

**THE STANN CREEK REGIONAL ARCHAEOLOGY PROJECT:
REPORT OF THE THIRD (2016) FIELD SEASON**

Edited by

Meaghan M. Peuramaki-Brown



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Stann Creek Regional Archaeology Project

Faculty of Humanities and Social Sciences
Athabasca University, Calgary, Alberta, Canada



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Finally, thank you to all our colleagues, friends, and family at home and in Belize who continue to support our research.

Chapter 1. The Stann Creek Regional Archaeology Project: Summary of the 2016 Investigations

Meaghan M. Peuramaki-Brown (Athabasca University)

In 2016, the Stann Creek Regional Archaeology Project (SCRAP) initiated a Phase II Testing program in the settlement and completed the remaining portion of the Phase I Reconnaissance in the epicentre at the site of Alabama in the southern portion of the Stann Creek District. Following successful Phase I Reconnaissance seasons in 2014 and 2015, we returned to Alabama with our permit [IA/H/2/1/16(12), Accession No. 10385] granted from the Belize Institute of Archaeology for investigations that ran over the course of nine weeks (Field work May 30-June 24 and July 4-29, 2016; Lab work August 1-5, 2016).

Site AL-52: Alabama

The area was initially named *Alabama* (a.k.a. *Alabama Site*, *Alabama Ruins*), meaning “cleared forest” in Muskogean, by owners of the Waha Leaf Banana Co. in the 1950s, and adopted for the archaeological site in the 1970s by Elizabeth Graham. In the 1980s, J. Jefferson MacKinnon renamed the site *Chacben Kax* (a.k.a. *C’hacben K’ax*, *Ch’akben K’aax*, *Ch’akbe’en K’aax*), meaning “recently-cleared forest” in Mopan (ch’akbe’en “milpa roza, nombre que se da al terreno recién tumbado y quemado” + k’aax “bosque, montaña, selva, campo, monte de arboles”; or more literally “forest that has been cleared on someone’s behalf” [Marc Zender, personal communication, 2014]). SCRAP continues to use the name Alabama in recognition of historical happenings in the area.

Property

The site is located approx. 22 km inland from the Placencia Lagoon, along the upper tributaries of the Waha Leaf Creek. The property that includes the site has belonged to a number of companies/individuals since the 1950s. This historical chronology of the property is being added to as SCRAP members come across additional information.

- 1950’s-1967: Waha Leaf Banana Company, a.k.a. Alabama Plantation, operated by Greene & Atkins Banana Co. Owners were M.D. Greene and J. Atkins, based out of Mobile, Alabama (Hubbard 2000:7; Moberg 1997:34-35; see also Bulmer-Thomas and Bulmer-Thomas 2012:133).
- 1967-1970: Property sold to a “pair of European investors” (Moberg 1997:35)
- 1980s/1990s(?): Outreach Ranch, owned by J. Collier (MacKinnon 1987).
- Current: Greene Groves & Ranch Belize Ltd. citrus orchards, owned by G. Greene.

Research & Exploration

Over the past 100 years, various investigations have been conducted in and around the Alabama area.

- 1931: T.A. Joyce’s (British Museum) visit to the Cockscomb Basin, identifying the Pearce Ruins (~10km north of Alabama). Compass survey and excavations (Joyce 1931, unpublished report does not include maps or notes). See Chapter 7 of this volume.
- 1970s: The Stann Creek Project, directed by Elizabeth Graham. General survey and testing throughout the Stann Creek District, including a portion of the Alabama site (Graham 1978, 1983, 1985, 1987, 1994).
- 1980s: The Point Placencia Archaeological Project (PPAP), directed by J. Jefferson MacKinnon. Survey, testing, and excavation/consolidation of monumental architecture at

Alabama and secondary satellite sites (Lagarto, Danto), as well as throughout the southern Stann Creek District (MacKinnon 1987, 1988a, 1988b, 1989a, 1989b; MacKinnon and May 1991; MacKinnon et al. 1993; Schafer 1987; Walters 1988). Also, A. Rabinowitz (1987) who explored areas of the Cockscomb Basin and recorded the Kuchil Balum site (Pearce Ruins area, see Chapter 7 of this volume).

- 1990s: The Maya Mountains Archaeology Project (MMAAP), directed by Peter Dunham. Survey/mapping of various sites to the north, west, and south of Alabama, including Pearce Ruins, Huntul Mo', Bats'ub (25 Flight?), Xa'ayilh, and Muklebal Tzul (Dunham et al. 1995). See Chapter 7 of this volume.
- 2014-2016: The Stann Creek Regional Archaeology Project (SCRAP), directed by Meaghan Peuramaki-Brown. Reconnaissance and testing at Alabama (Peuramaki-Brown and Schwake 2014; Peuramaki-Brown 2015, 2016, *in press*, this volume; Peuramaki-Brown et al. 2017).

Dates

Some absolute and relative dates are available for Alabama.

- Radiocarbon: 1980s PPAP epicentre testing (on floor and fill deposits, Str. 3)
 - cal AD 760 ± 80 yrs. (Wis-1914)
 - cal AD 850 ± 70 yrs. (Wis-1915) – epicentre, PPAP
- Obsidian hydration: 1980s PPAP epicentre testing (on floor and fill deposits, Str. 3)
 - cal AD 874 ± 77 yrs. (MOHLAB) – epicentre, PPAP
- AMS: 2017 SCRAP settlement testing (habitation debris/ fill lots, see Chapters 3, 4, 5)
 - cal AD 260-280 and cal AD 325-420 (2 sigma, 95% probability; Beta-456254)
 - cal AD 640-680 (2 sigma, 95% probability; Beta-457816)
 - cal AD 655-720 and cal AD 740-765 (2 sigma, 95% probability; Beta-457817)
 - cal AD 675-780 and cal AD 790-870 (2 sigma, 95% probability; Beta-457818)
 - cal AD 885-995 (2 sigma, 95% probability; Beta-457819)
 - cal AD 895-1020 (2 sigma, 95% probability; Beta-457820)
- Artifacts: 1980s PPAP epicentre testing, 2014-2016 SCRAP settlement survey/testing
 - Late facet Late Classic to Terminal Classic, Early Postclassic (ceramic, lithic)
 - possible Early Classic (ceramic jar forms)

Description

The monumental epicentre (monumental core) consists of 20 separate structures (the tallest, Str. 3, measuring 7.5 m), 4 plazas, and a sacbe (causeway). These are distributed over 2.48 hectares*, slightly larger than the monumental core of Nim Li Punit in Southern Belize (see Houk 2015:240, Tab. 10.2). Fourteen (14) plain granite monuments have been recorded.

**Note the significant size difference from our 2015 report, from over 4 hectares to 2.48 hectares. This is due to discovered inaccuracies in scales of PPAP maps in 2016, as well as the exclusion of Strs. 19 and 20 and the borrow pits, based on calculation guidelines presented in Houk 2015.*

2016 SCRAP Field Crew

Name	Role
Peuramaki-Brown, Meaghan M. (Ph.D.)	Principal Investigator (Canada)
Morton, Shawn (Ph.D.)	Field Director (Canada/USA)
Oliveira, Cristina (B.A.)	Senior Field Supervisor (USA)
Pennanen, Kelsey (B.A.)	Senior Field Supervisor (Canada)
Chiac, Virginia (Tourism Diploma)	Junior Field Supervisor (Belize)
Koster, Teaghan (B.A.)	Junior Field Supervisor (Canada)
Williams, A. Megan (B.A.)	Junior Field Supervisor (Canada)
Cal, Idelfonso	Field Assistant (Belize)
Chiac, Jason	Field Assistant (Belize)
Chiac, Sylvestro	Field Assistant (Belize)
Chiac Jr., Higinio	Field Assistant (Belize)
Choc, Gonzalo	Field Assistant (Belize)
Paquiul, Juan	Field Assistant (Belize)
Tush, Zoilo	Field Assistant (Belize)
Tibbits, Tawny (Ph.D.)	Field Lab Consultant (USA)
Jordan, Jill (M.A.)	Field Lab Consultant (USA)

SCRAP Research in East-Central Belize

East-Central Belize (Figure 1.1) is roughly delineated to the north by the end of the Maya Mountains and beginning of a relatively flat landscape and bigger/longer rivers; to the west by the eastern foothills and face of the Maya Mountains; to the east by the Caribbean Sea; and to the south by the north end of the Bladen Formation, south of the Swasey Branch of the Monkey River. This is roughly the area of the modern-day Stann Creek District.

The nucleated settlements of the region are found primarily inland, toward the eastern foothills of the Maya Mountains. These major (and minor) civic-ceremonial centres share a number of common material culture patterns, which may serve to identify East-Central Belize as a sub region of the eastern Maya lowlands, in a manner similar to neighbouring Southern Belize (Braswell and Prufer 2009; Leventhal 1992; MacKinnon 1991). These features include

- Locations atop alluvial terraces, adjacent rivers and streams that are at minimum seasonally navigable to the coast.
- Low, large, non-vaulted architecture.
- Alluvial sandy-clays for construction core.
- Large quarry pits surrounding/enclosing monumental architecture.
- Facing blocks and ‘megalithic slabs’ (architectural elements) of non-limestone materials.
- Uncarved stelae (slab monuments) and altars of non-limestone materials.
- Special context use of limestone (e.g. ball court markers, corner stones, tomb walls).

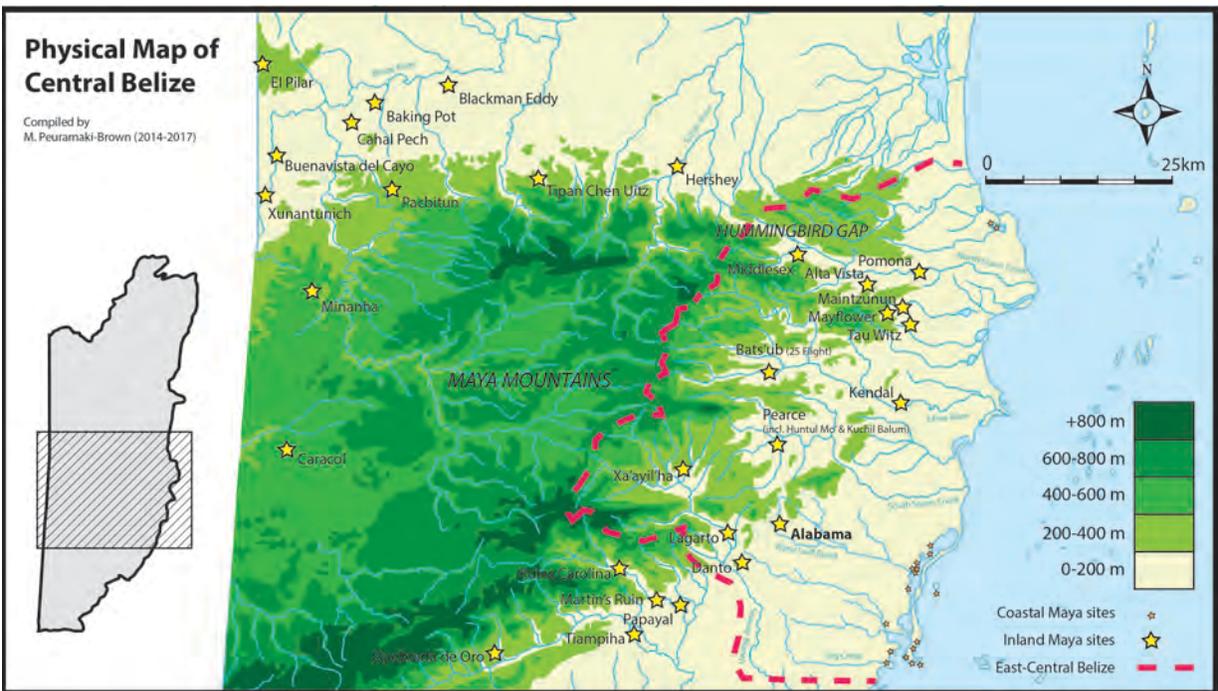


Figure 1. 1: Elevational map of Central Belize, indicating the location of a sample of archaeological sites.

Despite significant research, some of which is listed above, East-Central Belize remains one of the most poorly understood regions of the Maya lowlands, particularly in terms of ancient settlement processes, including the nucleating of populations (increasing population densities, relative to surrounding areas); the presence of multiple and diverse activities (including craft specialization); and central-place relationships along a continuum of rural-urban localities (countryside—barrio/neighbourhoods/villages—towns/districts—cities), all of which emphasize “urban-ness” and “rural-ness” to varying degrees (urban society; see Grauman Wolf 1980; Leeds 1980; Siembieda and López Moreno 1998; Zenner 2010). Notions of settlement as process and associated continuums are reflected in concepts such as “rural complexity”—diminutive village sites that exemplify social institutions normally interpreted as “urban” in distinctly “rural” settings (Falconer 1987; Falconer and Savage 1995; Iannone and Connell 2003)—and the complex relationships between agricultural and non-agricultural pursuits, as well as core-periphery world systems. In the humid neotropics in general, the relationships between humans and the environment are distinctive enough to lead to unique forms of urban development and, hence, diverse forms of urban (and urban-like) centres. We argue that East-Central Belize presents one such distinct region, with unique forms of settlement and urban-like development dependent on local geology; significant micro-management of local environments; and the integration of residents within multiple social, political, and economic spheres of varying scales, related to resident agency, local geography, and known transportation/communication corridors.

Notions of settlement and urbanism are not only ones of processes, but also dynamics and “mechanisms” (Flannery 1968), linked intimately with local histories and environments as well as larger systems in action (politics, economics, societies, ideologies, ecologies). Thus, an archaeological attempt to understand such complex developments must not only examine the end results, but also the beginnings and changes over time; ideally leading to an understanding of particular settlement tendencies in a given region, the development of associated socio-environmental networks, and their ultimate undoing. Any attempt to understand these

processes, dynamics, and mechanisms in a given region should consider four diachronic and dynamic elements:

1. Population development (chronology) and scale of land conversion.
2. Social fabric of resident populations.
3. Integration beyond the individual household (community, infrastructure, services, etc.).
4. Situation in larger social, economic, and political organizations.

SCRAP Research at Alabama

When settlement and civic centres flower rapidly in response to resource development, political centralization or decentralization, colonization and migration, environmental and climatic events (e.g. droughts, floods, hurricanes), etc., “instant cities” can arise (Barth 1975). Often described as ‘boomtowns’, these settlements are remarkable in that they typically emerge in severely disadvantaged or isolated frontier zones, often on the boundary between shifting geo-political entities (Barnes 1988; Burghardt 1971). These centres can boom then bust after a short period of time, boom indefinitely without interruption, or not boom at all (Rodriguez 1982). The rapid emergence of many villages in the Stann Creek District over much of its recent history, due to in-migration related to the banana, citrus, shrimping, logging, and tourism industries (Everitt 1984; Key 2002; Moberg 1991, 1996, 1997; Wilk 1984; Woods et al. 1997), exemplify such rapid urban and urban-like forms of development.

Current SCRAP research attempts to address ancient forms of this unique “rapid urbanism” (Woodworth 2011). Differentiating rapid urbanism, and more specifically rapid resource-based urbanism, from other ancient settlement processes entails unravelling the following dimensions at a given site (Peuramaki-Brown 2016):

- i. Distinguishing a *frenetic* pace and scale of population growth and land conversion, related to rapid in-migration. In other words, rapid development relative to the norm. In the case of the Maya, this might consist of development over a few centuries rather than a thousand years or more, as is the norm (Houk 2015).
- ii. A *unique and changing social fabric*, also related to rapid in-migration. Determining who arrives, who was already present, and how they were organized in relation to each other? In particular, a transition can be noted within communities of residents shifting from having strong social bonds that crosscut individual groups to only tenuous bonds that link internal groups, leaving a more “patchwork quilt pattern” of social fabric (Greider & Krannich 1985a, 1985b), often characterized by scattered residential sites versus clustered neighbouring organizations (Arnauld et al. 2012; Peuramaki-Brown 2014; Smith 2011; Smith et al. 2014). This sudden decline in the density of acquaintanceship, due to rapid in-migration, can be highly disruptive to socialization mechanisms, often leading to destabilizing forms of organization (Agnitsch et al. 2006; Putnam et al. 2003; Zolli & Healy 2011).
- iii. The presence of *hallmark urban features* (Houk 2015:20-21) that meet functional and placemaking needs, and are characterized by rapid appearance and potentially hybrid styles reflecting foreign administration and/or local factors.
- iv. The location of such processes in *frontier zones*, with population involvement in associated colonization and/or resource development activities (Pullan 2011).

Theories and methods from urban history, economic geography, environmental sociology, archaeology, and geology are applied to investigations at the site of Alabama: a late facet Late Classic to Terminal Classic (ca. 700-900 AD) Maya centre in the southern portion of the Stann Creek District of Belize, which is hypothesized to represent a boom-bust story of rapid urban-like development related directly to local resource exploitation, and possibly resulting from significant collapse processes experienced further inland in the Maya world or major environmental/climatic events in the region (e.g. hurricane). Alabama sits atop the uppermost alluvial terrace of the upper Waha Leaf Creek valley, located approximately 60 km north of Nim Li Punit; 10 km south of Pearce; just over 20 km inland from the coast; and roughly 40 km south of the Hummingbird Corridor. The site is somewhat sheltered from prevailing easterly winds, which can be particularly useful during hurricane season (though useless for flooding), as it is surrounded on three sides by the foothills of the Maya Mountains.

This aforementioned framework of investigation is applied at Alabama to examine the following research questions:

- What evidence supports the existence and fate of rapid or ‘boom’ development in the Maya world in ancient times?
- What evidence supports involvement in local and non-local resource extraction and distribution and its effects on Maya settlement and urban-like processes?

The opportunity to study instances of ancient rapid settlement, and resulting boom urbanism, is compelling, as it provides an innovative way of addressing topics such as ancient Maya urban planning, local and regional economic/socio-political organization, and the shifting relationships of households to larger civic and state authorities.

SCRAP Operations

Phase I Reconnaissance (2014-2016)

Operation 1: survey and surface collection in epicentre and settlement

Phase II Testing (2016)

Operation 2: test excavations at ALA-047 (Type VI settlement site, Block C1)

Operation 3: test excavations at ALA-045 (Type III settlement site, Block C1)

Operation 4: test excavations at ALA-043 (Type I settlement site, Block C1)

2016 Goals

The SCRAP 2016 program of research focused primarily on the initiation of Phase II Testing in the settlement area. Additionally, Phase I Reconnaissance was completed in the epicentre (monumental core), and various resource analysis programs were continued and expanded upon. Each of these research components at Alabama—epicentre, settlement, resource development—is directed toward addressing the aforementioned questions from within a ‘boomtown’ process investigative framework and using the four dynamic and diachronic elements of settlement and urban development.

The aims of the 2016 season were to continue outlining a comprehensive biography for Alabama, and to continue with diachronic analyses of material assemblages through a lens of economic integration and comparison with long-term research from adjacent coastal, mountain, and valley zones. The following goals were determined at the outset of the 2016 season:

1. To complete the total station mapping of the Alabama epicentre (monumental core).

2. To begin a testing program of mounds identified during the settlement survey of Phase I as a means of continuing to build the settlement chronology and to gain a preliminary understanding of the resident populations and associated activities.
 - A representative sample of mound groups (settlement sites) from Property Block C1 was selected for 2016 testing.
3. To conduct experimental granite use wear studies, for further analysis in Canada.
4. To continue collecting samples for the characterization and sourcing of local granite materials and artifacts/architecture, local clay sources and pottery/daub samples, and exotic obsidian artifacts.
5. To continue local community outreach initiatives.

Summary of 2016 Investigations

During our 8-week field season (plus one lab week), we completed the topographic mapping of the epicentre. This work is helping to better understand the layout and configurations of monumental construction at the site, and is building toward our understanding of all four elements (chronology, social fabric, integrative features, social-economic-political situation) in our boomtown investigations. The new epicentre map will also form the foundation for a GIS that will incorporate previous qualitative and quantitative data collected by PPAP and future data collected by SCRAP. Results of this program are detailed in Chapter 2.

We also initiated a testing program in the Alabama settlement, consisting of excavation units at three settlement sites (seven mounds) in Block C1, roughly 1km southwest of the epicentre (Figure 1.2; Figure 1.3). This area was selected for preliminary testing as it is a bounded settlement zone, with streams to the north, east, and south, and foothills to the west. Additionally, obsidian distribution studies based on surface collection identified this area as unique from the rest of the settlement, in that El Chayal materials dominated vs. Ixtepeque in other areas (Williams et al. 2017). These test excavations have provided a preliminary assessment of architectural conditions in the settlement, unknown up to this point, debris material allowing us to tentatively date occupation in this part of the settlement, and to begin characterizing activities and resident populations. These excavations are detailed in Chapters 3, 4, and 5.

We also continued various preliminary resource and artifact analyses, including geochemical-geological sourcing and characterization studies of granites, clays, and obsidians at the site. Summaries of these ongoing studies are presented in Chapter 6, with full details having been presented at various 2016/2017 conferences and are currently being written up for publication.

In 2016 we were also granted permission by the Belize Institute of Archaeology and the Belize Audubon Society to visit the Pearce sites in the Cockscomb Basin, just 10 km north of Alabama along the South Stann Creek. Summaries of previous research in the area, as well as our own reconnaissance trip, are presented in Chapter 7.

Finally, 2016 saw our second season of community outreach activities, including a breakfast and ‘research update’ morning talk with members of the Maya Mopan community at the end of June and end of July, as well as cataloguing and recording found artifacts brought to us by community members. Both initiatives were extremely successful, and we hope to continue with these activities in future seasons, expanding to larger community presentations, as well as a future collaboration with the new Stann Creek House of Culture in Dangriga.

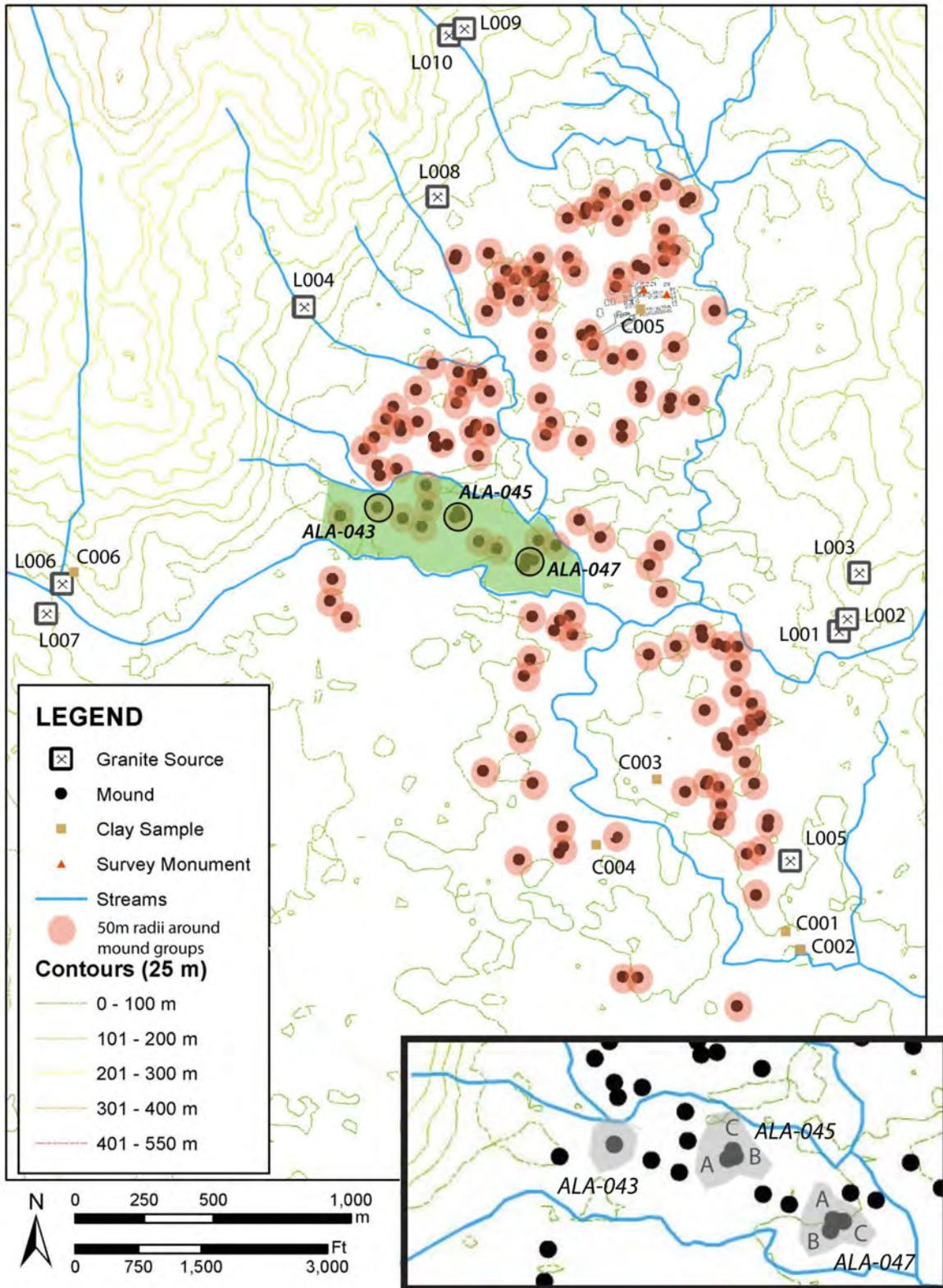


Figure 1. 2: Settlement map showing area of Block C1 in green, with close-up inset bottom right.

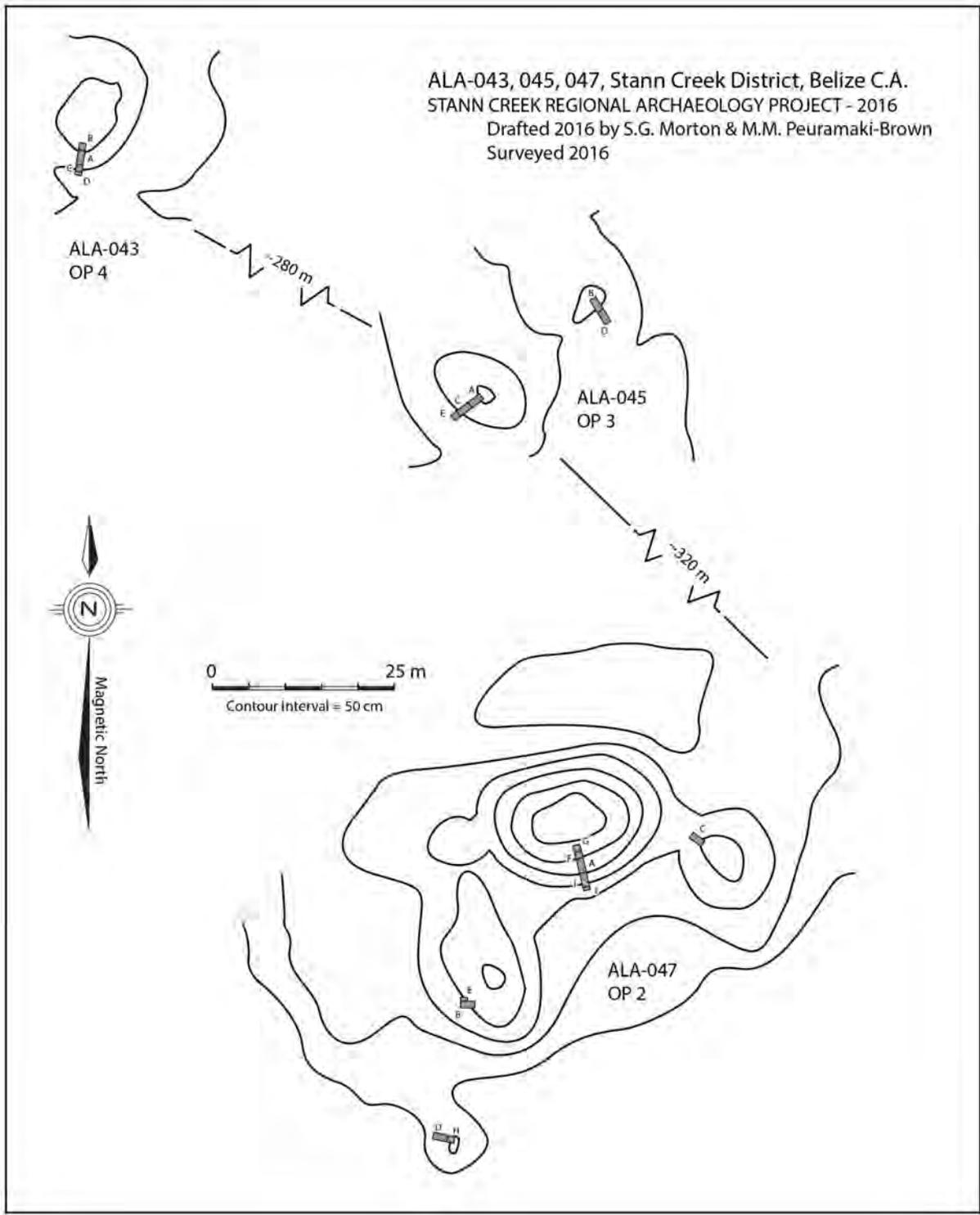


Figure 1.3: Topographic map of the investigated Block C1 settlement sites, showing excavation units.

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Chapter 2. The 2016 Epicentre Investigations at Alabama

Shawn G. Morton (Northern Arizona University)

Instrument survey during the 2016 season of the Stann Creek Regional Archaeology Project (SCRAP) continued and completed the program initiated in 2015 (see Morton 2015). This was part of the Phase I Reconnaissance, Operation 1 at Alabama.

Purpose

During the 2016 field season, we continued work on the production of an epicentre site map based on topographic and feature data, including monuments, structures, and other objects of interest where encountered. This process included exploration within the area previously surveyed by PPAP for such objects of interest. In addition, topographic survey was completed for each of the structures excavated in the settlement zone as part of the Phase II Testing discussed in Chapters 3, 4, 5).

Methods

As noted in the 2015 report of SCRAP, the factors that determined the survey method employed in the Alabama epicentre were three-fold: (1) A project focus on producing an up-to-date topographic map of the monumental core, including natural and cultural disturbances. (2) That the stationary survey instrument relies on a direct line-of-sight between it and a mobile reflector, and directly related to this, (3) that, as the Alabama epicentre is located in a heavily forested area in the middle of an otherwise heavily cultivated valley, there were limitations on the amount of vegetation that could/should be cleared. While clearing activities progressed at a rate more than sufficient to match the relatively plodding total station survey, this last factor determined the placement of both permanent and temporary survey stations. Efforts in the 2016 season were aided by a program of maintenance carried out within the epicentre since the close of the 2015 season; monthly trimming kept the underbrush relatively clear and allowed for a seamless continuation of survey operations. Similar concerns determined station placement in the settlement area in an effort to limit negative impact on the orange grove.

Survey Instrument

Nikon DTM-322+

Referencing the Site

Groups, structures, monuments, and features were recorded, wherever appropriate, in accordance with the map produced by the PPAP (MacKinnon et al. 1993). Additional structures were designated in accordance with the 2014 SCRAP report (Peuramaki-Brown and Schwake 2014). There are a number of minor departures to this practice that were implemented while drafting the map. In the PPAP map, the causeway extending off the southwest corner of the monumental core was given a structure designation (15). We have elected to remove this designation in accordance with naming conventions long established within the Maya area. Structure 9 on the PPAP map has been redefined as two distinct structures sharing a single base (or closely abutting) and the southern portion has been re-designated as Structure 15. The expanded area on the proximal end of the causeway, defined by Structures 13, 14, and 16 has been designated as the South Plaza. All newly defined structures and borrow pits are sequentially designated as recorded.

Establishing Survey Stations

Following established method, the placement of survey stations was the direct result of a number of factors. These factors were: (1) Selections for greatest visibility of structures or portions of structures and features of interest. (2) Selections for the greatest inter-visibility of other stations; and (3) selection for topography appropriate for setting up and using the total station. *Ad hoc*, or temporary stations were frequently utilized, particularly in the orange groves surrounding the epicentre. These were nonetheless tied back to the site's permanent monuments (concrete monuments set with steel spikes) and corrected at regular intervals.

Topographic survey in the settlement zone made similar use of temporary stations. The geographic coordinates for the starting point of the survey were derived through the use of a hand-held GPS unit. Thus, this survey integrates with the previously collected settlement survey data.

Mapping Open Space, Structures, and Monuments

Open, flat, space—plazas, the space between buildings, and the spaces surrounding the core—was treated as vegetation cover allowed. As elevations change little in these spaces, points were recorded as lines of sight became available through the trimmed vegetation. In general, the density of coverage in open spaces was lower than on structures, however, particular effort was expended on accurately recording the disturbed topography of both the North and East Plazas.

Spaces with rapidly changing elevation—such as the borrow pits to the west and south of the site core—were recorded making use of a more regular and closely spaced series of points similar to that used while recording structures (see below).

Structures were covered in a rough 2 m² grid of points wherever vegetation cover allowed, with an appropriate survey station being established for the purpose. Where structural details were visible (spine walls, doorways, etc.), additional points were recorded to aid in rectilinear reconstruction.

In general, the locations of stelae, altars or other stone monuments were not recorded, with the exception of a few notable examples as determined by SCRAP Director, Dr. Meaghan Peuramaki-Brown. Granite 'megaliths' appear on the map in their approximate location, transferred from the PPAP maps.

Generating the Maps

Point data, consisting of easting and northing coordinates, as well as elevation values in meters relative to MON 01 (arbitrarily set at 5000m E, 5000m N, 5000m H) and descriptions of the points were downloaded from the total station and imported into an Excel spreadsheet. Corrections were made where necessary. This data was then used to generate the necessary post and contour maps using Esri's ArcGIS software. Details of the map, including the contour interval to be used could be selected using this software. Map details, including rectilinear reconstructions, were finished in Adobe Illustrator.

Standards of Representation

As noted by Robert F. Carr and James E. Hazard (1961:4), graphic representation of ruins in plan presents many problems. It is difficult to set hard and fast standards, and inconsistencies

cannot be entirely avoided. While the range of structural forms to be represented on the map is significantly more limited than that encountered by Carr and Hazard at Tikal, this range nonetheless extends from barely discernible elevations and structural details to relatively massive platforms, and includes both well-defined architecture and amorphous pits. The problem of representation is further complicated by the great range in the present condition of the ruins: Most mounds are very much weathered and rounded down, but others show a considerable amount of cut stone in the debris and some intact foundations or spine walls are clearly visible atop some platforms—in fact, structures in all stages of ruin or preservation. At any rate, in representing the ruins, the survey generally followed the example of Carr and Hazard (1961) and Parris and Proskouriakoff (Satterthwaite 1943) before them. The shapes of the ruins are stylized, but at the same time pictorially presented as they actually appear, and not merely as symbols. All artificial mounds with no standing masonry are stylized into geometric shapes that are represented in plan view by a series of straight lines.

These stylized mounds are more than sketches: the orientation, configuration, and other structural details (where observed during survey) are shown as accurately as can be determined from the debris. Unlike the Tikal survey (Carr and Hazard 1961), there is no relationship between the distance between the lines representing the side slopes of a structure and the height of the mound. Rather, both the upper and lower dimensions of platforms were recorded and represented as accurately as possible; the distance between the lines representing the side slopes of a structure, thus, represent their real horizontal relationship.

Although it is not possible, of course, to indicate all minor irregularities of debris contour, many irregularities are shown where they appeared significant to the mapper, and often give clues to the original building plan. For example, the pattern of peaks and depressions on top of a mound seems possibly to indicate a ruined vaulted structure or else the remains of low foundation walls for perishable superstructures—the depressions in both cases corresponding to doorways and the high points to the remains of transverse walls.

Stairways also present a choice of representation. Commonly, at Alabama, the stair appears as a bulge of rubble on the side of the mound. Such stairs are nonetheless drawn as ‘realistic’ stairways, even though the individual treads may not be visible at all. Broad stairs may run the entire length of a structure and not be recognizable as such other than by the increased spread of the debris on one side; long, low buildings at Alabama (such as Structure 7) and the ball court (Structure 4) likely incorporated such stairs.

The map, as ultimately represented, is a compromise between contour data and rectilinear interpretation. While positive structures and the causeway are typically represented as linear drawings, we have chosen to use contours on plazas and pits, in addition to their use in representing natural topography. The contour lines do make visible the otherwise obscure, but important, drainage patterns of the large plazas and causeway, and highlights non-structural topographic irregularities within these spaces. In some areas, it is difficult to determine by inspection alone just where the construction areas begin and natural topography or negative features end (as on the northern margin of Structure 3); excavation will ultimately be required to clarify this relationship.

Results: Alabama Epicentre

Until this season, the original PPAP map of the site remained the most current survey within the site core. While adequate for a general understanding of the site and for planning and presentation purposes, the inaccuracies present in the document, and absence of digital topographic data made its use in continuing investigation limited. The 2015-2016 survey provides such a digital dataset, comprised of 7,080 spatial measurements (Figure 2.1).

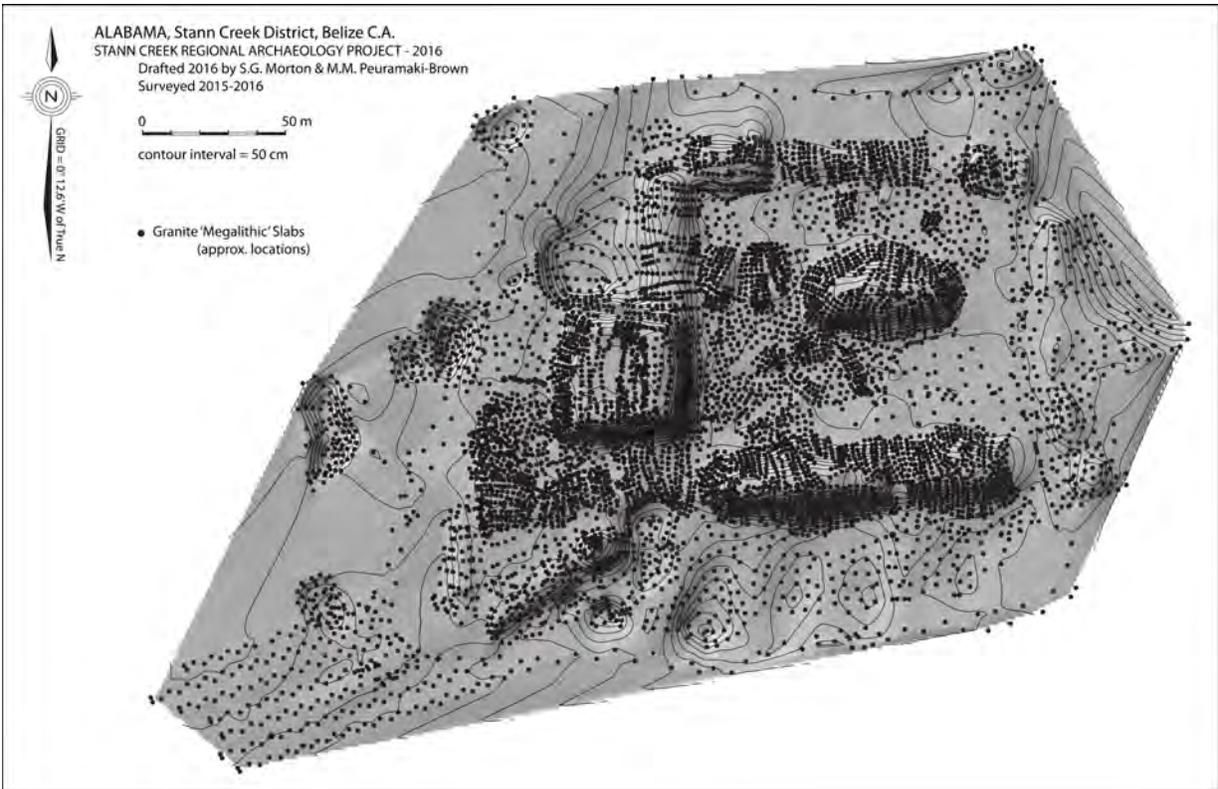


Figure 2. 1: Topographic plan of Alabama noting the locations of survey measurements (small black dots).

The site core is comprised of 20 individual structures, arranged around at least four principal plazas with a formal entrance defined by a short *sacbe* (Figure 2.2). The northern, western, and southern margins of the site core are blemished by ancient pits of indeterminate purpose. It has been conjectured that these may be borrow pits related to construction within the site core and are interpreted as such on the site map. It is possible that they served the additional purpose of collecting and holding water, and may have served to exaggerate the verticality of the site's monumental architecture when viewed from outside the site epicentre. The eastern margin slopes down toward Waha Leaf creek just beyond structures 9, 15, 17, and 18. Structures 19 and 20 lay somewhat outside the main site core. Operations in 2016 completed the re-survey of the area covered by the PPAP map and extended somewhat beyond this.

Note that while the 2015-2016 survey corresponds well with structures in the site core as designated by the PPAP, Walters, survey (MacKinnon et al. 1993), there are a number of differences worth discussing in some detail. Not least among these is the location of the site core itself within the broad valley on the west bank above Waha Leaf Creek. This valley-bottom site stands in sharp contrast to other prominent southern sites such as Lubaantun and Nim Li Punit, where restricted hilltops served to limit lateral core expansion, and presumably encouraged the development of a relatively dense monumental fabric that conformed to a significant degree with natural topography. In contrast, the Alabama site core, in its dense

jungle shroud amongst sprawling orange groves, is remarkable for its regularity of plan, massive if not unusually tall structures, and spacious plazas. However, if one looks more closely, one will quickly notice a number of inconsistencies in this regularity. For instance, the North and South Plazas are unusually long and narrow. Looking at the site plan, a potential explanation for this arrangement is suggested. While the truth of the matter must wait for excavation, it is difficult not to make comparisons between the central placement of Alabama Structure 10, effectively bisecting an otherwise conventional plaza space, with the similarly positioned Structure A1 at Xunantunich. As at Xunantunich, it seems reasonable to suggest that this structure was added during a later phase of monumental construction within the Alabama site core.

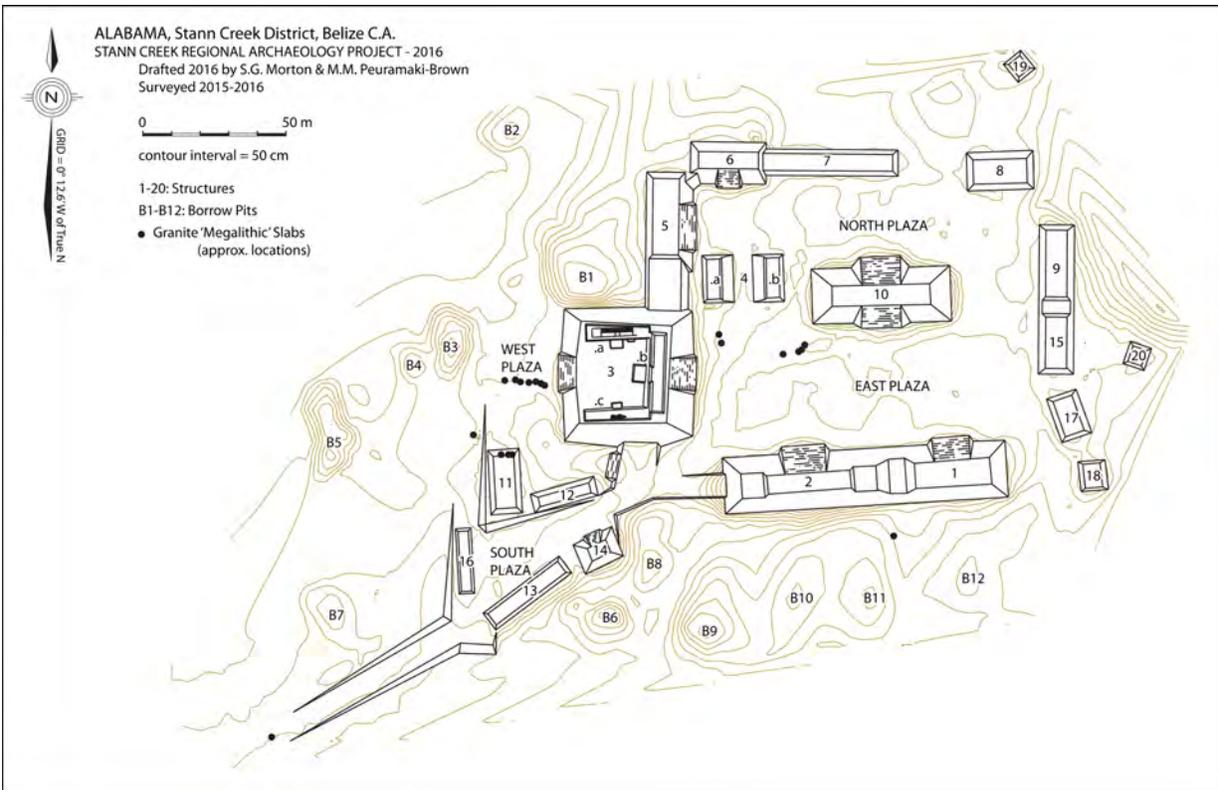


Figure 2. 2: Rectilinear/Topographic plan of Alabama.

A second, and glaringly visible inconsistency is associated with the causeway extending off the southwest corner of the site core. Walking in this direction, through the South Plaza and into the orange groves, one is struck by the sharp break in the style, orientation, and scale of the architecture surrounding you. From the strict orthogonal layout of the North and East Plazas, one is suddenly walking past low platforms, flanking the causeway and defining the South Plaza, oriented more-or-less to the causeway and flanking terraces. Again, it seems reasonable to suggest that these structures, along with the associated causeway which threads awkwardly between borrow pits on the west and south periphery of the site core, are the product of a later phase of monumental construction. The similarly non-orthogonally arranged Structures 17 and 18 off the east flank of the site core may also speak to such multi-phase construction (beyond the construction of the North and East Plazas). A secondary question emerges from these observations. If Structures 13, 14, 16, 17, and 18 represent later additions to the monumental site core, and if Structure 10, likewise, represents a later phase of construction, then is the orientation, scale, and placement of Structure 10—notably in harmony with Structures 1

through 9 and 15—anachronistic, or does it represent specific planning concerns or historical developments? We shall have to await future excavation to know for sure.

Results: Alabama Settlement

Instrument survey in the Alabama settlement area followed the same methods as employed within the site core. In all, seven individual mounds in three distinct loci were topographically mapped. Unit corners and excavation datums were additionally recorded. A detailed description of these excavations and the associated topographic maps can be found in Chapters 3, 4, and 5 of this volume.

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Chapter 3. The 2016 Settlement Investigations at Alabama: Operation 2 at ALA-047

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This chapter presents results of Phase II Testing at the ALA-047 settlement site, located in Property Block C1 within the southwest portion of the settlement area of the Alabama site, approximately 1 km from the monumental core (see Figure 1.2 in Chapter 1). The site was chosen for testing as a representative sample of a Type VI settlement site form (Ashmore et al. 1994) identified during Phase I Reconnaissance. Refer to Appendix A for applied excavation guides/systems. Copies of all paperwork, drawings, and photos are on file at the Belize Institute of Archaeology. Artifacts are currently in storage in Belize.

ALA-047 Settlement Site: Operation 2

This site is located in the modern citrus orchard, and consists of three mounds orthogonally arranged around a central patio space, with a fourth structure (located in 2016) off to the southwest (Figure 3.1). ALA-047A is the largest and tallest structure of the group (~2.05 m tall), positioned on the north side of the patio south of the Block C1 access road (Peuramaki-Brown et al. 2015:65-67). ALA-047B (~1m tall) is positioned on the west side of the group, while ALA-047C (0.8 m tall) occupies the east side. As mentioned, ALA-047D (~1.2 m tall) lies a short distance to the south. Large granite slabs were found along the south side of ALA-047C and east side of ALA-047D. All four structures were tested in 2016. The identification of coherent and well-preserved architecture was differentially successful as will be discussed below.

Surface collection at the group in 2015 recovered bulk ceramic and lithic-chipped stone (chert, quartz) materials, granite chipping debitage and a metate fragment, as well as an obsidian blade (EDXRF sourced to El Chayal). The time periods represented included Late to Terminal Classic (ca. 600-900), based primarily on the presence of eroded ashwares, and possible Early Postclassic (hollow oven foot ceramic).

Ten suboperations (units) were placed to investigate all four mounds, designated Operation 2. Units were positioned at mounds to capture faces of associated platforms, as space within the grove allowed, with the goal of recovering both architectural data and habitation debris. Excavations at ALA-047A were supervised by Kelsey Pennanen (KAP) and Shawn Morton (SGM), with assistance from A. Megan Williams (AMW), Juan Paquiul (JP), Sylvestro Chiac (SC), Virginia Chiac (VGC), and Jason Chiac (JC). Excavations at ALA-047B were supervised by Cristina Oliveira (CIRO) and Virginia Chiac (VGC), with assistance from Jason Chiac (JC), Idelfonso Cal (IC), and Juan Paquiul (JP). Excavations at ALA-047C were supervised by A. Megan Williams (AMW), with assistance from Juan Paquiul (JP) and Idelfonso Cal (IC). Finally, excavations at ALA-047D were supervised by Shawn Morton (SGM), with assistance from Idelfonso Cal (IC), Sylvestro Chiac (SC), and Juan Paquiul (JP).

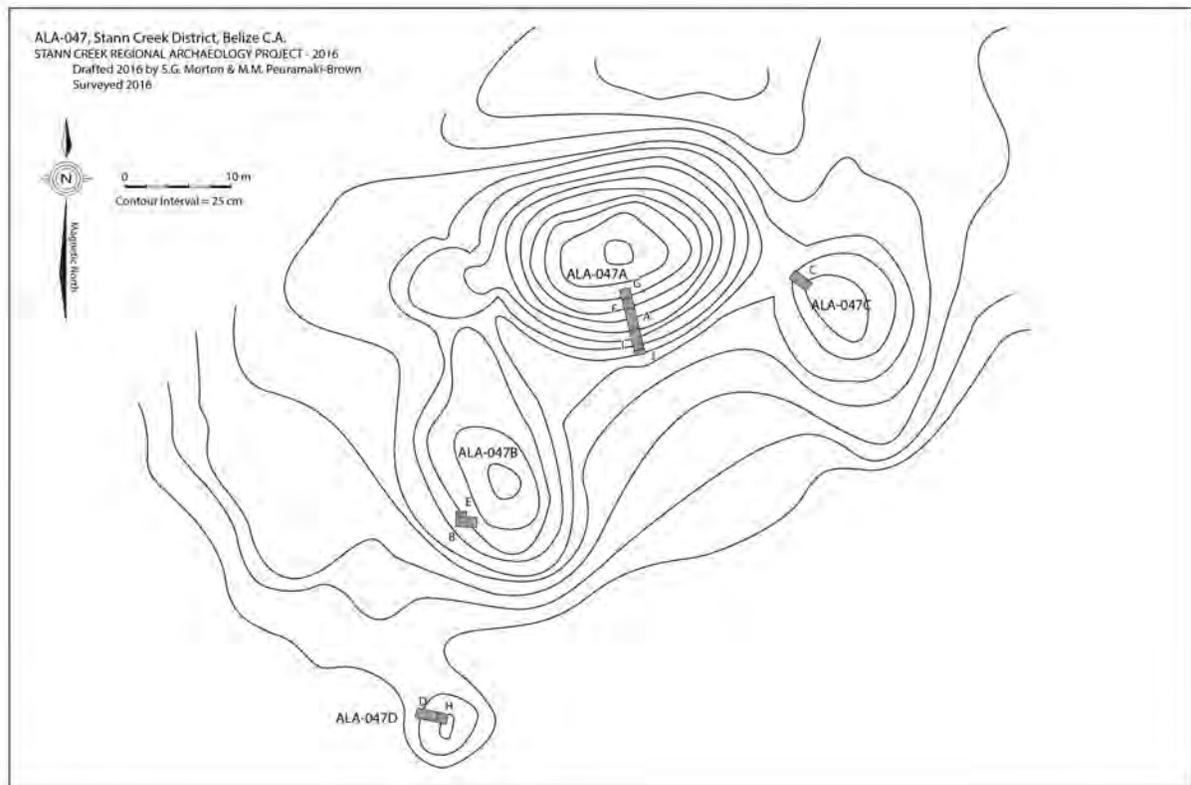


Figure 3. 1: Topographic map of ALA-047 and associated excavations.

ALA-047A: Suboperations 2A, 2F, 2G, 2I, 2J

Excavations at ALA-047A consisted of five contiguous suboperations (units), and one sub-suboperation, running roughly north-south along the presumed centre-line of the mound: Suboperations 2A, 2F, 2G, 2I and 2J (including sub-Suboperation 2I/J). This alignment of units ran almost perpendicular to an orchard row, necessitating some strategic placement; nonetheless, tree root disturbance was minimal, but ant disturbance was significant.

Subop 2A was a 2 m (N/S) x 1 m (E/W) unit established across what was estimated to have been the interstice between the base of the ALA-047A platform and the surrounding ground surface, taking into consideration the impact of fall/colluvium and plough damage on the overall topography of the mound. Its long axis was oriented 27 degrees west of magnetic north. This orientation was estimated to reflect that of the building platform and was so positioned to avoid undermining the surrounding orange groves. No clear architectural features were visible at modern ground surface, except for occasional granite cut stones assumed to be displaced/fallen architectural materials. After failing to identify any clear indications of a platform face in Subop 2A, Subop 2F was established as a 1 m (N/S) x 1 m (E/W) test unit, directly up-slope (north) from Subop 2A. Subop 2G was established as a 1 m (N/S) x 1 m (E/W) test unit, again, located directly up-slope (north) from Subop 2F. No clear architectural features were visible above the modern ground surface, though granite was noted. Subop 2I was established as a 2 m (N/S) x 1 m (E/W) test unit to the south of Subop A, in a renewed effort to identify the interstice between the base of the platform and original ground surface

(occupation horizon). No clear architectural features were visible above the modern ground surface, though a large granite boulder, approximately 50 cm wide, was noted.

Ploughzone

Lots 2A-1, 2F-1, 2G-1, 2I-1, and 2J-1 reflect the present-day ground surface and ploughzone (see Table 3.1 for lot details). The lots extended over the entire surface area of the excavated subops and began with the collection of any artifact material at surface, followed by removal of the disturbed soils/sediments. In general, the matrix was a consistent dark brown sandy loam with minimal pebble inclusions and a rich organic layer. While charcoal was occasionally noted in these lots, it was not collected; the unsealed and near-surface contexts being deemed unsuitable for establishing secure associations. No clear architectural materials were identified in this lot group. The contexts were switched after removal of the root mat and a noted change in texture/colour. Excavation of Lot 2A-1 exposed several possible concentrations of daub and ceramics

Bulk ceramic, lithic-chipped stone (quartzite, chert), daub, and lithic-ground stone (granite) were recovered from this context. Small finds recovered included an obsidian blade fragment (10385-OB002 [Ixtepeque]) and a gouge-incised/incised, red-slipped sherd with incomplete iconographic elements (10385-T023).

Preliminary ceramic analysis suggests a late facet Late Classic to Terminal Classic date for this context. No carbon samples were recovered from these lots.

Associated photos include BlackCamera-108-0061, 0062 and 110-0074, 100-0199 to 0210, 102-0241, 0243, and 0253 to 0257, SGM-257-2649 to 2651, and 262-2715 to 2721. Associated drawings include profiles DN-2016-001 (Figure 3.2), DN-2016-002, DN-2016-003, DN-2016-004, and DN-2016-005, and top plan DN-2016-006.

Fall

Lots 2A-2, 2A-9, 2A-11, 2G-2, 2I-2, 2I-3, 2I-4, 2I-5, 2I-6, 2I-7, 2I-8, 2I-9, 2I-10, 2I-11, 2I-12, 2I-13, 2I-14, 2I-15, 2J-2, 2J-3, 2I/J-1, 2I/J-2, 2I/J-3, and 2I/J-4 were designated as Fall (post-abandonment architectural collapse) and associated colluvium, with Lots 2J-2 and 2I/J-1 to 2I/J-4 being in the off-mound area to the south. This context was differentiated from the above Ploughzone by a general change in texture/colour, toward more brown/yellowish-brown sandy loam with pockets of fine gravel/pebbles. No large blocks of architectural masonry were encountered, though as discussed below, this is perhaps not surprising. Further changes in colour, consistency (transitioning to more compact sediments) and content, such as the exposure of a horizontal concentration of small cobbles at the base of Lot 2G-2, generally defined the context and served to separate it from the levels of habitation debris and architectural fill/core underlying the fall.

Bulk ceramic, lithic-chipped stone (quartz, quartzite, sandstone, chert), daub, and lithic-ground stone (granite, slate) materials were recovered from this context, though considered as a whole few remains were recovered related to the amount of matrix excavated. Small finds included a hand-modelled foot from a Postclassic ceramic effigy censer (10385-CR007); a worked “butterfly” sherd (10385-CR006), likely a net weight; seven obsidian blade fragments (10385-OB083 [El Chayal], OB047 [El Chayal], OB087 [El Chayal], OB098 [El Chayal], OB100 [El Chayal], OB102 [El Chayal], OB107 [El Chayal]); three obsidian flakes (10385-OB048

[Unknown], OB099 [Ixtepeque], OB101 [El Chayal]); and an obsidian biface fragment (10385-OB011 [Unknown]).

Some ceramic materials were stylistically dated to the Terminal Classic and Postclassic periods. Three carbon samples (10385-CB042, CB023, CB056) were recovered but have yet to be analyzed.

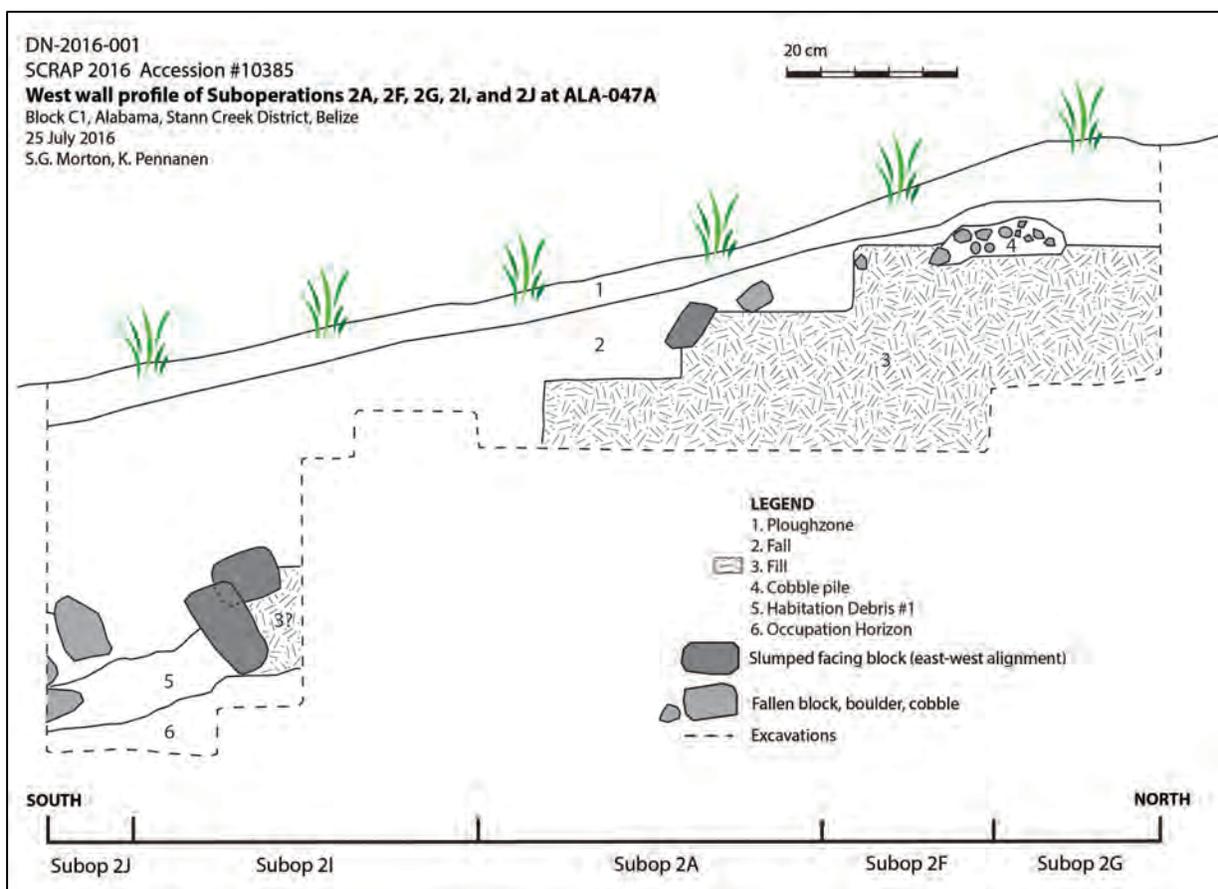


Figure 3. 2: West wall profile of Suboperation 2A, 2F, 2G, 2I, and 2J.

Lots 2A-3, 2A-4, 2A-5, 2F-4, and 2G-3 are a mix of Fall and Fill contexts, which could not be clearly distinguished from one another until the end of excavations when a sediment compaction test was performed on the trench profile to determine the edges of the platform construction core (fill); however, fallen and slumped architectural blocks present in the west wall did provide some guidance and allowed for interpretations following excavation. This included the cobble pile identified atop the platform surface, excavated as Lots 2F-4 and 2G-3.

Bulk ceramic, lithic-chipped stone (quartz, quartzite, sandstone, chert), daub, and lithic-ground stone (granite) materials were recovered from this context. Small finds included an obsidian blade fragment (10385-OB031 [El Chayal]) and an obsidian flake (10385-OB034 [El Chayal]).

We were unable to stylistically date any ceramic materials from these lots. Three carbon samples (10385-CB001, CB002, CB024) were recovered but have yet to be analyzed.

Photo numbers include BlackCamera-110-0047, 111-0080 to 0084, 102-0253, 0254, 0265 to 0275, and SGM-257-2646 to 2648, 259-2652 to 2654, 2661 to 2663, 2665 to 2667, 260-2672, 2674, 2677, 261-2678, 2683, 2684, 2687 to 2691, 262-2695 to 2696, 2707 to 2711, 2714 to 2717, 263-2724, 265-2727 and 2729, 266-2735, 2738 and 2739, 267-2749 to 2752, 2755 and 2757, and 268-2914, 2915, 2919, and 2921. Associated drawings include profiles DN-2016-001, DN-2016-002, DN-2016-003, DN-2016-004, and DN-2016-005, and top plan DN-2016-006.

Fill

Lots 2A-6, 2A-7, 2A-8, 2A-10, 2F-2, 2F-3, 2F-5, 2F-6, 2F-7, 2F-8, 2F-9, 2G-4, 2G-5, and 2G-6 were all designated Fill, deriving from the only identified phase of construction core of the ALA-047A platform, almost directly beneath the Ploughzone context atop the mound in Subop 2F and below the Fall context across the rest of the suboperations. The Fill consisted of a mottled matrix of varying colour and texture, ranging from dark yellowish-brown loamy sand to yellowish-brown loam and clay loam, with pockets of sand and gravel. As there were no organizational cues or clear artifact concentrations by which to differentiate the Fall from the Fill, we were forced to rely on relative degree of compaction by setting up a regular grid across the profile (Figure 3.3) and qualitatively describing the degree of compaction on a scale of 1-10 (1 being the most compact). With the assistance of a graded probe, we believe we successfully managed to separate the two contexts, as can be seen in Figure 3.2, demonstrating the presence of a effaced, terraced or stepped south face at ALA-047A. The downslope extent of this context was defined by a two-course, east-west alignment of large hewn granite blocks, approximately 1 m below present ground level, in Subop 2I (Figure 3.4). This is all that was believed to remain in the excavation area of the effaced platform. PXRF analysis of the granite blocks confirmed, unsurprisingly, their local source origins.



Figure 3. 3: Compaction test grid along west wall profile.



Figure 3. 4: Close up on sub-Subop 2I/J showing slumped double course south face at base of platform.

Bulk ceramic, lithic-chipped stone (quartzite, phyllite, sandstone, chert, quartz, shale), lithic-ground stone (granite, slate), and daub material were recovered from this context in qualitatively equal volumes to those lots associated with architectural Fall. Small finds included five obsidian blades (10385-OB069 [El Chayal], OB044 [Ixtepeque], OB045 [El Chayal], OB046 [El Chayal], OB054 [El Chayal]); four obsidian flakes (10385-OB070 [Unknown], OB037 [Ixtepeque], OB068 [Unknown], OB071 [Unknown]); and a granite mano fragment (10385-GS019 [Hummingbird pluton]).

Two possible crude censer appliqués (a flange [10385-T018] and a tau-shape [10385-T019]) were stylistically attributed to anywhere from the Early Classic to the Postclassic, and one

outcurving rim, rounded lip jar was assigned to the Early Classic. Five carbon samples were recovered (10385-CB003, CB025, CB026, CB029, CB-030) but have yet to be analyzed. A sixth sample (10385-CB022 from Lot 2F-3) found near the censer fragments and jar sherd, was subject to AMS dating at Beta Analytic Inc., returning a date range of cal. AD 640-680 (2 σ , Beta-457817), which would correspond with the early facet of the Late Classic.

Photo numbers include Black Camera-111-0080, 0081, 112-0097, 0098, 115-0133 to 0147, 0154 to 0157, 1161 to 0165, 100-0195 to 0198, 0203, 0207, 101-0226 to 0236, 102-0265 to 0268, 103-0302 to 0305, 0311 to 0313, 0315, 104-0353 to 0357, 105-0368, 0371, 0378, 0380, 106-0387 to 0397, 108-0421 and 0422, and 109-0547 to 0579. Associated drawings include profiles DN-2016-001, DN-2016-002, DN-2016-003, DN-2016-004, and DN-2016-005, and top plan DN-2016-006.

Habitation Debris & Occupation Horizon

The Habitation Debris layer was identified directly to the south of the previously mentioned alignment of slumped, shaped granite blocks in Subop 2I (south face of the platform), and consisted of *Lots 2I/J-5 and 2I/J-6*. The high concentration of carbon within the debris layer noted at ALA-047C, adjacent ALA-047A and discussed below, was not encountered here.

A wide variety of artifacts, including bulk ceramics, lithic-chipped stone (chert, quartz, sandstone), and lithic-ground stone (granite, slate) were recovered from this layer, which consisted of a matrix of mottled strong brown to yellowish-brown sandy loam and fine to coarse sand pockets. Small finds included an obsidian blade fragment (10385-OB108 [El Chayal]) and a granite metate fragment (10385-GS026 [Mountain Pine Ridge pluton]).

None of the recovered ceramic materials from the habitation debris could be stylistically dated to any period in particular, and no carbon samples were recovered.

These lots sat directly atop an Occupation Horizon—a culturally modified natural horizon atop of which the excavated platform was constructed—consisting of compacted layers of striated sand excavated in *Lots 2I/J-7 and 2I/J-8*. No artifacts were recovered.

Photo numbers include SGM-267-2760 to 2766, 2770 to 2772, and 2773. Associated drawings include profiles DN-2016-001, DN-2016-002, DN-2016-003, DN-2016-004, and DN-2016-005, and top plan DN-2016-006.

Summary

Excavations at ALA-047A revealed architectural and material remains of what one might expect to recover from a domestic site, including a granite-faced platform that once held a perishable superstructure. For being the largest of the mounds excavated during the 2016 field season, and thus, the one ostensibly suspected to be the best-defined, it was poorly preserved archaeologically and contained very little in the way of organized material. It appears to have been constructed in a single phase, with a minimal core face/facing containing a tamped earth core—likely with much of the stone having been removed in antiquity (effaced)—with a series of steps/terraces leading up to the top of the platform, as revealed from the profile compaction analysis; daub from perishable superstructures; a small amount of habitation debris off the front side (south) of the platform, including ceramic sherds, lithic-chipped stone debitage, lithic-ground stone debitage, formal tools, etc. Unfortunately, the small size of the excavated area did not provide us with a large enough assemblage to definitively discuss activities

conducted at the site; although, the assemblage was reflective of the commoner stratum, albeit at a higher level.

If the ALA-047A remains are reflective of a household and its activities, we can say that residents were able to obtain items from a distance (beyond the East-Central Belize region), including chert, obsidian, granite, and ceramic materials, in addition to locally available resources such as various materials used in knapping and pecking/grinding activities (quartz, quartzite, phyllite, sandstones, siltstones, granites).

Datable ceramic materials placed the use of the platform in the late facet of the Late Classic to Terminal Classic, possibly extending into the Early Postclassic. Construction core of the platform did contain earlier materials, including carbon, and may hint to a small early local occupation in the area.

Table 3. 1: Lot descriptions, ALA-047A

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	A	1	2 x 1	Ploughzone	Entire	unknown		15.7	7.5 YR 3/3 Dark Brown (wet)	Sandy Loam	98% sandy loam, 1% organics/roots, 1% gravel
2	F	1	1 X 1	Ploughzone	Entire	unknown		30.1	10 YR 5/6 Yellowish Brown	Sandy Loam	94% sandy loam, 2% fine gravel, 2% roots/organics
2	G	1	1 x 1	Ploughzone	Entire	unknown		28.9	10 YR 4/4 Dark Yellowish Brown	Clay Loam	97% clay loam, 1% fine gravel, 2% roots/organic material
2	I	1	2 x 1	Ploughzone	Entire	unknown		18.5	7.5 YR 3/3 Dark Brown	Sandy Loam	98% sandy loam, 1% organics/roots, 1% gravel
2	J	1	0.5 x 1	Ploughzone	Entire	LC/TC		28.6	7.5 YR 3/3 Dark Brown	Sandy Loam	80% sandy loam, 20% cobbles and fallen cut blocks
2	A	2	2 x 1	Fall	Entire	unknown		9.7	10 YR 4/3 Brown	Sandy Loam	98% sandy loam, 2% gravel
2	A	9	1 x 0.5	Fall	SW Quadrant	unknown		15.2	10 YR 4/4 Dark Yellowish Brown	Clay Loam	95% clay loam, 5% cobbles
2	A	11	1 x 0.5	Fall	SW Quadrant	unknown		33.2	10 YR 4/4 Dark Yellowish Brown	Clay Loam	99% loam, 1% cobbles
2	G	2	1 x 1	Fall	Entire	PC		21.8	10 YR 5/3 Brown	Sandy Clay Loam	99% sandy clay loam, 1% fine gravel

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions	
						Ceramic	AMS		Colour (Munsell)	Texture		
2	I	2	1 x 0.5	Fall	West Half	unknown		23.8	7.5 YR 4/3 Brown	Sandy Loam	98% loam, cobble	sandy 2%
2	I	3	1 x 0.5	Fall	SW Quadrant	unknown		24.4	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% loam	sandy
2	I	4	1 x 0.5	Fall	SW Quadrant	unknown		12.6	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Loam	Sandy
2	I	5	1 x 0.5	Fall	SW Quadrant	unknown		19.4	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Loam	Sandy
2	I	6	1 x 0.5	Fall	SW Quadrant	unknown		22.4	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Loam, a few pebbles (gravel)	Sandy
2	I	7	1 x 0.5	Fall	SW Quadrant	unknown		13.3	10 YR 4/4 Dark Yellowish Brown	Loamy Sand	100% Sand	Loamy
2	I	8	1 x 0.5	Fall	SE Quadrant	TC		21.8	7.5 YR 4/3 Brown	Sandy Loam	99% loam, cobble	sandy 1%
2	I	9	1 x 0.5	Fall	SE Quadrant	unknown		19.2	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Loam	Sandy
2	I	10	1 x 0.5	Fall	SE Quadrant	unknown		19.3	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Loam	Sandy
2	I	11	1 x 0.5	Fall	SE Quadrant	unknown		21.7	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Loam	Sandy
2	I	12	1 x 0.5	Fall	SE Quadrant	unknown		21.8	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Loam	Sandy
2	I	13	0.8 x 0.5	Fall	SE Quadrant	unknown		15.2	10 YR 4/4 Dark Yellowish Brown	Loamy Sand	100% Sand	Loamy
2	I	14	0.3 x 0.5	Fall	West, Centre	unknown		30	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Loam	Sandy

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	I	15	0.45 x 0.47	Fall (fill?)	North, Centre	unknown		91.8	10 YR 4/4 Dark Yellowish Brown to mottled 7.5 YR 5/6 Strong Brown and 5 YR 6/4	Loamy sand blending to mottled coarse and fine sand	100% soil with gravel/cobbles appearing at bottom
2	J	2	0.5 x 1	Fall	Entire	unknown		43	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% Sandy Loam
2	J	3	0.5 x 1	Fall	Entire	unknown		47.6	10 YR 4/4 Dark Yellowish Brown	Sandy loam transitioning to loamy sand	100% sandy loam/loamy sand
2	I/J	1	1.2 x 0.7	Fall	East Side	unknown		12.4	10 YR 4/4 Dark Yellowish Brown	Loamy Sand	100% Loamy Sand
2	I/J	2	1.2 x 0.7	Fall	Ease Side	unknown		21.6	10 YR 4/4 Dark Yellowish Brown to 10 YR 5/4 Yellowish Brown	Loamy sand/sandy loam	90% loamy sand/sandy loam, 10% cobbles
2	I/J	3	1.2 x 0.3	Fall	West Side	PC		35	10 YR 4/4 Dark Yellowish Brown to 10 YR 5/4 Yellowish Brown	Sandy loam to loamy sand (very fine)	90% loamy sand with 10% cobble fall (including cut stones)
2	I/J	4	0.25 x 0.40	Fall	North Edge	unknown		11	10 YR 4/4 Dark Yellowish Brown	Loamy Sand	100% Loamy Sand
2	A	3	2 x 1	Fall/Fill	Entire	unknown		13	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	98% sandy loam, 2% gravel & coarse sand
2	A	4	2 x 1	Fall/Fill	Entire	unknown		5	10 YR 4/4 Dark Yellowish Brown	Sandy Loam (although excessive amounts of silt/clay present)	99% sandy loam, 1% silt/clay/water
2	A	5	2 x 0.5	Fall/Fill	West Half	unknown		8.2	10 YR 4/3 Brown	Sandy Loam	100% Sandy Loam
2	F	4	0.35 x 0.5	Fall/Fill (Cobble pile)	North Half	unknown		6.8	10 YR 4/3 Brown	Sandy Clay Loam	50% sandy clay loam, 50% cobbles

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	G	3	1 x 0.5	Fall/Fill (Cobble pile)	West Half	unknown		14.8	Cobble Pile: 10YR 4/3 Outside of Pile: 10YR 5/4	Cobble Pile: Sandy Clay Loam, Outside of Pile: Sandy Loam	95% sandy clay loam, 5% cobbles
2	A	6	1 x 0.5	Fill	NW Quadrant	unknown		16.1	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	98% sandy loam, 1% fine gravel, 1% coarse gravel/small cobbles
2	A	7	1 x 0.5	Fill	NW Quadrant	unknown		5.7	10 YR 5/4 Yellowish Brown	Loam	99% loam, 1% fine gravel
2	A	8	1 x 0.5	Fill	NW Quadrant	unknown		20.2	10 YR 4/4 Dark Yellowish Brown	Clay Loam	100% Clay Loam
2	A	10	1 x 0.5	Fill	NW Quadrant	unknown		14.6	10 YR 4/4 Dark Yellowish Brown	Clay Loam	99% clay loam, 1% coarse gravel/small cobbles
2	F	2	1 X 1	Fill	Entire	EC?/TC/EPC		15.4	10 YR 5/4 Yellowish Brown	Loam	99% loam, 1% fine gravel
2	F	3	1 x 1	Fill	Entire	unknown	cal AD 640-680	8.1	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	99% sandy loam, 1% fine gravel
2	F	5	0.35 x 0.5	Fill	NE Quadrant	unknown		18.7	10 YR 4/3 Brown	Sandy Clay Loam	98% sandy clay loam, 2% cobbles
2	F	6	1 x 0.5	Fill	West Half	unknown		22.3	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% coarse gravel
2	F	7	1 x 0.5	Fill	West Half	unknown		39.2	10 YR 4/4 Dark Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% fine gravel
2	F	8	1 x 0.5	Fill	West Half	unknown		22.1	10 YR 4/3 Brown	Sandy Clay Loam	99% sandy clay loam, 1% coarse gravel
2	F	9	1 x 0.5	Fill	West Half	unknown		14.9	10 YR 4/3 Brown	Loam	95% loam, 5% cobbles
2	G	4	1 x 0.5	Fill	West Half	EC?/TC/EPC		12.8	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	100% sandy loam
2	G	5	1 x 0.5	Fill	West Half	unknown		18.4	10 YR 5/4 Yellowish Brown	Sandy Loam	99% sandy loam, 1% fine gravel
2	G	6	1 x 0.5	Fill	West Half	unknown		38.5	10 YR 4/4 Dark Yellowish Brown	Loam (gritty but also smooth)	99% loam, 1% coarse gravel

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	I/J	5	1 x 1	Habitation Debris	Entire J, South Quarter I	unknown		18.4	10 YR 5/4 Yellowish Brown	Loamy Sand (very fine)	100% Loamy Sand
2	I/J	6	1 x 1	Habitation Debris	Entire J, South Quarter I	unknown		18.2	7.5 YR 5/6 Strong Brown with pockets of 5 YR 6/4 Light Reddish Brown	Coarse sand with pockets of fine sand	80% coarse sand, 20% fine sand/silt
2	I/J	7	1 x 1	Occupation Horizon	Entire J, South Quarter I	unknown		11.8	7.5 YR 5/6 Strong Brown with pockets of 5 YR 6/4 Light Reddish Brown	Coarse sand with pockets of fine sand	80% gravel, 20% coarse sand
2	I/J	8	1 x 1	Occupation Horizon	Entire J, South Quarter I	unknown		20	7.5 YR 5/6 Strong Brown with pockets of 5 YR 6/4 Light Reddish Brown	Coarse sand with pockets of fine sand	80% gravel, 20% coarse sand

ALA-047B: Suboperations 2B, 2E

Suboperation 2B was a 1 m (N/S) x 2 m (E/W) test excavation located on the back (west) side of ALA-047B, oriented 17° west of magnetic north. The unit was positioned in order to capture both on- and off-platform areas, toward the south end of the west face instead of the centre line due to the presence of orchard trees. This was positioned to expose possible architecture and to collect any habitation debris that may have accumulated off the back of the associated platform. Suboperation 2E was a 0.5 m (N/S) x 1m (E/W) unit attached to the north side of Subop 2B, opened to expose the full horizontal extent of Feature #1.

Ploughzone

Lots 2B-1 and 2E-1 were designated as Ploughzone. These lots encompassed the entire area of Subop 2B and 2E. Excavation ceased when the tops of large architectural blocks were uncovered, along with a concentration of artifacts surrounding them. The architectural blocks were made of granite, and all were within 40 cm of each other, indicating a possible alignment, likely part of the platform face. Many pockets of daub were encountered amongst the blocks.

Bulk ceramic, lithic-chipped stone (quartzite, chert), daub, and lithic-ground stone (granite) were recovered from this context. Small finds recovered included an obsidian blade fragment (10385-OB001 [El Chayal]).

Preliminary ceramic analysis identified a possible Early Classic jar sherd. No carbon samples were recovered from these lots.

Associated photos include Red Camera-122-521, 122-592 to 593, 123-5935 to 5936, 101-5994 to 5995, 101-5997, and 101-5999 to 6000. Associated illustrations include profiles DN-2016-007 (Figure 3.5), DN-2016-008, DN-2016-009, and top plan DN-2016-010 (Figure 3.6).

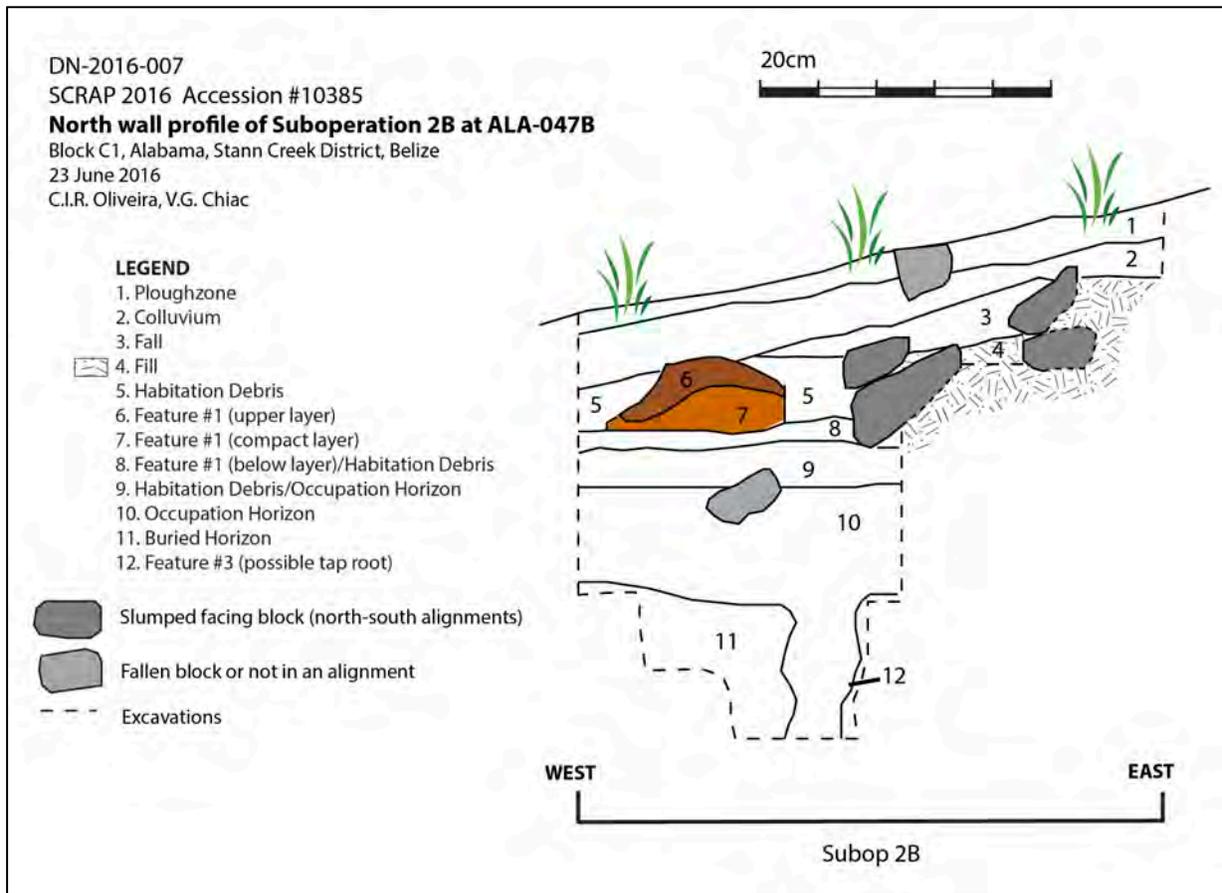


Figure 3. 5: North wall profile of Suboperation 2B

Colluvium

Lots 2B-2 and 2E-2 were designated Colluvium, covering the entirety of both subops (see Table 3.2 for details). As excavation began, artifact finds increased significantly—likely material that had been washed down from atop the platform or from within the fill. Additional granite blocks were uncovered, most forming two north-south, stepped alignments—the west face of the platform. As excavation continued, fallen materials including granite blocks and large river cobbles were exposed. Excavation ceased after exposing all architecture and possible fall material.

Bulk ceramic, lithic-chipped stone (quartzite, chert), daub, and lithic-ground stone (granite, slate) were recovered from this context. Small finds recovered included four obsidian blade fragments (10385-OB006 [El Chayal], OB007 [El Chayal], OB008 [Ixtepeque], OB009 [Ixtepeque]); three obsidian flakes (10385-OB011 [Ixtepeque], OB012 [Ixtepeque], OB021 [Ixtepeque]); and an obsidian biface fragment (10385-OB013 [Ixtepeque]).

The medial portion of a chert thin biface (10385-LT001; Figure 3.7) was also recovered. The raw material is very dark grayish-brown (10 YR 3/2), with olive/yellow-coloured inclusions, and is slightly translucent when held up to the light.

According to James Stemp (personal communication, 2016 – based on photo of item), it is likely from a lenticular biface (possibly incomplete) produced in Northern Belize (Chert Bearing Zone)—not a locally produced tool, based on raw material type and form—likely imported/traded in its finished form (Shafer and Hester 1983: 531-532; Hester and Shafer 1991). It can be stylistically dated to the late Terminal Classic to Early Postclassic.

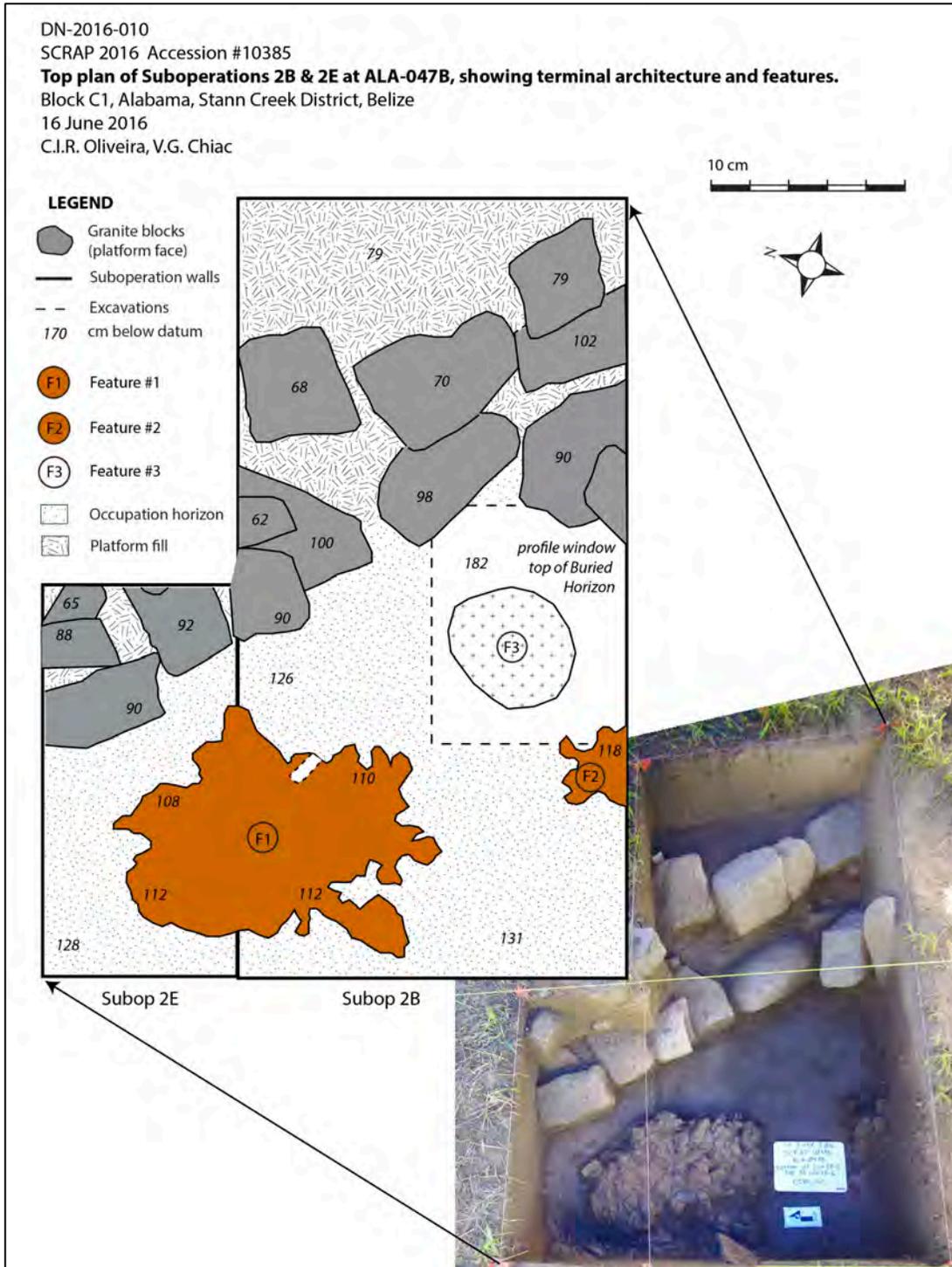


Figure 3. 6: Top plan of terminal architecture and features at ALA-047B



Figure 3. 7: 10385-LT001

Other finds included a small, roughly flaked, chert thin biface (10385-LT004; Figure 3.8); a jadeite pendant fragment (10385-GS001; Figure 3.9); an unknown soft stone item (10385-LT002); a granite metate fragment (10385-GS008 [Cockscomb Basin pluton]); and a granite mano fragment (10385-GS009 [Cockscomb Basin pluton]).

Preliminary ceramic analysis identified a possible Early Classic jar sherd among primarily Late to Terminal Classic material. Two carbon samples (10385-CB004 and CB005) were recovered but have yet to be analyzed.

Associated photos include Red Camera-124-5938 to 5943, 101-5999, 102-6006 to 6010. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.



Figure 3. 8: 10385-LT004



Figure 3. 9: 10385-GS001

Fall

Lot 2B-3 was designated Fall (post-abandonment architectural collapse) and situated between the two exposed alignments. The lot was closed after fully exposing all edges of each granite block within the two alignments.

Bulk ceramic, lithic-chipped stone (quartzite, chert), daub, and lithic-ground stone (granite) were recovered from this context. Small finds recovered included an obsidian blade fragment (10385-OB032 [El Chayal]); an obsidian flake (10385-OB033 [El Chayal]); two granite metate fragments (10385-GS010, 10385-GS011 [Cockscomb Basin pluton]); and a worked, disk-shaped potsherd (10385-CR001).

Preliminary ceramic analysis identified Late/Terminal Classic material. No carbon samples were recovered.

Associated photos include Red Camera-124-5938, 124-5939, 124-5947 to 124-5955. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.

Habitation Debris

Lots 2B-4, 2B-6, 2E-3, 2E-4, and 2E-8 were classified as Habitation Debris, and involved the removal of much occupation debris from west of the platform face (off-platform). As excavation of this context continued, a large concentration of daub (Feature #1) was uncovered along the northern wall of Subop 2B extending into Subop 2E, and a smaller concentration of daub (Feature #2) was uncovered along the south wall of Subop 2B (see Figure 3.6). The remainder of the habitation debris was collected from around these two concentrations and the boundaries of the features were delineated using small wooden picks.

The matrix was subject to floatation, resulting in heavy fraction samples (10385-HF001, HF002, HF003, HF004) and light fraction samples (10385-LF001, LF002, LF003, LF004), which have yet to be analyzed. A 4 oz. soil sample was also collected (10385-SL001) for future analysis.

Bulk ceramic, lithic-chipped stone (quartz, quartzite, sandstone, chert), large daub chunks, and lithic-ground stone (granite, slate) were recovered from this context. Small finds recovered included an obsidian blade fragment (10385-OB036 [El Chayal]); a quartzite chopper (10385-

LT003); two granite metate fragments (10385-GS013, 10385-GS014 [Cockscomb Basin pluton]); two granite mano fragments (10385-GS015, 10385-GS016 [Cockscomb Basin pluton]); one worked piece of slate (10385-GS017); a ceramic spout (10385-T004); and a scored censer sherd (10385-T005).

Preliminary ceramic analysis identified Late/Terminal Classic material, including molded-carved sherds (10385-T024). Five carbon samples (10385-CB006, CB007, CB008, CB018, CB019) were recovered but have yet to be analyzed.

Associated photos include Red Camera-124-5947 to 5949, 126-5962 to 5965, 126-5967, 126-5968, 127-5969, 127-5980 to 5985, 102-6006, 103-6026 to 6031, 103-6035 to 6038, 103-6044 to 6048, 103-6050, 112-6289 to 6294, 112-6298 to 6306. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.

Feature #1

This feature consisted of a large daub concentration encountered along the shared Subop 2B and Subop 2E wall in the off-platform area. Each layer was excavated in halves or quadrants, and all matrix material was subject to floatation. Analysis of all associated materials is ongoing and will be more fully presented in the future.

UPPER LAYER

Lot 2B-5 and 2E-5 consisted of daub and habitation debris removed from the upper-most layer of Feature #1. The purpose of these lots was to only remove the floating daub and soil just above the compact daub mass. Much artifact material was recovered from this top layer.

All matrix was subject to floatation, resulting in heavy fraction (10385-HF006, HF010) and light fraction (10385-LF006, LF010) samples yet to be analyzed.

Bulk ceramic, lithic-chipped stone (quartzite, sandstone, chert), daub, and lithic-ground stone (granite, slate) were recovered from this context. Small finds recovered included nine obsidian blade fragments (10385-OB014, OB015, OB016, OB017, OB018, OB019, OB022, OB042, OB043 [all El Chayal]). No obsidian was recovered from the compact daub layer below—perhaps a key point to understanding the function/cause of this feature.

Preliminary ceramic analysis identified Terminal Classic material, such two hollow oven feet (10385-T009a/b) and an Ahk'utu' Molded-Carved sherd (10385-T008; Figure 3.10) with a portion of the iconographic program depicted on Panel B (Christophe Helmke, personal communication, 2016; see Graham 1987; Helmke 2001; Helmke and Reents-Budet 2008; Ting and Helmke 2013; Ting et al. 2015); and an Early Postclassic sherd (10385-T007; Figure 3.11) with incised and excised 'international style' geometric patterns, reminiscent of materials from Lamanai and northern Yucatan (Jim Aimers, personal communication, 2016). One carbon sample (10385-CB020) was recovered but has yet to be analyzed.

Associated photos include Red Camera-126-5962, 127-5969 to 5971, 127-5973 to 5978, 103-6035, 103-6036, 104-6056 to 6060, 104-606 to 6068, and 104-6070. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.



Figure 3. 10: (L-R) 10385-T008, 10385-T, 10385-T011, 10385-T012a/b



Figure 3. 11: 10385-T007

COMPACT LAYER

Lots 2B-7 (SW, SE) and 2E-6 (NW, NE) consisted of the removal of the compact layer of daub in Feature #1. This was excavated in four quadrants: two in Subop 2B and two Subop 2E. A grid was strung up and each quadrant was taken out separately.

All matrix was subject to floatation, resulting in heavy fraction (10385-HF005, HF007, HF008, HF009) and light fraction (10385- LF005, LF007, LF008, LF009) samples yet to be analyzed. Larger artifacts from each quadrant were bagged separately. A 4 oz. soil sample (10385-SL002) was also collected for future analysis.

Bulk ceramic, lithic-chipped stone (quartz, quartzite), daub, and lithic-ground stone (granite) were recovered from this context. No small finds were recovered other than the ceramics mentioned below.

Preliminary ceramic analysis identified Terminal Classic material, including a sherd of a restricted mouth jar with outleaning neck (10385-T010), and an Ahk'utu' Molded-Carved sherd (10385-T011; Figure 3.10). Christophe Helmke (personal communication, 2016) identifies the sherd as part of the primary text of the vase, above the iconographic panels and below the superior molding, which is partially preserved on the sherd. The glyph block is not entirely clear, but is likely the final glyph of the clause, written **KALOM-TE'** for *kalo'mte'*. This title was borne by the original patron of these vases: *Ixolom* (Lady Olom).

Three carbon samples (10385-CB009, CB010, CB021) were recovered from the SE, SW, and NE quadrants, respectively. The latter sample, from Lot 2E-6 (NE), was subject to AMS dating at Beta Analytic Inc., returning a date range of cal. AD 675-780 and cal. AD 790-870 (2 σ , Beta-457817), with a 95% probability of cal. AD 790-870, which would correspond to the Terminal Classic.

Associated photos include Red Camera-104-6056 to 6058, 104-6077 to 6083, 104-6084 to 104-6088. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.

Habitation Debris – below Feature #1

Lot 2B-8 and 2E-7 removed material from below Feature #1, sitting above the occupation horizon, and was ended at the base of the exposed, slumped bottom course of the platform face. The separation of Feature #1 from the occupation horizon proper suggests it represents a later phase in off-platform debris accumulation.

Much bulk ceramic material (378 sherds) was removed from these lots, comparable to the upper layer (347 sherds) and the compact layer of the feature (309 sherds). In general, this is the most ceramic material recovered from single contexts in all of the 2016 excavations. Also recovered was bulk lithic-chipped stone (quartzite, sandstone, quartz), daub, and lithic-ground stone (granite, slate). Small finds recovered included an obsidian blade fragment (10385-OB066 [El Chayal]) and a smooth sedimentary stone (10385-GS031) with small fossilized inclusions that may have served as a hammerstone (fracture on one end) or a smoothing stone.

Preliminary ceramic analysis identified Terminal Classic material, including many diagnostic molded-carved pieces (e.g. 10385-T013 to T017), such as two Ahk'utu' Molded-Carved sherds (10385-T012a/b; Figure 3.10). Christophe Helmke (personal communication, 2016) identifies these as part of the primary text of the vase, above the iconographic panels and below the superior molding, which is partially preserved on the first sherd. This sherd (T012a) may record part of the dedicatory segment of the text, quite likely A1, read *alay*, functioning as a demonstrative that initiates the clause. To the right of this is B1, presumably a change of state verb, serving as a dedicatory expression. The second sherd (T012b), has a glyph block that is quite weathered, but enough of the outlines remain to suggest that the phonetic signs **k'u** and **u** are represented. These occur as part of **ya-k'u-tu-u**, the vessel type designation that gives the type its name. Whereas there are still some problems in terms of morphological segmentation and defining the etymology of the term, it may well mean 'thing that is given/gifted'. As such these vases would be gift-giving objects, whose primary function was to be given away as part of feasts and alliance ceremonies. This presents an important idea to consider in the interpretation of Feature #1 and associated debris.

One carbon sample (10385-CB020) was recovered but has yet to be analyzed.

Associated photos include Red Camera-104-6080 to 6081, 105-6089 to 6090, 104-6084 to 6086. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.

Feature #2

This was a second, smaller concentration of daub along the south wall of Subop 2B, excavated as *Lot 2B-9*. Little was found within this concentration, compared to Feature #1.

Bulk ceramic, lithic-chipped stone (chert, quartzite), daub, and lithic-ground stone (granite) were recovered from this context. Small finds recovered included an obsidian blade fragment (10385-OB067 [El Chayal]).

None of the recovered ceramic materials could be stylistically dated to any period in particular, and no carbon samples were recovered.

Associated photos include Red Camera-104-6063, 105-6089, 105-6090. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.

Habitation Debris/ Occupation Horizon

Lots 2B-10 and 2B-13 consisted of the Habitation Debris material resting directly atop the Occupation Horizon in the off-platform area; thus, presenting a mix of both contexts. This context produced a significant number of obsidian pieces—a pattern noted throughout excavations at the site and may be key to understanding activities at the platform and the group in general.

Bulk ceramic, lithic-chipped stone (chert, sandstone, quartzite), daub, and lithic-ground stone (granite, slate) were recovered from this context. Small finds recovered included eleven obsidian blade fragments (10385-OB055, OB056, OB057, OB059, OB062, OB063, OB064, OB073, OB076 [El Chayal]; 10385-OB060, OB074 [Ixtepeque]); an obsidian flake (10385-OB065 [El Chayal]); and an ocarina mouthpiece fragment (10385-CR008).

An obsidian core fragment (Figure 3.12; 10385-OB075 [El Chayal]) was also recovered. This is actually part of an exhausted prismatic blade core (flake removed), with flaking on its distal end, modified to perhaps make an expedient tool. This is reminiscent of the obsidian tools noted by MacKinnon et al. (1999) as part of a ceramic manufacturing deposit near the coast along the Sennis River, southeast of Alabama and north of Monkey River.

Ceramic materials were stylistically assigned to the Late/Terminal Classic to Early Postclassic, including the aforementioned whistle and a British Honduras (likely Belize Red) gouge-incised basal angle dish. Two carbon samples (10385-CB055, CB043) were recovered, but have yet to be analyzed.

Associated photos include Red Camera-105-6089 to 6099, 107-6127 to 6129, 108-6130 to 6135. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.



Figure 3. 12: 10385-OB075

Occupation Horizon

Lots 2B-11, 2B-12, 2B-14, and 2B-15 were designated as the Occupation Horizon—a culturally modified natural horizon atop of which the excavated platform was constructed. These lots were all located in the off-platform area. Excavation continued until a soil color change was noted in the southwest corner of the unit. During the process of exposing this new buried horizon, a circular dark-coloured feature was uncovered near the platform face: Feature #3. This was determined to be some form of hole within the buried clay horizon (Buried Horizon), with the occupation horizon matrix continuing down inside.

Bulk ceramic, lithic-chipped stone (chert, sandstone, siltstone, quartzite), daub, and lithic-ground stone (granite, slate) were recovered from this context. Small finds recovered included four obsidian blade fragments (10385-OB072, OB077, OB078, OB081 [El Chayal]) and a granite mano fragment (10385-GS022 [Mountain Pine Ridge pluton]).

Ceramic materials were stylistically assigned to the Late/Terminal Classic. Four carbon samples (10385-CB041, CB027, CB044, CB045) were recovered but have yet to be analyzed.

Associated photos include Red Camera- 106-6091, 107-6104 to 6105, 107-6109 to 6129, 107-6104, 107-6105, 108-6130 to 108-6141, 109-6142 to 109-6153, 109-6157 to 109-6162. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.

Buried Horizon

Lots 2B-17, 2B-18, 2B-20, 2B-21, 2B-23, 2B-25, 2B-27 and 2B-29 were arbitrary and natural lots excavated in the natural Buried Horizon encountered below the occupation horizon, consisting primarily of silty clay. These lots were removed from an excavation window placed around the opening of Feature #3 encountered at the top of the horizon. The horizon and the feature were excavated in quadrants and all material from within the feature was floated. As excavation through the clay continued downward, the soil became significantly rockier, with patches of coarse sand encountered (Lots 2B-23 and 2B-29). This was especially noticeable in

the southwest quadrant of the profile window. Excavations of the buried horizon and feature were terminated when coarse sand was encountered across the profile window.

No artifact materials or carbon were recovered from this sterile, natural context.

Associated photos include Red Camera-109-6163 to 6168, 109-6172 to 6174, 109-6178 to 6180, 110-6184 to 6186, 110-6190 to 6220, 111-6218 to 6232, 112-6247 to 112-6249, 112-6253 to 112-6264, 112-6274 to 112-6282. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.

Feature #3

Lots 2B-16, 2B-19, 2B-22, 2B-24, 2B-26, and 2B-28 were designated as Feature #3: the fill from the hole encountered at the top of the Buried Horizon. The feature was excavated in arbitrary 5-20 cm lots in quadrants (quarters), and all material was subject to floatation. Heavy fraction samples (10385-HF011 to HF022), light fraction samples (10385-LF011 to LF022), and 4 oz. soil samples (10385-SL014 to SL021) were collected for future analysis.

During removal of the lots, it was noted that Feature #3 changed shape slightly and became more elongated in form. Excavations ceased when a new natural horizon of small cobbles, gravel, and coarse sand was reached. It is believed this might be an in-filled tap root hole, due to the irregular shape.

Bulk ceramic, lithic-chipped stone (chert, sandstone, quartz, phyllite, quartzite), and lithic-ground stone (granite) were recovered from this context. Small finds recovered included two obsidian blade fragments (10385-OB097, OB110 [El Chayal]).

Ceramic materials were stylistically assigned to the Late/Terminal Classic, which makes sense as this is the same material as in the above occupation horizon. No carbon was recovered.

Associated photos include Red Camera- 109-6163 to 109-6171, 109-6175 to 109-6177, 110-6181 to 110-6183, 110-6187 to 110-6189, 110-6196 to 110-6198, 110-6199 to 110-6201, 110-6206 to 110-6208, 110-6212 to 110-6220, 111-6221 to 111-6241, 111-6227 to 111-6232, 112-6242 to 112-6244, 112-6247 to 112-6264, 112-6253 to 112-6282. Associated illustrations include profiles DN-2016-007, DN-2016-008, DN-2016-009, and top plan DN-2016-010.

Summary

Subops 2B and 2E suggest Late/Terminal Classic to Early Postclassic use of ALA-047B. The recovered material suggests possible upper-level commoner domestic activity, due to the significant quantity of exotic goods, including a jadeite pendant, much obsidian material, and molded-carved ceramics. We believe Feature #1 to be a collapsed daub structure (e.g. kiln, oven) or a large collection of refuse, perhaps associated with ceremonial activity. Artifact materials were significant in quantity, suggesting we did in fact capture a refuse zone off the side of the ALA-047B platform; therefore, further investigations in this area would produce a greater assemblage for the purpose of activity investigations within the group.

Table 3. 2: Lot descriptions, ALA-047B

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	B	1	1 x 2	Ploughzone	Entire	EC?		6.6	10 YR 3/2 Very Dark Greyish Brown	Sandy Loam	98% sandy loam, 1% small pebbles, 1% roots
2	E	1	0.5 x 1	Ploughzone	Entire	unknown		12	10 YR 3/2 Very Dark Greyish Brown	Sandy Loam	94% sandy loam, 5% roots, 1% pebbles
2	B	2	1 x 2	Colluvium	Entire	EC?, LC/TC		14.4	10 YR 2/2 Very Dark Brown	Sandy Loam	98% sandy loam, 1% small pebbles, 1% roots
2	E	2	0.5 x 1	Colluvium	Entire	unknown		14.6	10 YR 3/3 Dark Brown	Sandy Loam	96% sandy loam, 3% roots, 1% pebbles
2	B	3	1 x 0.9	Fall	Mid-section of unit	LC/TC		9.8	10 YR 3/3 Dark Brown	Sandy Loam	97% sandy loam, 2% pebbles, 1% roots
2	B	4	1.6 x 1	Fall/Habitation Debris	Everything West of 1st Alignment	LC/TC		7.2	10 YR 3/3 Dark Brown	Sandy Clay Loam	98% sandy loam, 1% small pebbles, 1% roots
2	B	6	0.3 x 0.5	Fall/Habitation Debris	NW Corner	unknown		7.6	10 YR 3/4 Dark Yellowish Brown	Sandy Clay Loam	98% sandy loam, 1% small pebbles, 1% roots
2	E	3	0.5 x 1	Fall/Habitation Debris	Entire	unknown		14.2	10 YR 3/3 Dark Brown	Sandy Clay Loam	97% sandy clay loam, 2% roots, 1% pebbles
2	E	4	0.5 x 0.15	Habitation Debris	SW Quadrant	unknown		6.8	10 YR 3/3 Dark Brown	Sandy Clay Loam	97% sandy clay loam, 2% roots, 1% pebbles
2	E	8	0.27 x 0.18	Habitation Debris	Against east wall	unknown		8	10 YR 3/3 Dark Brown	Sandy Clay Loam	99% sandy clay loam, 1% pebbles
2	B	5	1.25 x 1	Feature #1 (Daub - Upper)	Western Half	LC/TC/EPC		11.6	10 3/4 Dark Yellowish Brown	Sandy Clay Loam	98% sandy loam, 1% small pebbles, 1% roots

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	E	5	0.30 x 0.47	Feature #1 (Daub - Upper)	Top of Daub Feature #1	TC		7.4	10 YR 3/3 Dark Brown	Sandy Clay Loam	98% sandy loam, 1% pebbles, 1% roots
2	B	7	0.47 x 0.47	Feature #1 (Daub Compact)	NW Quarter	unknown		6.6	10 YR 3/3 Dark Brown	Sandy Clay Loam	99% sandy clay loam, 1% roots
2	E	6	0.29 x 0.44	Feature #1 (Daub Compact)	Daub Feature #1	TC	cal AD 675-780 and 790-870	1.4	10 YR 3/3 Dark Brown	Sandy Clay Loam	99% sandy clay loam, 1% roots
2	B	8	0.47 x 0.47	Habitation Debris/ Feature #1 (Daub below)	NW Quarter	unknown		8.8	10 YR 4/3 Brown	Sandy Clay Loam	99% sandy clay loam, 1% pebbles
2	E	7	0.5 x 0.76	Habitation Debris/ Feature #1 (Daub below)		TC		13	10 YR 4/3 Brown/10 YR 4/6 Dark Yellowish Brown	Sandy Clay Loam/Patch fire sand	75% sandy clay loam, 24% fire sand, 1% pebbles
2	B	9	0.16 x 0.24	Feature #2 (Daub)	SW Quarter	unknown		6.4	10 YR 3/3 Dark Brown	Sandy Clay Loam	99% sandy clay loam, 1% pebbles
2	B	10	0.50 x 1.25	Habitation Debris/ Occupation Horizon	SW Quarter	LC/TC/EPC		19.2	10 YR 3/3 Dark Brown	Sandy Clay Loam	95% sandy clay loam, 5% pebbles
2	B	13	0.50 x 1.15	Habitation Debris/ Occupation Horizon	NW Quarter	LC/TC		14.2	10 YR 3/3 Dark Brown	Sandy Clay Loam	97% sandy clay loam, 2% pebbles, 1% roots
2	B	11	0.50 x 1.25	Occupation Horizon	SW Quarter	unknown		17.2	10 YR 3/4 Dark Yellowish Brown	Sandy Clay Loam	97% sandy clay loam, 3% pebbles/ cobbles
2	B	12	0.50 x 1.25	Occupation Horizon	SW Quarter	LC/TC		17.6	10 YR 3/4 Dark Yellowish Brown	Silty Clay Loam	99% sandy clay loam, 1% pebbles
2	B	14	0.50 x 1.15	Occupation Horizon	NW Quarter	LC/TC		17.4	10 YR 3/4 Dark Yellowish Brown	Sandy Clay Loam	98% sandy clay loam, 2% pebbles

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	B	15	0.50 x 1.15	Occupation Horizon	NW Quarter	LC/TC		25.4	10 YR 3/4 Dark Yellowish Brown	Silty Clay Loam	98% silty clay loam, 2% pebbles
2	B	17	0.21 x 0.42	Buried Horizon	30cm from south wall/58cm from west wall	unknown		20.4	10 YR 4/6 Dark Yellowish Brown	Silty Clay Loam	95% silty clay loam, 5% pebbles
2	B	18	0.37 and 0.15 x 0.55	Buried Horizon	30cm from south wall/47cm from west wall	unknown		25.2	10 YR 4/6 Dark Yellowish Brown	Silty Clay	95% silty clay loam, 5% pebbles
2	B	20	0.40 x 0.36	Buried Horizon	30cm from south wall/45cm from west wall	unknown		17.8	10 YR 4/6 Dark Yellowish Brown	Silty Clay	95% silty clay, 5% pebbles
2	B	21	0.29 and 0.66 x 0.29 and 0.69	Buried Horizon	Starts at north wall/ 15cm from west wall	unknown		25.2	10 YR 4/6 Dark Yellowish Brown	Silty Clay	92% silty clay, 8% pebbles
2	B	23	0.40 x 0.36	Buried Horizon	30cm from south wall/50cm from west wall	unknown		10.8	10 YR 4/6 Dark Yellowish Brown	Coarse Sand	90% coarse sand, 10% pebbles
2	B	25	0.14 and 0.29 x 0.30 and 0.10	Buried Horizon	against south wall/against boulder	unknown		20.8	10 YR 4/6 Dark Yellowish Brown	Silty Clay	100% silty clay
2	B	27	0.22 x 0.20	Buried Horizon	against south wall/against pedestalled boulder	unknown		19.6	10 YR 4/6 Dark Yellowish Brown	Silty Clay	93% silty clay, 7% pebbles
2	B	29	0.22 x 0.29	Buried Horizon	against south wall/against pedestalled boulder	unknown		9	10 YR 4/6 Dark Yellowish Brown	Coarse Sand	80% coarse sand, 20% pebbles
2	B	16	0.15 x 0.31	Feature #3 (North Half)	30cm from south wall/24cm from 2nd alignment	unknown		20	10 YR 3/3 Dark Brown	Silty Clay Loam	100% silty clay loam
2	B	19	0.21 x 0.24	Feature #3 (NW Quarter)	30cm from south wall/68cm from west wall	unknown		18	10 YR 3/3 Dark Brown	Silty Clay Loam	99% silty clay loam, 1% pebbles

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	B	22	0.37 x 0.20	Feature #3 (NW Quarter)	30cm from south wall/67cm from west wall	unknown		9	10 YR 3/3 Dark Brown	Silty Clay Loam	98% silty clay loam, 2% pebbles
2	B	24	0.18 x 0.24	Feature #3 (SW Quarter)	14cm from south wall/30cm from alignment 2	LC/TC		22	10 YR 3/3 Dark Brown	Silty Clay Loam	99% silty clay loam, 1% roots
2	B	26	0.18 x 0.24	Feature #3 (SW Quarter)	14cm from south wall/30cm from alignment 2	unknown		16	10 YR 3/3 Dark Brown	Silty Clay Loam	97% silty clay loam, 3% pebbles
2	B	28	0.23 x 0.23	Feature #3 (SW Quarter)	5cm from south wall/4cm from boulder	unknown		9	10 YR 3/3 Dark Brown	Silty Clay Loam	92% silty clay loam, 8% pebbles

ALA-047C: Suboperation 2C

Suboperation 2C was a 2 m (N/S) x 1 m (E/W) excavation unit, placed along the northwest side (referred to as west side/face) of the ALA-047C mound, with its short axis oriented to 24° east of magnetic north. The unit was positioned to capture both on- and off-mound contexts, and was placed partially between two orchard trees. No clear architectural features were visible at surface. As these excavations presented a very clear stratigraphic profile, 4 oz. soil samples were collected at the end of excavations from each context represented in the north wall unit profile (Figure 3.13).



Figure 3. 13: Collecting soil samples from profile.

Ploughzone

Lots 2C-1 and 2C-2 were designated Ploughzone (see Table 3.3 for details). Both lots extended over the entire subop area, and began with surface collection of any artifacts, followed by removal of the ploughzone layer. Removal of lot 2C-1 uncovered the tops of several hewn granite blocks throughout the unit and was closed to open Lot 2C-2 to more thoroughly assess any potential architectural pattern. Lot 2C-2 uncovered a sloping alignment of granite blocks extending from the north wall to the south wall of the unit. Soil colour and texture remained consistent throughout these two lots.

Bulk ceramic, lithic-chipped stone (chert, sandstone, quartz), and lithic-ground stone (granite) were recovered from this context. Small finds recovered included two obsidian blade fragments (10385-OB003, OB004 [El Chayal]); an obsidian flake (10385-OB005 [Unknown]); and a red-slipped, post-fired incised sherd with unidentifiable iconographic elements (10385-T002)

Ceramic materials were stylistically assigned to the Late/Terminal Classic. One carbon sample (10385-CB011) was recovered but has yet to be analyzed.

A soil sample (10385-SL002) was collected from the surface of excavations, as well as from the middle of the context within the north wall (10385-SL003) for future analysis.

Associated photos include Black Camera-113-099 to 0103, 114-0114 to 0116, and 114-0129 to 114-0131. Associated illustrations include profiles DN-2016-011 (Figure 3.14), DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

Fall

Lot 2C-3 and 2C-4 were designated as Fall—post-abandonment architectural collapse in off-platform area—with the latter lot focused on the removal of a cluster of artifacts within the fall (Figure 3.15). The goal was to better reveal the platform face uncovered in the previous lots, and to expose any habitation debris sealed below the fall. Excavations ended with the appearance of more artifact material and much carbon.

Bulk artifacts recovered from Lot 2C-3 included ceramic, lithic-chipped stone, daub, and lithic-ground stone (granite) materials. Small finds included a quartzite cobble chopper (10385-LT002).

Bulk artifacts recovered from the Lot 2C-4 cluster included ceramic materials. Small finds included a granite metate fragment (10385-GS003 [Cockscomb Basin pluton]).

A soil sample (10385-SL005) was collected from the north wall profile for future analysis.

Ceramic materials were stylistically assigned to the late facet Late Classic/Terminal Classic, including an open dish form with an outflaring rim and squared lip (10385-T001) recovered in the artifact cluster, similar to examples in Graham (1994:238). A possible Postclassic, solid rectangular cross-section handle was also recovered. One carbon sample (10385-CB011) was recovered but has yet to be analyzed.

Associated photos include Black Camera-114-0129 to 114-0132. Associated illustrations include profiles DN-2016-011, DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

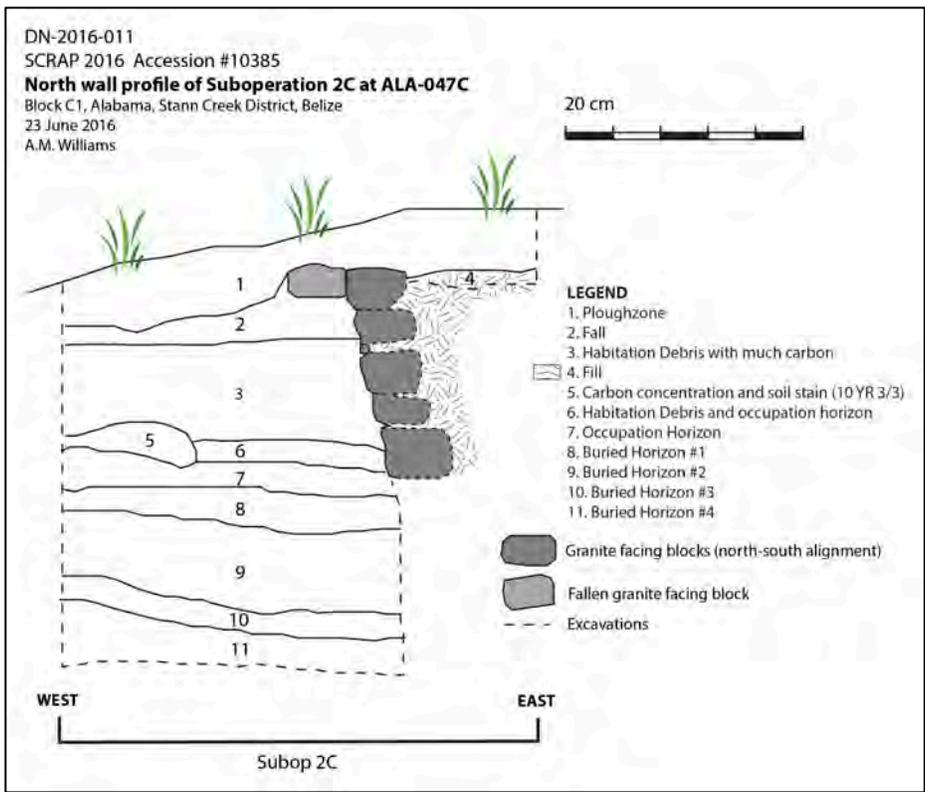


Figure 3. 14: North wall profile of Suboperation 2C



Figure 3. 15: Lot 2C-4 artifact cluster, west of platform face

Habitation Debris (much carbon)

Lots 2C-5, 2C-6, 2C-7, and 2C-8 were all designated as Habitation Debris beneath the fall layer, with a matrix that consisted of a sandy loam to sandy clay loam. Significant amounts of carbon were encountered scattered throughout the lots, but no great concentration was encountered until we reached a more compacted matrix toward the mid-point of the bottom course of the platform face. At that point we came across a concentration of carbon and darker matrix lens in the northwest corner of Subop 2C that straddled the lower habitation debris lots and upper occupation horizon layers, and was excavated as Lot 2C-8 (habitation debris level) and Lot 2C-10 (Occupation horizon level). We switched contexts when a compacted matrix was encountered. The large amount of carbon and the thickness of this overall debris deposit, might suggest a burning event that included the destruction of an associated perishable superstructure. Removal of this layer revealed five intact courses of nicely hewn granite blocks making up the platform face (Figure 3.16), which over time had slumped forward (see angle in profile drawing).



Figure 3. 16: View of exposed ALA-047C platform face, looking southeast.

Bulk artifacts included ceramic, lithic-chipped stone (quartz, sandstone, quartzite, chert), daub, and lithic-ground stone (granite, slate) materials. Small finds included 13 obsidian blade fragments (10385-OB024, OB025, OB026, OB027, OB028, OB029, OB030, OB035, OB049, OB050, OB038, OB040 [El Chayal], 10385-OB039 [Ixtepeque]); four obsidian flakes (10385-OB023, OB051 [El Chayal], 10385-OB052, OB041 [Unknown]); an obsidian biface fragment (10385-OB053 [Ixtepeque]); three granite metate fragments (10385-GS004 [Hummingbird Pluton], GS007 [Cockscomb pluton]); two mano preforms (10385-GS005, GS006 [Cockscomb pluton]); two mano fragments (10385-GS012, GS021 [Mountain Pine Ridge pluton]); one slate pestle (10385-GS020); two worked ceramic sherds (10385-CR002, CR004), possibly

expedient scraping/incising tools; and a mold-made ceramic figurine (10385-CR003; Figure 3.17) showing the torso of a human wearing a woven and/or beaded garment and wrist bands.

Soil samples from the layer (10385-SL006) and the carbon/dark matrix lens (10385-SL007) were collected from the north wall profile for future analysis.

Ceramic materials were stylistically assigned to the Late/Terminal Classic. Five carbon samples (10385-CB0012, CB013, CB014, CB015, CB016) were recovered. The latter sample, from Lot 2C-8 (carbon concentration), was subject to AMS dating at Beta Analytic Inc., returning a date range of cal. AD 655-720 and cal. AD 740-765 (2 σ , Beta-457816), which corresponds to the late facet of the Late Classic.

Associated photos include Black Camera-115-0148 to 115-0153, 115-0167 to 115-0170, 101-0221 to 101-0225, and 102-0247 to 102-0252. Associated illustrations include profiles DN-2016-011, DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

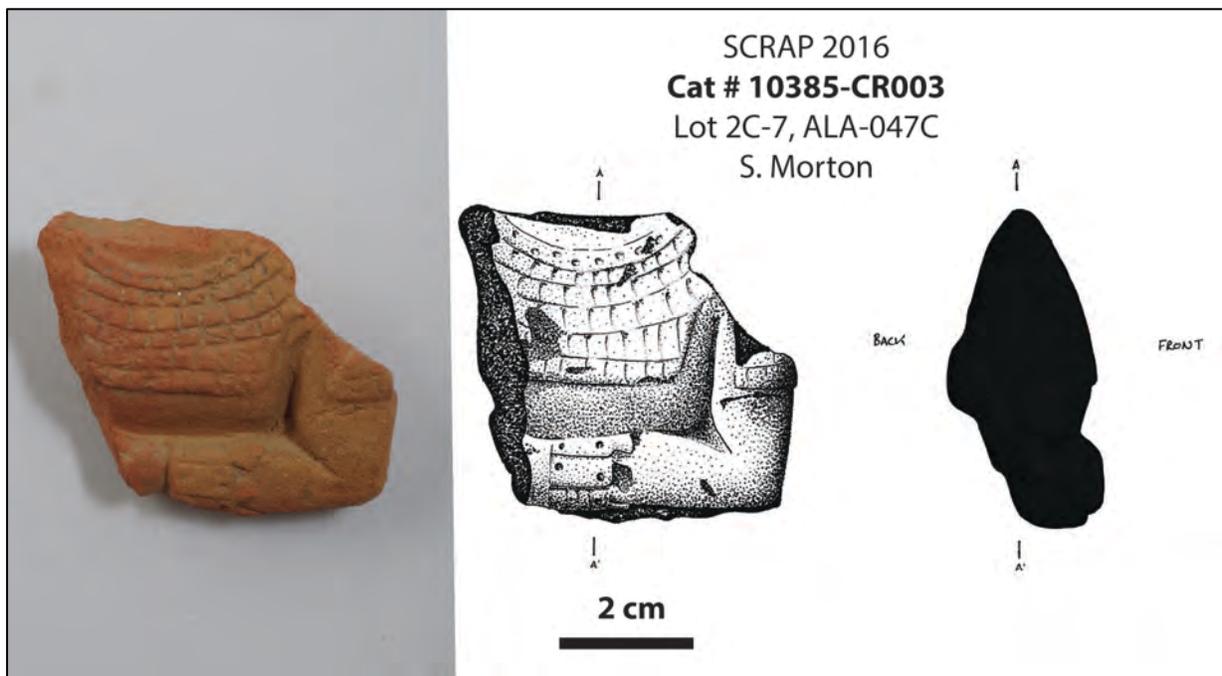


Figure 3. 17: 10385-CR003

Fill

Lot 2C-9 was located atop the granite-faced platform in the eastern portion of the unit, and is designated as Fill (platform construction core). Only a thin layer was removed for dating purposes.

Bulk artifacts included ceramic, lithic-chipped stone (chert), and daub materials. Small finds included a miniature vessel or candelero (10385-T003).

Ceramic materials were stylistically assigned to the Late/Terminal Classic, including the candelero and a Terminal Classic Mt Maloney open bowl (see LeCount et al. 2002). No carbon samples were recovered.

Associated photos include Black Camera-103-0306 to 103-0310. Associated illustrations include profiles DN-2016-011, DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

Occupation Horizon

Lot 2C-10, 2C-11, and 2C-12 were in the western portion of the unit off the granite-faced platform, and represented the Occupation Horizon: a culturally modified natural horizon atop of which the excavated platform was constructed. The top lot, Lot 2C-10, was likely a mixture of habitation debris and the occupation horizon. Carbon was still present through Lot 2C-10 and 2C-11, and several large granite blocks, possibly earlier fall or debris, appeared in Lot 2C-12. As the lots progressed, there was a notable change in the matrix of the soil, becoming sandier with small pebbles scattered throughout.

Bulk artifacts included ceramic, lithic-chipped stone (quartzite, chert, quartz), daub, and lithic-ground stone (granite, slate) materials. Small finds included an obsidian core fragment (10385-OB020 [Ixtepeque]).

Two soil samples (10385-SL008, SL009) were collected from the north wall profile for future analysis.

Ceramic materials could not be stylistically assigned to a temporal period. One carbon sample (10385-CB017) was recovered but has yet to be analyzed.

Associated photos include Black Camera-103-0306, 104-0348 to 104-0352, and 105-0361 to 105-0367. Associated illustrations include profiles DN-2016-011, DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

Buried Horizon #1 (clay-sand)

The Buried Horizon #1 was a natural horizon, consisting primarily of sandy clay loam with fine to medium sand and some fine gravel, and was excavated as *Lot 2C-13* in a profile window off-platform on the south side of the unit. The goal was to move through the ground to a sterile level before ending our excavations. A significant matrix change was noted at the bottom of the lot, as coarse sand and cobbles started to pop up, at which point lots/contexts were switched.

Bulk artifacts included ceramic, lithic-chipped stone (chert, quartz), and lithic-ground stone (granite, slate) materials. Small finds included an obsidian flake (10385-OB058 [Ixtepeque]).

A soil sample (10385-SL010) was collected from the north wall profile for future analysis.

Ceramic materials could not be stylistically assigned to a temporal period. No carbon samples were recovered.

Associated photos include Black Camera-105-0381 to 105-0385. Associated illustrations include profiles DN-2016-011, DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

Buried Horizon #2 (sand-gravel-cobbles)

Lot 2C-14 represented Buried Horizon #2, another natural horizon of loose coarse to very coarse sand with pebbles and small cobbles, excavated in the same profile window mentioned

above. A matrix change was noted roughly 20 cm into the lot, at which point lots/contexts were switched. Artifact materials were likely a product of taphonomic action.

Bulk artifacts included ceramic and lithic-chipped stone (chert, quartz) materials. No small finds were recovered.

A soil sample (10385-SL011) was collected from the north wall profile for future analysis.

Ceramic materials could not be stylistically assigned to a temporal period. No carbon samples were recovered.

Associated photos include Black Camera-106-0386. Associated illustrations include profiles DN-2016-011, DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

Buried Horizon #3 (sand)

Lot 2C-15 represented Buried Horizon #3, another natural horizon of medium to coarse sand, excavated in the same profile window mentioned above. A matrix change was noted roughly 20 cm into the lot, at which point lots/contexts were switched.

No bulk artifact materials were recovered. Small finds included one obsidian flake (10385-OB061 [Ixtepeque]). A soil sample (10385-SL012) was collected from the north wall profile for future analysis. No carbon samples were recovered.

Associated photos include Black Camera-2016-011, 2016-012, and 2016-014. Associated illustrations include profiles DN-2016-011, DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

Buried Horizon #4 (sand-gravel-cobbles)

Lot 2C-16 and 2C-17 represented Buried Horizon #4, another natural horizon of coarse to very coarse sand with pebbles and small to medium cobbles, excavated in the same profile window mentioned above. The goal of both lots was to reach two consecutive 20 cm levels of sterile sediment (no artifact materials), which was achieved.

No bulk artifact materials or small finds were recovered. A soil sample (10385-SL013) was collected from the north wall profile for future analysis. No carbon samples were recovered.

Associated photos include Black Camera-106-0402, 108-0412, and 108-0415 to 108-0418. Associated illustrations include profiles DN-2016-011, DN-2016-012, and top plans DN-2016-013 and DN-2016-014.

Summary

Excavations in Subop 2C revealed late facet Late Classic/Terminal Classic platform construction, and use possibly extending into the Early Postclassic. The recovered materials suggest non-elite but upper-level commoner activity. A fair amount of artifact material was recovered, although not in a dense refuse deposit, but rather spread throughout a thick layer that included much carbon material and dark matrix, possibly associated with a burning event.

Table 3. 3: Lot descriptions, ALA-047C

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	C	1	1 x 2	Ploughzone	Entire	LC/TC		12.2	10 YR 3/6 Dark Yellowish Brown	Sandy Clay Loam	90% dirt/sandy clay loam, 8% small roots, 2% pebbles
2	C	2	1 x 2	Ploughzone	Entire	unknown		5.3	10 YR 3/3 Dark Brown	Sandy Clay Loam	90% dirt/sandy clay loam, 10% small roots
2	C	3	1.17 x 1	Fall	West half	unknown		8.2	10 YR 3/4 Dark Yellowish Brown	Sandy Loam	98% dirt/sandy clay loam, 2% roots
2	C	4	1 x 0.5	Fall (artifact cluster)	West half	LC/TC/EPC		7.6	10 YR 3/4 Dark Yellowish Brown	Sandy Loam	98% dirt/sandy clay loam, 2% roots
2	C	5	1 x 1.15	Habitation Debris (much carbon)	NW Quadrant	LC/TC		8.5	10 YR 3/4 Dark Yellowish Brown	Sandy Loam	95% sandy loam, 5% roots
2	C	6	1 x 1.15	Habitation Debris	West half	LC/TC		10.2	10 YR 4/4 Dark Yellowish Brown	Sandy Clay Loam	92% sandy clay loam, 8% sandy,
2	C	7	1 x 1.15	Habitation Debris	West half	unknown		8.8	10 YR 3/4 Dark Yellowish Brown	Sandy Clay Loam	93% sandy clay loam, 7% fine gravel
2	C	8	1 x 1.15	Habitation Debris	West half	unknown	cal AD 655-720 and 740-765	15.3	10 YR 3/3 Dark Brown	Sandy Clay	90% sandy clay, 10% fine gravel
2	C	9	1 x 0.82	Fill mound) (on	East half	LC/TC		2.4	10 YR 4/4 Dark Yellowish Brown	Sandy Clay Loam	90% sandy clay loam, 9% fine gravel, 1% roots
2	C	10	1 x 1.15	Occupation Horizon	West half	unknown		7.8	10 YR 3/3 Dark Brown	Sandy Clay Loam	90% sandy clay loam, 10% fine gravel
2	C	11	1 x 1.15	Occupation Horizon	West half	unknown		3.5	10 YR 3/6 Dark Yellowish Brown	Clay Loam	90% clay loam, 9% coarse sand, 1% fine gravel
2	C	12	1 x 1.15	Occupation Horizon	West half	unknown		9.2	10 YR 3/3 Dark Brown	Clay Loam	90% clay loam, 9% coarse sand, 1% fine gravel

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	C	13	0.5 x 1.15	Buried Horizon #1	SW Quadrant	unknown		17.7	10 YR 4/4 Dark Yellowish Brown	Sandy Clay Loam	83% sandy clay loam, 15% fine-medium sand
2	C	14	0.5 x 1	Buried Horizon #2	SW Quadrant	unknown		14.3	7.5 YR 4/4 Brown	Sand	80% sand, 20% small/medium cobbles
2	C	15	0.5 x 1	Buried Horizon #3	SW Quadrant	unknown		18.0	7.5 YR 4/4 Brown	Sand	100% sand
2	C	16	0.5 x 1	Buried Horizon #4	SW Quadrant	unknown		4.0	7.5 YR 4/4 Brown	Sand	75% sand, 25% gravel, small/medium cobbles
2	C	17	0.5 x 1	Buried Horizon #4	SW Quadrant	unknown		22.3	7.5 YR 4/4 Brown	Sand	75% sand, 25% gravel, small/medium cobbles

ALA-047D: Suboperations 2D, 2H

Excavations at ALA-047D consisted of two contiguous suboperations (units)—Suboperations 2D and 2H—running roughly east-west along the presumed centre-line of the mound (short axis oriented 12 degrees E of N). This mound was not identified during initial survey in 2015 and lay in a bushy area to the SW of the main group of ALA-047, situated immediately north of the southern border stream of Block C1. Its odd orientation and position may serve to disassociate it from the other mounds thus far discussed.

Suboperation 2D was established as a 2 m (E/W) x 1 m (N/W) test unit over what was estimated to have been the interstice between the base of the ALA-047D platform and the surrounding ground surface. A second unit (Suboperation 2H; 1 m x 1 m) was established directly to the east to facilitate the further exposure of architectural elements identified on the margin of Subop 2D (see below).

Humus/Ploughzone

Lots 2D-1 and 2H-1 consisted of the orchard area ploughzone (see Table 3.4 for details), although beyond the orchard rows proper. As the area in question was not currently under cultivation, it is possible that the soil had not been mechanically turned. Both lots extended over the entire surface area of the excavated subops, and began with the collection of any artifact material at surface, followed by removal of the disturbed soils/sediments. In general, the matrix was a consistent dark brown and organic rich loam with minimal pebble inclusions. No clear architectural materials were identified in this lot group. The lots were switched with the removal of the root mat and change in texture/colour. Excavation of both lots exposed several large stones (both granite and other), in particular at the boundary between the two units. It seems plausible that at least some of these represented displaced architecture.

Bulk artifacts included ceramic, lithic-chipped stone (chert), daub, and lithic-ground stone (granite) materials. No small finds were recovered.

Some ceramic materials were stylistically assigned to the Early Postclassic, including a simple silhouette bowl with a single thumb-impressed fillet below the rim (10385-T021; Figure 3.18; see examples in MacKinnon 1989:492, 704, 721). No carbon samples were recovered.

Associated photos include SGM-246-2339, 2341 to 2344, 250-2424, 2425, and 251-2427. Associated illustrations include profiles DN-2016-015 (Figure 3.19) and DN-2016-016, and top plan DN-2016-017.



Figure 3. 18: 10385-T021

Fall/Colluvium

Lots 2D-2, 2D-3, 2D-4, 2D-5, and 2D-6 collectively consisted of post-abandonment architectural collapse (Fall) and wash down (Colluvium), and were dominated by displaced cobbles/boulders and washed out earth. The displaced sediment fill from the building consisted primarily of a brown sandy clay loam. Excavated as a series of smaller ‘windows’ to facilitate vertical and horizontal control (prior to identifying the platform face), this context included notable quantities of broken ceramics, lithics, and groundstone, evidently incorporated into the fill during initial construction, or was washed down from atop the structure. Excavation of these lots revealed a well-preserved, two-course masonry façade, predominantly of granite, along the eastern margin of Subop 2D (Figure 3.20).

Bulk artifacts included ceramic, lithic-chipped stone (chert, phyllite, quartz, sandstone), daub, and lithic-ground stone (granite) materials. Small finds included a granite metate fragment (10385-GS018 [Cockscomb pluton]).

Ceramic materials could not be stylistically assigned to a temporal period. Three carbon samples (10385-CB028, CB038, CB039) were recovered but have yet to be analyzed.

Associated photos include SGM-249-2406, 2409 to 2412, 250-2414 to 2423, and 251-2434 to 2443. Associated illustrations include profiles DN-2016-015 and DN-2016-016, and top plan DN-2016-017.

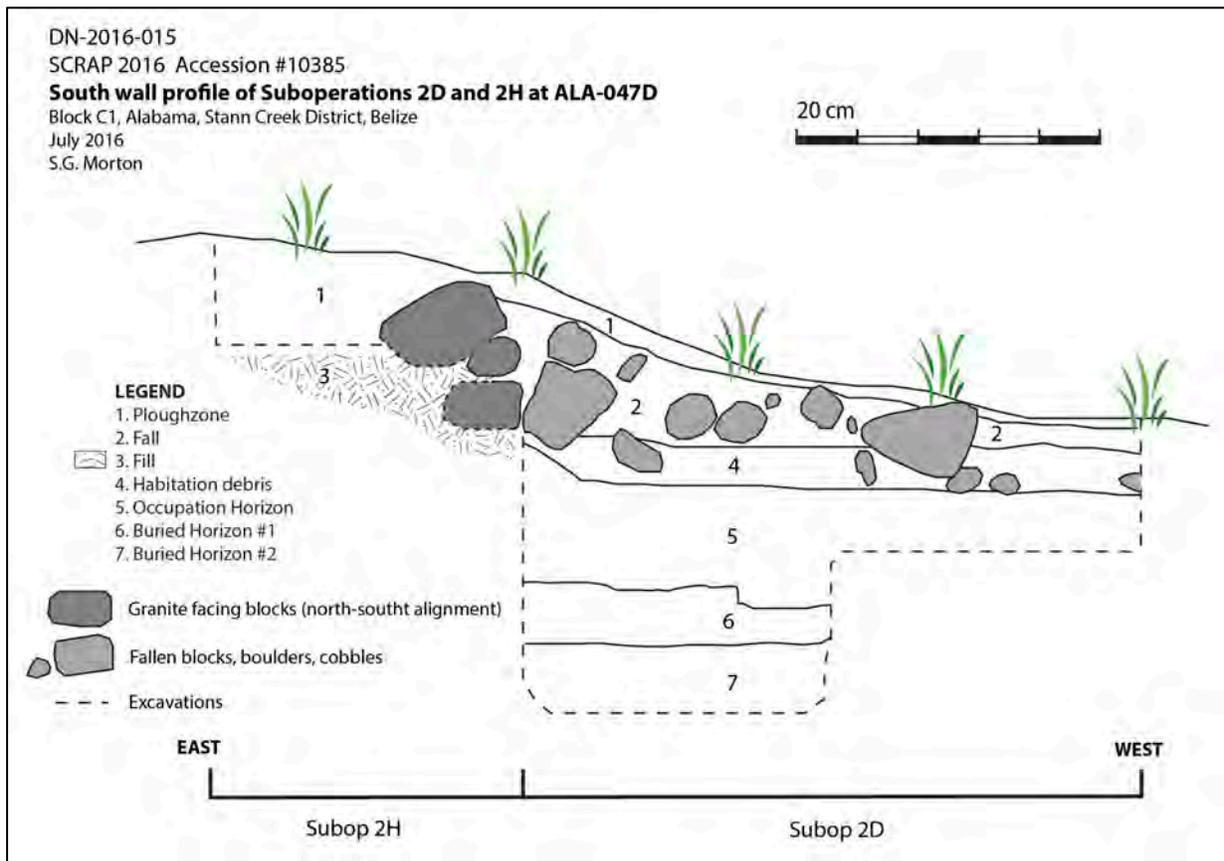


Figure 3. 19: South wall profile of Suboperations 2D and 2H



Figure 3. 20: View of the two-course platform face, looking east.

Fill

Lot 2H-2 was located to the east of the platform face described above. Consisting exclusively of brown sandy clay loam with few inclusions, this matrix was consistent with the architectural fall previously identified.

Bulk artifacts included ceramic, lithic-chipped stone (chert), and daub materials. No small finds were recovered.

Ceramic materials could not be stylistically assigned to a temporal period. No carbon samples were recovered.

Associated photos include SGM-251-2427 to 2432. Associated illustrations include profiles DN-2016-015 and DN-2016-016, and top plan DN-2016-017.

Habitation Debris

Lots 2D-7 and 2D-8 were located to the west of the ALA-047D platform face, and consisted of Habitation Debris below the fall and atop the occupation horizon. *Lot 2D-9* consisted of a mixture of habitation debris and the occupation horizon, and is listed in the latter context description. Collectively, these lots were defined by remarkably consistent brown clay loam containing ceramics, lithics, and ground stone. The location of this context adjacent the platform face and a sharp transition to a compact silty surface were the most salient pieces of evidence suggesting that this material represented habitation debris.

Bulk artifacts included ceramic, lithic-chipped stone (quartz, sandstone, quartzite), daub, and lithic-ground stone (granite) materials. No small finds were recovered.

Ceramic materials could not be stylistically assigned to a temporal period. Three carbon samples (10385-CB031, CB033, CB035) were recovered but have yet to be analyzed.

Associated photos include SGM-252-2444 to 2445, and 253-2452. Associated illustrations include profiles DN-2016-015 and DN-2016-016, and top plan DN-2016-017.

Occupation Horizon & Buried Horizons

The Occupation Horizon—a culturally modified, natural clay horizon atop of which the excavated platform was constructed—was excavated in *Lot 2D-9 and 2D-10*.

Bulk artifacts included ceramic, lithic-chipped stone (chert), daub, and lithic-ground stone (granite) materials. No small finds were recovered.

Ceramic materials could not be stylistically assigned to a temporal period. Six carbon samples (10385-CB032, CB034, CB036, CB037, CB040, CB046) were recovered but have yet to be analyzed.

Below this horizon was Buried Horizon #1, excavated as *Lot 2D-11*, which was a buried, natural geological horizon of medium to coarse sand. Below this was Buried Horizon #2, excavated as *Lot 2D-12*, which was a buried, natural, geological horizon of sand and gravels. No artifacts or carbon were recovered from these lots.

Associated photos include SGM-253-2453, and 255-2511 to 2515. Associated illustrations include profiles DN-2016-015 and DN-2016-016, and top plan DN-2016-017.

Summary

The functions/uses of ALA-047D were difficult to ascertain given the limited extent and position of the excavations. Architecturally, it was not inconsistent with those other structures identified in the group, though its facings were of a decidedly poorer quality. While in its proportions it fit comfortably among the smaller identified house mounds at the site, there was a conspicuous lack of unambiguously identifiable domestic material recovered from the excavation (e.g. no obsidian, in a group with much obsidian). The large quantity of stone strewn down its western flank (removed as fall) was equally difficult to explain. While, ostensibly, this material represented architectural fall, it was difficult to envision a masonry superstructure above the extant remains sufficient to have contributed to this mass of stone. The possibility thus exists that this material had been stored in this location, for use at ALA-047D or elsewhere in the group. Regardless of its use, it seems relatively certain that ALA-047D was constructed in a single phase, with a minimal stone façade backed by tamped earth. Any superstructure was likely made of perishable materials, based on the daub recovered. Unfortunately, the excavated area did not provide us with a large enough assemblage to definitively discuss activities conducted at the site, although the assemblage was reflective of the commoner stratum.

Table 3. 4: Lot descriptions, ALA-047D

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	D	1	1 x 2	Humus/Ploughzone	Entire	unknown		9.9	10 YR 3/3 Dark Brown	Loam	Small granite spall in NW corner and roots
2	H	1	1 x 1	Humus/Ploughzone	Entire	EPC		18.7	10 YR 3/3 Dark Brown trending to 10 YR 4/3 Brown	Loam trending to Sandy Clay Loam	90% soil/sediment, 9% cobbles, 1% small pebbles and roots
2	D	2	1 x 2	Fall/Colluvium	Entire	unknown		12.52	10 YR 4/3 Brown	Sandy Clay Loam	90% sandy clay loam, <10% small pebbles, <1% small roots
2	D	3	1 x 2	Fall/Colluvium	Central third	unknown		13.78	10 YR 4/3 Brown	Clay Loam	90% boulders/large cobbles, 10% clay loam
2	D	4	1	Fall/Colluvium	West 2/3	unknown		13.4	10 YR 4/3 Brown	Clay Loam	99% clay loam, 1% other
2	D	5	1 x 2	Fall/Colluvium	SE Quadrant	unknown		22.8	10 YR 4/3 Brown	Clay Loam	90% boulders/large cobbles, 10% clay loam

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
2	D	6	1 x 2	Fall/Colluvium	NE Quadrant	unknown		22.5	10 YR 4/3 Brown	Clay Loam	90% boulders/large cobbles, 10% clay loam
2	H	2	1 x 1	Fill	Entire	unknown		12.5	10 YR 4/3 Brown	Sandy Clay Loam	99% sandy clay loam, 1% small pebbles
2	D	7	1 x 2	Habitation Debris	East end	unknown		19.6	10 YR 4/3 Brown	Clay Loam	99% clay loam, 1% other
2	D	8	1 x 2	Habitation Debris	Entire	unknown		9	10 YR 4/3 Brown	Clay Loam	100% clay loam
2	D	9	1 x 2	Habitation Debris/Occupation Horizon	South half	unknown		13	10 YR 4/3 Brown	Clay Loam	100% clay loam
2	D	10	1 x 2	Occupation Horizon	SE Quadrant (0.5 x ~1m)	unknown		20.9	10 YR 5/4 Yellowish Brown	Silty Clay Loam	100% silty clay loam
2	D	11	1 x 2	Buried Horizon #1	SE Quadrant (0.5 x ~1m)	unknown		23	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	70% medium to coarse sand, 30% sandy clay loam
2	D	12	1 x 2	Buried Horizon #2	SE Quadrant (0.5 x ~1m)	unknown		20.2	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	70% coarse sand and gravels, 30% sandy clay loam

Discussion and Conclusions

Excavations at settlement site ALA-047 suggest the presence of an active household group during the Late/Terminal Classic and into the Early Postclassic. Earlier occupation remains unclear, though possible materials dating to the Early Classic were recovered from both ALA-047A and ALA-047B. The little to no artifact material recovered from the construction core(s) of associated building platforms suggests that occupation in the immediate area prior to the construction of the first phases was limited or non-existent. Three possible residences and an ancillary structure are represented within the site.

Overall, the remains suggest the presence of a commoner household of greater than modest means—rather fine granite facings define each of the platforms of the group, in particular ALA-047B and ALA-047C. The stone for these facings were cut and dressed locally, based on pXRF sourcing of the materials, with the possible presence of granite workers having been identified at the neighbouring ALA-045 and ALA-043 sites, where large fragments of granite at various stages of shaping were encountered (see Chapters 4 and 5 of this volume). The household had access to resources from both local sources and those further afield. Much lithic-chipped stone material appears to consist of readily available local rocks, including quartz, quartzite, phyllite, and even some sandstones, while chert, jade, much obsidian (El Chayal, Ixtepeque, and an unknown source—based on pXRF analysis), and many ceramics were imported, as was granite from the Mountain Pine Ridge and Hummingbird plutons.

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Chapter 4. The 2016 Settlement Investigations at Alabama: Operation 3 at ALA-045

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This chapter presents results of Phase II Testing at the ALA-045 settlement site, located in Property Block C1 within the southwest portion of the settlement area of the Alabama site, approximately 1 km from the monumental core (see Figure 1.2 in Chapter 1). The site was chosen for testing as a representative sample of a Type III settlement site form (Ashmore et al. 1994) identified during Phase I Reconnaissance. Refer to Appendix A for applied excavation guides/systems. Copies of all paperwork, drawings, and photos are on file at the Belize Institute of Archaeology. Artifacts are currently in storage in Belize.

ALA-045 Settlement Site: Operation 3

This site consists of three mounds, orthogonally arranged around a central patio space (Figure 4.1), and is located within the modern citrus orchard. ALA-045A is positioned on the south side of the group and is the tallest of the three mounds (0.75m), as well as the largest in diameter, located adjacent the Block C1 access road (Peuramaki-Brown et al. 2015:63). ALA-045B is positioned on the east side of the group, while ALA-045C occupies the north side. Only ALA-045A and ALA-045C were tested, as these were visibly mounded sites, whereas ALA-045B was barely mounded and identified primarily based on artifact and architectural block concentrations.

Surface collection at the group in 2015 recovered obsidian (El Chayal) and other lithic materials (quartz and quartzite), bulk ceramic materials, and granite ground stone materials. The time periods represented included Late to Terminal Classic (ca. 600-900), based primarily on the presence of ashwares.

Five suboperations (units) and one sub-suboperation were placed to investigate mounds ALA-045A and ALA-045C, designated Operation 3. Units were positioned to the back or side of each mound, with the goal of recovering architectural data and habitation debris. Excavations at ALA-045A were supervised by Kelsey Pennanen (KAP), with assistance from Higinio Chiac (HC), Virginia Chiac (VGC), Zoilo Tush (ZT), and Gonzalo Choc (GC). Excavations at ALA-045C were supervised by Teaghan Koster (TRK) and Cristina Oliveira (CIRO), with assistance from Gonzalo Choc (GC), Zoilo Tush (ZT), and Virginia Chiac (VGC).

ALA-045A: Suboperations 3A, 3C, 3E

Excavations at ALA-045A consisted of three contiguous suboperations (units), running north-south along the presumed centre-line of the mound: Suboperations 3A, 3C, and 3E (including sub-Suboperation 3C/E). This alignment of units fell almost directly along the centre of an orchard row; therefore, tree root disturbance was minimal.

Subop 3A (2 m north-south x 1 m east-west) was positioned atop the mound, although originally positioned with the intent of capturing the south face (back) of the platform and some off-platform area, based on topography, but was later extended to the south in Subops 3C

and 3E. This first unit was oriented 29° east of magnetic north, based on calculated platform orientations; however, these calculations were likely to be inaccurate due to plough disturbance of the mound. As mentioned, Subop 3C (2 m N/S x 1 m E/W) was attached to the south end of Subop 3A, and Subop 3E (1 m N/S x 1 m E/W) was subsequently attached to the south end of Subop 3C. This final subop was positioned to capture any fall and habitation debris material that accumulated in the off-platform area, the terminal face of the platform having been encountered in Subop 3C. Sub-Subop 3C/E (1.5 m N/S x 1 m E/W) was then created by combining Subop 3E with the southern quarter of Subop 3C. This was done in order to recover off-platform habitation material in single lots, vs. jumping back and forth between two subops.

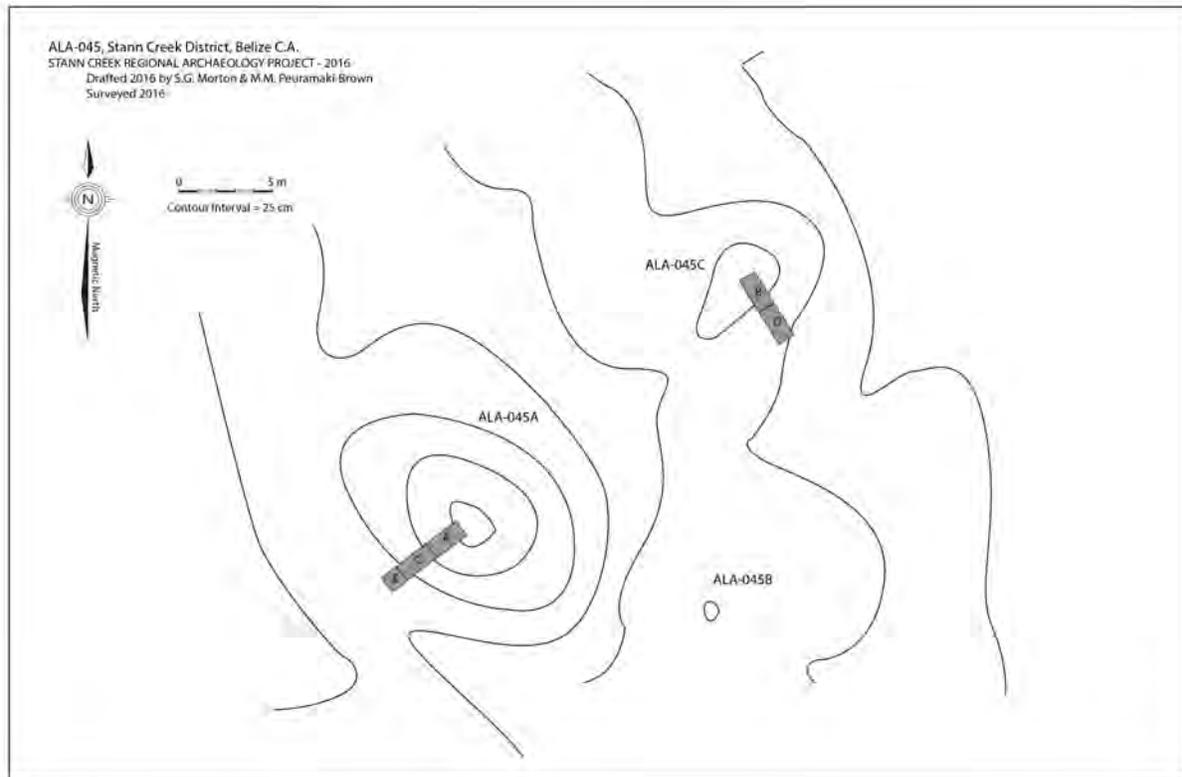


Figure 4. 1: Topographic map of ALA-045 and associated excavations.

Ploughzone

Lots 3A-1, 3C-1, and 3E-1 covered the entire area of Subops 3A, 3C, and 3E and were designated Ploughzone, consisting of a mixture of Humus (including root mat), Fall, and Fill #1 materials and matrix (see Table 4.1 for details), based on stratigraphic observations. An increase in inclusion sizes, coarse gravel to cobble-sized materials, appeared toward the southern end of Lot 3E-1, likely associated with disturbance from the modern road ditch. In general, the matrix of this context was found to be very organic-rich (not surprising given the modern citrus orchard) and relatively unconsolidated, making it easy to dig through. Charcoal was commonly observed, but presumed to be modern in origin, so was not collected. No architectural materials were exposed, except for a small broken piece of granite in the SE corner of Lot 3C-1, at which point lots/contexts were switched.

Bulk ceramic, lithic-chipped stone (quartzite, chert), daub, lithic-ground stone (granite, slate), and faunal (bird vertebrae) materials were recovered from this context. Small finds included an

obsidian blade (10385-OB090 [El Chayal]); a piece of obsidian shatter (10385-OB079 [El Chayal]); and two obsidian flakes (10385-OB084 and 10385-OB085 [Ixtepeque]).

No datable ceramics or carbon samples were recovered from these lots.

Photo numbers include Black Camera-110-0589 to 0601, 111-0611 to 0613, 112-0622 to 0624, 113-0640-0642, 116-0804-0812, and 117-0816-0818. Drawings include profiles DN-2016-018 (Figure 4.2), DN-2016-019, DN-2016-021, DN-2016-022.

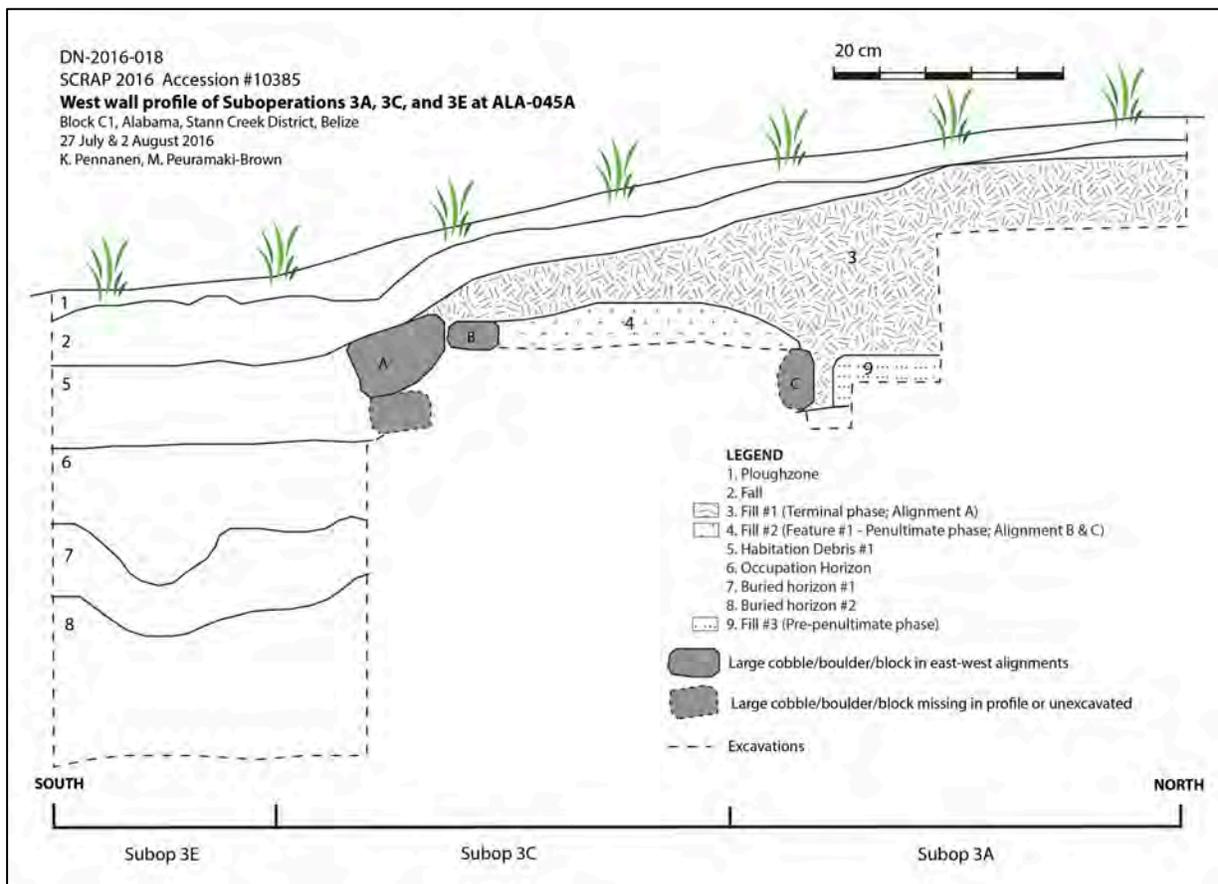


Figure 4. 2: West wall profile of Suboperations 3A, 3C, and 3E

Fall

Lots 3E-2 and 3E-3 were designated as Fall (post-abandonment architectural collapse) in the off-mound area to the south. This was differentiated from the above Ploughzone due to the presence of fallen architectural materials (granite blocks). The lot matrix was observed to be more compacted and containing more cobble-sized inclusions toward the southern end of the unit. As debris concentrations were noticed to increase in number and density toward the bottom of Lot 3E-3, we then switch lots as it was believed this represented a transition into terminal habitation debris deposits (Habitation Debris #1) located immediately south of the platform encountered in Subop 3C (Fill #1).

Lots 3C-2, 3C-3, and 3C-5 atop the mound were also designated as Fall, with likely some Fill #1 mixing due to the lack of clear differentiation between terminal platform construction core and overburden, as both consisted of a form of sandy-loam matrix.

Bulk ceramic, lithic-chipped stone (quartz, quartzite, phyllite, sandstone, chert), daub, and lithic-ground stone (granite, slate) materials were recovered from this context. A miniature ceramic vessel or candelero form (Figure 4.3; 10385-CR005) was recovered, likely made of local clays based on recent petrographic work presented in Peuramaki-Brown and Howie (2017), with interior burning possibly of incense-resin. Other small finds included an obsidian flake (10385-OB086 [El Chayal]); an obsidian blade fragment (10385-OB091 [El Chayal]); a siltstone celt (10385-GS023); and granite mano fragment (10385-GS024 [possibly Mountain Pine Ridge]).

Some ceramic materials were stylistically dated to Late/Terminal Classic, including the candelero (Terminal Classic). Two carbon samples were recovered (10385-CB049, CB-050, CB051) but have yet to be analyzed.

Photo numbers include Black Camera-110-0589 to 0601, 111-0611 to 0613, 112-0622 to 0624, 113-0640 to 0647, 113-0651 to 0655, 116-0780 to 0785, 116-0789 to 116-0794, 116-0804 to 0812, 117-0816 to 1818, 118-0831 to 0836, 118-0840 to 0845. Associated drawings include profiles DN-2016-018, DN-2016-019, DN-2016-021, and DN-2016-022.



Figure 4. 3: 10385-CR005

Fill #1 (terminal construction core)

Lots 3A-2, 3A-3, 3A-4, 3A-5, 3A-7, 3A-8, 3A-10, 3A-11, and 3C-4 were all designated Fill #1, which was the terminal phase construction core of the ALA-045A platform, directly beneath the Ploughzone context atop the mound in Subop 3A and below the Fall context in Subop 3C (fallen facing blocks and construction core material associated with this terminal phase). The matrix of Fill #1 consisted primarily of sandy loam to sandy-clay loam, with pockets of coarser inclusions throughout in the form of fine gravels to larger cobble-sized materials. The inconsistency and variation in matrix inclusions observed throughout the lots suggested potential task units represented within the construction core material. Removal of this fill revealed a sub-platform feature (Feature #1) discussed in the following section. The terminal platform face could only be partially identified, represented by a partially-shaped

(incomplete/preform) granite boulder, pXRF sourced to the local Cockscomb Basic pluton (see granite resource study in Tibbits and Peuramaki-Brown 2015, as well as Chapter 6 of this volume). This was used as a facing block that sat immediately atop the southern corner of the sub-platform feature (see photo inset in Figure 4.4), and the remaining blocks of the terminal face were either included in the fall or stripped away in antiquity.

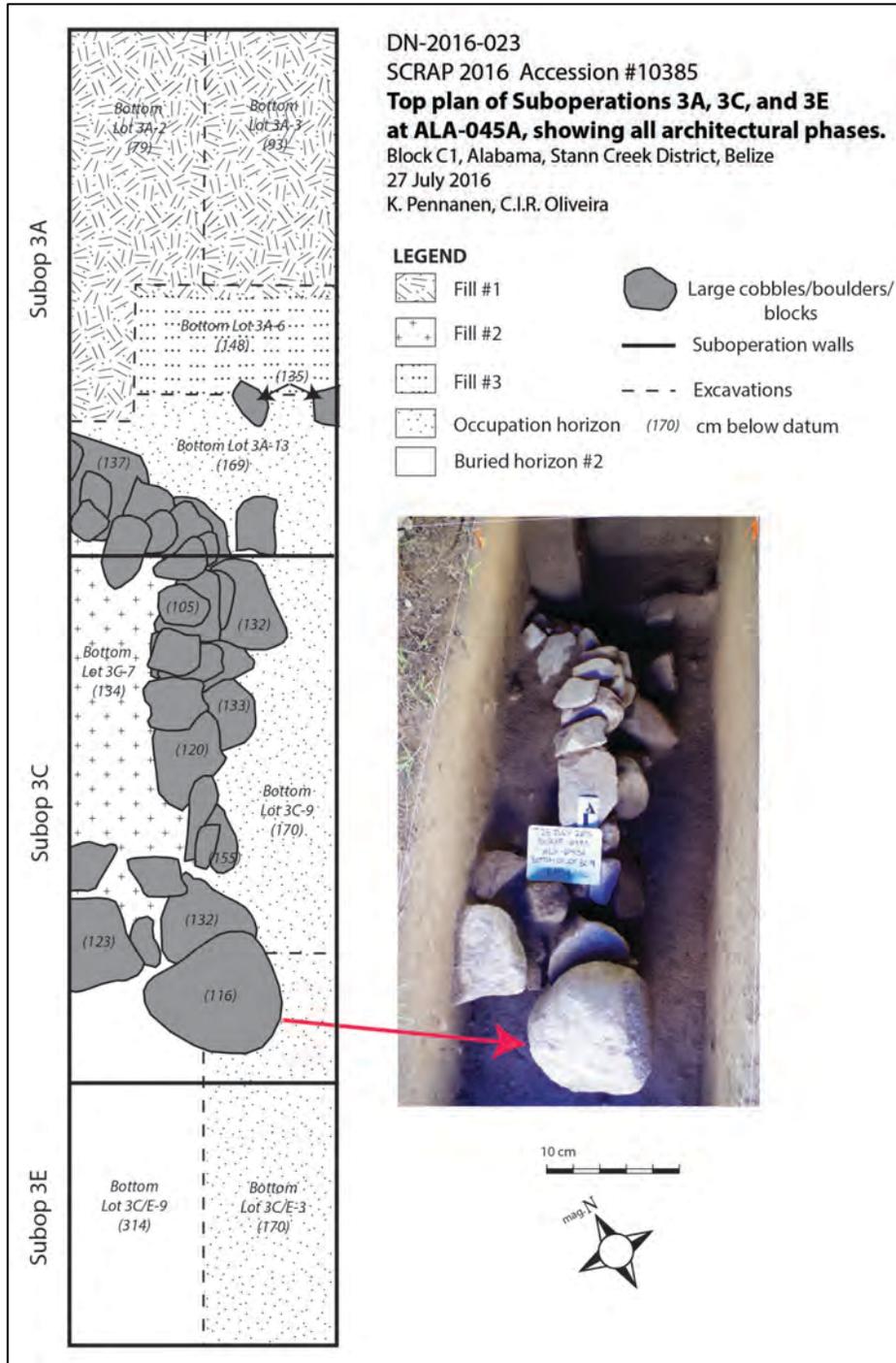


Figure 4. 4: Top plan of Subops 3A, 3C, and 3E, showing all phases of construction

Final lots of this context were switched when a new construction core (Fill #3) was encountered in the northern half of Subop 3A; the sub-platform feature (Fill #2) was encountered in the southwest quadrant of Subop 3A and west half of Subop 3C; and an increase in artifact count/density was encountered immediately to the east of the sub-platform feature, believed to be habitation debris associated with an earlier phase of occupation/use (Habitation Debris #2).

Bulk ceramic, lithic-chipped stone (quartzite, phyllite, sandstone, chert, quartz, shale), lithic-ground stone (granite), and daub material were recovered from this context, though relatively little to none when compared to habitation debris contexts. Small finds included two obsidian blade fragments (10385-OB080 [Ixtepeque]; 10385-OB082 [El Chayal]).

Another interesting find was a gouge-incised/incised ceramic rim sherd (Figure 4.5; 10385-T025), which appears to represent part of a possible pseudoglyphic band below the rim (Christophe Helmke, personal communication, 2016). The form suggests a small, squat jar/olla, with vertical sides and a relatively narrow mouth, suggesting a special function form. It may be typologically related to the impressed jar types found at Caracol and in the Macal Valley, or part of a ‘flask’, ‘poison bottle’—containers for tobacco paste—or ‘ink/pigment container’ (Loughmiller-Cardinal and Zagorevski 2016; Zagorevski and Loughmiller-Newman 2012), and is similar in form and treatment to those found in the southeast periphery of the Maya world dating to the Late Classic (Reents-Budet 1994:215). Another example with pseudoglyphic elements has been reported from a tomb context at the site of Minanha (Schwabe 2008:192, Fig. 5.28).

Some ceramic materials were stylistically dated to the Late/Terminal Classic (same as Fall). Two carbon samples were recovered (10385-CB047 and CB048) but have yet to be analyzed.

Photos include Black Camera-110-0589 to 0601, 111-0611 to 0613, 111-0620 to 0621, 116-0774 to 0776, 121-1005 to 1025, 122-1029 to 1073, 124-1107 to 1121, 113-0640-0647, 116-0780 to 0785, 116-0789 to 0794, 120-0972 to 0992, 121-0996 to 1004, 124-1095 to 1106. Associated drawings include profiles DN-2016-018, DN-2016-019, DN-2016-021, and DN-2016-022, and top plan DN-2016-023.



Figure 4. 5: 10385-T025

Fill #2 (penultimate construction core) and Feature #1

Lot 3C-7 was designated Fill #2, which was a penultimate platform phase consisting of the previously mentioned sub-platform feature, Feature #1 (refer to Figures 4.2 and 4.4) located on the west side of Subop 3C and the SW quadrant of Subop 3A. This feature consisted of the east end of what is believed to be an ellipse-shaped, cyst-like cell composed of two-to-three courses of small, shaped and unshaped granite large cobbles and small boulders serving as a rough core face, with loam construction core (Fill #2). One of these boulders was pXRF sourced to the Cockscomb Basin pluton, likely collected from a nearby stream that carries such materials out of the foothills and higher mountains. The interior fill of the feature was not capped/sealed; therefore, mixing with the above Fill #1 was likely. Excavation down the exterior east side of the feature as part of the removal of Fill #1, demonstrated that the feature sat atop the Occupation Horizon (discussed below), immediately south and abutting the pre-penultimate platform phase/face represented by Fill #3 (discussed below) that was partially stripped of facing stones in antiquity, possibly used to build the feature.

Fill #2 matrix consisted of loam with coarse gravel inclusions throughout. Because we did not wish to disturb possible contents within until we were able to expose the entire feature (not possible in 2016), excavations removed only a thin layer of this fill in order to better expose the top course of the cell.

Bulk ceramic (including a sherd with drill hole), lithic-chipped stone (quartzite, sandstone), daub, and lithic-ground stone (granite) were recovered from this context, though relatively little to none when compared to habitation debris contexts. No small finds were recovered.

No datable ceramics or carbon samples were recovered from these lots.

Photos include Black Camera-120-0874 to 0878, 120-0972 to 0977, 120-0984 to 0992, 120-0978 to 0983. Associated drawings include profiles DN-2016-018, DN-2016-019, and DN-2016-020, as well as top plan DN-2016-023.

Fill #3 (pre-penultimate construction core)

Below Fill #1 in Subop 3A, we encountered a different construction core that was investigated in *Lots 3A-6, 3A-9, and 3A-12*, with possible Fill #1 mixing as the top of Fill #3 was not sealed. It is possible this earlier platform originally had a crushed granite surface, as coarse sand-like material was noted in pockets toward the top of the lots. Crushed granite and other geological material used for platform surfaces have been noted elsewhere in the district (Graham 1994). We believe this fill represents the pre-penultimate phase of the platform—i.e. the platform that existed prior to the construction of Feature #1. A single course east-west alignment of unshaped granite small boulders was encountered, and is believed to represent all that remains of the original platform face, sitting atop the down sloping (to south) occupation horizon.

Bulk ceramic, lithic-chipped stone (chert, quartz, sandstone), and lithic-ground stone (granite, slate) were recovered from this context, though relatively little to none compared to habitation debris contexts. No small finds were recovered.

No datable ceramics or carbon samples were recovered from these lots.

Photos include Black Camera-121-1005 to 1010, 121-1020-1028, 122-1035 to 1055, 122-1059 to 1064, 123-1068 to 1073, 124-1107 to 1121, 127-1221 to 1247, and 127-1251 to 1283. Associated drawings include profiles DN-2016-018, DN-2016-019, DN-2016-021, and DN-2016-022, as well as top plan DN-2016-023.

Habitation Debris #1 (terminal occupation debris)

The Habitation Debris #1 layer was located directly atop the Occupation Horizon, along the south face of the terminal platform, and consisted of *Lots 3C-6, 3C/E-1, 3C/E-2, and 3C/E-3*. All of these lots contained significantly higher numbers and densities of artifacts compared to the relatively empty construction core contexts. Removal of the Habitation Debris #1 helped to further expose the mostly effaced terminal platform face. The matrix consisted almost purely of a sandy clay or sandy clay loam.

Bulk ceramic, lithic-chipped stone (chert, quartz, sandstone, quartzite), and lithic-ground stone (granite, slate) were recovered from this context, in much higher numbers/densities than the various fill contexts. It should be noted that much ceramic material was significantly eroded, and at times were only evident in the ground as a brightly coloured clay smear, due to the highly acidic soils of the region. Small finds included three obsidian blades (10385-OB103 [Ixtepeque], 10385-OB104 [El Chayal], 10385-OB105 [Ixtepeque]); an obsidian flake (10385-OB112 [El Chayal]); and a phyllite celt (10385-GS025).

Ceramic material was stylistically dated to Late/Terminal Classic, as well as Early Postclassic. Two carbon samples were collected from this context (Lot 3C/E-1, 10385-CB052; Lot 3C/E-2, 10385-CB057) and were subject to AMS dating at Beta Analytic Inc., returning date ranges of cal. AD 895-1020 (2 σ , Beta-457818) and cal. AD 885-955 (2 σ , Beta-457820), respectively, placing it primarily in the Early Postclassic period.

Photos include Black Camera-118-0831 to 0836, 118-0840 to 0845, 119-0852-0857, 120-0864 to 0872, 123-1977 to 1079, 124-1086 to 1094. Associated drawings include profiles DN-2016-018, DN-2016-019.

Habitation Debris #2 (penultimate and pre-penultimate occupation debris)

Habitation debris recovered east of Feature #1 and south of the pre-penultimate phase platform (Fill #3), and directly below Fill #1, was designated Habitation Debris #2, and was likely associated with the earlier phases/occupations at ALA-045A. *Lots 3A-13, 3C-8, and 3C-9* were included in this context, with possible mixing from Fill #1 immediately above. All of these lots contained significantly higher numbers and densities of artifacts compared to the relatively empty construction core contexts. The matrix consisted primarily of sandy clay loam with a small percentage of gravel-sized inclusions.

Bulk ceramic, lithic-chipped stone (chert, quartz, sandstone), lithic-ground stone (granite), and daub were recovered from this context in much higher numbers/densities than the various fill contexts. Small finds included an obsidian flake (10385-OB106 [El Chayal]); an obsidian blade (10385-OB113 [El Chayal]); and a granite mano fragment (10385-GS030 [possibly Mountain Pine Ridge]).

No datable ceramics or carbon samples were recovered from these lots.

Photos include Black Camera-123-1068 to 1073, 124-1107 to 1121, 127-1221 to 1247, 127-1251 to 1283, 120-0972 to 0977, 120-0984 to 0992, 121-0996 to 1004, 124-1095-1106, 127-1182-1214, and 127-1221 to 1283. Associated drawings include profiles DN-2016-018, DN-2016-019, DN-2016-021, and DN-2016-022.

Occupation Horizon

The Occupation Horizon represented a culturally modified natural horizon atop of which the excavated platform was constructed, and was represented by a relatively compact matrix in comparison to surrounding sediment. *Lots 3C/E-4 and 3C/E-5* represented this context, which was excavated as a profile window in the western half of sub-Subop 3C/E. The matrix consisted primarily of sandy clay loam with some fine gravel inclusions. Coarser inclusions and lower artifact numbers were observed toward the bottom of Lot 3C/E-6, at which point lots were changed and a new context (Buried Horizon #1) was determined.

Bulk ceramic, lithic-chipped stone (chert), lithic-ground stone (granite), and daub were recovered from this context. Small finds included one obsidian flake (10385-OB116 [El Chayal]).

Another find included what appeared to be a Pabellon Molded-Carved sherd (Figure 4.6; 10385-T022) with unidentifiable iconographic elements (Christophe Helmke, personal communication, 2016). It is a Fine Orange sherd of a bowl form, with paste and decorations comparable to those defined and illustrated at both Altar de Sacrificios (Adams 1971) and Seibal (Sabloff 1975:195-198, Fig.385), and identified in Southern Belize. This suggests connections with the Pasi3n region (Southern Peten), perhaps via the inland trade routes of Southern Belize. Ahk'utu' Molded-Carved sherds have also been found at Alabama, speaking of relationships to the greater Belize Valley and the eastern portion of the central Peten (see Chapter 3 for many examples).

Some ceramic materials, such as the Pabellon sherd, were stylistically dated to the Terminal Classic. No carbon samples were recovered from these lots.

Photos include Black Camera-124-1086 to 1091, 124-1122 to 1136, and 125-1140 to 1142. Associated drawings include profiles DN-2016-018 and DN-2016-019.



Figure 4. 6: 10385-T022

Buried Horizon #1

The Buried Horizon #1 was a natural sedimentary horizon consisting of loosely consolidated coarse sand and gravel. This context was excavated as *Lot 3C/E-6*, with possible mixing with the above Occupation Horizon (south end of subop) due to the undulating nature of the layers (shrink-swelling or other geological activity), and *Lot 3C/E-7*, with possible mixing with Buried Horizon #2 (north end). Excavation of *Lot 3C/E-7* ceased when the compacted clay layer of Buried Horizon #2 was encountered. It is interesting to note that this 'horizon' did not appear in excavations at ALA-045C, unless it appears lower in that area. Future alluvial geology investigations will address such questions.

A small amount of bulk ceramic (18 sherds) and lithic-ground stone (1 granite flake) was recovered from this context, likely due to taphonomic movement from contexts above. Small finds included one obsidian flake (10385-OB119 [El Chayal]).

No datable ceramics or carbon samples were recovered from these lots.

Photos include Black Camera-124-1128 to 1136, 125-1140 to 1142. Associated drawings include profiles DN-2016-018 and DN-2016-019.

Buried Horizon #2

Buried Horizon #2 was a second natural sedimentary horizon investigated in *Lots 3C/E-8 and 3C/E-9* in the western profile window of Subop 3C/E. It consisted of a compacted clay to sandy clay matrix with red streaks. Excavations were continued until 40 cm of sterile matrix was removed, marking the end of excavations at ALA-045A.

Two undatable ceramic sherds were recovered in the upper 20 cm of this 60 cm-deep layer, with no materials recovered in the bottom 40 cm. No carbon samples were recovered.

Photos include Black Camera-125-1143 to 1172. Associated drawings include profiles DN-2016-018 and DN-2016-019.

Summary

Excavations at ALA-045A have revealed architectural and material remains of what one might expect to recover from a domestic site, including a granite-faced house platform with three phases of construction represented, including a possible uncapped burial cyst (see Welsh 1988), to be further investigated in 2018; daub from perishable superstructures; habitation debris off the backside of the platform, including ceramic sherds from bowl, dish, jar, and special-function forms, lithic-chipped stone debitage (although no formal tools), lithic-ground stone debitage and formal tools, etc. Unfortunately, the excavated area could not provide us with a large enough assemblage to definitively discuss activities conducted at the site, although the assemblage is reflective of the commoner stratum.

If the ALA-045A remains are reflective of a household and its activities, we can say that residents were able to obtain items from a distance (beyond the East-Central Belize region), including chert, obsidian, granite, and ceramic materials, in addition to locally available resources including various materials used in chipped stone and ground stone activities (quartz, quartzite, phyllite, sandstones, siltstones, granites) as well as local pottery. The presence of a partially completed facing block made of locally available granite, as well as bulk granite

materials that included debitage flakes, might also suggest a mason resided at the site. Special function ceramic vessels were also in use, although their exact purpose remains unclear.

Datable ceramic materials place construction and use of the platform(s) in the late facet of the Late Classic to Terminal Classic, with occupation extending into Early Postclassic as indicated by AMS dating of carbon samples from the terminal habitation debris deposits.

Table 4. 1: Lot descriptions, ALA-045A

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		
						Ceramic	AMS		Colour (Munsell)	Texture	Inclusions
3	A	1	2 x 1	Ploughzone	Entire	Unknown		20.3	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	95% sandy clay loam, 5% roots/organics
3	C	1	2 x 1	Ploughzone	Entire	Unknown		22	10 YR 4/3 Brown	Sandy Clay Loam	95% sandy clay loam, 5% roots/organics
3	E	1	1 x 1	Ploughzone	Entire	Unknown		14	10 YR 4/3 Brown	Sandy Clay Loam	89% sandy clay loam, 10% roots/organics, 1% fine gravel
3	E	2	1 x 1	Fall	Entire	Unknown		14	10 YR 5/3 Brown	Sandy Clay Loam	90% sandy clay loam, 5% deteriorating ceramic, 5% coarse gravel/cobbles
3	E	3	1 x 1	Fall	Entire	Unknown		5	10 YR 4/3 Brown	Sandy Clay Loam - Clay Loam	99% sandy clay loam, 1% cobbles
3	C	2	2 x 0.5	Fall	East Half	LC/TC		11.8	10 YR 4/4 Dark Yellowish Brown	Sandy Clay Loam	98% sandy clay loam, 1% roots/organics, 1% coarse gravel
3	C	3	2 x 0.5	Fall	West half	Unknown		10.4	10 YR 4/6 Dark Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% coarse gravel
3	C	5	1 x 1	Fall	South half	Unknown		10.4	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	100% sandy clay loam
3	A	2	2 x 1	Fill #1	Entire	Unknown		17.6	10 YR 4/4 Dark Yellowish Brown	Sandy Loam (slightly courser sand on N of lot)	98% sandy loam, 1% coarse sand, 1% fine gravel
3	A	3	2 x 0.5	Fill #1	East Half	Unknown		14.8	10 YR 5/3 Brown	Sandy Loam	99% sandy loam, 1% cobbles

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		
						Ceramic	AMS		Colour (Munsell)	Texture	Inclusions
3	A	4	1 x 0.5	Fill #1	SE Quadrant	Unknown		18.8	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	90% sandy clay loam, 10% sandy loam
3	A	5	1 x 0.5	Fill #1	SE Quadrant	Unknown		19.2	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	99% sandy loam, 1% cobbles
3	A	7	1 x 0.5	Fill #1	East half of SW Quadrant	Unknown		20	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% fire gravel
3	A	8	1 x 0.25	Fill #1	East half of SW Quadrant	Unknown		21.6	10 YR 5/3 Brown	Sandy Clay Loam	90% sandy clay loam, 7% fine gravel, 3% coarse sand
3	A	10	0.5 x 0.25	Fill #1	SW Quadrant of SW Quadrant	Unknown		20.4	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% fine gravel
3	A	11	0.5 x 0.25	Fill #1	SW Quadrant of SW Quadrant	Unknown		21.8	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% fine gravel
3	C	4	2 x 1	Fill #1	Entire	LC/TC		13.8	10 YR 4/4 Dark Yellowish Brown	Sandy Clay Loam	100% sandy clay loam (coarse sand)
3	C	7	1 x 1	Fill #2	North half	Unknown		16.8	10 YR 4/6 Dark Yellowish Brown	Loam	83% loam, 5% boulders, 10% cobbles, 2% coarse gravel
3	A	6	1 x 0.5	Fill #3	SE Quadrant	Unknown		12.4	7.5 YR 5/4 Brown	Clay Loam	80% clay loam, 10% fine gravel, 10% coarse gravel
3	A	9	1 x 0.25	Fill #3	East half of SW Quadrant	Unknown		23.8	Sandy Loam: 10 YR 5/4 Yellowish Brown. Clay: 10 YR 5/3 Brown	Mainly Sandy Loam w/ pockets of Clay	80% sandy loam, 5% fine gravel, 10% clay, 5% coarse gravel
3	A	12	0.5 x 0.25	Fill #3	SW Quadrant of SW Quadrant	Unknown		10.6	10 YR 5/4 Yellowish Brown	Sandy Loam	50% sandy loam, 50% coarse gravel and cobbles
3	C	6	0.5 x 1	Habitation Debris #1	South half to quarter	Unknown		2.8	10 YR 4/3 Brown	Sandy Clay Loam	100% sandy clay loam
3	C/E	1	1.7 x 1	Habitation Debris #1	All of 3E, south half of 3C	LC/TC	Cal. AD 895-1020	14	10 YR 5/6 Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% cobbles

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		
						Ceramic	AMS		Colour (Munsell)	Texture	Inclusions
3	C/E	2	1.5 x 1	Habitation Debris #1	West half	LC/TC/EPC	Cal. AD 885-995	21.2	10 YR 5/3 Brown	Sandy Clay (coarse sand)	100% sandy clay
3	C/E	3	1.5 x 0.5	Habitation Debris #1	East half of 3E, south half of 3C	Unknown		20.8	10 YR 4/6 Dark Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% coarse gravel
3	A	13	0.5 x 0.25	Habitation Debris #2	South half of S end	Unknown		22.4	10 YR 5/4 Yellowish Brown	Sandy Loam	90% sandy loam, 5% fine gravel, 5% coarse gravel
3	C	8	1.2 x 0.5	Habitation Debris #2	NE Quadrant	Unknown		17.6	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	99% sandy clay loam, 1% coarse gravel
3	C	9	1.5 x 0.5	Habitation Debris #2	East half, north 3/4	Unknown		22	10 YR 4/4 Dark Yellowish Brown	Sandy Clay Loam (shorter ribbons than 3C/E-3, so close to sandy loam)	98% sandy clay loam, 1% fine gravel, 1% coarse sand
3	C/E	4	1.5 x 0.5	Occupation Horizon	West half	TC		19	10 YR 5/4 Yellowish Brown	Sandy Clay Loam	98% sandy clay loam, 1% coarse sand, 1% fine gravel
3	C/E	5	1.5 x 0.5	Occupation Horizon	West half	Unknown		21.6	10 YR 5/4 Yellowish Brown	Sandy Clay Loam (slightly less gritty than 3C/E-4 more clay)	99% sandy clay loam, 1% fine gravel
3	C/E	6	1.5 x 0.5	Buried Horizon #1	West half	Unknown		18.2	10 YR 5/8 Yellowish Brown	Sandy Clay Loam	98% sandy clay loam, 3% coarse sand, 1% fine gravel
3	C/E	7	1.5 x 0.5	Buried Horizon #1	West half	Unknown		23.8	10 YR 6/6 Brownish Yellow	Sandy Loam (slightly more clay in the S)	99.5% sandy loam, 0.5% fine gravel
3	C/E	8	1.5 x 0.5	Buried Horizon #2	West half	Unknown		19	10 YR 6/4 Light Yellowish Brown	Sandy Clay	100% sandy clay
3	C/E	9	1.5 x 0.5	Buried Horizon #2	West half	Unknown		41.6	10 YR 6/6 Brownish Yellow	Clay	99.8% clay, 0.2% fine gravel

ALA-045C: Suboperations 3B, 3D

Excavations at ALA-045C consisted of two contiguous units—Suboperations 3B and 3D—running east-west along the presumed central axis of the east side of the mound. This alignment of units fell perpendicular to the orchard row; therefore, tree root disturbance was present in the west end of Subop 3B.

Subop 3B (1 m north-south x 2 m east-west) was positioned atop the mound, although with the initial intent of capturing the east face of the platform and some off-platform area, based on topography, but was later extended to the east in Subop 3D. This first unit was oriented 29° east of magnetic north (short axis), based on calculated platform orientations; however, these calculations were likely to be inaccurate due to plough disturbance of the mound. As mentioned, Subop 3D (1 m N/S x 2 m E/W) was attached to the east end of Subop 3B. This final subop was positioned to capture any fall and habitation debris material that accumulated in the presumed off-platform area, which was not encountered in Subop 3B.

Ploughzone

Lots 3B-1, 3D-1, 3D-2, 3D-3, and 3D-6 were designated Ploughzone, consisting of a mixture of Humus (including root mat), Fall, and Fill materials and matrix (see Table 4.2 for details), based on stratigraphic observations. The Ploughzone context consisted of organic rich sandy loam, not surprising given the modern citrus orchard, and was relatively unconsolidated, making it easy to dig through. Much of the looseness of matrix was related to agricultural activity, but also to visible insect, animal, and root taphonomy. A few artifacts were recovered primarily from the Subop 3D area, as opposed to the on-mound area of Subop 3B; likely supporting the on-off platform designations and hinting that the pattern of little material in platform fill that was observed at ALA-045A would be repeated here. In fact, all artifacts recovered from ALA-045C, save two ceramic sherds, came from Subop 3D. An increase in the presence and size of inclusions (coarse gravel), first noted in Lot 3D-3 on the south side of the subop, prompted a switch of lots and marked the start of the Fall layer.

Bulk ceramic, lithic-chipped stone (quartz, quartzite, chert), and daub materials were recovered from this context. No small finds were recovered.

One outcurved, grooved-incised jar rim was recovered from Lot 3D-3. Similar sherds (8 total) were recovered from the settlement zone during 2015 surface collection (Peuramaki-Brown et al. 2017: Fig. 6). This form was originally classified as Late Preclassic-Protoclassic by Graham (1994:219), but later designated as Early Classic by MacKinnon (1989:712) based on associated absolute carbon dates from coastal sites. No carbon samples were recovered from these lots.

Photo numbers include BlackCamera-111-0604 to 0610, 111-0614 to 0619, 113-0628 to 0633, 113-0648 to 0650, 113-0648 to 0650, 113-0656 to 0658, 113-0656 to 0658, 115-0733 to 0735, 115-0745 to 0771, 117-0813 to 0815, and 117-0819 to 0821. Drawings include profile DN-2016-024 (Figure 4.7).

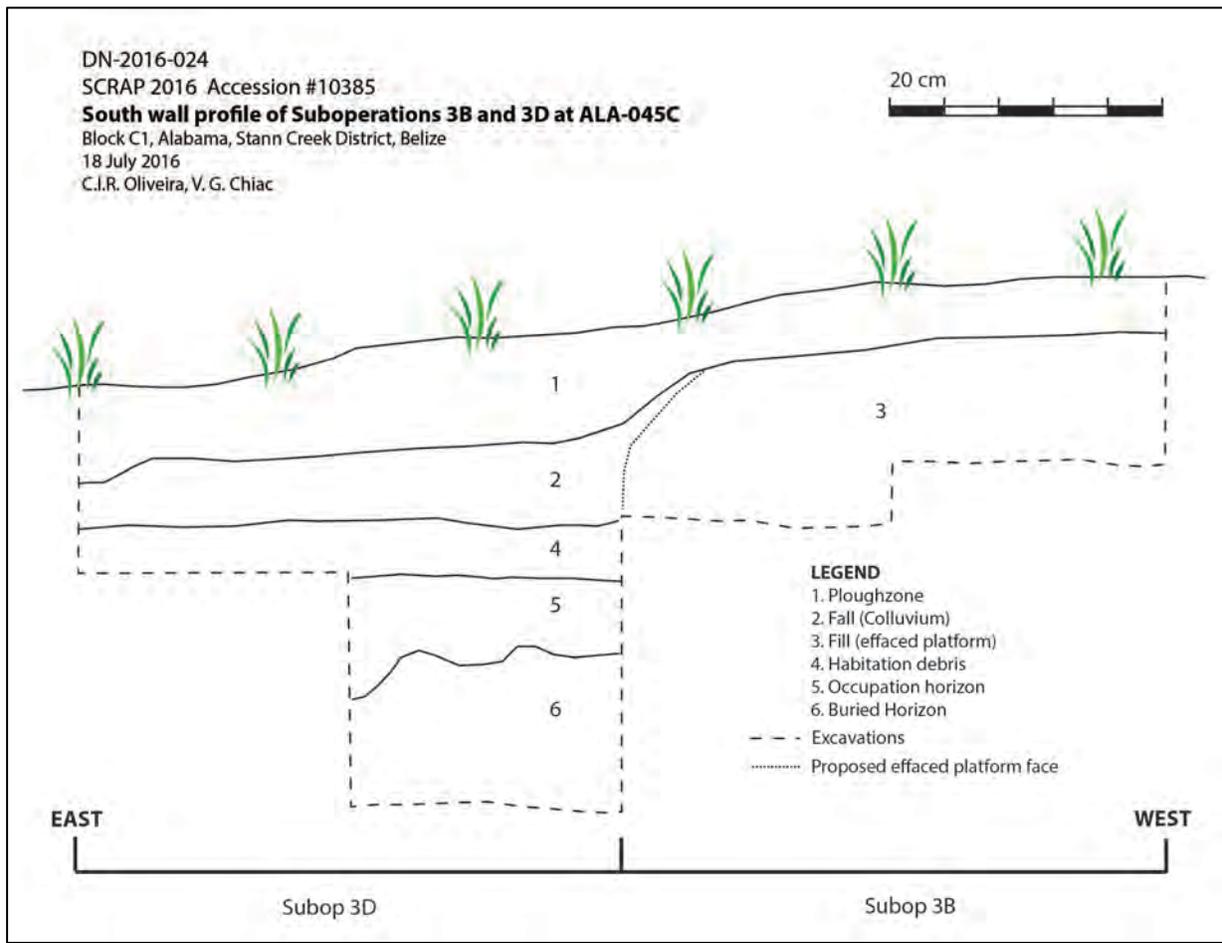


Figure 4. 7: South wall profile of Suboperations 3B and 3D

Fall (Colluvium)

Lots 3D-4 and 3D-7 were designated as Fall (post-abandonment architectural collapse). The majority of material was likely more akin to Colluvium (wash down of construction core), as all existing masonry facing had been removed in antiquity, if it was in fact present to begin with. The matrix was darker in colour than the above Ploughzone context, and characterized as sandy clay or sandy clay loam with coarser sand inclusions. No clear platform face was encountered.

Bulk ceramic and lithic-chipped stone (chert) materials were recovered from this context. No small finds were recovered.

No datable ceramics or carbon samples were recovered from these lots.

Photo numbers include Black Camera-115-0733 to 0735, 116-0786 to 0788, and 117-0819 to 0824. Drawings include profile DN-2016-024.

Fill

The remaining lots of Subop 3B, including *Lots 3B-2, 3B-3, and 3B-4* were designated as Fill, representing the construction core of the platform. The matrix of these lots was of a sandy loam (vs. a loamy sand of the above Lot 3B-1 ploughzone), and contained some coarse gravel inclusions midway down through the excavated context.

The only artifact materials, two ceramic sherds, recovered from Subop 3B were recovered from Lot 3B-2, and may represent disturbance from the upper ploughzone or animal-related taphonomy (borrow holes noted in the west and south walls of the unit). Otherwise, no artifacts were recovered from the fill; a similar pattern as noted at the mounds of ALA-047 and ALA-045A, as well as in the epicentre of Alabama, possibly related to rapid construction and limited early occupation in the area. No carbon samples were recovered from these lots.

Photo numbers include Black Camera-111-0614 to 01619, 112-0625 to 0627, 112-0625 to 0627, 115-0742 to 0771, 115-0742 to 0744, and 116-0795 to 0797. Drawings include profile DN-2016-024.

Habitation Debris

A small amount of Habitation Debris material was recovered from *Lots 3D-5 and 3D-8* along the east side of the effaced platform, with likely mixing from the Fall layer above and the Occupation Horizon below. Due to time constraints and the uncertainty of context, Lot 3D-8 was excavated as a profile window in the SW quadrant of the unit.

Bulk ceramic, lithic-chipped stone (quartz, quartzite), and lithic-ground stone (one granite flake) were recovered from this context. No small finds were recovered.

One outcurved, grooved-incised jar rim was recovered, which might date to the Early Classic (as mentioned above). No carbon samples were recovered from these lots.

Photo numbers include Black Camera-116-0786 to 0788, 117-0813 to 0815, 117-0822 to 0824, and 118-0837 to 083. Drawings include profile DN-2016-024.

Occupation Horizon

The Occupation Horizon represented a culturally modified natural horizon atop of which the excavated platform was constructed, and was represented by a relatively compact matrix in comparison to surrounding sediment. *Lot 3D-9*, and the lower reaches of the aforementioned Lot 3D-8, represented this context, excavated as a profile window in the SW quadrant of the unit. The matrix consisted primarily of sandy clay with some gravel and cobble inclusions. Lighter matrix colour, lower artifact numbers, and a higher clay content were observed toward the bottom of Lot 3D-9, at which point lots were changed and a new context (Buried Horizon) was assigned.

Bulk ceramic and lithic-chipped stone (chert, quartzite) materials were recovered, though few in number, likely due to taphonomic movement from contexts above.

No datable ceramics or carbon samples were recovered from these lots. One 4 oz. clay sample (10385-SL022) was collected for addition in the project's ongoing petrographic study of local clays and pottery (Peuramaki-Brown and Howie 2017).

Photo numbers include Black Camera-118-0837 to 0839 and 118-0846 to 0848. Drawings include profile DN-2016-024.

Buried Horizon

The Buried Horizon was a natural sedimentary horizon investigated in *Lots 3D-10, 3D-11, and 3D-12* in the SW quadrant profile window. It consisted of compacted clay layer, most similar to Buried Horizon #2 at ALA-045A, though not identical. As mentioned above, it is interesting to note that the Buried Horizon #1 encountered in ALA-045A excavations did not appear in this area; a question for future alluvial geology research at the site. Excavations were terminated when over 20 cm of sterile clay was removed in Lot 3D-12.

Bulk ceramic material (2 sherds) was recovered, likely due to taphonomic movement from contexts above.

A rectangular cross-section, strap handle ceramic sherd was recovered, most similar to that shown in Laporte (2007:1761), which dates to the Postclassic. No carbon samples were recovered.

Photo numbers include Black Camera- 118-0846 to 0851, 118-0849 to 0851, 120-0858 to 0863, 120-0858 to 0863, 120-0879 to 0923, 120-0927 to 0971, and 120-0993 to 0995. Drawings include profile DN-2016-024.

Summary

The paucity of artifact material, although exhibiting a clear pattern of distribution (off-platform deposition), suggests that the effaced ALA-045C platform represents a possible special function ancillary structure within a domestic patio group. The overall small size of the platform, roughly 5 m x 4 m, might also confirm such a function. Possible functions might be a pen (although it is quite high), storage building, ritual platform, etc. Alternatively, it could represent an early platform that was stripped for materials at a later point during group occupation. Unfortunately, ceramic materials recovered were in general so eroded that only limited chronological assessment could be conducted and no carbon material was recovered.

Table 4. 2: Lot descriptions, ALA-045C

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
3	B	1	1 x 2	Ploughzone	Entire	Unknown		18.4	10 YR 5/4 Yellowish Brown	Loamy Sand	95% loamy sand, 5% organic material
3	D	1	1 x 2	Ploughzone	Entire	Unknown		15.6	10 YR 4/3 Brown	Sandy Loam	95% sandy loam, 5% roots (medium to small thickness)
3	D	2	1 x 2	Ploughzone	West half	Unknown		2.9	10 YR 4/3 Brown (east), more yellow in west	Sandy Loam with some coarse gravel	96% sandy loam, 2% coarse gravel, 2% organics
3	D	3	0.5 x 2	Ploughzone	South half	EC?		12.2	10 YR 4/3 Brown (east), more yellow in west	Sandy Loam with some coarse	99% sandy loam, 1% coarse gravel

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
										gravel	
3	D	6	0.5 x 2	Ploughzone	North half	Unknown		13	W: 10 YR 5/4 Yellowish Brown. E: 10 YR 4/3 Brown	Sandy Clay (coarse grain)	92% sandy clay, 8% roots
3	D	4	0.5 x 2	Fall	South half	Unknown		26.2	10 YR 4/6 Dark Yellowish Brown	Sandy Clay Loam	100% sandy clay loam
3	D	7	0.5 x 2	Fall	North half	Unknown		21	10 YR 5/4 Yellowish Brown	Sandy Clay Loam (coarse grain)	93% sandy clay, 7% roots
3	B	2	1 x 2	Fill	Entire	Unknown		19.3	10 YR 4/4 Dark Yellowish Brown	Sandy Loam	98% sandy loam, 2% organics
3	B	3	0.5 x 2	Fill	South half	Unknown		24.2	10 YR 4/6 Dark Yellowish Brown	Sandy Loam	98% sandy loam, 2% coarse gravel
3	B	4	0.5 x 1	Fill	SE Quadrant	Unknown		20.2	10 YR 4/6 Dark Yellowish Brown	Sandy Loam	100% sandy loam
3	D	5	0.5 x 2	Habitation Debris	South half	Unknown		19.1	10 YR 4/6 Dark Yellowish Brown	Clay Loam	95% clay loam, 5% coarse sand
3	D	8	0.5 x 1	Habitation Debris	SW Quadrant	EC?		23.9	10 YR 4/4 Dark Yellowish Brown	Coarse Sandy Clay *same at ALA-045A	86% sandy clay, 10% coarse gravel/cobbles, 4% roots
3	D	9	0.5 x 1	Occupation Horizon	SW Quadrant	Unknown		15.4	10 YR 5/4 Yellowish Brown; patch of clay 10 YR 6/4 light yellowish brown	Sandy Clay	97% sandy clay, 10% coarse gravel/cobbles, 3% roots
3	D	10	0.5 x 1	Buried Horizon	SW Quadrant	Unknown		13.6	10 YR 6/4 Light Yellowish Brown	Hard Clay	97% hard clay, 2% coarse gravel, 1% roots
3	D	11	0.5 x 1	Buried Horizon	SW Quadrant	PC		12.4	10 YR 6/3 Pale Brown mottled with 10 YR 5/8 Yellowish Brown	Clay	98% clay, 2% roots

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
3	D	12	0.5 x 1	Buried Horizon	SW Quadrant	Unknown		22.2	10 YR 6/3 Pale Brown mottled with 10 YR 5/8 Yellowish Brown	Clay	95% clay, 3% coarse gravel, 2% roots

Discussion and Conclusions

Excavations at settlement site ALA-045 suggest the presence of an active household during the Late/Terminal Classic and into the Early Postclassic. Earlier occupation remains unclear. Little to no artifact materials recovered from the construction core(s) of associated building platforms suggests that occupation in the immediate area prior to the construction of the first phases was limited or non-existent. A possible residence and ancillary structure are represented within the site.

Overall, the remains suggest the presence of a commoner household, which may have included a granite mason—perhaps employed by the neighbouring household at ALA-047, where significant hewn granite facing blocks were used in architectural construction (see Chapter 3 this volume). Platforms were faced with local granite materials, some of which was shaped into block form. The household had access to material resources from both local sources and those further afield. Much lithic-chipped stone material appears to consist of readily available local rocks, including quartz, quartzite, phyllite, and even some sandstones, while chert and obsidian was imported, as was ground stone materials (granite from the Mountain Pine Ridge). Ceramic materials suggest connections to Southern Belize and the Pasión region; likely additional imported materials are present, but the high acidity of the soils in the area have caused significant erosion of pottery materials, often reduced to brightly coloured smears in the surrounding matrix.

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Chapter 5. The 2016 Settlement Investigations at Alabama: Operation 4 at ALA-043

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Meaghan M. Peuramaki-Brown (Athabasca University)

This chapter presents results of Phase II Testing at the ALA-043 settlement site, located in Property Block C1 within the southwest portion of the settlement area of the Alabama site, approximately 1 km from the monumental core (see Figure 1.2 in Chapter 1). The site was chosen for testing as a representative sample of a Type I settlement site form (Ashmore et al. 1994) identified during Phase I Reconnaissance. Refer to Appendix A for applied excavation guides/systems. Copies of all paperwork, drawings, and photos are on file at the Belize Institute of Archaeology. Artifacts are currently in storage in Belize.

ALA-043 Settlement Site: Operation 4

This site consists of a solitary mound, ALA-043A (Figure 5.1), and is located within the modern citrus orchard. ALA-043A is approximately 0.75 m tall with a roughly rectangular footprint, and located adjacent the Block C1 access road (Peuramaki-Brown et al. 2015:61). Many granite boulders and hewn blocks were noted at surface, some still in visible alignments.

Surface collection in 2015 recovered obsidian (EDXRF sourced to El Chayal) and other lithic materials (quartz and quartzite), as well as bulk ceramic and granite materials. The time periods represented included Late to Terminal Classic (ca. 600-900), based primarily on the presence of eroded ashwares.

Four suboperations (units) and one sub-suboperation were placed to investigate mound ALA-043A, designated Operation 4. Because this is a solitary mound, determining the ‘back’ of the platform was not possible, therefore the same side as was tested at the comparable ALA-045A was chosen for testing (south face of mound). Units were positioned with the goal of recovering architectural data and habitation debris. Excavations at ALA-043A were supervised by Teaghan Koster (TRK), with assistance from Zoilo Tush (ZT) and Gonzalo Choc (GC).

ALA-043A: Suboperations 4A, 4B, 4C, 4D

Excavations at ALA-043A consisted of four contiguous suboperations (units)—Suboperations 4A, 4B, 4C, and 4D (including sub-Suboperation 4C/D)—running roughly north-south down the south side of the mound. This alignment of units fell almost directly along the centre of an orchard row; therefore, tree root disturbance was minimal. Furthermore, prior to excavation, the area chosen was noted to have several rocks protruding through the ground surface, which could have potentially indicated underlying architecture.

Subop 4A (2 m north-south x 1 m east-west) was midway up the mound with the intent of capturing the south face of the platform and some off-platform area, based on topography, but was later extended to the north in Subops 4B and to the south in Subop 4C and 4D. The initial unit was oriented 15° east of magnetic north, based on calculated platform orientations; however, these calculations were likely to be inaccurate due to plough disturbance of the mound. As mentioned, Subop 4B (1 m N/S x 1 m E/W) was attached to the north end of Subop

4A, and Subop 4C (1 m N/S x 1 m E/W) and Subop 4D (0.5 m N/S x 1 m E-W) were subsequently attached to the south end. This final subop was positioned to capture any fall and habitation debris material that accumulated in a completely off-platform area (the terminal face of a possible platform terrace having been encountered in Subop 4C). Sub-Subop 4C/D (1 m N/S x 0.5 m E/W) was then created by combining Subop 4D with the southern half of Subop 4C. This was done in order to recover off-platform habitation material in single lots, vs. jumping back and forth between two subops.

As can be gleaned from the following context and lot descriptions, and associated profile and top plan, deposits at ALA-043A were quite complex, and will definitely require further investigation to fully comprehend the associated stratigraphy.

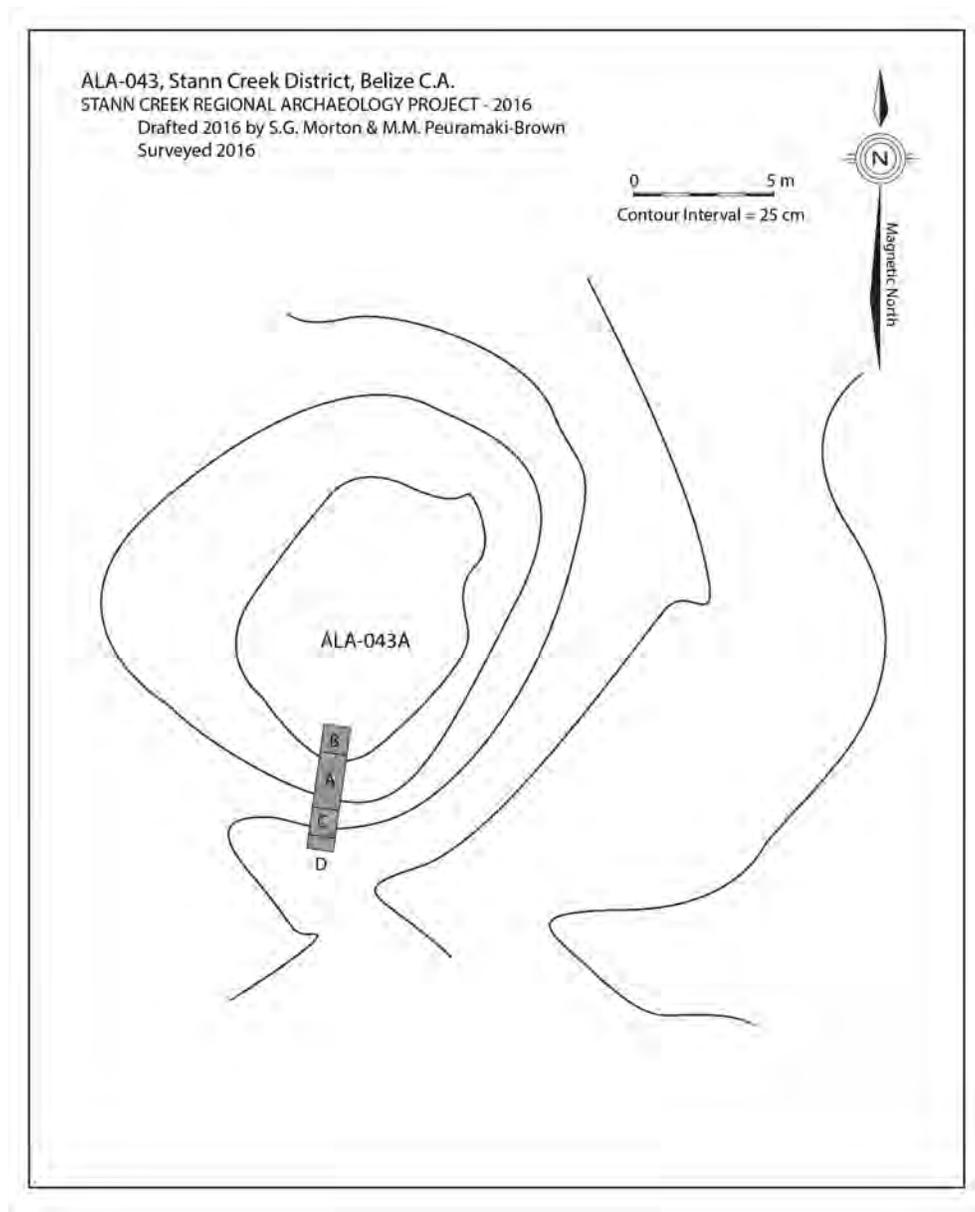


Figure 5. 1: Topographic map of ALA-043 and associated excavations

Ploughzone

Lots 4A-1, 4B-1, 4C-1, and 4D-1 were all designated Ploughzone, consisting of a mixture of Humus (including root mat), Fall, and Fill #1 materials and matrix (see Table 5.1 for details), based on stratigraphic observations. In general, the matrix of this context was found to be very organic-rich (not surprising given the modern citrus orchard) and relatively unconsolidated, making it easy to dig through. Lots were switched when coarser sand inclusions were encountered in the surrounding matrix; the protruding granite boulders had been exposed; and additional small boulders were uncovered.

Bulk ceramic, lithic-chipped stone (quartzite, sandstone, chert, quartz), lithic-ground stone (granite), and daub materials were recovered from this context. Small finds included an obsidian core fragment (10385-OB088 [El Chayal]; Figure 5.2). Additionally, a granite mano (10385-GS027 [Cockscomb Basin]) was recovered at surface.

No datable ceramics or carbon samples were recovered from these lots.

Associated photos include Red Camera-114-6408 to 6417, 116-6551 to 6563, 118-6633 to 6641, and 119-6672 to 6683. Associated drawings include profile DN-2016-025 (Figure 5.3).



Figure 5. 2: 10385-OB088

Ploughzone/Fall

Lots 4A-2, 4A-3, 4A-6, 4B-2, 4B-3, 4C-2, and 4C-3 could not be clearly designated as Ploughzone or Fall (post-abandonment architectural collapse), or ‘Other’, so they are considered a mix. This mixture is highlighted by the three types of sediment texture observed (sandy loam, clay loam, and clay). The proximity of this context to the surface, beginning approximately 10 cm below, suggests it is still mixed ploughzone context; however, removal of the matrix in Lot 4A-2 uncovered east-west running clusters/alignments of rocks (large cobbles to small boulders) along the north end of Subop 4A, continuing into Subop 4B, as well as two additional isolated boulders (fall) toward the centre of Subop 4A.

Excavation of Lots 4A-6, 4B-2, and 4B-3 cleared the area around the exposed rock cluster/alignment to determine if there were additional stones beneath, exposing a roughly two-course ‘pile’. Included among the cluster was a granite preform ground stone sphere and one granite preform metate, as well as a paired granite preform mano and metate (10385-GS028, 10385-GS029) resting atop the terrace surface (discussed below), all of which were sourced using pXRF to the local Cockscomb Basin pluton (see photo insets in Figure 5.4; see also

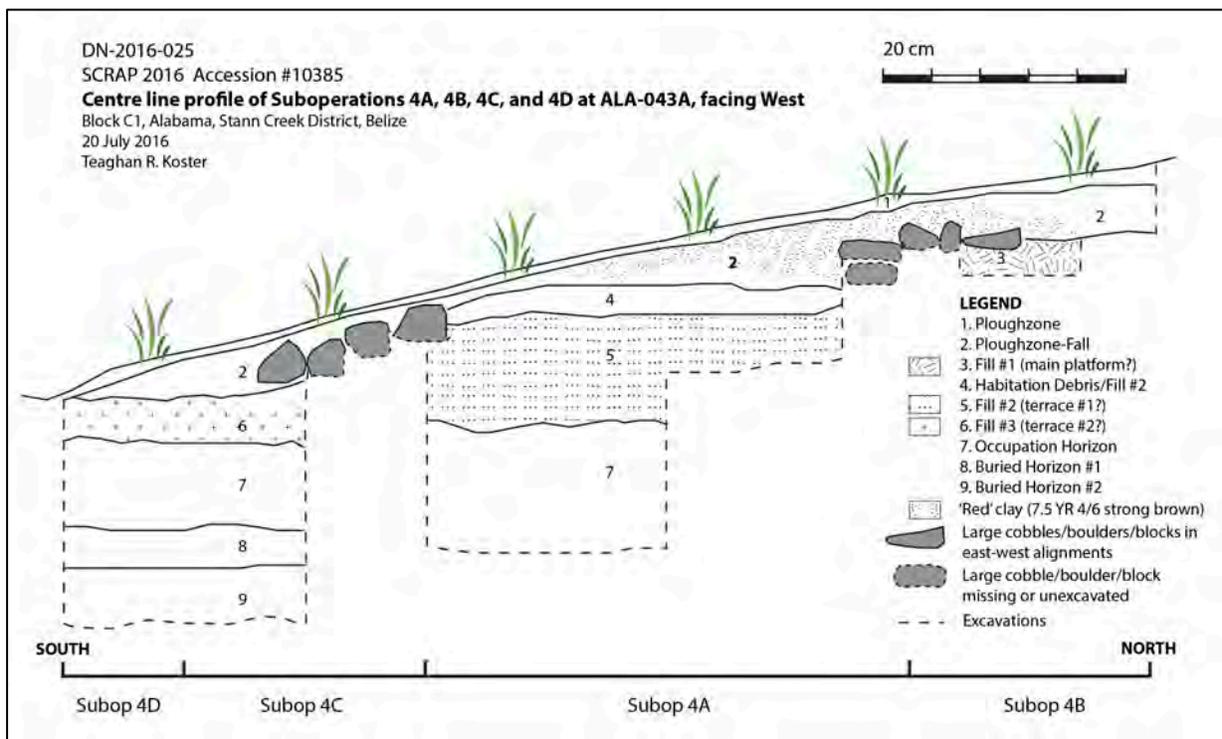


Figure 5. 3: Centre line profile of Suboperatons 4A, 4B, 4C, and 4D

granite resource study in Tibbits and Peuramaki-Brown 2015, as well as Chapter 6 of this volume); other stone material included unshaped granite and water-rolled, unidentified rock.

In both Lots 4A-6 and 4B-2, the matrix was much redder (7.5 YR 4/6 Strong Brown) and had a clay texture, clearly visible in the western profile of the subop. This sediment was less densely compacted and less coarse than the matrix found throughout the rest of the context, and was localized around the northern rock cluster.

Pockets of carbon and disintegrated ceramic materials were noted in Lot 4B-3, possibly representing the surface of the actual platform, so lots/context were switched to Fill #1 in Subop 4B.

Removal of Lot 4C-2 and 4C-3 exposed an additional east-west aligned 'pile' of rocks, including another large granite cobble and additional water-rolled rocks, along the north side of Subop 4C. The matrix in this area was of a coarser, sandy loam to sandy clay loam sand. Lot 4A-3 explored the northern extent of this southern cluster, as well as the southern extent of the northern rock cluster.

Excavation of this context in the Subop 4A area was ceased when it was noticed that a higher concentration of horizontally laying artifacts appeared, possibly representing debris atop a terrace area (Habitation Debris #1 and Fill #2) bordered by the pile/alignments of rocks to the north and south, with the north 'face' leading up to the actual platform surface, of which excavations into the possible fill (Fill #1) occurred in Lot 4B-4 (discussed below). Lots/contexts were switched at the base of the second stone pile/alignment in Subop 4C, marking the start of what was believed to be off-terrace debris and/or fill of a second, lower terrace (Habitation Debris #2/Fill #3).

DN-2016-026
 SCRAP 2016 Accession #10385
Top plan of Suboperations 4A, 4B, 4C, and 4D
 at ALA-043A, showing all architectural phases.
 Block C1, Alabama, Stann Creek District, Belize
 19 July 2016
 T.R. Koster



LEGEND

- | | | | |
|---|---|---|-----------------------------------|
|  | Fill #1 |  | Large cobbles/boulders/
blocks |
|  | Fill #2 |  | Suboperation walls |
|  | Fill #3 |  | Excavations |
|  | Occupation horizon (170) cm below datum | | |
|  | Buried horizon #2 | | |

10 cm

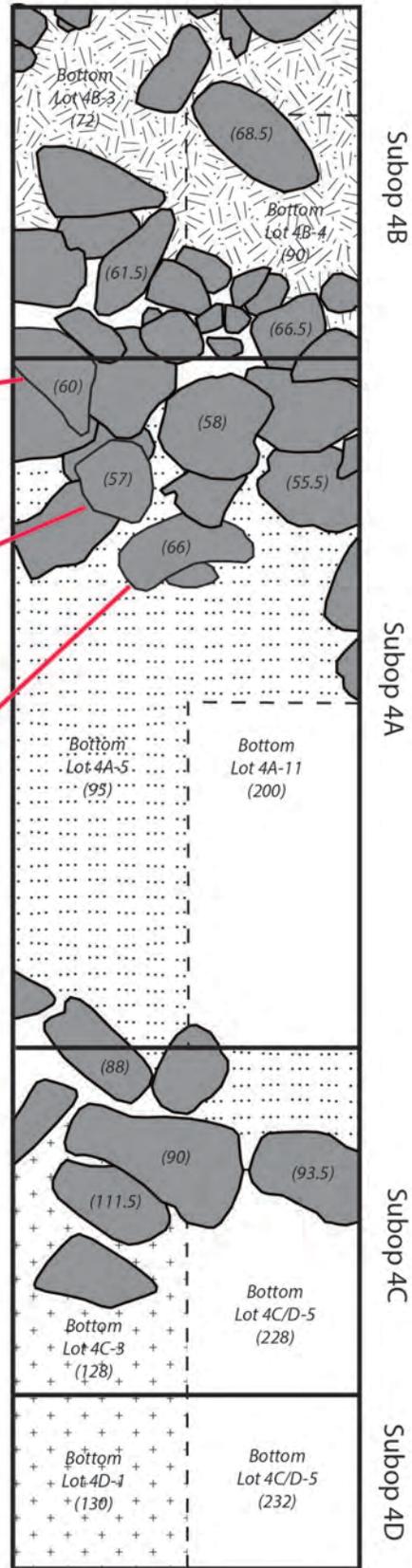



Figure 5. 4: Top plan of Suboperations 4A, 4B, 4C, 4D, showing different architectural elements.

Bulk ceramic, lithic-chipped stone (quartzite, sandstone, chert, quartz), lithic-ground stone (granite, slate), and daub materials were recovered from this context. Small finds included an obsidian flake (10385-OB089 [El Chayal]); an obsidian blade fragment (10385-OB115 [El Chayal]); a quartzite hammerstone (10385-LT005); and the aforementioned mano and metate preforms.

Some ceramic materials were stylistically dated to the Late/Terminal Classic. One carbon sample was recovered (10385-CB054), but has yet to be analyzed.

Associated photos include Red Camera-114-6415 to 6417, 114-6428 to 6442, 115-6443 to 6457, 115-6464 to 6466, 116-6506 to 6529, 116-6558 to 6581, 117-6564 to 6568, 117-6582 to 6605, and 118-6639 to 6671. Associated drawings include profile DN-2016-025 and top plan DN-20160-026 (Figure 5.4).

Fill #1

Lot 4B-4 consisted of a small profile window to the north of the northern alignment of stones, and was placed to investigate below the alignment. In the end, it was determined that the sandy clay matrix was possibly the primary construction core of the platform, with possibly on-platform debris, as evidenced from the aforementioned carbon and disintegrated ceramics recovered from the bottom of *Lot 4B-3*.

Bulk ceramic, lithic-chipped stone (quartz), and daub materials were recovered from this context. No small finds were recovered.

No datable ceramics or carbon samples were recovered from these lots.

Associated photos include Red Camera-117-6582 to 117-6593, 117-6606 to 117-6632. Associated drawings include profile DN-2016-025 and top plan DN-20160-026.

Habitation Debris #1 and/or Fill #2

The concentration of ceramic materials and other artifacts encountered at the bottom of *Lot 4A-3*, between the two rock alignments, was removed in *Lot 4A-4* as possible Habitation Debris #1, but appeared to continue further down into what was believed to be a fill material (Fill #2) with a similar matrix.

Ceramic materials were stylistically dated to the Late/Terminal Classic. One carbon sample (10385-CB053) was collected from the top of the lot and was subject to AMS dating at Beta Analytic Inc. It returned a date range of cal. AD 260-280 and 325-420 (2 σ , Beta-457819). This falls into the Early Classic period, and may support the assignment of a Fill #2 context, as some ceramic material in *lot 4A-5* below was stylistically dated to the Early Classic. However, the presence of definite Late/Terminal Classic materials (British Honduras ashwares and molded-carved sherds) also suggests mixing of materials—which, in the future, may help clarify the reason for the complex stratigraphy noted at the site.

Bulk ceramic, lithic-chipped stone (quartzite, sandstone, chert, unknown), lithic-ground stone (granite), and daub materials were recovered from this context. Small finds included an obsidian blade fragment (10385-OB092 [El Chayal]); an obsidian biface fragment (10385-OB093 [Ixtepeque]); and a chert scraper (10385-LT006).

Associated photos include Red Camera-115-6443 to 6445 and 115-6464 to 6478. Associated drawings include profile DN-2016-025 and top plan DN-20160-026.

Fill #2

To investigate below the possible Habitation Debris #1, we placed a profile window on the east side of Subop 4A between the two stone alignments. *Lots 4A-5, 4A-7, and 4A-8* were excavated as Fill #2 within this profile window. The matrix of these lots was similar to that of Lot 4A-4, but coarser inclusions (gravel and cobbles) began to appear toward the bottom of Lot 4A-8, at which point we switched lots and contexts.

Within the north profile of the excavated window, we noticed that the red clay matrix first noted in the ploughzone/fall layer within the northern rock alignment, actually continued down within and slightly below the pile.

The relatively high bulk artifact counts recovered from these lots is unusual, given the lack of debris within the fills of ALA-047 and ALA-045 (see Chapters 3 and 4 of this volume). As this was a possible terrace area, it could be that it was in fact a late phase at the platform, and therefore time had passed in order for the accumulation of debris to occur in the area, then used as fill within the sandy clay loam construction core. This might also explain the presence of Early Classic as well as Late/Terminal Classic materials—gathered from elsewhere and dumped in as fill.

Body sherds of British Honduras ashwares were present in the artifact assemblage, which would suggest Late/Terminal Classic dates; however, one horizontal, everted rim, pinched lipped jar fragment was thought to be Early Classic in date. No carbon samples were recovered from these lots.

Bulk ceramic, lithic-chipped stone (quartzite, sandstone, chert), lithic-ground stone (granite), and daub materials were recovered from this context. Small finds included four obsidian blade fragments (10385-OB094 [Ixtepeque], 10385-OB095 [El Chayal], 10385-OB096 [El Chayal], 10385-OB117 [Ixtepeque]).

Associated photos include Red Camera-115-6464 to 6466, 115-6479 to 6505, 116-6506 to 6517, 116-6530 to 6550, 116-6530 to 6538, and 121-6718 to 6726. Associated drawings include profile DN-2016-025 and top plan DN-20160-026.

Fill #3

Beginning at the base of the southern cluster/alignment of stones, along its south face, was *Lot 4C/D-1*, which marked the start of a profile window along the east side of Subop 4D and the east side of the SE quadrant of Subop 4C. The matrix consisted of a sandy clay loam, differentiated from the context immediately above by the presence of coarse gravel. This was thought to perhaps represent another fill layer of a possible second terrace, the southern extent of which remained undetermined and likely disturbed by the road ditch situated along the southern edge of the unit. Excavations ended in this lot when a colour change was noted, and it was determined that the Occupation Horizon had been encountered.

Bulk ceramic, lithic-chipped stone (quartz), lithic-ground stone (granite), and daub materials were recovered from this context. No small finds were recovered.

Some ceramic materials were stylistically dated to the Late/Terminal Classic. No carbon samples were recovered from these lots.

Associated photos include Red Camera-118-6654 to 6656 and 119-6678 to 6686. Associated drawings include profile DN-2016-025 and top plan DN-20160-026.

Occupation Horizon

The Occupation Horizon—a culturally modified natural horizon atop of which the excavated platform was constructed—was encountered in two areas at ALA-043A: *Lots 4A-9, 4A-10, and 4A-11* in the Subop 4A profile window, and *Lots 4C/D-2 and 4CD-3* in the sub-Subop 4C/D profile window. This horizon consisted primarily of a more compacted clay loam to sandy clay loam, strong brown in colour with fine to coarse gravel inclusions that increased as we moved lower. Excavations in the Subop 4A profile window ended at the base of this horizon (Lot 4A-10 and 4A-11 were sterile) with the appearance of increased clay content and a redder coloured matrix. In sub-Subop 4C/D, the same increased clay content was noted and lots/contexts were switched. An animal burrow was noted in the east wall of Subop 4D.

Bulk ceramic, lithic-chipped stone (quartz, sandstone, chert), and lithic-ground stone (granite) materials were recovered from this context. Small finds included an obsidian blade fragment (10385-OB118 [El Chayal]).

No datable ceramics or carbon samples were recovered from these lots.

Associated photos include Red Camera-119-6684 to 6670, 121-6718 to 6762. Associated drawings include profile DN-2016-025.

Buried Horizon #1

Buried Horizon #1 was excavated as *Lot 4C/D-4*, and was a natural clay horizon, with red and beige mottling. Occasional fine gravel pockets were encountered along portions of the east wall. Toward the bottom of the lot the matrix returned to a sandy clay loam with coarse sand inclusion, at which point lots/contexts were switched.

This was a sterile lot (no artifacts recovered). A carbon sample (10385-CB058) was collected from within the clay matrix, but has yet to be analyzed.

Associated photos include Red Camera-120-6697 to 6699 and 120-6703 to 6711. Associated drawings include profile DN-2016-025.

Buried Horizon #2

Buried Horizon #2 was excavated as *Lot 4C/D-5* and was a second natural horizon with a higher content of coarse gravel and small cobbles, and represented the end of excavations at ALA-043A.

This was a sterile lot (no artifacts recovered), and no carbon was recovered.

Associated photos include Red Camera-120-6703 to 6708 and 120-6712 to 6717. Associated drawings include profile DN-2016-025.

Discussion and Conclusions

Compared to ALA-047 and ALA-045, relatively little can be said regarding ALA-043. Excavations at ALA-043A uncovered a primary platform, possibly domestic in function, with two clusters/alignments of stone materials along its south side, with the northern cluster being the higher of the two. We believe this northern alignment to be the south face of the main platform, also serving as the northern boundary of an attached terrace area, bounded to the south by a second alignment of stones. Resting fallen material between the two alignments supported the idea of a surface; along with a paired preform metate and mano and other possible habitation debris. The higher counts of artifact materials recovered from the terrace area suggested a refuse zone or a later phase of the platform that incorporated occupation debris from the surrounding area. The recovery of daub suggested the presence of a perishable superstructure. Finally, the presence of various partially worked granite boulders may indicate the presence of a stone worker producing items such as metates, manos, and spheres; Hayden (1987:37-38) notes the presence of piles of blanks/preforms and discards in the yard of a stone worker in Guatemala. Further investigation is required to determine overall layout and activities represented at this likely commoner residential site.

Table 5. 1: Lot descriptions, ALA-043A

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
4	A	1	2 x 1	Ploughzone	Entire	Unknown		6.9	7.5 YR 4/4 Brown	Sandy Clay	95% sandy clay, 5% organic root matter
4	B	1	1 x 1	Ploughzone	Entire	Unknown		6.4	7.5 YR 4/3 Brown	Clay Loam	95% clay loam, 3% organic matter, 2% coarse sand
4	C	1	1 x 1	Ploughzone	Entire	Unknown		8.1	7.5 YR 4/4 Brown	Sandy Clay	98% sandy clay, 2% organic root matter
4	D	1	0.5 x 1	Ploughzone	Entire	Unknown		12.2	7.5 YR 4/4 Brown	Sandy Loam	100% sandy loam
4	A	2	2 x 1	Ploughzone/Fall	Entire	Unknown		6.7	7.5 YR 4/6 Strong Brown	Clay Loam	95% clay loam, 5% coarser sand
4	A	3	1.6 x 1	Ploughzone/Fall	South 3/4	Unknown		9.8	7.5 YR 4/4 Brown	Sandy Clay	100% sandy clay
4	A	6	0.4 x 1	Ploughzone/Fall	N quarter	TC		26.8	7.5 YR 4/6 Strong Brown	Clay	100% clay
4	B	2	1 x 1	Ploughzone/Fall	Entire	Unknown		16.6	7.5 YR 4/6 Strong Brown	Clay	95% clay, 5% coarse sand
4	B	3	1 x 1	Ploughzone/Fall	Entire	Unknown		11.4	7.5 YR 4/4 Brown	Sandy Clay Loam	95% sandy clay loam, 5% coarse sand

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
4	C	2	1 x 1	Ploughzone/Fall	Entire	Unknown		4.6	7.5 YR 4/4 Brown	Sandy Loam	95% sandy loam, 5% coarse sand
4	C	3	1 x 1	Ploughzone/Fall	Entire	LC/TC		17.7	7.5 YR 4/4 Brown	Sandy Clay Loam	95% sandy clay loam, 5% coarse sand
4	B	4	0.48 x 0.5	Fill #1	NE Quadrant	Unknown		10.1	7.5 YR 4/4 Brown	Sandy Clay Loam	95% sandy clay loam, 5% coarse sand
4	A	4	1.6 x 1	Habitation Debris #1 and/or Fill #2	South 3/4	LC/TC	cal AD 260-280 and 325-420	14.7	7.5 YR 4/4 Brown	Sandy Clay Loam	95% sandy clay loam, 5% coarse sand
4	A	5	1.6 x 1	Fill #2	South 3/4	EC?		6.5	7.5 YR 4/4 Brown	Sandy Clay Loam	95% sandy clay loam, 5% coarse sand
4	A	7	0.4 x 1	Fill #2	North quarter	Unknown		28.3	7.5 YR 4/4 Brown	Sandy Clay Loam	95% sandy clay loam, 5% coarse sand
4	A	8	1 x 0.5	Fill #2	SE Quadrant	Unknown		22.2	7.5 YR 4/4 Brown	Clay Loam	96% clay loam, 2% coarse sand, 2% coarse gravel
4	C/D	1	1.05 x 0.5	Fill #3?	Entire	LC/TC		20.4	7.5 YR 4/4 Brown	Sandy Clay Loam	85% sandy clay loam, 10% coarse gravel, 5% coarse sand
4	A	9	1 x 0.5	Occupation Horizon	SE 1/2	Unknown		19.2	7.5 YR 4/4 Brown	Clay Loam	90% clay loam, 5% coarse sand, 5% fine gravel
4	A	10	1 x 0.5	Occupation Horizon	SE 1/2	Unknown		17.5	7.5 YR 4/6 Strong Brown	Clay Loam	90% clay loam, 5% coarse sand, 5% fine to coarse gravel
4	A	11	1 x 0.5	Occupation Horizon	SE 1/2	Unknown		21.2	7.5 YR 4/6 Strong Brown	Clay Loam	90% clay loam, 5% coarse sand, 5% coarse gravel
4	C/D	2	1.05 x 0.5	Occupation Horizon	Entire	Unknown		25.2	7.5 YR 4/6 Strong Brown	Sandy Loam	Top: 70% sandy loam, 15% coarse sand, 15% coarse gravel/small cobbles. Bottom: 75% sandy loam, 15% coarse gravel/small cobbles, 10% coarse sand

Op	Subop	Lot	Dimensions (m): N/S x E/W	Context	Location in Subop	Dating		Average lot thickness (cm)	Matrix Description		Inclusions
						Ceramic	AMS		Colour (Munsell)	Texture	
4	C/D	3	1.05 x 0.5	Occupation Horizon	Entire	Unknown		14.7	7.5 YR 4/6 Strong Brown	Sandy Clay Loam	85% sandy clay loam, 10% coarse sand, 5% fine gravel
4	C/D	4	1.05 x 0.5	Buried Horizon #1	Entire	Unknown		20.9	7.5 YR 5/8 Strong Brown	Clay	100% clay
4	C/D	5	1.05 x 0.5	Buried Horizon #2	Entire	Unknown		20.8	7.5 YR 4/6 Strong Brown	Sandy Clay Loam	70% sandy clay loam, 20% coarse gravel, small cobbles, 10% coarse sand

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Chapter 6. The 2016 Resources Investigations at Alabama.

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The site of Alabama is located in an alluvial valley among the eastern foothills of the Maya Mountains. In 2014-2015, SCRAP crews identified a series of source locales for granite and clay resources within the Alabama settlement area. The proximity of these granite and clay resources, characterizes such material as “local” (within 0-10 km; Moutsiou 2011) resources for Alabama residents, and is contrasted against “mesolocal” (10-50 km away) salt and granite; “regional” or “extended” (50-100km and >100km away, respectively) cherts, limestones, and granites; and “exotic” basalts, obsidians, and jade (>200km away).

In 2016, we continued with the various resources studies initiated in 2014-2015, and expanded to include additional associated artifact and sample analyses, as well as new experimental studies (see Tibbits and Peuramaki-Brown 2015 for previous studies). Preliminary summaries of our findings are reported here, and have been more extensively detailed in crecnet conference papers and in upcoming publications. These resource investigations are contributing to our understanding of the 4th element (situation in larger social, economic, and political organizations) of settlement development and associated boomtown processes at Alabama (see Chapter 1, this volume).

Granite

As mentioned above, granites were a local, mesolocal, and regional/extended resource used by the Alabama Maya. This is because the Maya Mountains are comprised of three petrographically distinct plutons: the Mountain Pine Ridge in the west, the Hummingbird Ridge in the north, and the Cockscomb Basin in the east (Tibbits and Peuramaki-Brown 2015:Fig. 4.1).

A unique situation of the Stann Creek inland Maya was their ease of access to materials from two of the granite plutons of the eastern Maya Mountains; these materials were commonly used for construction materials, as limestone is lacking in the district, and for the manufacture of various groundstone items. Graham’s collaboration in the 1980s with geologist Webster Shipley, who had conducted characterization studies of the Maya Mountains granites as part of his MA thesis in the 1970s, served as an extension of her work in Stann Creek where she noted the importance of the material at sites such as Mayflower-Maintzunun (Graham 1994; Shipley and Graham 1987). Through thin section petrographic analysis, Shipley and Graham characterized the three granite sources of the Maya Mountains and sourced granite artifacts recovered from the sites of Seibal and Uaxactun in Guatemala. Not only were the three major granitic bodies differentiated, but the batholiths themselves were found to comprise different and distinguishable rock types, allowing for more detailed sourcing data. This study demonstrated the potential for granite source studies to contribute to discussions regarding trade relationships among the ancient Maya. Up to that point, Mayanists had been primarily concerned with the sourcing of obsidian to address long-distance trade relations. The results of their work suggested that the pinpointing of sources of raw materials used in groundstone tool

manufacture was possible, but that more work needed to be done in characterizing outcrops and assembling comparative collections.

Artifact materials from surface collection and the 2016 test excavations at Alabama confirmed the presence of large quantities of granite debitage (flakes, unidentified), tool preforms, final tool products, and hewn architectural blocks. Within our systems, these materials are all classified as lithic-ground stone bulk and small finds (GS). In response to Shipley and Graham's call for further characterization studies, our 2016 efforts focused on further refining our understanding of the local granites available to the Alabama Maya (Cockscomb pluton), as well as identifying imported materials from the Mountain Pine Ridge and Hummingbird plutons.

Macrovisual and Petrographic Characterization Study

Macrovisual and petrographic analyses was conducted on all of the Cockscomb Basin pluton source samples recovered during 2015 settlement survey in the immediate Alabama area (see Figure 1.2 in Chapter 1 of this volume). These analyses confirm previous observations by various scholars regarding the Cockscomb granites, as well as adding to the knowledge regarding granite source areas in the immediate vicinity of Alabama.

Analysis of the thin sections identified the major minerals in the granite sample as quartz, plagioclase, and potassium feldspar. These major minerals vary in size and shape, the average phase being subhedral and approximately one cm on the long axis. Alteration has occurred within some of the major minerals; for example, in some instances, minerals have been entirely replaced by muscovite mica and some plagioclase crystals exhibit zonation. Based on observed proportions, Cockscomb Basin granites have average modal abundances of 25% quartz, 30% plagioclase, 30% potassium feldspar. The remaining 15% of the rock is comprised, in order of abundance, of biotite, muscovite, margarite, and zircon (Figure 6.1). Some variation is present within the pluton materials, in the proportion of biotite present, and zones that contain plagioclase feldspar crystals that are greater than 2 cm in length and display a perthitic texture; thus, the ability to identify subsurface zones may be possible for future research. A similar tentative conclusion was reached in our elemental characterization studies.

Source Zone L001-003: White, two-mica granite with average modal abundances of 25% quartz, 30% plagioclase, 30% potassium feldspar. Biotite is present in higher proportions than muscovite. The micas and all other accessory minerals represent 15% of the total mineral content. This region has large phenocrysts (over 2 cm on the long axis) of plagioclase feldspar with perthitic texture present. The granites in this area were present as both boulders and large-scale outcrop. Granite outcrops did not exhibit extensive weathering beyond spalling and minor oxide formation.

Source Zone L004/005: This stream drainage had weathered through a granite outcrop; large deposits of granite were exposed and easily accessible. The modal abundances of major minerals as defined visually are 25% quartz, 30% plagioclase, 30% potassium feldspar. Biotite represents a larger proportion of the granite than muscovite. The micas and all other accessory minerals represent 15% of the total mineral content. No large phenocrysts of plagioclase were identified. The outcrops exhibit spalling and minor oxide formation.

Source Zone L006: Granite in L006 was present in cobble to boulder size as well as outcrop scale units. The modal abundances of major minerals as defined visually are 25% quartz, 30%

plagioclase, 30% potassium feldspar. Biotite is present in higher proportion than muscovite. The micas and all other accessory minerals represent 15% of the total mineral content. Cobble-sized pieces of granite had been badly weathered, the feldspars had begun to weather to clays. Boulder and outcrop scale granite only exhibited spalling and some minor oxide formation.

Source Zone L009/L010: Granite was present in cobble to boulder size as well as outcrop scale. In general, little weathering was observed. Cobble-sized granite did not display much oxide growth or feldspar weathering. The modal abundances of major minerals as defined visually are 25% quartz, 30% plagioclase, 30% potassium feldspar. Biotite is present in higher proportion than muscovite. The micas and all other accessory minerals represent 15% of the total mineral content. Phenocrysts of plagioclase feldspar larger than 2 cm with perthitic texture were found at this locality.

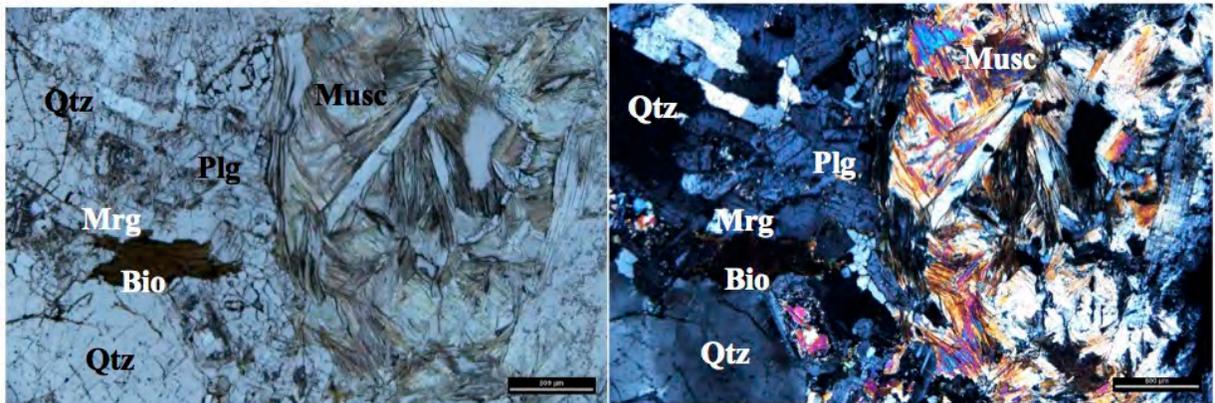


Figure 6. 1: Thin section in ppl (left) and xpl (right) of Cockscomb granite sampled near Alabama. Qtz: quartz, Plg: plagioclase, Bio: biotite, Mrg: margarite, Musc: muscovite. This view shows muscovite in a larger proportion than biotite; however, this is not the exception rather than the rule. The margarite is located between muscovite and biotite.

Elemental Characterization Study

In 2016, we continued adding to our granite elemental characterization and sourcing study by pXRF analyzing additional artifacts and architectural materials recovered in the test excavations at ALA-043, ALA-045, and ALA-047 (see Chapters 3, 4, 5 of this volume), as well as architectural material and source samples from the neighbouring Cockscomb Basin to the north of Alabama (see Chapter 7 of this volume).

These analyses have confirmed the presence of not only local granite materials in the Alabama artifact assemblage, but also some imported Hummingbird material used for some metate forms, and Mountain Pine Ridge material used for manos. These findings will be detailed in an upcoming manuscript, and are partially detailed in Tibbits (2016).

Usewear Study

In 2016, we initiated an experimental usewear study focused on granite grinding stones (manos and metates) and an acetate peel study to examine usewear on artifacts. Crew members took turns grinding soaked corn and roasted cacao on a series of different granite stones (non-archaeological) collected from the Alabama area (Figure 6.2). This experimental study was completely experimental, as we were very unsure if it would work or not. Acetate peels were made of the experimental stones prior to and after grinding. Additional peels were made of all metate artifacts, on both the grinding surface and fresh break or non-worked surface, recovered

during 2016 test excavations at ALA-043, ALA-045, and ALA-047 (Figure 6.3). These peels are currently under analysis in Canada.



Figure 6. 2: Experimental grinding and acetate peels

Clays and Ceramics

Graham (1994, 1986) clearly states the importance of the unique clay resources in the Stann Creek District, which is home to many high-quality deposits associated with the erosion and drainage of the igneous and metamorphic portions of the eastern Maya Mountains, as well as the Santa Rosa sedimentary materials. This is contrasted against the primarily karst-derived deposits of the rest of the Maya lowlands. Because the ceramics of the district are subject to intense erosion due to acidic soils (as is evident in our excavation discussions in this volume), Graham also explains her reservations about the use of the type-variety system in discussions of chronology and cultural affiliations. To overcome some of these issues, she initiated the first archaeological and geological study of clay resources and Maya pottery manufacture in the district, collecting clay samples from drainages along the eastern face of the Maya Mountains, and providing macrovisual descriptions and possible correlations with the most commonly observed ceramic fabrics. She concluded that many of the ceramic types encountered in the district would have been manufactured locally, both at inland settlements sites and coastal specialized sites. She went on to theorize that Stann Creek was an area that exported clay minerals and slips; in particular, she suggested that the high-quality kaolin clays of the Swasey drainage may have been exported beginning in the Early Classic for bichrome and polychrome base slips. Overall, Graham's discussion of clays, highlighted by her musings over polychrome

development, called for looking at internal inter-community relationships in the Maya lowlands vs the more commonly pursued external extra-lowland influences.

Macrovisual and Petrographic Characterization Study

In 2015, we picked up where Graham left off by providing characterizations of clays and ceramic fabrics recovered from the Alabama area. Clays were randomly sampled during preliminary settlement reconnaissance at the site (see Figure 1.2 of this volume), and test briquettes were fashioned (Tibbits and Peuramaki-Brown 2015). These samples, along with a selection of the most commonly observed pottery fabrics at settlement sites throughout the area, were subject to thin section petrographic analysis. The findings, recently reported in Peuramaki-Brown and Howie (2017), to be expanded upon in an upcoming publication, have helped to highlight the complexity of the geological base line in this small area of the district; to identify local fabrics used as pottery and daub construction material at Alabama; to identify different technological (preparation and firing) strategies applied by the Alabama Maya; and to identify imports including materials from the Bladen Formation to the south, the Hummingbird to the north, and the Belize Valley.

The ongoing petrographic study highlights the complex relationships that existed between communities of the eastern Maya Mountains and beyond. These extended relationships were also reflected in the minimal type-variety analysis that Peuramaki-Brown and Jill Jordan were able to conduct on the heavily eroded/leached materials that were excavated in 2016 (see Chapters 3, 4, and 5 of this volume), identifying materials from the Belize River Valley, Southern Belize, the Pasión region, Northern Yucatan, etc. We are currently building a type collection for the site, focused not only on macrovisual and stylistic analysis, but also petrographic characterizations.

Given the large amount of daub that is being recovered from our excavations, we are also planning on a more extensive analysis of this material class, particularly focused on the observed (macro and microvisual) differences between materials believed to be from perishable building superstructures vs. materials from other possible construction activities (e.g. Feature #1 at ALA-047B, Chapter 3 this volume). For example, preliminary analysis of daub finds in 2016 have revealed scorched pieces from ALA-047A; red-painted pieces from ALA-047C; differences in degree of preservation between contexts, possibly related to original formation or taphonomic activity; differences in relief impressions in materials, allowing for the possibility of differentiating perishable materials used in construction activity; and much more.

Chipped Stone Materials

The Alabama Maya made use of a wide range of both local and non-local materials in the manufacture of chipped stone items. This wide variety of materials may have been a result of the lack of chert available in the region—all chert materials recovered at Alabama would have been imported to the area from elsewhere.

Preliminary Macrovisual Analysis – Non-obsidian materials

In total, a remarkably round number (n=820) of flaked lithic objects were recovered from the 2016 SCRAP excavations in ALA-043, 045, and 047, some of which are highlighted in Chapters 3, 4, and 5 of this volume. Functionally, each excavated group yielded a diversity of distinct forms, including both finished tools and production debris/debitage.

ALA-047 yielded irregular flake cores and core fragments (n=19), blocky fragments/shatter (n=190), primary flakes (n=25), secondary flakes (n=34), tertiary thinning/reduction flakes (n=34), tertiary shaping flakes (n=84), tertiary finishing flakes (n=38), and a slew of small tertiary flakes of unknown purpose (n=107). Four formal tools were also recovered from excavations at this site: two large, coarse, choppers, and two lanceolate bifaces, the latter made of notably fine chert.

The other groups excavated as part of the 2016 field programme yielded similar objects. At ALA-045, lithic objects recovered included irregular flake cores (n=3), and significant quantities of production debitage, mostly consisting of blocky fragments/shatter (n=46), primary flakes (n=7), secondary flakes (n=8), and tertiary flakes of various types (n=77). At ALA-043, objects recovered included an unusually large number of irregular flake cores given the extents of the excavation (n=10), blocky fragments/shatter (n=40), primary (n=10), secondary (n=10) and tertiary (n=70) flakes, as well as two formal tools: an edge scraper recovered from a layer of habitation debris, made of a fine chert (cortex still visible along opposite lateral edge to scraping surface), and a heavy quartzite cobble hammerstone with heavy battering on one end. In all cases, debitage and other lithic reduction bi-products were found distributed liberally in all excavated contexts.

It should not be surprising that most of the lithic objects recovered through excavation this season hailed from ALA-047, if for no other reason than that this group accounts for approximately 50% of the area excavated during the 2016 season and proportionally more, again, by volume. Regardless, the number of lithics recovered from ALA-043 (n=142), stands out as unusual, particularly given that investigations at ALA-043A account for only 16% of the excavated area during 2016. The unexpectedly large number of irregular/multi-directional flake cores recovered from this context (approximately 33% of those recovered) similarly stands out. While the precise relationship remains obscure, it seems reasonable to suppose that these trends are related to the suggested role of ALA-043A in granite processing/production.

While relatively few formal tools were encountered during excavation, debitage recovered seems consistent with household-level manufacture and refurbishment of flaked tools. Further, while lithic artifacts are composed of a diverse array of materials, including arkose sandstone and other sandstones, siltstone, slate, feldspars, granite, partially silicified limestone, phyllite, and various quartzes and quartzites, with the exception of the chert and obsidian (discussed below), these are all locally available in the surrounding hills, fields, outcrops, and river/stream beds. In summary, the lithic assemblage recovered during the 2016 season appears consistent with a domestic assemblage including manufacture, use and discard of objects made of local materials at the individual household level.

Obsidian: Preliminary Macrovisual and Elemental Characterization Studies

Since 2015 we have been conducting X-Ray Fluorescence (XRF) analyses on obsidian recovered from the Alabama settlement. Results were recently reported in Williams et al. (2017), to be expanded upon in an upcoming publication

In 2015, we ran 49 surface collected pieces of obsidian that were recovered during settlement survey. The analysis, performed using an EDXRF at Tristan Carter's MAX Lab at McMaster University, showed that Ixtepeque material dominated the assemblage, compared to the expected El Chayal given the Late to Terminal Classic dates for the site based on PPAP

excavations in the 1980s. However, items from our surface collection suggested the settlement had a stronger Early Postclassic component than was previously known/hypothesized; thus, the presence of high Ixtepeque counts made sense. When we drew distribution maps for the obsidian from this first round, we noted that Ixtepeque dominated in all areas of the settlement except in Block C1, where all save one piece was of El Chayal. This led to suggestions that access to different obsidian networks may have varied between households and settlement communities at Alabama. This would be further investigated with the initiation of Phase II Testing in 2016, focused on Block C1 settlement site.

In 2016, we ran 119 obsidian pieces recovered from the settlement excavations discussed in this volume. This analysis, performed using a pXRF at Elizabeth Paris' lab at the University of Calgary, which confirmed dominance of El Chayal through time at the Block C1 settlement sites, although households also had access to Ixtepeque and another unknown source. Various artifact items were produced by means of percussion (flakes and biface fragments), prismatic blade, and lapidary technologies, and a shift in certain technological applications was noted through time.

Overall, this study (in addition to our recent Phase II Testing) is leading us to question dates established in the 1980s by the PPAP, suggesting more significant occupation at Alabama into the Early Postclassic than previously demonstrated, at least in some areas of the site. However, the differences in obsidian access between late-occupation settlement blocks suggest that different sub-communities within the Alabama settlement may have had access to different resource networks. This might be expected in a community that developed rapidly, perhaps related to power vacuums initiated in the late facet of the Late Classic or the migration of populations from inland communities during the 9th century political collapse of many lowland Maya polities. This may represent an interesting dynamic within the community, with individuals and groups accessing different trade networks—both coastal and inland.

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Chapter 7. The 2016 Reconnaissance of the Pearce Sites of the Cockscomb Basin Reserve

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Shawn G. Morton (Northern Arizona University)

In 2014, we first discussed with Mr. Julio Saqui of Maya Centre, the possibility of visiting some of the archaeological sites in the Cockscomb Basin Forest Reserve (CBFR) and Cockscomb Basin Wildlife Sanctuary (CBWS), situated directly north of Alabama. In 2016, we were granted permission from the Belize Audubon Society and the Belize Institute of Archaeology to enter the reserve and assess the previously reported archaeological sites of Pearce, Kuchil Balum, and Huntul Mo', collectively referred to as the "Pearce Sites" in this report.

The Area & Reason for Investigations

The Pearce Sites are located within the East Basin of the Cockscomb Basin, which consists of the upper watershed of the South Stann Creek. British and American explorers first visited the basin in the late 1800s, and loggers were active from the early 1900s to the 1980s. In 1986, the CBWS was established, later expanded upon by the CBFR in 1990.

The main area of the Pearce Sites is focused on the junction of the Sittee Branch at the Upper South Stann Creek. This area lies roughly 10 km north of Alabama, if one were to travel through "The Gorge" at the north end of the site (head of the Waha Leaf Creek), which leads to the Juan Branch of the South Stann Creek. This route is still used today, albeit not always for legal activities.

This direct link through the foothills between Alabama and the Pearce Sites was likely used in the past, and warrants investigation. The exact nature of the relationships between the Alabama Maya and the Pearce Maya remain unclear.

The Pearce Sites: A History of Investigations

The Pearce Sites have been subject to five archaeological reconnaissance investigations, including our own. The following is a summary of their findings, with an attempt to 'connect the dots', so to speak, as there appears to be confusion and discrepancies in the literature concerning site names, locations, and descriptions. This is based on the few pieces of literature we have managed to assemble from the archives of the Belize Institute of Archaeology and the Geology & Petroleum Department, online databases, university libraries, and colleagues, as well as conversations with Elizabeth Graham, Peter Dunham, Keith Prufer, and Brijilio Bolon—although, they each admit their recall of the various expeditions is limited. We thank everyone very much for his or her assistance.

British Museum Expedition (BME) - 1931

This expedition was led by T.A. Joyce (1931; unpublished 'intermediate' report) in March and April of 1931, less than half a year before the devastating Storm Five hurricane hit Belize. The team was following up on a report made to the Government of Belize by Mr. Lee Pearce, a mahogany contractor working in the area, of "large stone-built mounds" (p.1) along the Upper

South Stann Creek. The expedition set off on March 12th from All Pines, an old sugar and logging community south of Hopkins near Cabbage Haul Creek, travelling inland by wagons and tractor, as no canoes were available to go upriver. The current location of Joyce's excavation notes and maps are unknown; however, Peuramaki-Brown is currently working with the British Museum Central Archive to determine their whereabouts.

Old Pearce Camp: On March 13th, the crew stayed overnight at an old camp erected by Mr. Pearce the year before. This was located “about a mile from/below the junction of the Sittee branch with the South Stann Creek River” (p.3). We assume this was located on the north side of the river, based on mapped logging roads into Locust Bank and Red Bank to the east. On a Google Earth map, we measured out one mile to identify an approximate location (Figure 7.1). This served only as a temporary camp for the expedition, and a permanent camp was set up along “the river bank within reasonable distance of the site” (p.4), in which he is referring to the Pearce Ruins site (reported by Mr. Pearce). No other location information is provided. It took them seven days (March 20th) to establish the permanent camp.

BME-1: This is a “small, but very promising site” that Joyce identifies as situated “just below Mr. Pearce’s Camp, but on the other bank of the river” (p.4). A week was spent investigating the site toward the end of the expedition period. Joyce mentions that excavations encountered two slate-lined graves in one of the mounds, “which yielded some fine stone implements and a number of pottery vases (some of which had been painted in slip). The latter were so decayed that their removal was impossible” (p.6).

BME-2, Pearce Ruins: No location is given for the Pearce Ruins, other than it was at a reasonable distance from the permanent camp (for which we also have no location). However, as the Sittee Branch junction was used as a reference point for locating Mr. Pearce’s Camp, we might assume it was in that vicinity. It is described as a “large site”, consisting of a “double plaza surrounded by some fourteen stone-built pyramids and platforms” (p.4). Joyce noted difficulty in clearing and moving through the site to properly map due to the dense lianas (woody vines). While excavating at the site, the team came across “a number of fallen stelae, but all were plain, without inscriptions.” Joyce mentions, “excavations were carried on at selected points, and a compass survey of the ruins and the immediate neighbourhood was prepared” (p.5). What is meant by ‘immediate neighbourhood’ remains unclear.

BME-3: Joyce describes an exploring party as coming across a “small site on the Sittee branch, also built of granite, which yielded exactly similar results” (p.5), while operations at Pearce Ruins were underway.

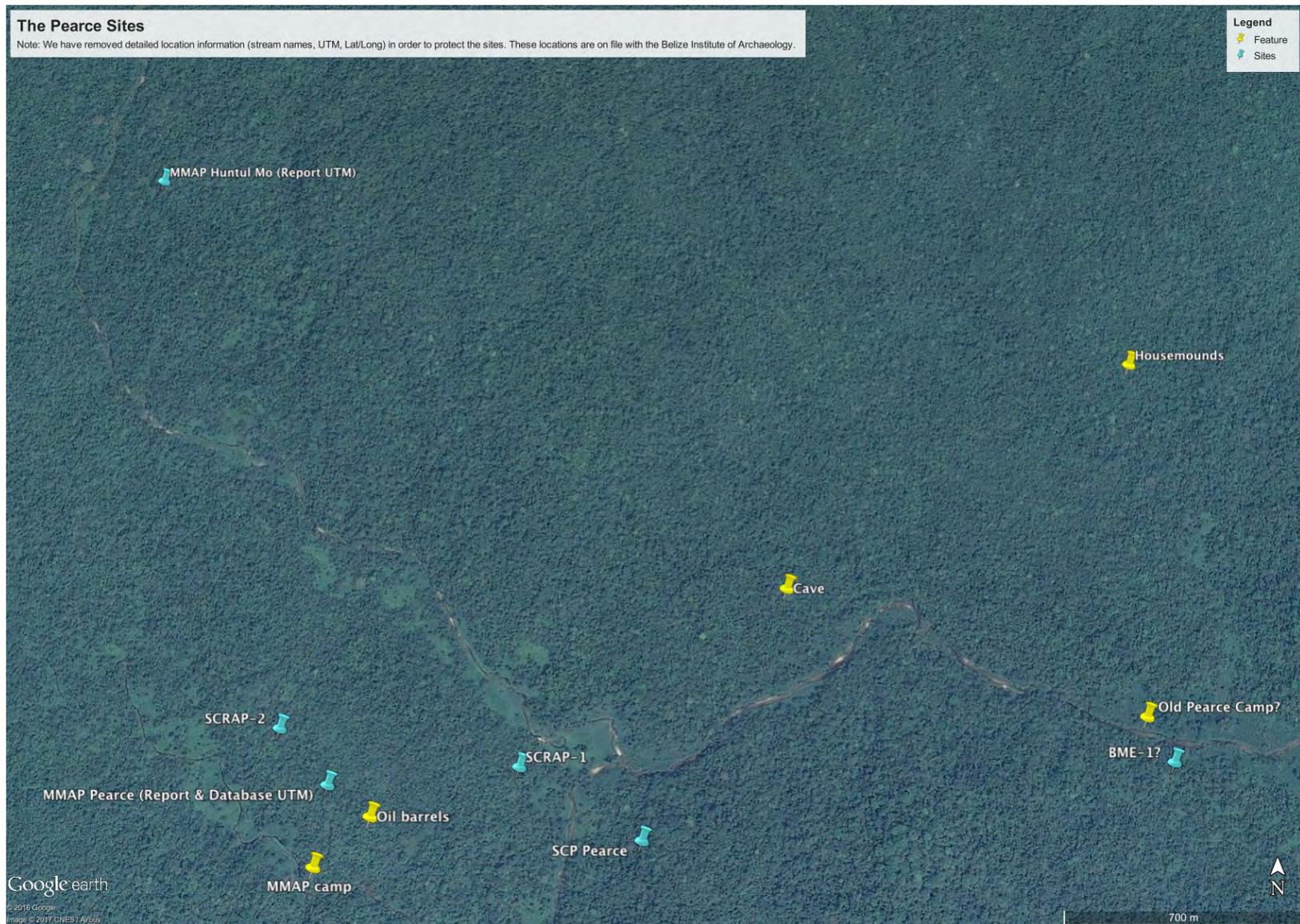


Figure 7. 1: Google Earth map showing locations discussed in text. Detailed locational data have been excluded.

Stann Creek Project (SCP) -1976

As part of her dissertation research in the 1970s, Elizabeth Graham (1978, 1983:327-332, 1994:131-132) attempted to relocate the Pearce Ruins, which she identifies as being located on the Sittee Branch of the South Stann Creek (Graham 1978:17). Although she made it to the area described in the British Museum report, “the mahogany camps had long been abandoned and the low stone-built platforms were sufficiently hidden in the thick bush so as to escape detection” (Graham 1978:18).

She notes that Pearce is reported to lie near the Sittee Branch of the South Stann Creek (based on Joyce 1931 and Thompson 1939:fig.100—incorrectly noted as “Pierce Ruins”). Graham also notes that the location of the site is not given in Joyce’s report, and that more than one group of structures was encountered. Interestingly, she suggests “the downriver group [BME-1] appears to be situated not far west of modern Red Bank on the north side; the upriver mounds [BME-3] are somewhere along the Sittee Branch, probably on the south side; and the main group [BME-2] also lies on the south side somewhere in between, not far from the confluence of the Sittee Branch with South Stann Creek” (Graham 1983:329; square brackets are authors’ comments). Graham (1983:fig.2; 1994: fig. 1.2) provides a map with her guessed approximate location of Pearce, and we have placed it on our own map as *SCP Pearce*.

Graham (1983:330) mentions that the “detailed report of the work at the Pearce Ruins and the map promised... were apparently never produced”, and laments over Joyce’s vague descriptions offered in the intermediate report. Based on the similarity between Joyce’s description of the site (re: granite platforms and stelae) and what Graham observed at the Mayflower Sites in northern Stann Creek, she proposed that the site dated to the Late Classic-Terminal Classic-Early Postclassic periods. Additionally, she points out that the slate-lined graves encountered at BME-1 were reminiscent of use of slate at the Kendal site along the Sittee River, and likely dated to the Late or Terminal Classic.

Rabinowitz Expedition (RE) – 1983

In 1983, Alan Rabinowitz (1987) was in the Pearce Sites area as part of his expedition to study jaguars in the region, eventually helping to establish the CBWS in 1986. He was looking for an overgrown skidder road in the area.

During the search, he and his crew came across cut stones atop a hill, which they then identified as a 3-level mound about 50 ft. (15 m) tall. He identified the main timber road as being 50 ft. (15 m) to the north, and to the south the terrain sloped steeply to a large stream that joined with the South Stann Creek. He went on to mention that the “timber operation had cut their road through the ruin, and the rise over which I had driven so often in the past was probably part of the base platform for the site” (Rabinowitz 1987:252). It is not made clear how far away from this cut the mound is located.

Rabinowitz reported the site to Mr. Logan McNatt, a Peace Corps volunteer and field archaeologist for the then Belize Department of Archaeology, who visited the site and described it as a “minor ceremonial centre” (Gundy and McNatt 1984). A sketch map was made of the location, although problematic, and of the site itself (Figure 7.2; both maps are on file with the Belize Institute of Archaeology), and the site was described as follows:

South of the logging road, there is one platform with two terraces on the north side. There are two mounds on top of the platform, one at the

east end and one at the west end. A plain altar stone lies on the platform, to the west of the eastern mound. The platform appears to be on a natural hill, as it drops off steeply on the east side, apparently to a creek (running water was heard).

North of the platform (north of the logging road), two smaller mounds were noted, and two oval stones. These stones were symmetrical in shape, and were symmetrically placed a few feet apart.

The reported mound was described as a “temple mound” and their approach to its study was “radiating from the temple mound, we cut new trails and found two smaller mounds west of it... found a circular stone, almost five feet in diameter and a foot thick. It lay between the temple and the other mounds... it was an altar stone” (Rabinowitz 1987:253).

The site was named *Kuchil Balum* (Place of the Jaguars). Rabinowitz (1987:256) mentions knowledge of the “Pierce Ruins” along the South Stann Creek, but does not suggest a location.

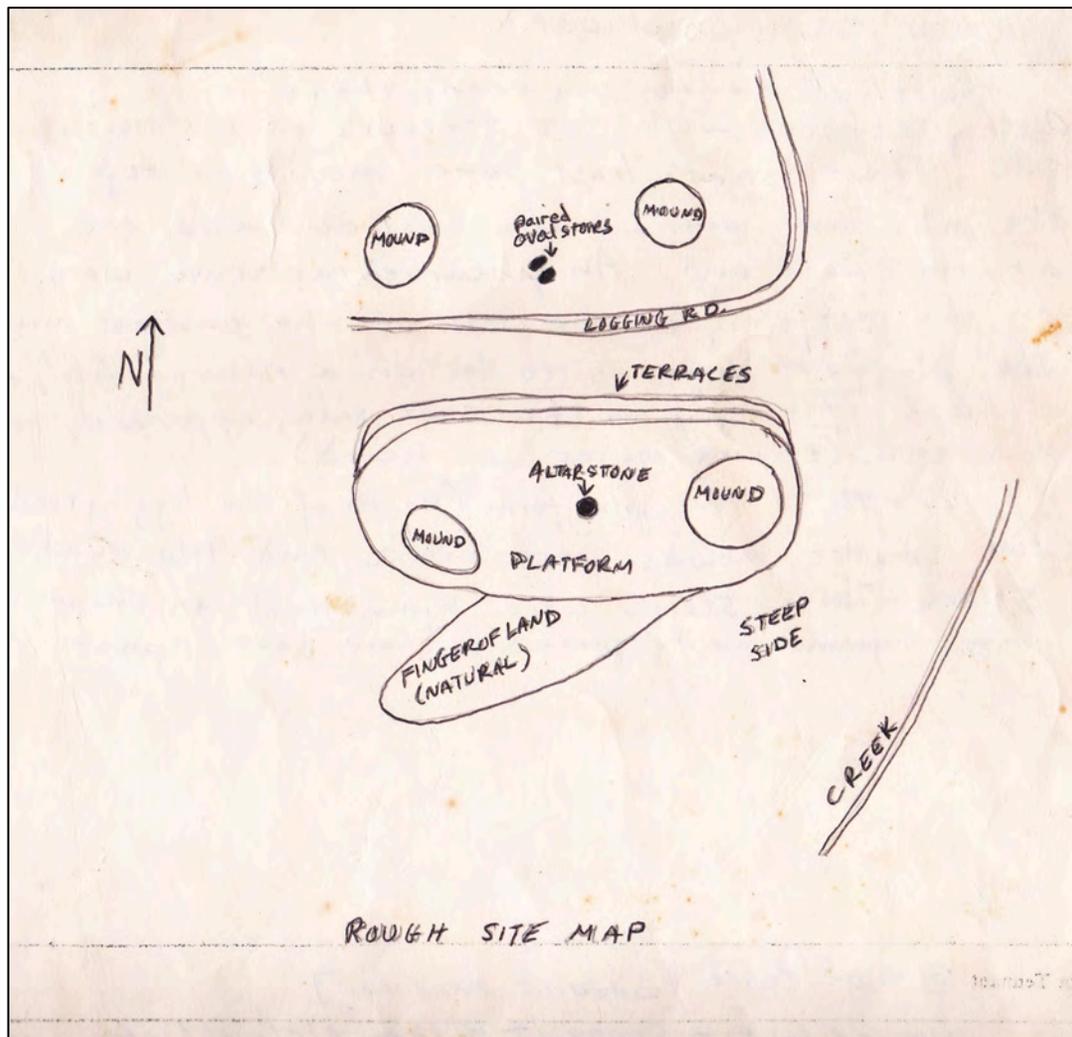


Figure 7.2: Gundy and McNatt (1984) sketch of Kuchil Balum

Maya Mountains Archaeological Project (MMAAP) - 1995

This expedition, under the direction of Peter Dunham, conducted a season of reconnaissance and mapping in the Cockscomb Basin in 1995, including in the South Stann Creek watershed (Dunham et al. 1995). Two sites “of substantial size and complexity” were located and mapped along the South Stann Creek, near the Victoria Peak trail. A crew of roughly 15 local men accompanied the archaeologists and other specialists, who cleared the sites and helped with the mapping over a period of one month (Brijilio Bolon, personal communication, 2016). The maps have never been published and remain in Dunham’s personal files.

MMAAP Pearce: The site was found “near the junction of the main tributaries” of the South Stann Creek (p.1), which Dunham et al. figured made sense as a logical point of access and control for the surrounding area. We assume they were initially using the suggested location offered by Graham as guidance. The site is described as being the size of Lubaantun, and “sitting atop a bluff... towers over a half dozen reservoirs, borrow pits from which fill was extracted for construction” (p.1).

The mounds are described as being “some of the tallest in the region”, and a ball court and four major courtyards were noted, with the main plaza said to be “the size of a football field.” They also counted ten plain granite monuments, including “a unique massive, egg-shaped monolith”. They also noted a “monument workshop” with a granite exposure immediately adjacent, consisting of “a large deposit of what appears to be broken monuments, finished blanks, and waste pieces” (p.4), with a “very unusual stone shaft carved in the form of an extended serpent”—further detailed and illustrated in Waynerka (2003:267-269). They note that the site had been looted in recent years, and that the damage was “minor, although entire buildings have been destroyed” (p.3).

Based on the size, complexity, monuments, and location, Dunham et al. suggested that it was the primary centre for the eastern Cockscomb, probably controlling resource movement through the upper South Stann Creek watershed.

A transit map was made of the core, likely at 1:200 (Peter Dunham, personal communication 2016). We have yet to access this map, as it was never published and does not appear to be on file at the Belize Institute of Archaeology, and Dunham has yet to digitize the large format drawing. A UTM point was recorded in an extended version of the final report.

MMAAP Huntul Mo’: Dunham et al. then describe a second site up the Sittee Branch of the South Stann Creek, which they link to Joyce’s BME-3 site. They mention that it is close to Rabinowitz’ Kuchil Balum, and suggest that the sites are close enough that they might be the same, but clarifying that Gundy and McNatt’s sketch map and description did not fit what they saw at their site.

The site consisted of “a large plaza with several plain granite monument slabs at one end, a substantial range structure to the side, and a building almost as large as those at the Pearce Ruin and a borrow pit/reservoir on the other end” (Dunham et al. 1995:2). Because of the significant differences between Rabinowitz’ site and this site, they provided a separate name, Huntul Mo’ (One Macaw).

They suggested that this was a lesser centre linked to Pearce, commanding the extraction or processing of resources in the headwaters.

A transit map was also made of this site, likely at 1:200 (Peter Dunham, personal communication 2016). We have yet to access this map, as it was never published and does not appear to be on file at the Belize Institute of Archaeology, and Dunham has yet to digitize the large format drawing.

Surface remains at both sites were consistent with a Late to Terminal Classic date (ca. AD 700-900), as hypothesized by Graham. Construction materials (90%) at both sites were identified as consisting of the Triassic Cockscomb granite, distinguished by its porphyritic texture (2-3 cm euhedral alkali feldspar megacrysts). Granite bedrock and boulders were noted as subject to sheet-like exfoliation, which would essentially produce “prefabricated blocks and slabs for building use” (p.4). This is the same as granite sources noted by SCRAP at Alabama.

While the team was in the area, a filming crew was also present, led by Richard Foster, and they filmed scenes of people carrying palm fronds up the mound-platforms and felling trees (Brijilio Bolon, personal communication, 1995). We believe these were for the film *Jaguar: Year of the Cat* (Foster and Foster 1995), but the scenes never made the final cut; alternatively, they were for a later film *Mysteries of the Ancient Maya* (Foster and Foster 1997) that aired on the National Geographic Channel (we have yet to access a copy).

Stann Creek Regional Archaeology Project (SCRAP) - 2016

Early morning Saturday, 9 July 2016, we met with Mr. Brijilio Bolon, a Park Warden with the CBR/CBWS who had worked with Dunham’s crew when he was 16 years old, and Mr. Benedicto Choc, a tour guide from Maya Centre who specializes in trips to Victoria Peak in the Cockscomb Range. We had arranged for them to bring us to the site they were familiar with, which they referred to as “Kuchil Balum”. We were armed with UTM points provided to us by Keith Prufer, an archaeologist working in Southern Belize and a former student of Dunham’s who was on the MMAP expedition. The two UTMs were from a database he had compiled, one labelled “Pearce” and the other labelled “Huntul Mo”, and he advised that the points might be a couple hundred meters off, as GPS was a new technology in the early 1990s. Only after our trip did we find an extended copy of the Dunham et al. report with the UTM grid coordinates recorded (discussed below).

We set off on a 4+ hours walk, approaching the South Stann Creek from the west and north along the Victoria Peak trail, passing Rabinowitz’s (1987:268-278) crashed plane, old logging equipment, ancient Maya housemounds, and even a cave. We veered off the main trail when we arrived closer to the junction point of the Sittee Branch with the South Stann Creek, eventually crossing the Sittee Branch (Figure 7.3) near the old timber road just up river from the junction. By this point, we would have been further west of the place Graham had suggested to be the location of Pearce.

SCRAP-1: We climbed the southwest bank of the Sittee Branch where we crossed and followed the overgrown timber road (now more of a path) about 150 m, when we came across a trench (Figure 7.4) where the road cut through what was thought to be an alluvial terrace; however, along the top edges of the cut and down into the trench we found shaped blocks of granite of the same porphyritic texture noted by Dunham (Figure 7.5). This was likely a natural terrace that had been modified as a main construction platform atop of which sits an entire site or a group of buildings. This was similar to the area description provided by Rabinowitz for Kuchil Balum. We climbed up to the top of the terrace, but the bush was so dense that we

could not make out any mounds. We decided to keep going to the site that our guides were aware of, which was not far, and to the MMAP Pearce UTM point provided by Prufer (same as that recorded in the extended report).



Figure 7. 3: Sittee Branch crossing.



Figure 7. 4: Skidder/logging road cut through alluvial terrace/site platform.



Figure 7. 5: Hewn granite block

SCRAP-2: We walked roughly 450 m WSW from the trench along a trail used by park wardens to patrol the area and came across old oil barrels/drums (Figure 7.6) from the logging days. Just over 200 m SW of this point, we visited the spot where the MMAP project had camped for the month along the Cockscomb Branch. We then back tracked to the oil barrels and walked just over 150 m NW to the MMAP Pearce UTM, but could see no mounds. We continued another 200 m at which point we found large mounds and a massive plaza, which conformed to the couple hundred-metre inaccuracy Prufer had warned us about.



Figure 7. 6: old oil drums

Our time at the site was spent investigating looter's trenches, observing wildlife (Figure 7.7), and making a rough pace-and-compass map of the plaza area (Figure 7.8), which was very difficult due to the thick bush,.

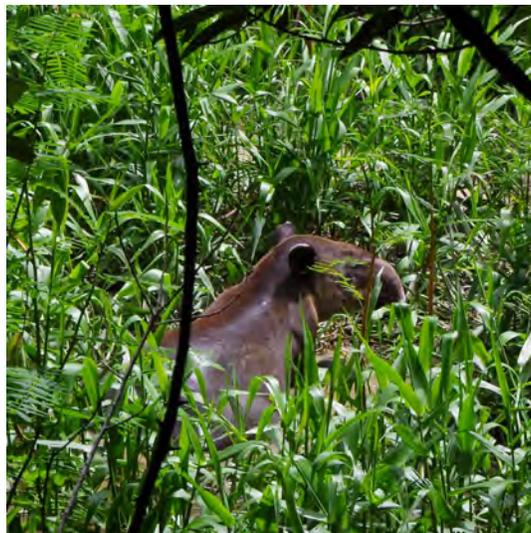


Figure 7. 7: Tapir taking a mud bath in a SCRAP-2 site borrow pit/reservoir.

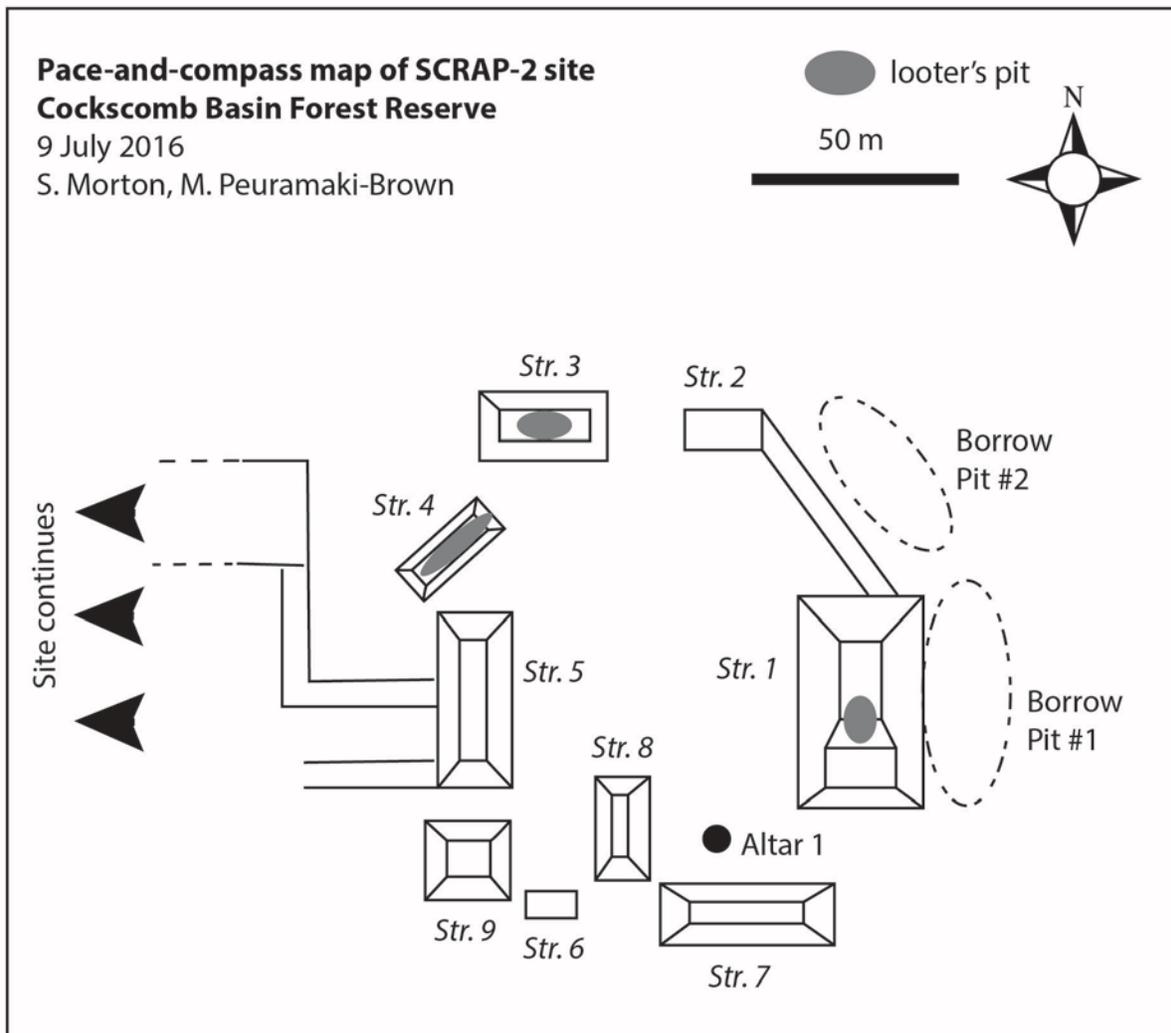


Figure 7. 8: Pace-and-compass map of SCRAP-2 site

The very large plaza (~100 m north-south x 70 m east-west) was surrounded by nine structures; these included a series of range and square-based structures on the north (Strs. 2, 3), west (Strs. 4, 5, 9), and south (Strs. 6, 7, 8) sides, and a massive platform (Str. 1) on the east side—comparable in north-south length (~50 m), though half the east-west width and taller, to Alabama Str. 3—with two large borrow pits/reservoirs immediately off its east face. In general, the mounds are very similar to those of Alabama. We took a photo (Figure 7.9) from the bottom of Borrow Pit #1 (where we saw the tapir), looking up to the top of the mound with three of us standing along the slope for scale, which we figured was about 10 m tall.

We investigated a wide and deep looter's trench (Figure 7.10) that cut almost completely along the transverse axis of Str. 4, and recovered a couple ceramic sherds of red slipped Fine Orange-like ware, suggesting a Terminal Classic construction date. As at Alabama, very few artifacts could be seen in the red, sandy-clay fill, presumably quarried from the nearby borrow pits, but contained more alluvial cobbles. A similar description of construction core can be found in Joyce (1931). We also identified a circular altar (Altar 1; Figure 7.11) just north of Str. 7, partially covered in a mat of moss, similar in form to that described by Rabinowitz (although, standard for a circular altar) and those noted elsewhere in the district.



Figure 7. 9: Photo taken from bottom of reservoir, looking up to top of Str. 1

We collected a sample of granite from one of the construction blocks in the plaza for our ongoing granite sourcing study, as well as a piece from the Sittee Branch crossing, but unfortunately, we forgot to collect clay samples from the area for our ongoing ceramic petrography study (see Chapter 6, this volume).

After mapping the plaza, and noting that the site continued to the west, we assessed our time and schedule. We had hoped to make it to the second UTM provided by Prufer, the one labelled “Huntul Mo’”, but when we entered it into the GPS we saw it was over 10 km to the north. This did not make sense, based on the description in the MMAP report. When we returned home, we located it on a detailed map and found it was situated along the upper Sittee River to the north. We now believe this is actually the UTM for the site of Bats’ub (a.k.a. 25 Flight), which Dunham helicoptered into with the British for a brief (5-10 minute) stop to confirm the presence of mounds. It is therefore possible the UTMs in Prufer’s database are mislabelled. When we plotted the UTM found in the Dunham et al. extended report, it plotted just under 2 km north of the SCRAP-2 site, along the east bank of the Sittee Branch.



Figure 7. 10: Investigating the Str. 4 looter's trench.



Figure 7. 11: Circular granite altar

Although we had permission to overnight in the area, we decided to head out. A number of reasons factored into the decision: 1) we could in no way make it to the second (incorrect) database UTM that day or the next, in time to be out of the bush on Sunday evening, 2) the bush was so thick with lianas that mapping and movement was difficult, 3) we did not want to redo what had already been done by Dunham's mapping team (although we have yet to access the maps), and 3) one of our party members was feeling ill.

Based on the previous descriptions provided of the site plans, it is possible that SCRAP-2 is MMAP Huntul Mo', particularly the description of the large mound on the east end of the site with the borrow pit/reservoir; however, the location MMAP provides, up the Sittee Branch and serving as a resource extraction point from the headwaters, does not correspond to the SCRAP-2 site location. The proximity to Kuchil Balum, if SCRAP-1 is that site, would match the MMAP Huntul Mo' description. The SCRAP-2 site does not appear to entirely match the MMAP Pearce site description, but does match the BME-2 (Pearce) description, which is quite general. It is important to note that we were not able to view the entire site, which definitely continued to the west, due to the dense bush and our schedule. The SCRAP-2 site location does, however, match the MMAP recorded UTM for Pearce (both in the database and in the report), and it's proximity to the junction of the Sittee Branch and South Stann Creek is similar to the descriptions offered by all expeditions. We therefore believe we were in fact at the Pearce Ruins site, as located by Dunham et al., but were unable to see the entire site due to the dense vegetation and time constraints.

We recorded UTMs for both SCRAP site locations, as well as various features along our trek, and submitted them to the Belize Institute of Archaeology as part of our preliminary report filing prior to leaving the country in 2016.

Future Directions and Recommendations

As can be seen from the descriptions provided by the various expeditions, there are many areas of archaeological interest in this part of the Cockscomb Basin, and likely represents one very large, extended site. The Sittee Branch of the South Stann Creek is also home to stands of wild cacao (Evans 1948:8), and it would be well worth investigating the slopes of the area for evidence of ancient agricultural terracing, in addition to mound sites. We believe that the only way to effectively document the area will be through lidar (light detection and ranging) survey. Unfortunately, this imagery is extremely expensive to obtain. We are currently investigating possible avenues of funding.

Peuramaki-Brown would like to expand her permit area, currently focused on the Alabama area, to include the upper reaches of both the South Stann Creek and Waha Leaf Creek drainages, and will request to do so as of 2018. This will allow for a more effective investigative approach to understanding the relationships that existed between the residents of both areas.

A full research project could be initiated in the Pearce Sites area, but would require the use of ATVs to bring in equipment as far as is allowed by CBFR and CBWS. Project members would also be expected to stay for an extended period in the bush, which would be possible due to the easy creek access for water.

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Appendix A. SCRAP 2016 Classification Guides & Recording Sheets

Meaghan M. Peuramaki-Brown (Athabasca University)

SCRAP investigations follow a number of existing classification schemes as closely as possible when appropriate.

Colour:

Munsell Soil Colour Chart

Architecture:

Loten, S., and D. Pendergast (1984). *A Lexicon of Maya Architecture*. Royal Ontario Museum, Toronto, ON.

Burials:

Welsh, W.B.M. (1988). *An Analysis of Classic Lowland Maya Burials*. BAR International Series 409. British Archaeological Reports, Oxford.

Settlement Site Types

Ashmore, W., S.V. Connell, J.J. Ehret, C.H. Gifford, T. Neff, and J.C. VandenBosch (1994). The Xunantunich Settlement Survey. In *Xunantunich Archaeological Project, 1994 Field Report*, edited by R.M. Leventhal and W. Ashmore, pp. 248-289. Report submitted to the Belize Institute of Archaeology, Belmopan.

Additionally, we have many of our own recording forms and classification guides, which have been developed based on a number of sources and inspired by many other research projects. Not included in this appendix are the basic artifact analysis protocols.

Temporal Designations (working version)

Postclassic Period	(PC)	ca. AD 900 to 1525
Late Postclassic	(LPC)	ca. AD 1200 to 1525
Early Postclassic	(EPC)	ca. AD 900 to 1200
Classic Period	(CP)	ca. AD 250 to 900
Terminal Classic	(TC or LCIII)	ca. AD 800 to 900
Late Classic	(LC)	ca. AD 600 to 800
<i>Late facet</i>	(LCII)	ca. AD 700 to 800
<i>Early facet</i>	(LCI)	ca. AD 600 to 700
Early Classic	(EC)	ca. AD 250 to 600
Formative Period	(FP)	ca. 1200 BC to AD 250

Context Designations (adjusted as required)

Context Types	Deposit Type	Lot Type
Ploughzone	Primary	Natural
Humus	Secondary	Cultural
Colluvium	De Facto	Arbitrary
Fall		
Habitation Debris		
Slump		
On Floor		
Floor Cap		
Floor Ballast		
Floor Fill		
Construction Fill		
Occupation Horizon		
Buried Horizon		
Bedrock		

Matrix Inclusion Designations

	Diameter (mm)
boulders	>300
cobbles	75-300
coarse gravel (lg pebbles)	75-19
fine gravel (sm pebbles)	19-4.8
coarse sand	4.8-2.0
medium sand	2.0-0.43
fine sand	0.43-0.08
fine silt & clay	<0.08

Settlement Survey Form

Stann Creek Regional Archaeology Project

**SETTLEMENT SURVEY
FORM**

Date: _____ / _____ / _____ Recorder: _____
 YYYY / MM / DD Archaeo. Site: _____ Accession # _____

1. Settlement site designation: ALA- _____ (3-digit number) or _____
2. Property Block: _____ (see property map).
3. Classify using classification below: _____
4. Identify the feature: mound _____ artefact scatter _____ borrow pit _____
 other (describe) _____
5. Photograph number(s): _____
6. Record a GPS (WGS84) point (note location, ideally at the centre/datum of each feature):
 Device # _____ Point # _____ Location description: _____
 UTM Quadrant _____ Easting _____ / Northing _____
7. Surface collection (label bags with ss designation number)? Yes ___ No ___
 If yes, describe contents: _____
8. Provide a more complete description of the site (e.g. area, height, material, associated mounds, etc.) on the back of this form and in your notebook
9. If mound is greater than 0.5m high, draw a tape-and-compass map on the back of this form (noting location of GPS point). Label map with ss designation number.

Settlement Survey Unit Classification (modified from Ashmore et al. 1994)

Type	Description
0	Non-mounded feature (e.g. scatters, borrow pits, quarries/sources, water management features).
I	Isolated mound less than 2m high.
II	2-4 mounds, informally arranged, all less than 2m high.
III	2-4 mounds, orthogonally arranged, all less than 2m high.
IV	5 or more mounds, informally arranged, all less than 2m high.
V	5 or more mounds, at least 2 arranged orthogonally, all less than 2m high.
VI	1 or more mounds, at least 1 being 2-5m high.
VII	1 or more mounds, at least 1 being higher than 5m.

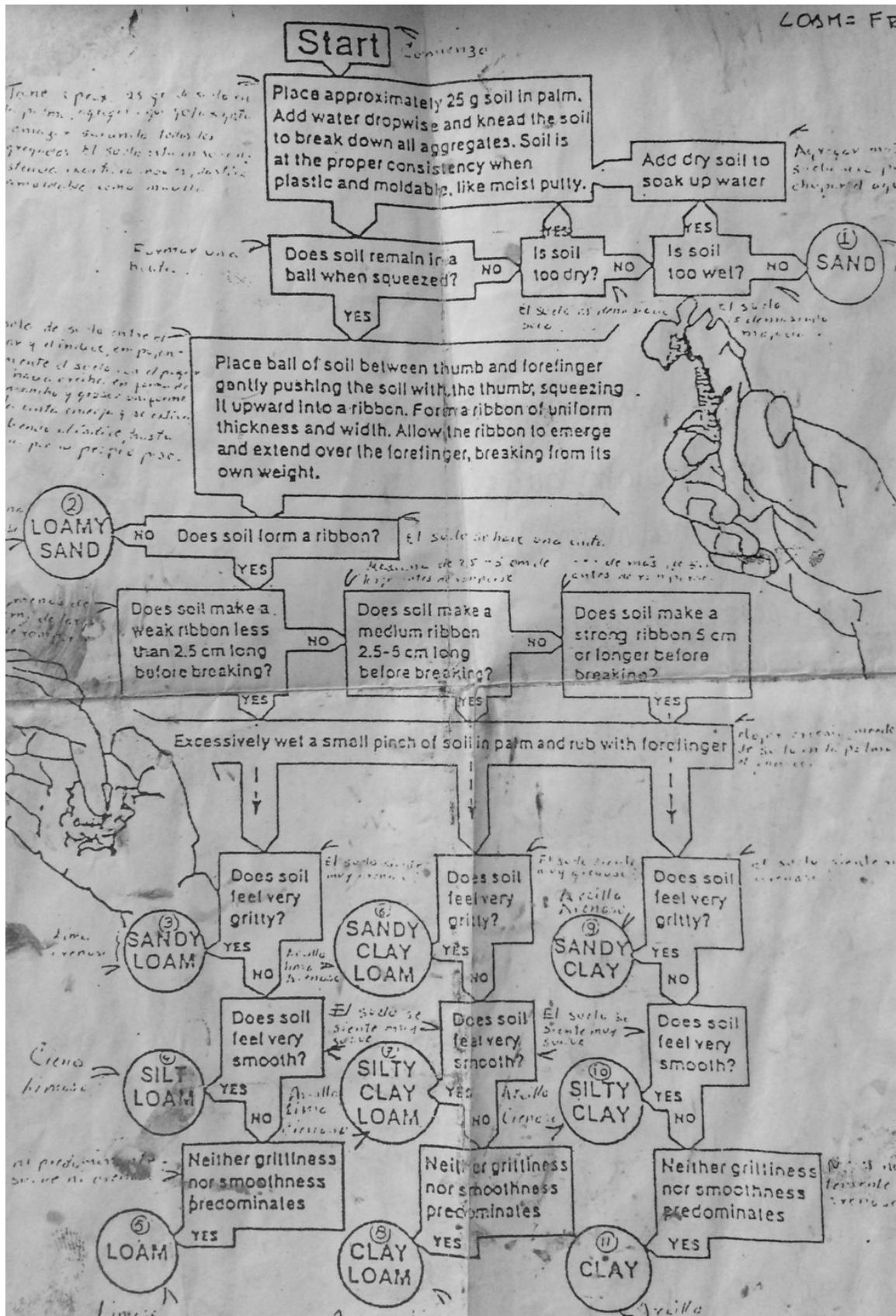
Excavation Lot Form

Stann Creek Regional Archaeology Project

LOT FORM

Acc#		Site/Str.:		Date:
Op:	Investigators			
Subop:	Dimensions (m): ___ N/S x ___ E/W		Break: Arbitrary ___ Cultural ___ Natural ___	
Lot:	Orientation (degrees):		Location in Subop:	
Context:			Associated Lots:	
Physically Above:			Physically Below:	
Goals:				
LOT DEPTHS (centimeters)			SKETCH OF BASE OF LOT (incl. scale, north arrow)	
Datum name:				
Datum elevation:				
<i>Corner</i>	<i>Top</i>	<i>Bottom</i>		
NW				
NE				
SE				
SW				
Centre				
MATRIX DESCRIPTION				
Colour (Munsell):				
Texture:				
Inclusions:			ADDITIONAL COMMENTS (use back of form if required)	
MATERIALS (estimate numbers)			RECORDS: photos ___ top plan ___ profiles ___ other ___	
Ceramic:			Photo numbers:	
Lithic:			Drawing numbers:	
Groundstone:				
Faunal:				
Other:				
SAMPLES (types and numbers)			Other numbers:	

Sediment Texture Designation Process



Artifact Card & Artifact Classification Guide

STANN CREEK REGIONAL ARCHAEOLOGY PROJECT

ACC.#: _____ Date: (dd) ____/(mm)____/(yyyy)_____

Site/Str.: _____ Supervisor: _____

Operation: _____ Excavators: _____

Suboperation: _____

Lot: _____

Context: _____ Sealed? Y N

Location in lot: _____

CONTENTS:

Bulk: CR _____ LT _____ GS _____ DB _____ FN _____ HU _____ OTHER _____

Small: CR _____ LT _____ GS _____ OB _____

FN _____ Other Special (SP) _____

Cat. #: _____ Bag (x) ____ of (n) ____

SCRAP Artifact Classification Guide
(add new types where necessary)

Cat.	code	ARTEFACT TYPE	Cat.	code	ARTEFACT TYPE	Cat.	code	ARTEFACT TYPE	Cat.	code	ARTEFACT TYPE					
Ceramic	CS	bulk lot	Lithic	LT	bulk lot	Ground stone	GS	bulk lot	Faunal	FN	bulk lot					
		bead			awl			adorno			pendant					
		cylinder seal			adorno			adze			adorno					
		ear ornament			blade			anchor			awl					
		figurine			burin			barkbeater			bead					
		figurine whistle			chopper			baton			cut piece					
		flat stamp			crystal (quartz)			bead			drilled piece					
		glyph-iconography			drill			celt			fishhook					
		ladle censer			eccentric			doughnut stone			incised piece					
		mask			graver/scraper			ear ornament			pin					
		musical instrument			hammerstone			grooved sphere			punch					
		net weight (butterfly)			knife			incised stone			spatula					
		pendant			macroblade			mano (fragment)			spindle whorl					
		perforated potsherd			notched flake			mano (preform)			stingray spine					
		potsherd disk (perfor.)			perforator			mano (whole)			tinkler					
		spindle whorl			pounding stone			metate (fragment)			unclassified					
		unclassified			projectile point			metate (preform)			worked piece					
		potsherd disk (unperf.)			scraper			metate (whole)			Obsidian	OB	NO bulk lots			
		vessel			thick biface			mirror					blade			
		vessel (partial)			thin biface			mortar			blade core (fragment)					
worked potsherd	unclassified	mosaic piece	blade core (whole)													
Historic	HT	glass	Daub	DB	utilized flake	painted slate	patolli board				core (fragment)					
		coins			bulk lot						core (whole)					
		composite			special						eccentric					
		faunal			corner piece						flake					
		human			painted						projectile point					
		metal			unclassified						portable sculpture	shatter				
		plastic			Human						HU	bulk lot	pounding stone	thin biface		
		pottery										carved piece	ring-stone			
		Special Finds			SP						raw hematite			inlaid teeth	rubbing stone	
											raw jadeite			painted piece	spindle whorl	
speleothem				unclassified												
				unclassified		wrench										

Sample (carbon, soil, etc.) Record Form

Stann Creek Regional Archaeology Project

SAMPLE RECORD FORM

THE BASICS:

Site/Structure: _____ Date: _____
Operation: _____ Accession #: _____
Suboperation: _____ Supervisor: _____
Lot: _____ Sample #: _____
Context: _____

THE SAMPLE

1. Sample Type:

carbon ____ soil ____ flotation ____ plaster ____ other (specify) _____

2. Location in lot:

_____ cm from _____
_____ cm from _____
_____ cm below suboperation datum (_____)

**show location of sample on your lot form 'base of lot' sketch or provide additional sketch on backside of this form*

3. Purpose & Description of Sample:

4. Factors Affecting Validity or Context:

5. Recording:

Photo #:

Drawing #:

6. Other Comments and Observations:

*****Use backside of this form if necessary for further description/recording purposes*****

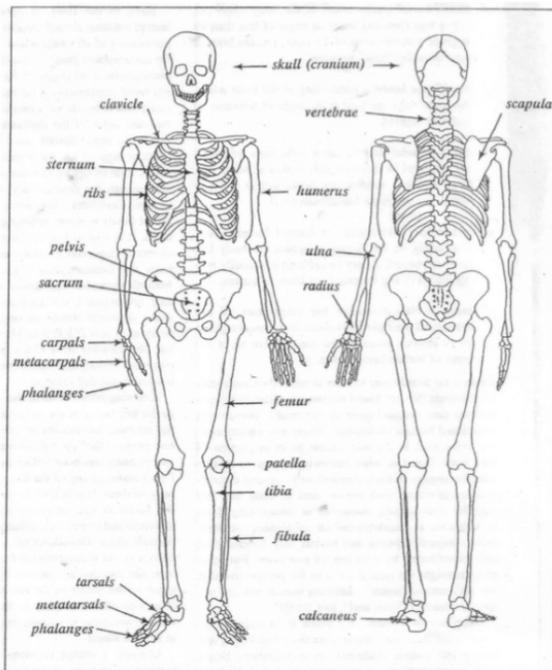
Stann Creek Regional Archaeology Project

BURIAL FORM

THE BASICS:

Site/Structure: _____ Date: _____
 Operation: _____ Accession #: _____
 Suboperation: _____ Supervisor: _____
 Associated Lots: _____ Burial #: _____
 Burial Context: _____

THE BURIAL & GRAVE (shade in bones present on figure)



1. Preservation:
 Good _____ Fair _____ Poor _____

2. Completeness:

SKULL		POST-CRANIAL
_____	100%	_____
_____	> 75%	_____
_____	50-75%	_____
_____	25-50%	_____
_____	< 25%	_____
_____	0%	_____

3. Burial Type:

Extended _____ Flexed _____
 Semi-Flexed _____ Seated _____
 Primary _____ Second. _____
 Cremated _____ Partial. Crem. _____
 Articulated _____ Not Articulated _____

4. Burial Dimensions:

Maximum length (cm) _____ Orientation _____
 Maximum width (cm) _____ Orientation _____
 Overall orientation of burial _____ Orientation of face _____

5. Specific Measurements (cm):

Humerus _____ Radius _____ Femur _____ Tibia _____ Crown to Heel _____

1/2

****FILL OUT THIS FORM IN ADDITION TO ASSOCIATED LOT FORMS AND ALL REQUIRED ILLUSTRATIONS****

Burial Record Form – Reverse

Stann Creek Regional Archaeology Project

BURIAL FORM

6. Grave Type (Welsh 1988):

Simple _____ Chultun _____ Cist _____ Crypt _____ Tomb _____ Unknown _____

7. Associated Artefacts:

8. Further Description/Observations:

9. Sketch (indicate scale):

10. Documentation & Samples:

Photo number(s):

Soil samples:

Drawing numbers:

Flotation samples:

Other:

****FILL OUT THIS FORM IN ADDITION TO ASSOCIATED LOT FORMS
AND ALL REQUIRED ILLUSTRATIONS****

2/2

