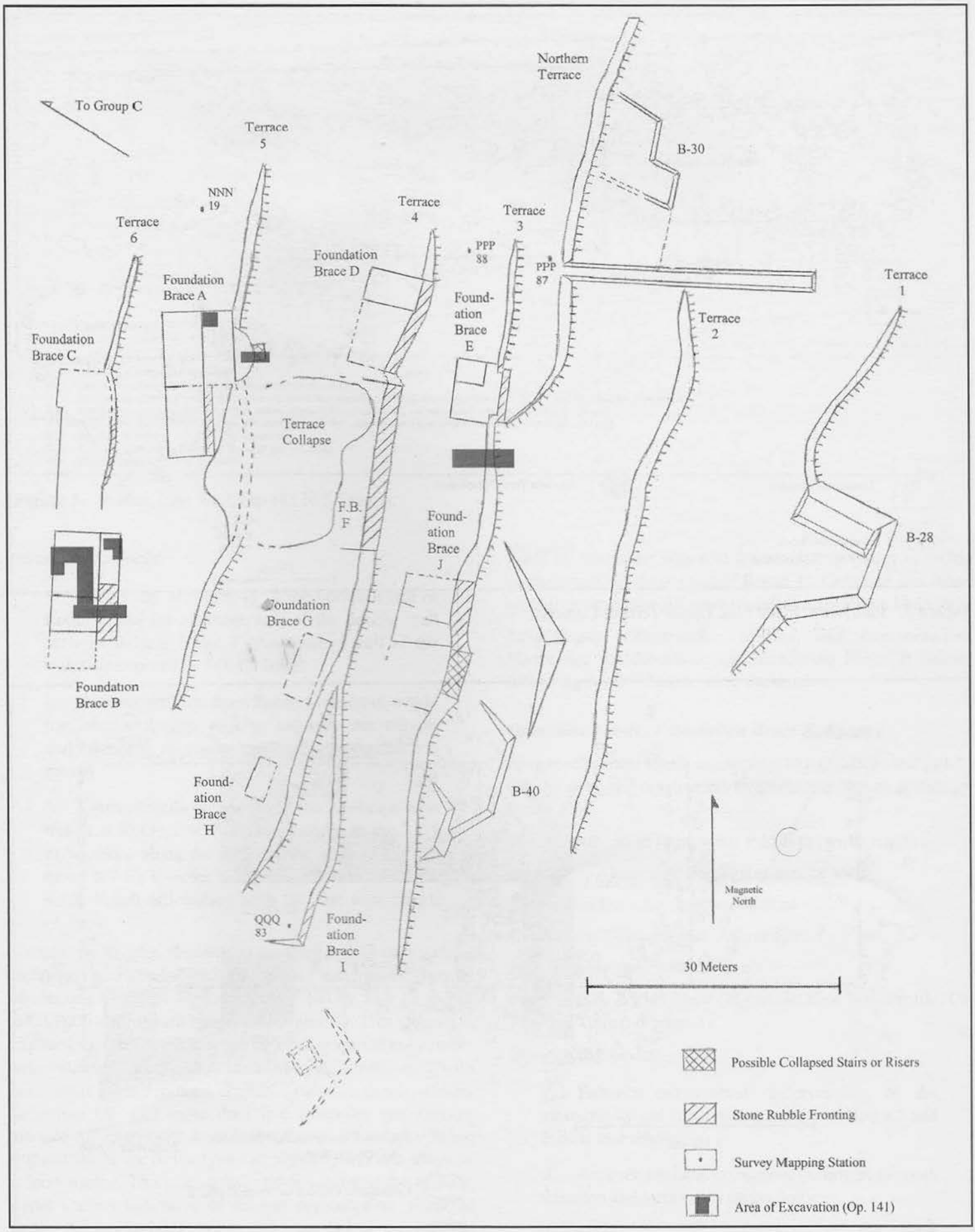



**Figure 2.** Plan View, Group B Residential Terraces.

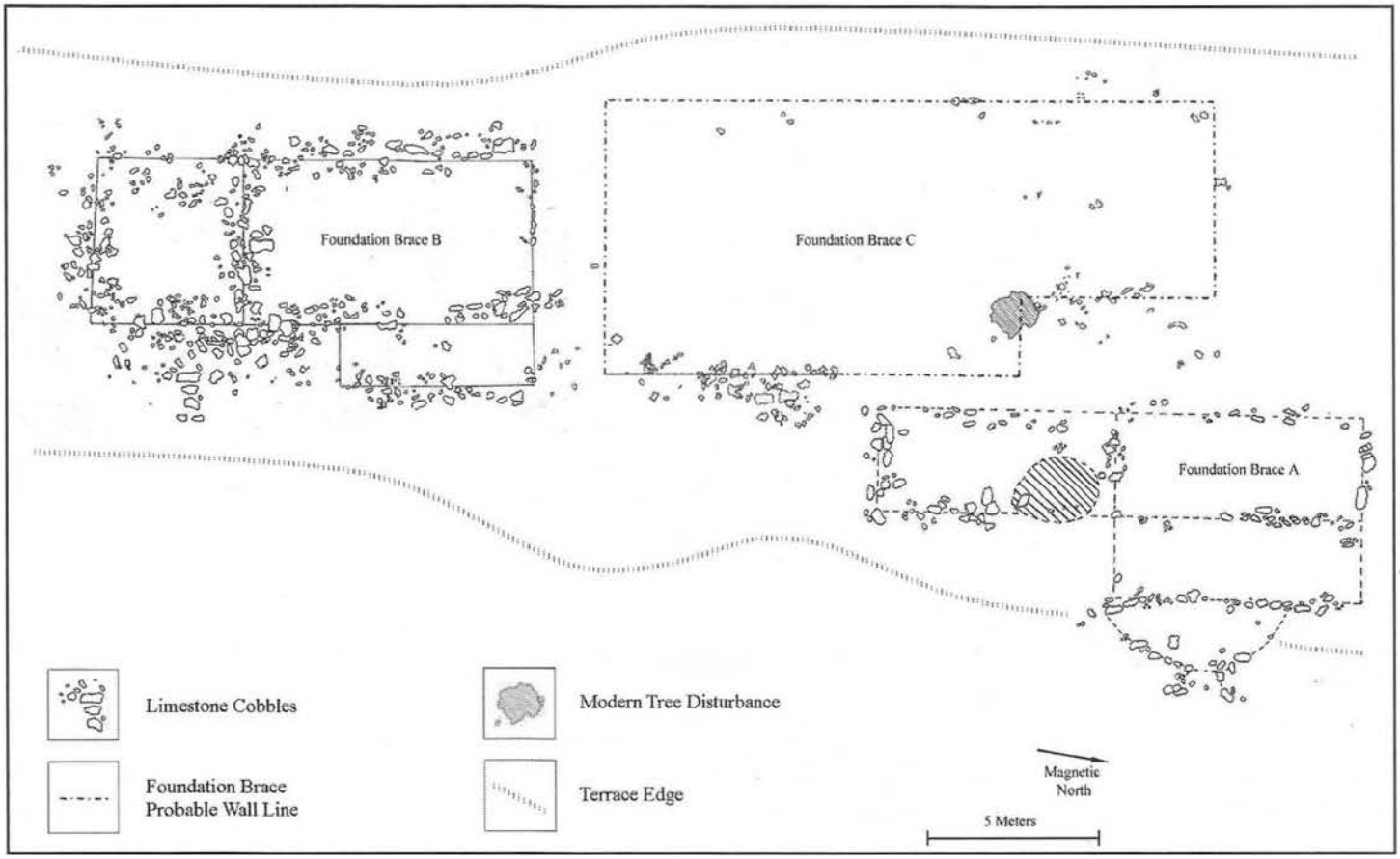



**Figure 3.** Plan View, Piece Plot, Upper Terrace Complex.

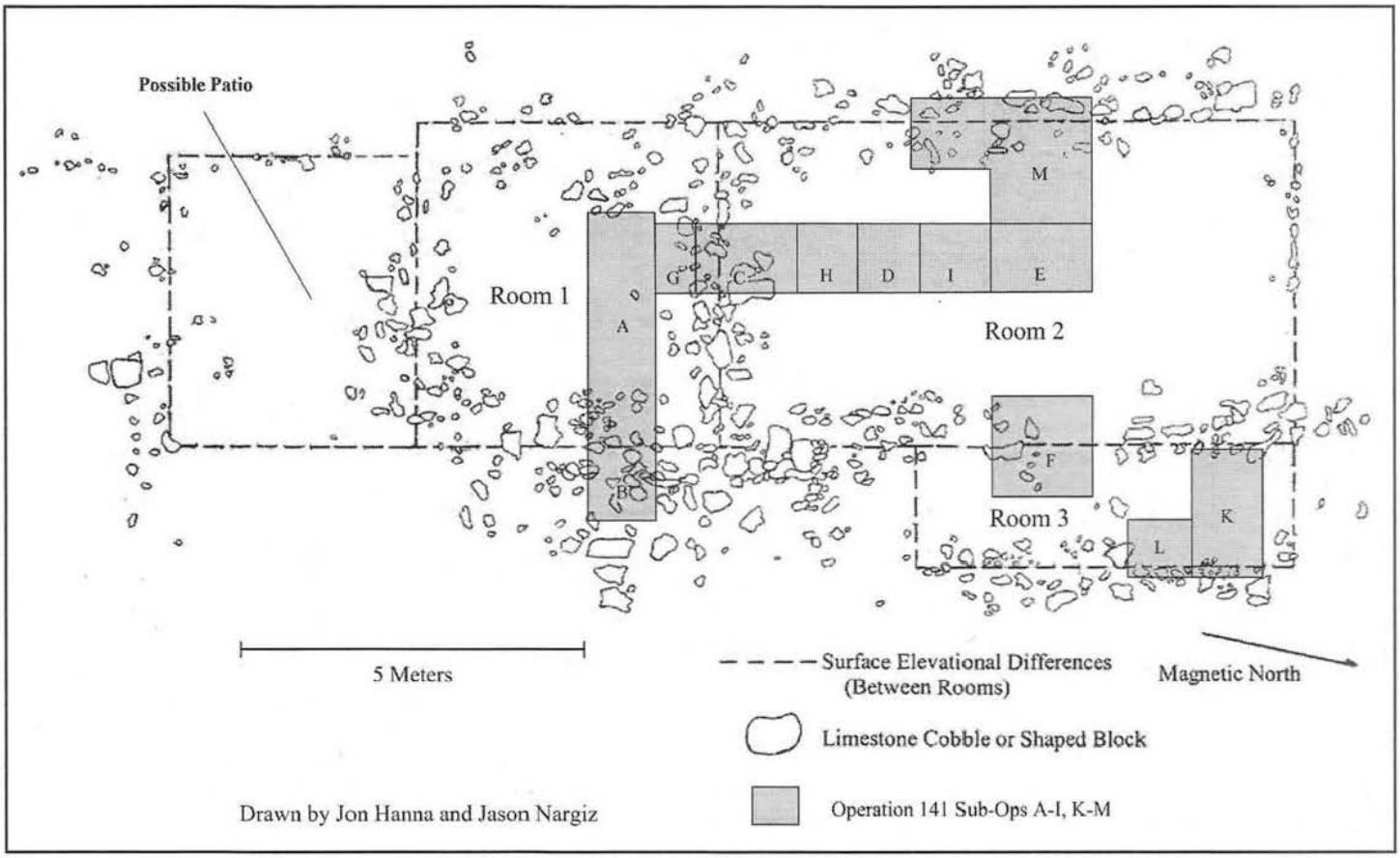
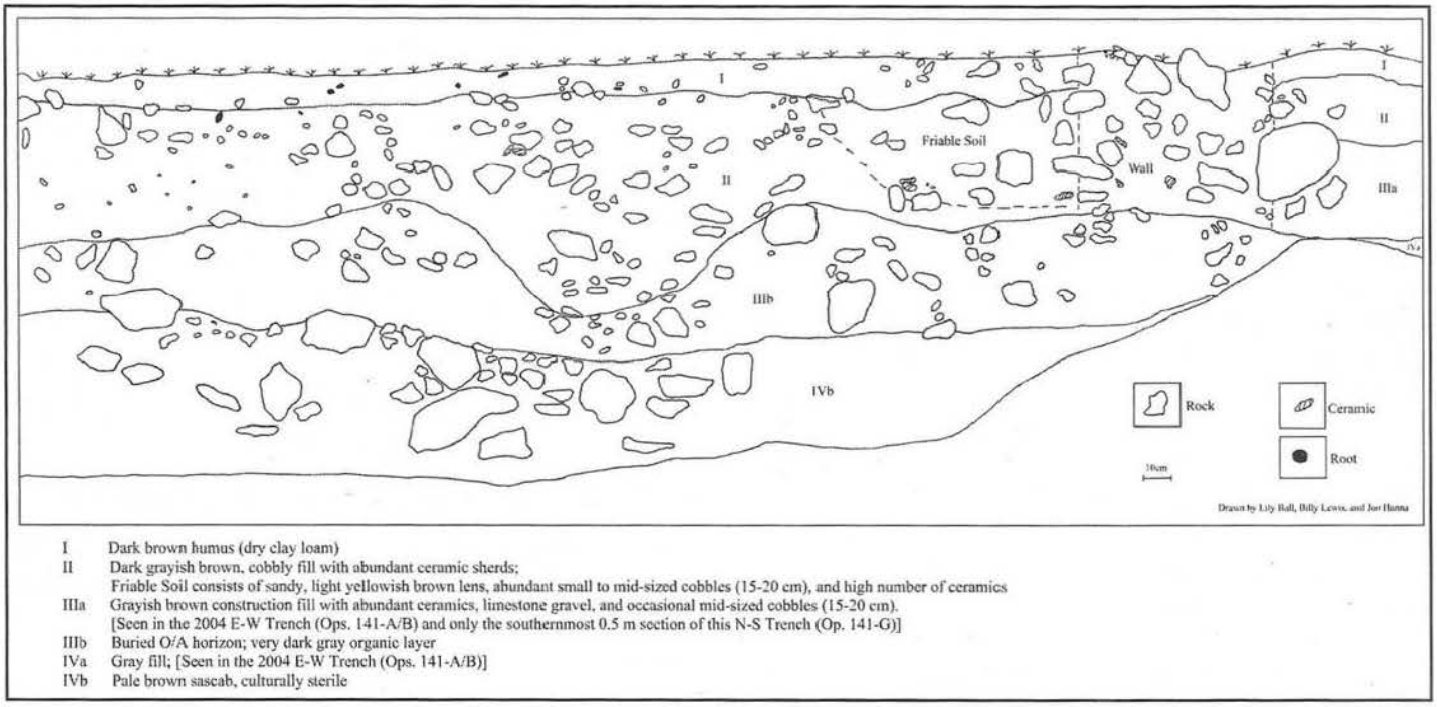



**Figure 4.** Plan View, F.B. B.




I Dark brown humus (dry clay loam)
II Dark grayish brown, cobbly fill with abundant ceramic sherds;
Friable Soil consists of sandy, light yellowish brown lens, abundant small to mid-sized cobbles (15-20 cm), and high number of ceramics
IIIa Grayish brown construction fill with abundant ceramics, limestone gravel, and occasional mid-sized cobbles (15-20 cm).
[Seen in the 2004 E-W Trench (Ops. 141-A/B) and only the southernmost 0.5 m section of this N-S Trench (Op. 141-G)]
IIIb Buried O/A horizon; very dark gray organic layer
IVa Gray fill; [Seen in the 2004 E-W Trench (Ops. 141-A/B)]
IVb Pale brown sascab, culturally sterile

**Figure 5.** Profile, East Wall, Op 141 N-S Trench.

*Investigative Goals*:

1. Define the stratigraphy of the northern end of Room 1 and the southern half of the double wall between Rooms 1 and 2 (the northern half of the wall was exposed in 141-C, 2005)

2. Recover artifacts from Room 1 and from within the interior double wall to enhance our current understanding of room function and construction history

3. Connect baulk area between the 2004 east-west trench in Room 1 of F.B. B (141-A/B) to the 2005 excavations along the N-S axis of Room 2 (in this case, 141-C) in order to form a continuous north-south trench articulating with the east-west trench of 2004

*Excavation Results*. Students excavating 141-G successfully excavated down to bedrock through six lot changes, thereby connecting the east-west trench of 141-A and B to the 2005/2006 north-south trench (see Figure 4). This Operation exposed four strata and reached bedrock at roughly one meter below surface. Strata consisted of typical construction fill with occasional lithic debitage, abundant ceramic sherds, natural limestone fill, and more than five examples (an average amount) of freshwater jute shells (*Pachychilus* spp.). These utilized shells are of the type employed by modern Maya as a food source. The jute shells, which exhibited the missing upper section indicative of ancient consumption, occurred in the SE quadrant of Lot 3, 5-15 cm below the surface. Collapsed wall stones were evident in the western half of the unit beginning at 5 cm bs and extending to about 15 cm bs. The proximal end of an oval biface (approx. 8 cm long) made of blue chert was also found around 18 cm bs in the southeastern quadrant (part of Room 1). Ceramics and other typical construction fill were found directly above bedrock.

*Stratigraphy, Construction History, and Interpretation*. Please see the discussion on Foundation Brace B below, following the 2007 excavation summaries.

### *Operation 141-H: Foundation Brace B, Room 2*

*Location*: A small baulk connecting 141-C (2005) and 141-D (2005) along the north-south trench in the central section of Room 2

*Dimensions*: .95 m (east-west) x 1.05 m (north-south)

*Long Axis Orientation*: 78 degrees east of north

*Excavation Director*: Jonathan Hanna

*Excavators*: Tiffany Parisi, Ashrae Scott

*Principal Recorder*: Ashrae Scott

*Figures*: F.B. B Plan View (Figure 4); East Wall Profile, Op 141 N-S Trench (Figure 5)

*Investigative Goals*:

1. Enhance our current understanding of the stratigraphy and construction history of Room 2 and F.B. B as a whole

2. Recover artifacts to improve definition of room function and structure's chronology

3. Connect baulk areas between the 2005 excavations along the axis of F.B. B (i.e. 141-C to 141-D) in order to form a continuous north-south trench

*Excavation Results*. In the process of excavating 141-H to limestone bedrock at about 1.4 m bs, students executed eight lot changes and exposed six strata. The construction fill in the first 50 cm included abundant ceramic sherds, scattered lithic debitage, and occasional jute shells. A Belize Red rim sherd with intact slip was found in Lot 2 just below the humus (between 10 and 20 cm bs). The intact slip on this piece is in marked contrast to the 130 very small ceramic fragments, all devoid of slip and too highly eroded for type-variety classification, which came from the upper lots here. Such a contrast is suggestive of diverse sources for the midden material incorporated into this room's fill. Artifact density decreased significantly after 50 cm. Sterile caliche was reached around 1 m bs. Excavation was terminated at hard bedrock, 1.4m below the surface.

*Stratigraphy, Construction History, and Interpretation*. Please see the discussion on Foundation Brace B below, following the 2007 excavation summaries.

### *Operation 141-I: Foundation Brace B, Room 2*

*Location*: A small baulk connecting 141-D (2005) and 141-E (2005) along the north-south trench in the central section of Room 2

*Dimensions*: 1 x 1 m

*Long Axis Orientation*: 78 degrees east of north

*Excavation Director*: Jonathan Hanna

*Excavators*: Cornelius Hugo, Verity Whalen

*Principal Recorder*: Verity Whalen

*Figures*: F.B. B Plan View (Figure 4); East Wall Profile, Op 141 N-S Trench (Figure 5)

*Investigative Goals*:

1. Enhance our current understanding of the stratigraphy and construction history of the northern end of Room 2 and F.B. B as a whole
2. Recover artifacts to improve our understanding of room function and structural chronology
3. Connect baulk areas between the 2005 excavations along the axis of F.B. B (i.e. 141-D and 141-E) in order to form a continuous north-south trench along the axis of F.B. B

*Excavation Results*. 141-I was the northernmost unit in the 2006 excavations of F.B. B, as well as the northernmost unit in the trench to reach and expose hard bedrock (in 2005, 141-E was excavated only to sterile caliche) (Walling, et al. 2006). Students excavated 141-I in eight lots to limestone bedrock and in doing so exposed six stratigraphic changes. The strata consisted of common construction fill, which included abundant ceramic sherds. Lithic flakes and utilized jute shells were occasionally encountered by the excavators. At around 15 cm bs, a line of 20-30 $cm^2$ stones running east-west was found in the northern end of the unit, possibly denoting a one-course wall line. A possible sub-floor of small cobble fill was evident north of this line of stones, extending into 141-E where they seemed to form a semi-circular pattern. It is possible that this was the north wall from the third occupation phase, with an outdoor patio area extending northwards (see F.B. B Interpretation). Three microliths of clear, gray-banded obsidian were found in Lot 3 along with 15 utilized freshwater jute shells in Lot 4, which is about three times the normal density. Excavators reached sterile caliche at about 80 cm bs and hard bedrock at 1.25 m bs.

*Stratigraphy, Construction History, and Interpretation*. Please see the discussion on Foundation Brace B below, following the 2007 excavation summaries.

### *Operation 141-K: Foundation Brace B, Room 3*

*Location*: Northwest corner of Room 3, abutting the northernmost wall line of F.B. B and the wall between Room 2 and Room 3 (marginally intruding into Room 2)

*Dimensions*: 2 m (east-west) x 1 m (north-south)

*Long Axis Orientation*: 78 degrees east of north

*Excavation Director*: Jonathan Hanna

*Excavators*: Lucia Albano, Jesse Arista, Melissa Demsky, Cara Tremain

*Principal Recorder*: Melissa Demsky

*Figures*: F.B. B Plan View (Figure 4); 141-K Opening Plan (Figure 6); Possible Altar Photo (Figure 7); 141-K South Wall Profile (Figure 8)

*Investigative Goals*:

1. Define the semi-circular stone feature on the surface of Room 3, F.B. B
2. Recover artifacts to define room function and chronology
3. Enhance our current understanding of the stratigraphy and construction history of Room 3 and F.B. B as a whole

*Excavation Results*. The purpose of 141-K was to investigate a semi-circular arrangement of stones (Figure 6) thought to be a possible stairway separating Room 2 from Room 3. Students successfully excavated 141-K to bedrock in 15 lots, revealing three strata and a number of artifacts and features. Stratum I (Lot 1) consisted of a dark brown humic layer of dry, clay loam soil with large wall-tumble stones. Stratum II (Lots 2-10) consisted of light grayish brown, clay loam soil with cobble and construction fill and mid-sized flat stones at the top. Stratum III (Lots 11-14) consisted of dark grayish brown, wet clay loam soil with large cobbles transitioning into mostly crumbled bedrock (caliche). Stratum III terminated on hard bedrock.

The unit was divided into three lots at the surface, which separated the western wall line, the semi-circular feature (Feature 1), and the remainder of the pit to the east. From

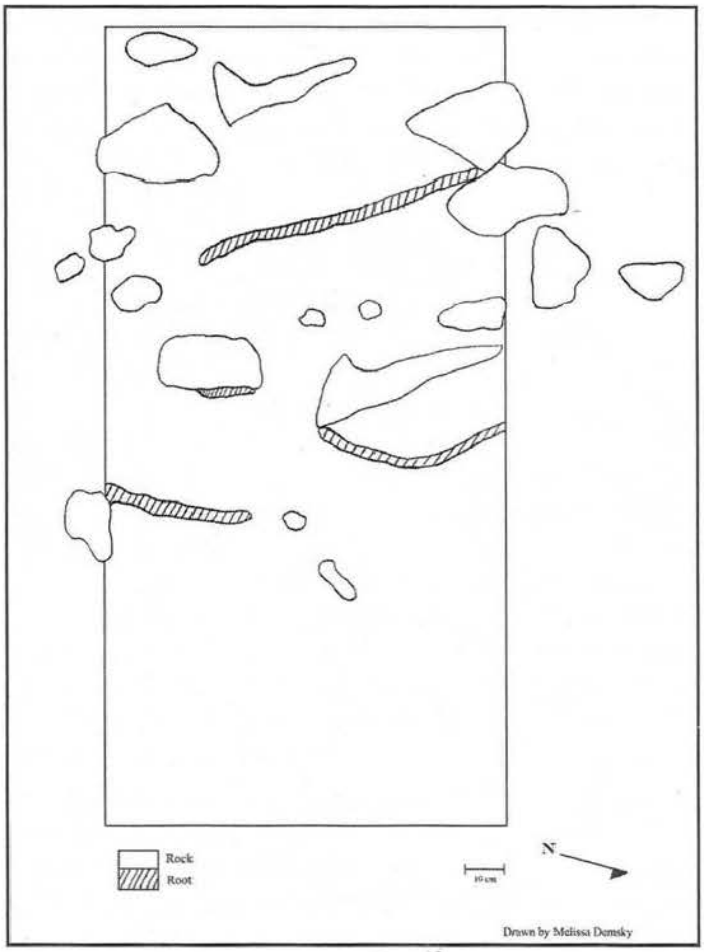



**Figure 6.** Plan View, Opening, 141-K.

the outset, a large number of ceramics were found in the humic layer. Given the fact that Room 3 is situated roughly 65 cm below Room 2, these artifacts are likely in a natural secondary context- i.e., debris washed down from the surface of Room 2. Lot 2 had abundant ceramics amid rubble from the western wall collapse, of which raised the possibility that Feature 1 (the semi-circular arrangement) was not an intact cultural feature, but rather the result of wall tumble. Lot 3 had an abundance of ceramic sherds as well (over 50) and Lot 4 exceeded 100 ceramic sherds of varying sizes (2-15 cm long). At the bottom of these two lots, a scatter of large sherds (Feature 2) was found, possibly indicative of a termination ritual (see Interpretation section below). Associated with Feature 2 was a 3 cm long, modified marine shell (oliva reticularis) found in Lot 3, between 8 and 17 cm bs. It was also within Lots 2 and 3 that the top of a large, drum-shaped stone (Rock L, Feature 3) was uncovered. Lot 5 was a 20 cm x 1 m extension off the western half of the north wall to remove a large wall stone on the surface. No significant artifacts were found in this section.

In Lot 6, under Lots 3 and 4, a possible subfloor of stones 20-30 cm in diameter mixed with fist-sized cobbles and construction fill were found extending around the western portion of Feature 3, into Lot 7. The large size of ceramics here matches the pattern noted in Lots 3 and 4. Two large ceramic pieces were found in the SW corner of Lot 8 (under Lot 6) along with a wide ceramic strap handle under a stone in the SE. Just under the handle, another large ceramic sherd was found in Lot 13.

After the removal of Lot 9, the large stone known as Feature 3 became fully exposed (see Figure 7). At 49.5 cm in height and 64 cm in diameter, this large, drum-shaped mass of limestone situated in the northwestern section of the room would have protruded from the possible subfloor in Lot 3 by about 28 cm (see Interpretation below). In an effort to better define the stone's ancient function as a utilitarian or ritual object, by means of the presence or absence of dedicatory artifacts, a hearth, or burned artifacts, the stone was removed via a system of wooden wedges and levers, allowing excavation to continue. However, no significant artifacts or other features were recovered in Lot 10, directly beneath Feature 3, which exhibited construction fill consistent with the rest of F.B. B. This typical construction fill slowly transitioned into sterile caliche in Lot 14, around 115 cm bs in the western half of the unit and 60 cm bs in east. Hard bedrock was reached around 125 cm bs in the western half and 65 cm bs in the east (see Figure 8).

**Figure 7.** Photo, Possible Altar, 141-K.

*Stratigraphy*. Stratum I (Lot 1) consisted of a dark brown humic layer of dry, clay loam soil with large wall-tumble stones. Stratum II (Lots 2-10) consisted of light grayish brown, clay loam soil with cobble and construction fill and mid-sized flat stones at the top. Stratum III (Lots 11-14) consisted of dark grayish brown, wet clay loam soil with large cobbles transitioning into mostly crumbled bedrock (caliche). Stratum III terminated on hard bedrock.

*Stratigraphy, Construction History, and Interpretation*. Please see the discussion on Foundation Brace B below, following the 2007 excavation summaries.

*Interpretation*. The excavation results of Operation 141-K appear to be unique not only to this humble commoner site, but to Late Classic Maya household

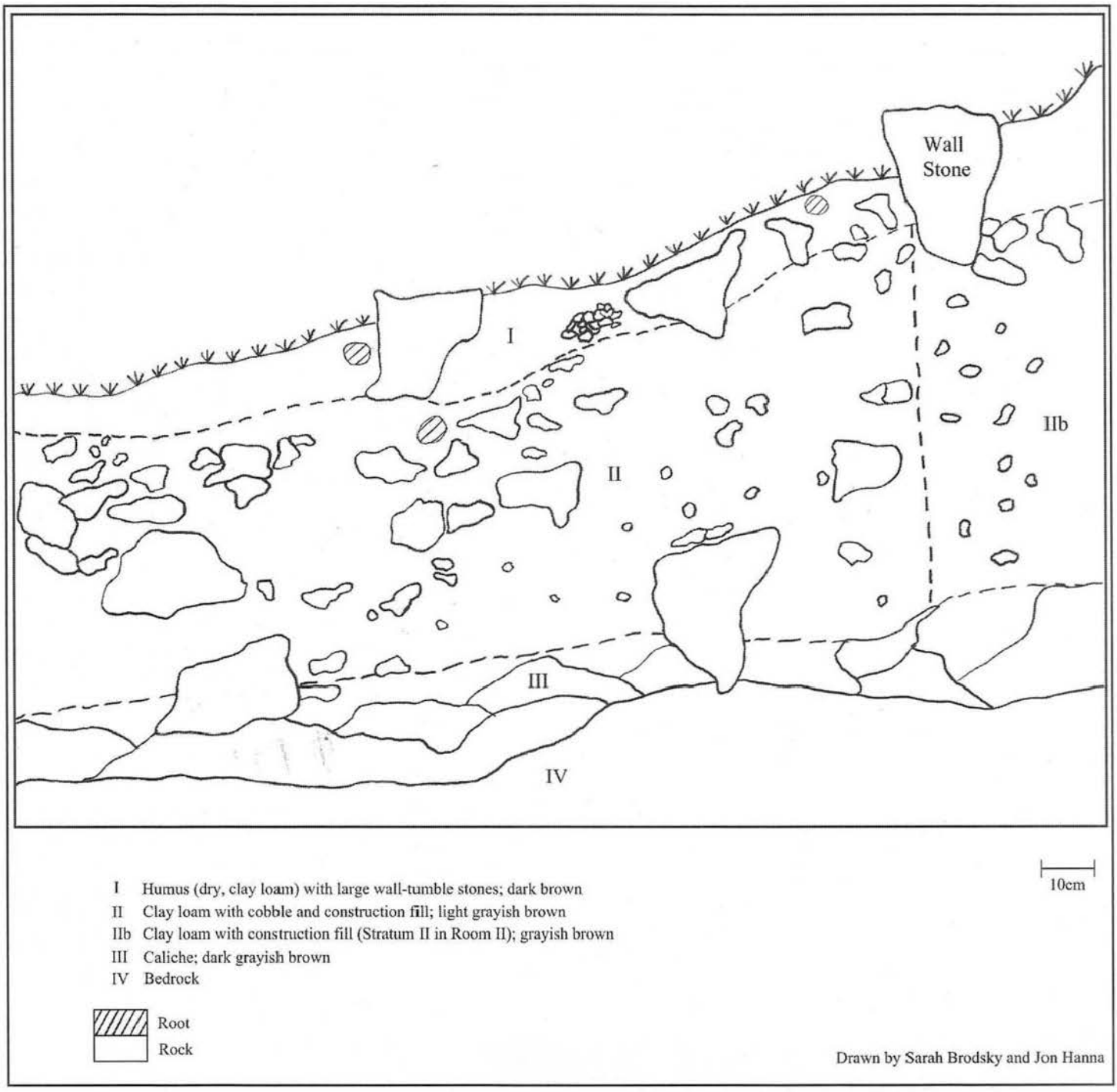



**Figure 8.** Profile, South Wall, 141-K.

investigations in general. It is possible that Feature 3 was simply a large, circular stone employed for utilitarian purposes during the penultimate phase of F.B. B's habitation. That it appears to have consisted of local limestone rather than the harder, imported limestone of the Group A stela (the drum-shaped stone has not been geochemically or otherwise tested to date) supports this theory (Brennan n.d.). It may have been a seat, table, or one-level step (as was initially thought) that allowed access to Room 3. As previously noted in the initial 2006 report, however, no similar seats or tables known to the authors have been found at other commoner sites, nor for that matter at elite sites. This raises the possibility that the stone was a ritual item, perhaps an interior house altar, similar in proportion to the majority of round altars found in formal Maya plazas. What is so remarkable about this possible altar is that it is not within a formal Maya plaza but a non-elite, residential structure 2.5 km from the nearest midsize city.

As noted above, the several fragmented vessels found east of the stone may represent a ritual termination of this room and its altar. One of these fragments was dated securely to the Tepeu 3 phase of the Terminal Classic. This places the last occupation of F.B. B later than the Tepeu 2 dates found elsewhere at the site (see Walling n.d.). Additionally, in 2007, the presence of a possible hearth was detected just south of the altar's location in Room 3 (Op. 141-L below). That this hearth was perhaps ceremonial lends additional support to

the interpretation of Feature 3 as an altar, and for Room 3 to be an oratory, either appended to the east side of the house structure or a separate structure entirely. See the summary of 141-L below for more information on this hearth and the discussion on Foundation Brace B for more on construction history.

Findings of domestic altars from this period are rare, and reported descriptions are often quite vague (e.g. Becker 1971; Kashak 2002; Deal 1987), due in part to the looseness of the term "altar," which can vary from natural rock outcroppings to flat-stone slabs in the home to beautifully carved, lapidary masterpieces in elite theatrical plazas (Brown 2002). It is also largely assumed that altars were a "late trait" (Gonlin 1993:16), first appearing in full-force during the Postclassic and continuing in various forms to modern times. Smith's report (1962) from Mayapan, for example, documented over 100 rectangular domestic altars in personal shrines and in outside courtyard groups. Postclassic altars in non-elite or commoner households have also been reported from sites in Cholula (McCafferty 2007) and elsewhere in the Yucatan and Oaxacan areas (Andrews and Andrews 1975; Deal 1987; Gonlin 1993; Johnstone 2003).

Though infrequent at best, rectangular bench or platform altars have been reported from Late Classic house contexts (Rivero Torres 1987). Hammond and his colleagues (Hammond et al. 1987) found evidence of post-holes for a wooden table altar at Nohmul dating to this period. Shrine or oratory structures have also been reported in the outlier communities of Tikal, an arrangement known as Plaza Plan II (Becker 1971, 1999; Puleston 1983), though their classification is based on hearths, burials, and high concentrations of ceremonial artifacts indicative of ritual activity rather than the presence of altars (only one structure, 5G-2, is known to have contained a platform altar inside) (Becker 1971, 1999). It should be noted that structure E5, and perhaps G3, at Chawak But 'o'ob have some of the hallmarks of the ancestral shrines described by Becker.

That Maya commoner lives had a strong ritual component has only recently begun to be explored (Garber et al. 1998; Gonlin and Lohse 2007; Robin et al. 2003; Robin et al. 2008). Perhaps during a time when confidence in the ruling elite and their divine mandate was waning, the private worship of ancestors and gods attained prominence in hinterland communities such as Chawak But'o'ob. (For further discussion on the domestic ceremonialism of F.B. B, see Hanna, Walling, and Davis 2008.)

## 2007 Season Overview

In 2007, research was focused on several prominent architectural features among the foundation braces- namely: the completion of Op. 141-J, the terrace edge pit opened in 2006; two excavations related to the 141-K possible altar (141-L and 141-O); a possible interior bench (141-M); and a possible stairway on F.B. A (141-N). The season served as a conclusion to the four seasons of excavation of F.B. B and the beginning of comparative pits in the neighboring structure, F.B. A, just to the north.

The excavation of Terrace 3, Op. 141-J, found a low-lying, earthen terrace embanked by a stone wall no more than two courses high with a layer of pavement ostensibly stretching across the terrace surface between F.B. E and F.B. J. No internal or external support from facing stones, footing stones, or other typical characteristics of terrace construction were discovered, leaving investigators to believe the pavement served as an auxiliary support to simply keep the terrace level and prevent erosion.

On Foundation Brace B, 141-L was an extension to the 2006 altar excavation (141-K) to better understand the potential surface unnoticed during excavation of that unit. While sub-flooring immediately adjacent to the possible altar stone remains speculative, sub-flooring stones in the excavation profile as well as the presence of hearth debris and distinctive artifacts in the stratum corroborated the potential for an eroded surface. The presumably post-abandonment down-slope collapse of the eastern side of this room complicated recovery and reconstruction of this likely floor. Additionally, the rectangular feature along the western wall of Room 2 was investigated (141-M) but produced no evidence of a bench or other household feature. While 141-M casts sufficient doubt upon a cultural function for the rectangular stone arrangement, its results suggest that the stones were part of what appears to be a large retaining wall at the back end of the structure (abutting Terrace 4 above).

On Foundation Brace A, a trench situated to bisect the possible stairway revealed a substantial assemblage of lithic debris including diagnostic oval bifaces and a high concentration of ceramics. Among these ceramics, the fragments of a small, anthropomorphic vessel and a ceramic mask were found. While no definitive stairs were revealed, the unit has yet to be completed. Additionally, an excavation in Room 3 of Foundation Brace A (141-O) was situated in a location similar to that of 141-K on F.B. B with the intent of determining if the architectural symmetry between these two residences is paralleled by room function and features. No altar-like stone was found in 141-O, but an exemplary, well-preserved sub-floor was revealed with large sherds of pottery and a tiny, enigmatic ceramic vessel.

## 2007 Excavation Summaries

### *Operation 141-J: Terrace 3*

*Location*: Situated in the structural gap between F.B. E (to the north) and F.B. J (to the south), 6.4 m at 167 degrees east of north from the top SE corner of the F.B. E armature

*Dimensions*: 5.5 m (east to west) x 1 m (north to south)

*Long Axis Orientation*: 97.5 degrees east of north

*Excavation Director*: Jonathan Hanna

*Veteran Assistants*: Sarah Brodsky, Tiffany Parisi

*Excavators*: Glen Gottilla, Seth Heng, John Hutchins, Meghan Brown Hutchins, Billy Lewis, Yael Lorant, Abigail Rothaker, J.N. Stanley

*Principal Recorders*: Alison Jones (2006) and Carrie Schneider (2007)

*Figures*: Photo of 141-J Pavement (Figure 9); Photo of 141-J Terrace Edge (Figure 10)

*Investigative Goals*:

1. Investigate Terrace 3 in order to increase understanding of terrace typology and the architectural character of the Group B Residential Terraces

2. Recover artifacts and features to better identify construction history, design, chronology, and stratigraphy of the area between F.B. E and J on Terrace 3 and the Residential Terraces as a whole

*Excavation Results*. Op. 141-J originated as a 4 m x 1 m trench, crosscutting Terrace 3 in a location intended to allow an examination of a terrace area devoid of foundation braces, platforms, and other surface features. Operation 141-J was terminated at the close of the 2006 season and reopened in 2007. The unit was successfully excavated to bedrock through 30 lot changes that revealed a total of five strata. Artifacts from 141-J were characteristic of typical construction fill and consisted of badly eroded ceramics, scattered lithic debitage, several jute shells, limestone cobbles, and a number of small bits of charcoal. The only artifact of note from 2006 was a large, bifacial preform (possibly a general utility biface) found around 28 cm bs in the bottom of the humic layer in Lot 1. Soon after reopening, it was decided to expand the pit 50 cm west (Lot 8) in order to investigate a level of rocks separated from the terrace edge stones by about 40 cm (the gap was later revealed to be about 1.1 m wide in profile). This initial extension, and the subsequent 1 m extension later (Lot 16), confirmed a level of medium to large-sized cobble fill reminiscent of sub flooring (perhaps a pavement) continuing past the western wall of the unit and into the roughly 200 $m^2$ space between F.B. E and F.B. J. Testing with probes in 2005 suggested the presence of a pavement below the humic layer extending south of Foundation Brace E (Davis and Walling 2005). The cobble sub flooring may be a section of this surface.

Investigations in the 1.5 m extension of 141-J did not extend below humus. The eastern three meters of 141-J, however, were taken to bedrock and exposed the western (downslope)

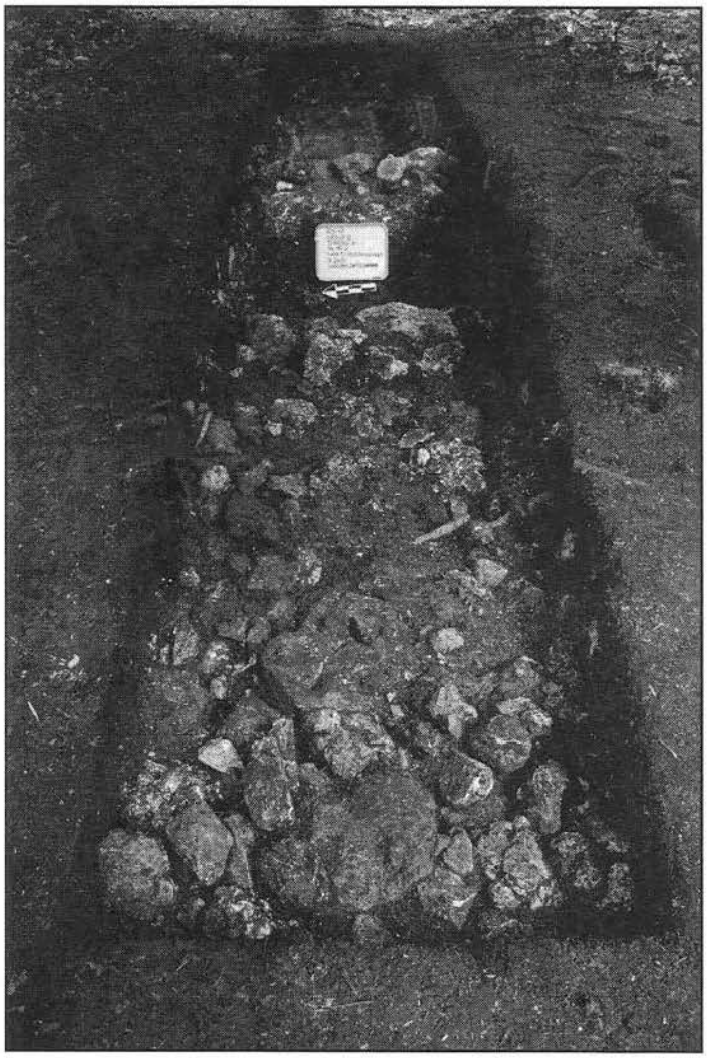


**Figure 9.** Photo, 141-J, Pavement.


**Figure 10.** Photo, 141-J, Terrace Edge, Lots 5 & 6.

profile of the Terrace 3 wall. It became apparent through this profile, and the excavation of the terrace edge itself (Lots 24 and 25), that the typical construction expected of a terrace (stone facing, cobble fill, footing stones, etc.) were simply not present. Beyond 15 cm into the terrace edge, the matrix appeared to be of similar character to the rest of the unit. In Lot 25, a wide ceramic strap handle of Tepeu 2-3 origin was found, one of the few diagnostic sherds in the entire unit. The remaining western portion, including the gap between the pavement and terrace, was then taken to bedrock (Lots 26 through 29). Lots 28 and 29 produced a thick layer of sascab beginning around 75 cm bs. Down slope, large stones presumed to be wall tumble from the terrace collapse were found in the eastern half of the unit. Also of note was a projectile point found in Lot 17 (roughly between 40 and 50 cm bs) just above sascab. In the far eastern section, sascab was hit around 45 cm bs, with hard bedrock found around 70 cm down bs.

*Stratigraphy*. Situated on a collapsed terrace, all the stratigraphic layers in 141-J sloped significantly to the east. The initial humic layer consisted of a 20-30 cm thick, very dark brown, moist clay loam with occasional gravel, small cobbles, abundant roots of various sizes and numerous neocyclotus shells throughout. Stratum II was a dark grayish brown clay loam with occasional pebbles (1-5 cm) and small cobbles (5-10 cm). The frequency of roots and neocyclotus shells decreased with depth while the frequency of small cobbles increased at the transition into Stratum III. A total depth of 30 cm thick, Stratum II was only evident in the meter-wide gap between the paving stones to the west and the terrace edge stones to the east, tapering off in the east 10 cm after the edge (perhaps due to the capture of moisture between the two walls). Stratum III consisted of a very dark gray clay loam with occasional gravel (becoming much more frequent, with more cobbles as well, towards the eastern end of pit) and occasional roots and neocyclotus shells. In the west, Stratum III began as a 30 cm thick layer and increased to 50 cm in thickness under the terrace wall stones, where it began to overtake Stratum II and continue eastward to the end of the pit.

Stratum IV was the chalky, 5-15 cm thick eroded bedrock (sascab) that transitioned to hard, sloping bedrock (Stratum V) at 80 cm bs in the west and roughly 70 cm bs in the east. Interestingly, in the eastern section of the unit, at the interface of Stratum III and IV, were a number of large stones, ostensibly from the collapsed terrace wall above. Because these stones rested directly above Stratum IV, as did the artifacts associated with them, ancient clearing on Terrace 2 seems to have extended to sascab.

*Construction History and Interpretation*. Like low-lying, earthen agricultural terraces, the top level of stones in Terrace 3 was not supported by a lower level of stones. Operation 141 J has helped make clear that the Group B Terraces vary in formality and construction technique. Soil coring (Davis and Walling 2005) indicates that areas of Terrace 3 (and other terraces) that support structures are characterized by deep gravels, whereas areas that do not support habitational remains tend to be characterized by deep clays and much less gravel. Foundation braces on the Terraces are wrapped in well-formed, stone-faced armatures, whereas terrace areas directly adjacent can be little more than earthen construction. Wall collapse in the eastern end of 141-J verified that the terraces' stone wall could not have been much higher than two courses. Earthen terraces such as hoe terraces and tablones are built without stone faces or walls, making them easier to construct and maintain, but they are usually temporary and hold little benefit for long-term use.

Perhaps this construction design is the hallmark of residential terraces at Chawak But'o'ob. The pavement in the west that capped the terrace surface may have provided the support, erosion control, and leveled surface necessary for maintaining domestic space. In 1994, Operation 15A, just north of the Residential Terraces revealed a similar pavement that abutted the base of the terrace.

The site history and occupation of Chawak But'o'ob is much too short to have developed multi-phase residential terraces of the type recorded in Oaxaca (c.f. Feinman, Nicholas, and Haines 2002). The low-lying wall may have provided the erosion and water control necessary along the terrace edge. Given the apparent fertility of soils in the terrace area, perhaps the gap near the terrace edge was planted in some way by the local residents. Future investigations will focus on this and the many other questions 141-J has created. (For more information on terrace construction and interpretation, see Davis and Walling 2004, 2005; Walling 2005; Hanna, Davis, and Walling 2006, 2008; Hanna and Walling 2006; Walling, et al. 2006)

### *Operation 141-L: Foundation Brace B, Room 3*

*Location*: Southeastern extension to 141-K (2006), in center of Room 3

*Dimensions*: 1 x 1 m

*Long Axis Orientation*: 78 degrees east of north

*Excavation Director*: Jonathan Hanna

*Excavators*: Ihsaan Hamid, Ellery Lungmus

*Principal Recorder*: Ellery Lungmus

*Figures*: 141-L Profiles (Figure 11)

*Investigative Goals*:

1. Explore the evidence for a second floor in Room 3, from which the possible house-altar would have protruded (and which may have gone unnoticed in the excavation of 141-K)

2. Define room function and chronology through the recovery of artifacts and features

3. Refine our current understanding of the stratigraphy in Room 3

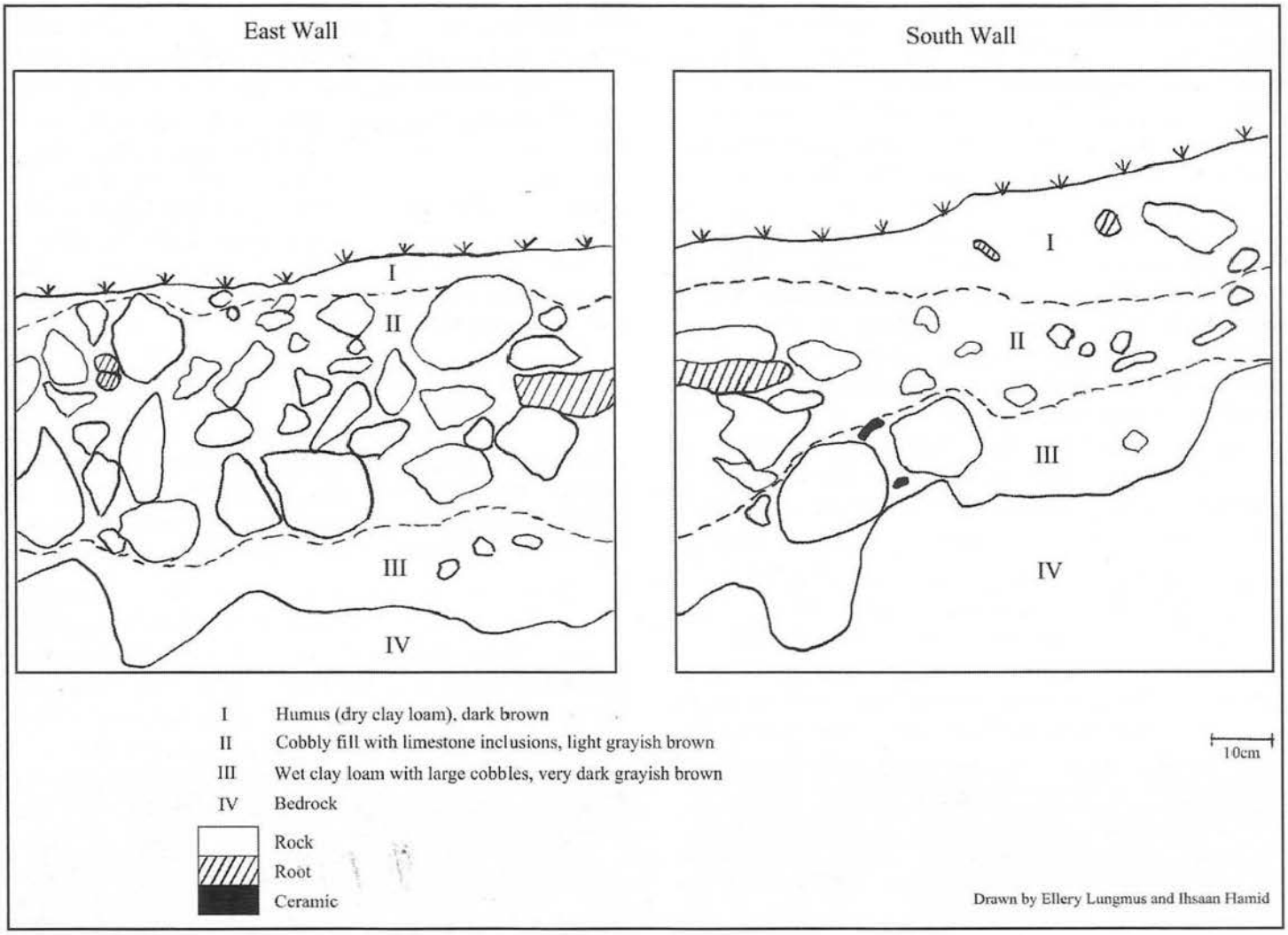



**Figure 11.** Profiles, East and South Walls, 141-L.

*Excavation Results*. Students successfully excavated 141-L to bedrock in eight lots, revealing a total of four strata consistent with that revealed in 141-K. Strata consisted of typical construction fill, which included fragmented ceramic sherds, scattered lithic flakes, and occasional charcoal. Ceramics found in Lot 2 under fallen wall stones were less corroded and worn than those below them- probably a result of being shielded by the stones from water seepage. In Lot 3, the soil PH was taken with a standard Kelway Soil PH and Moisture Meter, measuring 6.7 with 15% water content. At 30-36 cm bs in Lot 5, a large (20 cm x 15 cm) burned cobble of smoky quartz was found among abundant burned limestone fragments and three small concentrations of charcoal in the SE quadrant (charcoal was found elsewhere in Lot 5 in less frequency), possibly indicating the existence of a hearth. A relatively intact projectile point with a broken stem was also found in Lot 5. A ceramic spindle whorl occurred in fill at the top of Lot 6. All of these findings indicate that this level may have been an earthen floor. Crude ceramics and charcoal bits were present in Lots 7 and 8. Bedrock occurred at 57 cm bs in the unit center.

*Stratigraphy and Construction History*. Please see the discussion on Foundation Brace B below.

*Interpretation*. While the possible subfloor found in 141-L Lot 5 and 141-K Lot 6 connects along a clear stratigraphic level, this was not apparent to excavators of either pit. Unlike the beautifully intact subfloor found in Room 3 of F.B. A (Op. 141-O), the floor in Room 3 of F.B. B has been thoroughly disturbed over the millennia. While no intact plaster has been found in the Residential Terrace excavations, clear subflooring with a flush level of cobbled fill is relatively common. Although what may be residual fragments of corroded plaster have been found in various areas of the Terraces, they have not been chemically confirmed as plaster. Without other supporting evidence, these fragments could just as well be eroded limestone. Such fragments were present in this stratum, making a case for a poorly preserved floor situated at this level in Room 3.

That being said, the artifacts found at this level- an intact projectile point, a spindle whorl, and a concentration of charcoal bordered by a cobble of burned smoky quartz (a local, yet uncommon stone for this area), along with the adjacent ceramics, oliva shell, and the possible altar found in 141-K all suggest that this may have been a room of unusual function for the site (such as an oratory). That the hearth is associated with a possible altar indicates that it may have

been ceremonial rather than domestic (Brown 2002, 2004; Gonlin 2004).

***Operation 141-M: Foundation Brace B, Room 2***

*Location*: Center of western wall in Room 2

*Dimensions*: 1.5 m (east to west) x 2.5 m (north to south)

*Long Axis Orientation*: 78 degrees east of north

*Excavation Director*: Jonathan Hanna

*Veteran Assistant*: Iasha Doumanoff

*Excavators*: Travis Cornish, Chance Coughenour

*Principal Recorder*: Chance Coughenour

*Figures*: F.B. B Plan View (Figure 4)

*Investigative Goals*:

1. Define the characteristics of the rectangular limestone cobble feature along the western wall of Room 2 in F.B. B, initially exposed in Op. 141-E, 2005

2. Recover artifacts associated with this feature to aid in identification of function, and chronology

3. Define the stratigraphy and construction history of the feature in relation to Room 2 and F.B. B as a whole

*Excavation Results*. 141-M was situated over a 2.7 m x 1.1 m rectangular feature of unshaped cobbles along the center of the western wall in Room 2 of F.B. B. The humus on the northern side 141-M and a small area of the feature itself had previously been exposed during Operation 141-E in 2005 (which overlapped the unit parameters of 141-M this year) (see Figure 4). Though only the humus had been exposed in 2005 (due to time constraints), some of the collected artifacts from Op.141-E Lots 2, 4, and 5 would have been recovered by 141-M this year had they not been processed during the 2005 excavation. Nevertheless, excavators successfully exposed the feature in an additional 11 lots, revealing a total of three strata above a level of subflooring previously defined in the north-south trench excavations of 2005 and 2006. Fragments of a marine shell as well as an intact projectile point were found in the northeastern quadrant of the pit in Lot 2, around 15 cm bs. Like the shell found in 141-N and O on F.B. A, however, no diagnostic pieces (such as an umbo) were found, leaving species type only to speculation.

Partial exposure of the exterior wall collapse, outside the western wall of F.B. B, occurred in the Lot 4 humus layer and revealed the continuation of collapsed rubble 30 cm west of the current line of surface stones. Because of this, Lot 4 was then backfilled before excavation continued due to the difficulties in seeing the stone feature in question (our first indication that the feature was not cultural). Exposure of the eastern and northern feature profiles then resumed along the perimeter (Lots 1-10). South of the feature's limits, another continuation of curiously large stones was uncovered in Lot 7 (still within humus). Judging from their oblique alignment, they most likely represented more fallen stones either from the feature itself or from the western wall of F.B. B. Also in Lot 7, a tiny wooden dowel, about the size of a toothpick and incised on both ends was found. Because of its relatively pristine condition and location in the topsoil, the piece was deemed modern (most likely a broken toothpick dropped a previous year). Regardless, steps were taken to preserve the piece within the matrix. Bisection of the northern half of the feature occurred in Lot 11, revealing that the large surface stones rested on top of ordinary construction fill with a high concentration of gravel and small pebbles. A subfloor of fist-sized cobbles was found at 45 cm bs, a feature already defined in the trench excavations of 2005 and 2006. Because bedrock was therefore not a necessary goal for completion of the unit, excavation terminated at 45 cm bs, at roughly the interface of Stratum II and III of F.B. B.

*Stratigraphy and Construction History*. Please see the discussion on Foundation Brace B below.

*Interpretation*. While the rectangular stone alignment excavated in 141-M seems unlikely to be a bench, speculation continues to develop over the function it may have played in ancient times. As initial survey hypotheses are often challenged by excavation data, it is possible that the similar lines of stone continuing beyond the feature indicate the entire section to be wall collapse, in this case coincidentally falling in a geometric pattern 10 cm higher than the other stones. Additionally, where support stones for a bench, step, or altar were expected to be found, only small pebbles and gravel emerged. Two things are relatively certain from the completion of Operation 141-M: the feature is not a bench, and the western wall of F.B. B was either much higher than previously believed or there may have been a larger, retaining wall behind it (a point of interest for future investigations).

***Operation 141-N: Foundation Brace A, Possible Stairway***

*Location*: Southern half of the F.B. A possible stairway, east of Room 3

*Dimensions*: 1.5 m (north-south) x 4 m (east-west)

*Long Axis Orientation*: 169 degrees east of north

*Excavation Director*: Jonathan Hanna

*Excavators*: Lauren Hahn, Ihsaan Hamid, Ellery Lungmus, Carola Garcia Manzano

*Principal Recorder*: Carola Garcia Manzano

*Figures*: F.B. A Plan View (Figure 12); Anthropomorphic Sherds (Figure 13)

*Investigative Goals*:

1. Test the hypothesized function of the large, protruding mound off F.B. A as a stairway or ramp and define its characteristics

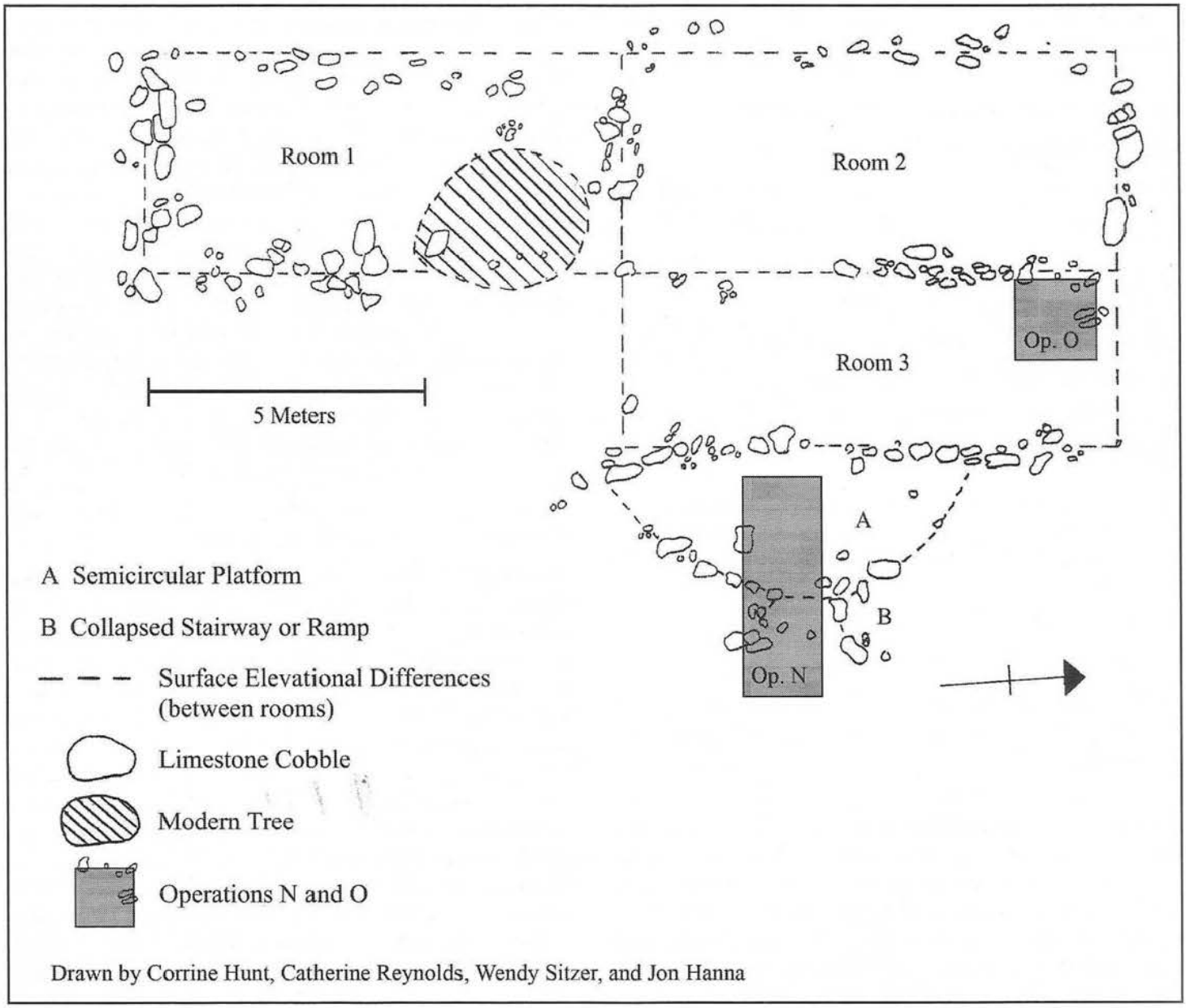



**Figure 12.** Plan View, F.B. A.

2. Recover artifacts associated with this feature to help identify its chronology and the chronology of F.B. A

3. Define the stratigraphy and construction history of the stairway and F.B. A as a whole

*Excavation Results*. 141-N was positioned to bisect the entire stairway of F.B. A. Due to the fragility and poor preservation of the stairs, however, as well as the time and prudence necessary to excavate it, the entire unit was not taken to bedrock but rather only the northwest quadrant (Lots 8-13). Excavators successfully reached bedrock within 13 lots, revealing a total of four strata.

At the start of the excavation, the 1.5 x 4 m unit was divided between a western and an eastern lot. Small rubble and tumbled stones were abundant in these first two lots, indicative of wall collapse from Room 2 above. Additionally, a large number of ceramics (many with Late Classic slips, handles, and decorations), chert flakes and debitage, and occasional jute shells were found here. Fragments of an unknown marine shell (similar to those observed in 141-M and O) were found in Lot 1. Upslope in Lot 2, two separate oval bifaces were found (one broken at the distal end, the other broken at the proximal end), along with a conical chert flake that may be a fragmented core, two pieces of gray obsidian, scattered bits of charcoal, and a very high concentration of ceramics. Most of this material is believed to be in a natural secondary context, having washed down from F.B. A, Room 2, which lies just above the stairs to the west.

Lot 3 (under Lot 1, downslope), exhibited a diminishing concentration of artifacts with depth. With depth also, the soil became lighter and siltier and cobbles smaller. Lot 4 (upslope, under Lot 2) continued to exhibit abundant ceramics and lithics (including two heavily fragmented oval bifaces and three obsidian microliths) with a typical number of utilized jute shells. Also of note were two stone nodules (about 3-4

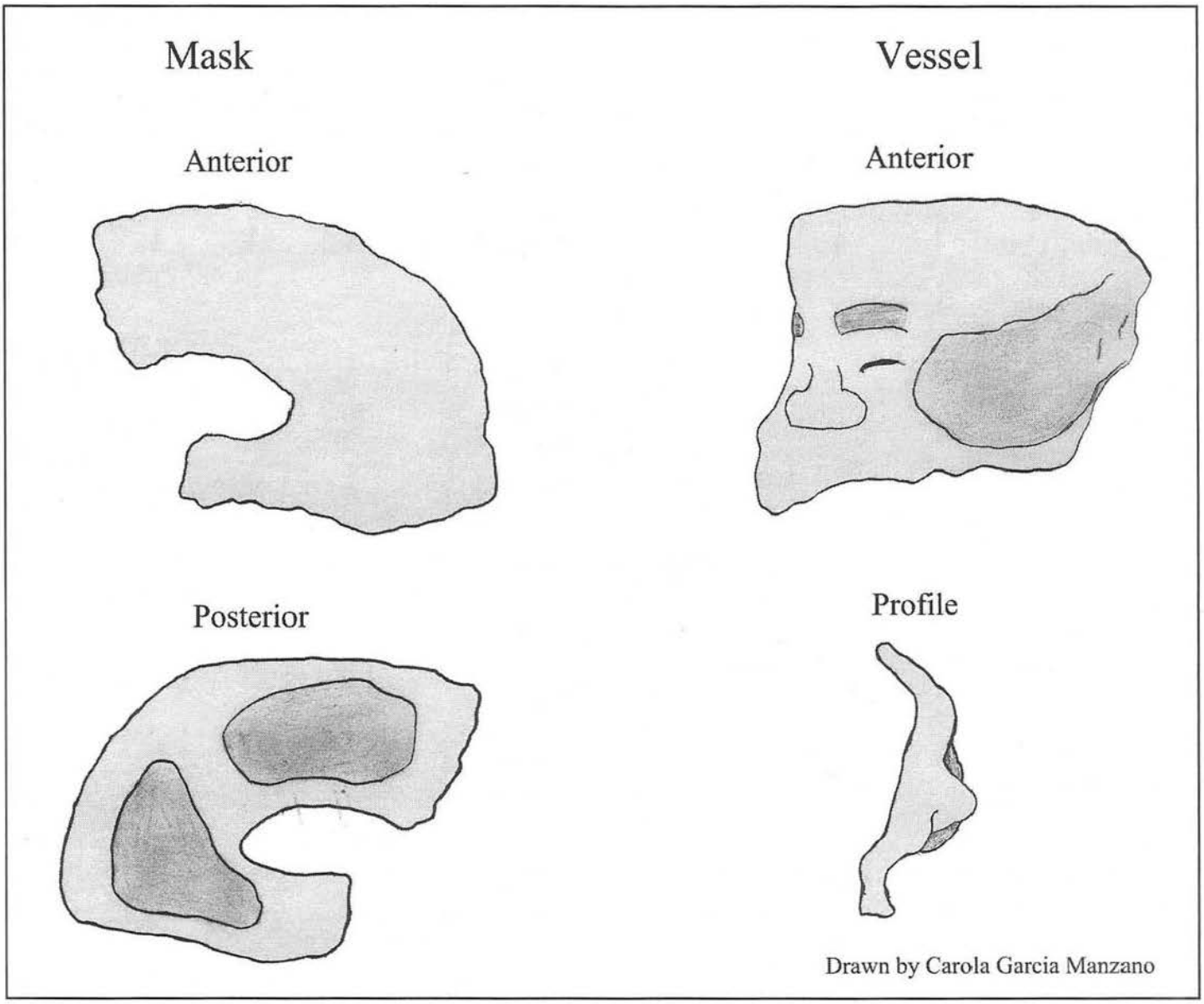



**Figure 13.** Anthropomorphic Sherds, 141-N. No scale.

cm in diameter), presumably the feet of a metate. In Lot 7 (under Lots 3 and 5), the lithic and ceramic frequency increased along with some charcoal and shell for the eastern section of the unit.

This fill continued into Lot 6 as an even lighter gray, sandy silt. A deposit of ash with bits of charcoal was found in the SE corner of Lot 6 (approx. the center of the stairway), which seemed to be in a secondary context. Due to time constraints, all effort was thereafter focused on a small quadrant in the NW corner of the unit (1.6 x .75 m, Lots 8-13). Debitage, flakes, and bifacial fragments continued to be found, though in decreasing frequency.

In Lot 8, half of a small, anthropomorphic vessel (about 6 x 4.5 cm) exhibiting a thick eyebrow, squinting eye, wide-nostrilled nose, and round, puffy cheek of a face was found amid a layer of horizontally laid ceramics (between 21 and 34 cm bs) (Figure 13). This layer of ceramics was determined to be an incidental formation as evidenced by the small area in which it occurred and the variety of vessel types included. Also of note was a quarter fragment (about 6 x 5 cm) of a small mask-like ceramic found in Lot 9 (between 34 and 54 cm bs) (also Figure 13). With rounded edge and an oval, eye-shaped hole at the fractured end, this piece may represent the broken mold of a small facemask (see Interpretation below). No burials or caches were found in the unit, as might be expected in a stairway, but the remaining 3 x 1 meters of the excavation await completion. Interestingly, the bedrock here is heavily fragmented and seems to form a natural step. The top of bedrock was reached in the western edge of Lot 10 at approx. 57 cm bs, but then dropped sharply down to 82 cm bs in the eastern part of the quadrant.

*Stratigraphy and Construction History*. Please see the discussion on Foundation Brace A below.

*Interpretation*. The stairway excavation of F.B. A has proven to be one of the most productive units opened on the Residential Terraces to date. The concentration of lithic debris found in the humus indicates that some level of lithic production was occurring upslope. Judging by the copious

assemblage of lithics and debris of similar materials found in the 2006 surface collection of Room 2, as well as the quality of workmanship, it's reasonable to presume that Room 2 or the area just beyond (Str. B-47) was a lithic production area, at least during its final occupation phase. Though the scale of this production and the quality of material seems much higher than other areas and workshops identified in Groups D and E (Kaplan n.d.), the intensity and history of this production will likely be the focus of a future investigation.

The ceramics from F.B. A were also densely distributed, with more stylized pieces and many in better condition than ceramics found elsewhere on the Terraces. The two unique ceramic sherds from Lots 8 and 9 (the anthropomorphic vessel and the mask fragment) may also indicate some level of ritual activity around this residence. That they could even be a dedicatory cache to the stairway is possible, though their complementary pieces have yet to be found. If the completion of 141-N produces the missing pieces, this dedication scenario would be more plausible.

However, little is known about either piece. In 2004, Hugh Robichaux's Punta de Cacao Archaeoligical Project recovered a similar anthropomorphic vessel with an "appliqué face" in a burial (Hartnett 2005). Punta de Cacao is an ancient Maya town 13 km to the south of Chawak But'o'ob. The largely intact ceramic vessel was found in an Early Classic burial, although the manufacture date of the piece was unknown.

Masks, like altars, are another distinctly ceremonial artifact that, to the authors' knowledge, has never been reported in non-elite contexts. In fact, while depictions of masked rulers and figures are a common element in Classic Maya art, findings of masks are quite rare. The two ceramic masks found in a sealed off room at Aguateca may be among the only Late Classic Maya masks found archaeologically intact. One depicts the painted image of an old man and the other "a deity or monster with large eyes and fangs," (Inomata 2001:294) both presumably used as ceremonial headdress elements. Skillful analysis of the texture of these masks by Harriet Beaubien revealed that they were made by applying a clay slurry to strips of textile and then layered on a mold to dry (Beaubien 2003, Inomata 2001). Once fired, the textile burned away, leaving an exceptionally lightweight mask. Because of the density, texture, and unembellished character of the mask fragment from Chawak But'o'ob, it is possible that this was a mold used to produce masks in a similar method.

It is also possible that the F.B. A ceramic piece was not a mold at all, but a mask itself. It is not so thick or heavy to preclude functioning in this way. Indeed, modern wood masks in the highlands and elsewhere are often much bigger and heavier. That the eye is carefully shaped and there are curvilinear ridges and indentations on the interior (perhaps to maintain strength but decrease weight) could certainly suggest this purpose.

Finally, regarding the stairs themselves, while it was difficult to discern wall collapse (from Room 1 above) from the heavily disturbed stairs, some large, flat stones, characteristic of steps, were in evidence, particularly on the bottom two levels of the unit. The construction of these steps seemed to involve multiple large stones placed side-by-side and buttressed by two larger, balustrade-like stones on either side of the stairway. The top level of the stairs, abutting Rooms 2 and 3, appears to be a flat, semi-circular surface.

***Operation 141-O: Foundation Brace A, Room 3***

*Location*: North-west corner of Room 3 in F.B. A

*Dimensions*: 1.5 x 1.5 m

*Orientation*: 169 degrees east of north

*Excavation Director*: Jonathan Hanna

*Veteran Assistant*: Iasha Doumanoff

*Excavators*: Catherine Crosmer, Jacquie Maldonado

*Principal Recorder*: Catherine Crosmer

*Figures*: F.B. A Plan View (Figure 12); 141-O South Wall Profile (Figure 14)

*Investigative Goals*:

1. Determine whether the architectural symmetry between F.B. A and F.B. B was reflected in room function and features, including ritual elements, such as the drum-shaped altar stone in the NW corner of F.B. B, Room 3

2. Recover artifacts to help identify the chronology and the function of Room 3 and F.B. A as a whole

3. Define the stratigraphy and construction history of Room 3, F.B. A

*Excavation Results*. Students excavated Op. 141-O to bedrock in 12 lots, revealing a total of four strata of construction fill. Initially, the unit was separated into three lots, dividing the northern wall of F.B. A from the western wall between Rooms 2 and 3 (see Figure 12). Wall stones were not removed, however, thus refocusing the unit to a roughly 1 x 1 m quadrant in the SE (Lots 1, 4, 7, and 10). In Lot 1, the soil PH was taken with a standard Kelway Soil PH and Moisture Meter, measuring 6.6 with 15% moisture content. Regular construction fill was found throughout the unit. It included eroded ceramic sherds, lithic debris, and jute shells.

A small marine shell fragment, similar to those found in 141-M and N, was found in the Lot 1 humus and another in Lot 4 just below. A few large ceramics (over 20 cm in diameter) were found in concentrations under wall collapse in the northern sections of Lots 1, 2, 4, and 5, though no complete vessels were found. A well-preserved subfloor consisting of an even level of cobble and pebble fill was discovered in Lot 7, just 10 cm below the surface. Ceramics in Lots 5 and 7 were mostly concentrated in the southwestern quadrant, where the bedrock dives west below the subflooring. In this deep cavity, a tiny, intact ceramic vessel (5 x 3 cm in diameter) was found in Lot 10. Also found in Lot 10 was a bifacially worked,

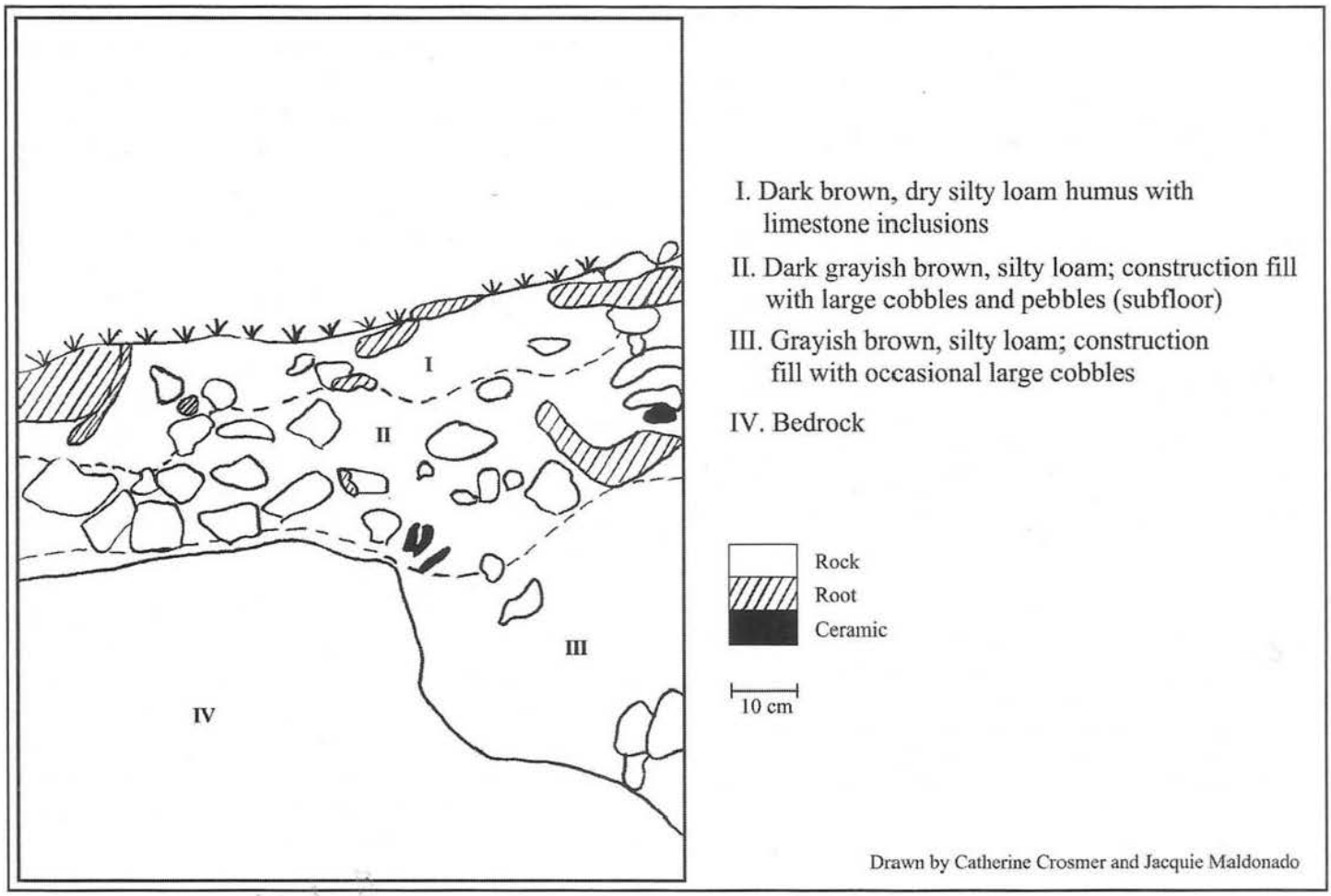



**Figure 14.** Profile, South Wall, 141-O.

chert implement- possibly a scraper. No distinctive stone, drum-shaped or otherwise, was found in 141-O; bedrock was encountered at about 30 cm below the surface, with the exception of the small cavity in the southwest corner, which reached a depth of 70 cm bs (see Figure 14).

*Stratigraphy, Construction History, and Interpretation.* Please see the discussion on Foundation Brace A below.

*Foundation Braces A, B, and C: Piece-Plot Mapping.* Also in 2007, the surface stones of Foundation Brace C on Terrace 6 were plotted using tape and compass mapping of each individual stone, as had been done throughout the Terraces in 2004 and 2005. This completed the detailed surface mapping of the upper terraces in this complex, which support Foundation Braces A, B, and C (see Figure 3). The results of this exercise illustrate the integrated character of the architecture in this part of the terrace complex, which is suggestive of corporate labor and proximal living, perhaps of an extended family or even a lineage segment, to judge from the size of the structures (cf. Beech et al. 2002).

### Foundation Brace A, Structure B-48 Discussion

#### *2007 Ops. 141-N and 141-O*

*Stratigraphy*

Ops. 141-N and 141-O exposed four similar strata for F.B. A. While some variation exists, with 141-O situated on a relatively level plane and 141-N (the stairway) sloping significantly to the east, both profiles give a clear view of the structure's stratigraphy on the eastern periphery. The continuities in the strata, between the two operations, as well as the dating of recovered artifacts, suggest that both areas of the structure were constructed simultaneously. The stairway was not an addendum to an existing structure.

Stratum I, the humus, consisted of a dark brown, dry silty loam with occasional limestone cobbles of medium (10-15 cm) to large (15-20 cm) dimensions and abundant flecks of limestone inclusions. At 10-15 cm thick, Stratum I included numerous roots and neocyclotus shells, indicative of considerable bioturbation. Indeed, the presence of several large roots in 141-N no doubt contributed to the level of disturbance here.

Stratum II consisted of a 20 cm thick (in some parts up to 30 cm thick) dark grayish brown, silty loam with limestone inclusions similar to those in Stratum I. In 141-N, the top of Stratum II contained the large stones suggestive of steps. In 141-O, Stratum II contained a well-preserved subfloor. Although the soil in 141-N had a more coarse, sandy content than the silty loam in 141-O, both units contained high concentrations of ceramics and lithics. The constructed surfaces of this layer are most likely contemporary in both excavation units and represent one phase of construction.

Stratum III was a grayish brown silty loam with similar limestone inclusions to those of Stratum I and II. A

higher frequency of cobbles occurred in 141-N as well as concentrated pockets of ceramics. Bedrock was reached at 30 cm bs in most of 141-O, so only the southwestern cavity in the bedrock represented Stratum III, which sloped west under the wall. Ceramics were found in small concentrations here as well, but the occurrence of cobbles began to sharply decrease, a variation from the more complicated Stratum II and III in 141-N. Stratum IV in both 141-N and 141-O was hard bedrock.

*Construction History*

While it is difficult and perhaps premature to define the architectural history of F.B. A after little more than one complete excavation, there are a few points worthy of note based on these initial investigations. To begin, only one construction event was evident in these eastern areas of F.B. A. In F.B. B, the eastern periphery exhibited two construction events, the last of four possible occupations (see discussion on F.B. B below). Also, F.B. B is believed to have expanded through successive construction events from east to west and from south to north, a progression not yet visible in F.B. A. Furthermore, no altar was found in the excavation of Room 3. While only a fraction of the room has been investigated, without such a stone or other ceremonial indicator, the function of Room 3 does not seem to directly correspond with its counterpart on F.B. B. The occurrence of an anthropomorphic vessel and a mask fragment in the fill of the stairway, although suggestive of ceremonialism, do not indicate where (or when) any ritual associated with them occurred.

On a similar note, Room 2 of F.B. A was likely a lithic production area, while the same room in F.B. B was clearly not- indicating that some domestic production in this area may have been specialized and varied on a household level. Thus, it appears that the rooms of these two architecturally similar structures served different purposes. Indeed, the brief ceramic analysis conducted may provide an additional hint about these differences. F.B. A seems to have been constructed in early Tepeu 3 times, coinciding with the last construction phase of F.B. B and the latest known occupation of the site- a number of years (and presumably generations) after the initial construction of F.B. B. Thus, F.B. A was not occupied very long before the entire site was abandoned sometime during the Tepeu 3 phase of the Terminal Classic period.

**Foundation Brace B, Structure B-45 Discussion**

***2004- Ops. 141-A, 141-B***
***2005- Ops. 141-C, 141-D, 141-E, 141-F***
***2006- Ops. 141-G, 141-H, 141-I, 141-K***
***2007- Ops. 141-L, 141-M***

The Group B Residential Terraces have emerged as an intriguing and distinctive area of Chawak But'o'ob. This understanding has evolved as the result of the concerted efforts of numerous field-school students and staff working over four field seasons of intensive investigation. This focused effort has made F.B. B the most extensively excavated structure in the entire site to date. On the surface, Foundation Brace B consists of two large north-south oriented rooms separated by a double-lined stone wall, similar in appearance to the structures' exterior walls. A smaller and similarly oriented room occurs on the building's eastern edge. What has been interpreted as an open patio occurs off the southern end of the building (see Figure 4). Of note is the likely existence of a similar patio off the southern end of Foundation Brace A, as defined by the results of soil coring in 2005, although the extent of this hypothesized feature has not yet been determined.

Situated on Terrace 5, F.B. B is the southernmost structure in what has become known as the Upper Terrace Complex, comprising F.B. C to the immediate north, and F.B. A to the northeast (Figure 3). Though the relationship between these three structures is unknown, their architectural proximity suggests a close social relationship among the three buildings' ancient inhabitants. While further investigation is still needed within this complex, the 2007 season marked the completion of major excavation efforts at F.B. B. Piece-plot mapping, soil core sampling, surface collecting, wall line probing, and twelve excavation units have all examined this structure. As is typical of scientific inquiry, however, the few answers to the initial research questions (about chronology, function, and the character of construction) have elicited a host of additional questions. This section aims to present in a manageable fashion what we have learned about Foundation Brace B through this sizeable undertaking. Although major excavation on F.B. B is complete, this overview is by no means the final interpretation of the structure's evolution. It is merely an update to the interpretative scenarios presented in previous forums.

*Stratigraphy and Construction History*

The stratigraphic data garnered from F.B. B shows a multi-phase construction sequence beginning in the early Tepeu 2 phase of the Late Classic. This sequence was initially revealed in the 2004 investigation of Room 1 (Op. 141-A/B), which exposed a total of six strata resting atop a hard limestone bedrock sloping dramatically to the east. Strata V and VI, consisted of dark brown and gray compacted fill respectively, with medium-sized (15-20 cm) limestone cobbles resting atop larger stones (20-30 cm) and occasional ceramics, just above the bedrock. Here it was evident that, on a relatively flat area of the hillside, the land was initially cleared to bedrock and a low terrace was constructed. A small platform was then built atop.

Sometime later, the second phase of construction began, expanding what is believed to be an earthen platform. The platform overlapped the original one with another layer of gray fill, occasional cobbles, and abundant ceramics dating to Tepeu 2 (Stratum IVa). This stratum was only seen in the 2004 trench and the southernmost 0.5 m section (Op. 141-G) of the 2005/06 trench, just south of the point at which the bedrock dives dramatically down. As the bedrock drops 0.6 m northward, a very dark gray organic layer continues across

to form a buried O/A horizon (Stratum III) - the original outer surface level outside the second platform. Below this layer (Stratum IVb, a pale brown sascab), no artifacts were found, indicating that the ancient inhabitants felt no need to clear or level the surface here.

Presumably after a period of occupation, a third phase of major construction began by expanding the structure to the north by burying Stratum III. A layer of retaining blocks was placed on the eastern periphery (part of what would later become the stone armature) and the previous structure was covered by a 20 cm layer (Stratum II) of grayish brown fill with abundant ceramics (some with remnant slips dating to Tepeu 2), limestone gravel, and occasional mid-sized cobbles (15-20 cm). It is here that the earliest foundation brace design is evident. A wall was built between the original area (now Room 1) and the newly constructed addition (Room 2). As the northern end of the 2005/06 trench indicates, only two construction phases are present in Room 2, and fill deposits are about 20 cm deeper than those in Room 1, where bedrock was closer to the surface.

It is also during this third construction phase that Room III may have been appended to the northeastern edge of the building, or built as a separate structure entirely. It is not completely clear in the profiles whether there was a surface here, as erosion and disturbance have made it difficult to detect during excavation. The wall between Rooms 2 and 3 in the last phase of occupation is not present at this level, suggesting that if there was a stone wall between the rooms, its stones had to have been either removed or recycled. The absence of stones here, however, may suggest that Room 2 didn't extend this far and that Room 3 was initially separate. In either case, the floor would have been a step down, at about 0.4m lower in elevation than the rest of the structure. In the northwestern part of the room, the drum-shaped altar stone protruded about 28 cm above this floor. (For more discussion on this surface, see the excavation summaries of 141-K and L).

Also of interest was a semi-circular feature with an abnormal amount of jute shells in 141-E, deemed to be abnormal construction fill. Adjacent to the south, in 141-I, many jute shells were also found. If the wall in 141-I (currently only one-course high) marked the structure's edge during this third occupation, the semi-circular feature would have been outside of the structure, possibly a patio or midden area, and Room III could not have been connected to the rest of the structure. Eventually this area was covered over during the final construction, when the remaining wall stones may have been recycled for the new wall relocated about 5 m to the north.

Finally, a fourth construction event took place sometime in the early Terminal Classic (Tepeu 3), where a roughly 30 cm thick layer of dark grayish brown, cobbly fill with abundant ceramic sherds and small to medium cobbles (Stratum I) expanded the structure further to the north and created the foundation brace in evidence on the surface today (an area approximately four times the original platform size). During this phase, a double-lined stone wall was established between Rooms 1 and 2. In 141-C, the team that excavated this wall found a well-constructed, cobble-filled line of sizable vertical stones (60 x 30 cm) tightly secured in a cobble and gravel matrix with nearly 30 cm of these blocks protruding above the ground surface. Just to the north of this wall (still in 141-C), this stratum included an unusual lens of a sandy, light yellowish brown, friable soil, reminiscent of burning. Although there was no evidence of fire here (such as burned rocks or charcoal), it is apparent that the soil was severely desiccated at some point, either from burning nearby or from the area where the soil was initially taken. Interestingly, an unusually high number of ceramics were found in this lens as well.

This last construction phase is characterized by a thick layer of cobbly subfloor much more formal, sturdy, and resource exhaustive than earlier phases. In the profile of 141-L, the eastern wall of Room 3 exhibits extensive stone buildup, similar in character to that revealed in 141-C, which may have leveled the floor of the entire structure and formed the armature that projected out towards the edge of Terrace 5. It is here that we found Tepeu 3 ceramics, likely smashed over the altar in a termination ritual as it was covered over with fill. This thick construction fill exhibited in the last two phases was also observed in Davis' soil coring studies of 2004 and 2005. Of particular note, the thick gravel fill was not seen in other parts of the site, where only a small amount of gravel contributed to the construction matrix. On the Group B Residential Terraces, however, it was seen inside structures and outside patio areas, while deeper, less cobbly soils were seen in the areas between foundation braces. According to Davis, this robust engineering strategy was an "intentional creation of stable, gravel-based construction matrices to support living floors," (Davis and Walling 2005:15) and may be a characteristic for detecting other structures not evident on the surface.

*Artifacts*

As has been noted in previous publications, most of the ceramics found on F.B. B are likely from midden contexts, having been utilized, discarded to a midden pile (probably for long periods, to judge from the paucity of intact slips and the eroded surfaces), and then transposed into construction fill. This state of poor preservation is further exacerbated by a complete lack of plastered or sealed surfaces, allowing bioturbation and natural erosion over the past millennium to inflict further damage. Despite ceramic preservation being quite poor, however, the soil PH readings taken this year show only mild soil acidity.

Ceramic analysis, conducted by Lauren Sullivan, has concluded that most of the sherds collected from F.B. B represent very utilitarian, domestic vessels. In 2003, Sullivan overhauled the ceramic chronology for the entire PfB area (Sullivan and Sagebiel 2003) placing everything collected from Chawak But'o'ob squarely in Tepeu 2 times (A.D. 700-800). The first occupation on F.B. B is contemporaneous with very early Tepeu 2 styles. In 2006, however, Operation 141-K produced ceramics typed as Tepeu 3, thus extending the

final occupation of the structure into the Terminal Classic. Of similar note, ceramics produced in nearby Op. 141-N on F.B. A in 2007 also found Tepeu 3 ceramics. Occupation into Terminal Classic times at Foundation Brace A was indicated by ceramic water vessel fragments that had previously been collected from the surface of the southernmost room here. No construction or occupational remains outside of Foundation Braces A and B at the site have been dated to Terminal Classic times, although we should probably not assume that this reflects a lack of Tepeu 3 habitation outside of these two foundation braces. Sullivan (2007) points out the difficulty in typological identification of utilitarian ceramics and particularly differentiating Tepeu 2 from Tepeu 3 in the PfB region. Such difficulty is probably augmented by the aforementioned lack of sealed contexts and environmental effects, including water percolating through soil, that have been acting for centuries on the last ceramics buried in fill or abandoned on the surface.

Aside from the few chronologically diagnostic sherds, the majority of ceramics collected have been of little note. In Operation 141-C, a layer consisting of a generous amount of ceramics was found just under the wall, possibly indicating a disturbed cache. In Operation 141-K, too, a number of large sherds in relatively good condition were found, possibly indicating a termination ritual. However, even these ceramics exhibited little decoration, and were largely typed by their paste and remnant slips. With the exception of one eroded possible Tzakol sherd from Op 141-L, no ceramics datable to the Early Classic have been recovered from the Terraces. The only Late Preclassic ceramics known are a handful of body and rim sherds found mixed with Late Classic artifacts in Stratum II of Op 141-K.

Like the ceramic assemblage, the lithics from F.B. B have been mostly utilitarian and domestic in character. Though almost every excavation on F.B. B collected a sliver or two of clear, gray-banded obsidian, the presence and frequency of obsidian here is in accordance with fragments found elsewhere at the site. The high frequency of good quality chert, however, has forced a reevaluation of lithic production in the area, previously thought to be centered on brittle chalcedony and poor quality cherts in Groups D and E (Kaplan, n.d.). Indeed, surface scatter throughout the Residential Terraces has exhibited forms from various stages of lithic production- from large blanks to core fragments to complete tools of white chert, all in quantities not rivaled anywhere else at the site. On F.B. J, for instance, surface collection recovered the only blanks and oval biface preforms ever found at Chawak But'o'ob. [Unfortunately, a massive tree fall in 2006 has inhibited further investigations of F.B. J for the time being.]

Interestingly, while a more diverse toolset of bifaces and blanks have been recovered from limited surveys of both F.B. A and J, only one fragmented scraper (in 141-G) was found in the extensive excavations on F.B. B. Various Late Classic tanged projectile points, however, have been recovered from excavations 141-L and M in 2007 and surface collection in 2005. These tanged points may suggest, as noted in the 2005 season report, a possible hunting repertoire for F.B. B. Like the oval bifaces found in the area, the projectile points from F.B. B were only found in the last two occupation phases, suggesting that if economic specialization occurred, it did not take place until the area had been more fully developed. This would support the earlier hypothesis that: 1. the initial inhabitants of the area were agrarian; and 2. that complex socio-economic developments did not occur until the population influx sometime towards the end of the 8th century AD. It was at this time that the formal expansions with thick cobble subflooring were constructed on F.B. B.

Additionally, evidence of ceremonialism, as seen through the potential altar and hearth stones in Room 3, does not seem to have occurred until the fourth occupation period ending in Tepeu 3 times. Of course, difficulties in discerning commoner rituals from quotidian and other indeterminable activities cannot be overlooked (Robin 2003). Mayanists are beginning to see similarities in ritual knowledge between commoners and elites (Gonlin and Lohse 2007; Robin 2003; Robin et al. 2008), bringing to light the possibility that elites may have been emulating commoners in ways not previously appreciated. Thus, the proposal of an oratory with altar and ceremonial hearth in a domestic, commoner context is in accord with this emerging paradigm of non-elite ceremonialism.

*General Interpretation*

Because the superstructure of F.B. B was an almost entirely perishable structure at each phase of its history, it's difficult to interpret room dimensions, access ways, and other architectural aspects from any but the last phase of occupation- where wall lines are most clearly defined. That the last phase had three rooms of varied size is relatively clear. How these rooms related to one another in terms of function and access, however, is still largely unknown. The thick wall between Rooms 1 and 2 shows no opening between the rooms. The potential for steps east of Room 1 is still possible, and a gap in the northern wall line of Room 2 may also indicate an access way. Both of these warrant future investigation.

Another architectural curiosity is the possible open patio adjacent to F.B. B. In Davis' soil coring research, this southern area- originally thought to be a room- showed fill similar to the house interior. With such ambiguous dimensions, however, it seems reasonable to interpret this area as an open patio, perhaps protected by a thatched roof, where various domestic activities could have been performed. No excavations have yet occurred here.

## Closing Remarks

The multi-roomed units, double-lined stone walls, stone-fronted armatures, and open patio extensions on the Group B Terraces exhibit a consistent architectural style quite different from the house mounds and patios found throughout the rest of Chawak But'o'ob. The four construction levels of F.B. B, for instance, are not paralleled by any other structures at the site, a majority of which consisted of only

one construction phase. Ceramics suggest that virtually all construction at Chawak But'o'ob occurred between A.D. 700 and A.D. 800, a period also characterized by exponential settlement expansion throughout the Programme for Belize area (Scarborough, Valdez, and Dunning 2003). As noted, the multiple construction phases here began in early Tepeu 2 and extend into Tepeu 3, presenting the likelihood that the Group B Terraces were one of the first and last areas of the site to be occupied. As Patricia McAnany has observed, pioneering settlers gain primary access to local resources- a de facto phenomenon she labels "the principle of first occupancy," (McAnany 1995:96-97). This lays the groundwork for privileged social status among descendants of those frontier families. The population influx in late Tepeu 2 times would therefore have allowed this scenario to play itself out at Chawak But'o'ob if the Group B Terraces were maintained generationally. The fact that no burials have been recovered here- a classic indicator of kinship-based households- makes this interpretation questionable, although remains of Late Classic commoner residences devoid of mortuary features have been found elsewhere in the region (Robin 1999:545). Also, the fact that some foundation braces here have up to three rooms while others have only one may provide an example of social differences manifested in the architectural design and visual prominence of the structures. F.B. B underwent impressive renovations during the peak population density at C.B. Were these improvements a windfall from the principle of first occupancy? Upper class housing has been identified elsewhere at the site, for example structures D-29 and E-1, as suggested by cut-stone construction and artifact inventory. F.B. B may depict a status somewhere between the upper and lower tiers of the C.B. social milieu.

A counter theory would be that the thick inner walls and spacious dimensions of the larger houses (five times the average surface area of the site's other domestic mounds), represent architectural necessity imposed by multi-family or extended family residence during the final occupation phase. Population pressures may therefore not only provide a reason to modify a sloping hillside in the first place, but also a reason to live closer to other people.

Increased population pressure invokes Gene Wilken's logic that, because of high labor inputs, terrace construction must be preceded by a population high enough to have an available labor force- not to mention a mechanism for organizing, controlling, and planning the construction process (Wilken 1987:102-111). Indeed, the level of labor investment and planning needed to create the residentially terraced landscape in Group B as well as the internal character of the foundation braces is much higher than required in other parts of the site and certainly higher than is commonly believed for small hinterland settlements in general (Hanna and Walling 2006; Hanna et al. 2006; Walling n.d.).

The research carried out so far on the Residential Terraces of Group B adds to the body of information regarding the typological diversity of Mesoamerican terracing and the place of terraces in Maya commoner household and community structure (e.g., Beach et al. 2002; Robin 2006). Further investigation is needed throughout the Residential Terraces to develop these findings more fully, but the data available to us now suggest that these terraces - and indeed the entirety of Chawak But'o'ob - are an example of population pressure on resource utilization, technological innovation, and ceremonialism. The apparent responses to this pressure fostered a way of life more complex than previous models of commoner existence would suggest. Upcoming research at the Residential Terraces, the site's commoner ballcourt complex, and other locations at CB are anticipated to give us a clearer view of the nature and character of this complexity.

**Endnotes**

Fragments of ceramic masks have been found elsewhere at Aguateca, the Los Quetzales cave in Petexbatun (also known as Las Pacayas, Beaubien [2000]), and possibly the sites of Cahal Pech in Belize (personal observation) and Piedras Negras (Beaubien 2003); Also, a number of ceramic masks were found at the Formative period site of Chalcatzingo in the Morelos state of Mexico, all in domestic contexts (Grove and Gillespie 2002).

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### Address

The University of Texas at Austin
Editors, *Mono y Conejo*
MARL R7500
1 University Station
Austin, TX 78712-0714

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