27 PHASE I RECONNAISANCE (2014 – 2015) AT ALABAMA: A SUMMARY OF SCRAP INVESTIGATIONS IN EAST – CENTRAL BELIZE

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From 2014 to 2015, a Phase I Reconnaissance program was conducted at the site of Alabama by the Stann Creek Regional Archaeology Project (SCRAP). Alabama is a major ceremonial centre located in the southern portion of the Stann Creek District, nestled up against the eastern slopes of the Maya Mountains, approximately 20 km inland from the Placencia Lagoon. The site was first located by the Stann Creek Project in the 1970s and later investigated by the Point Placencia Archaeological Project in the 1980s, which determined the epicentre to have been constructed and occupied during the late facet of the Late Classic to Terminal Classic periods (ca. 700-900 AD). SCRAP members returned to the site in order to investigate settlement development at Alabama and its relationship to local resource extraction and trade within and beyond the East-Central Belize region. Our Phase I Reconnaissance had three goals: 1) to assess the Alabama epicenter, 2) to initiate a systematic settlement survey and surface collection, and 3) to initiate studies of resource development and use by the ancient Maya of the area. This paper summarizes the research goals and results of the 2014-2015 investigations.

Introduction

In July 2015, the Stann Creek Regional Archaeology Project (SCRAP) completed its Phase I Reconnaissance at the site of Alabama in the southern portion of the Stann Creek District. This first phase would serve as the foundation for what is hoped to be a long-term archaeology program in the area, with future expansion into neighbouring parts of the region. This paper introduces the reader to the setting, outlines the goals of SCRAP research, and summarizes the Phase I Reconnaissance.

Setting

Region

East-Central Belize (Figure 1) is a dramatic geographic region, roughly delineated to the north by the north-western extension of the Maya Mountains and the beginning of relatively flat landscapes with bigger and longer rivers; to the west by the highest peaks 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 modern-day Stann Creek District. Within a span of about 20 km, one can move from the coast and lagoons in the east, through the flat coastal pine savannah (pine ridge), into the broadleaf forests of the fertile alluvial valleys, and up into the foothills of the Maya Mountains and beyond.

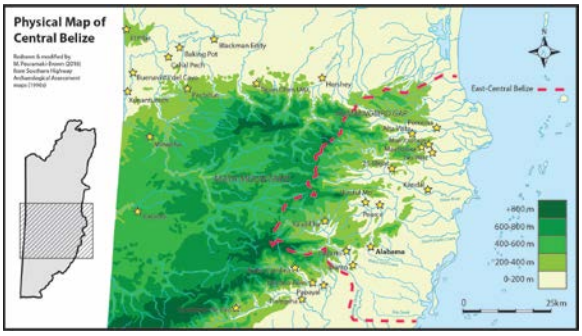

Figure 1. Elevation map of East-Central Belize showing inland sites.

Many of the larger, more nucleated settlements and likely civic-ceremonial centres of the region are located in upper alluvial valleys and pockets, and the eastern foothills of the Maya Mountains. These major and minor centres share a number of common material culture patterns, which may serve to identify the uniqueness of the region in a manner similar to neighbouring Southern Belize:

- Low, large, non-vaulted architecture, which includes masonry substructures and perishable superstructures.
- Non-limestone architectural facing blocks and 'megalithic' features (Figure 2).
- Alluvial clays and sands used for construction core fills.
- Large borrow pits surrounding monumental architecture, formed by excavation for fill and serving as

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possible landscape modification (water management, and defense, etc.) and augmentation of architectural perspective.
- Granite and slate stelae and altars.
- Special context use of limestone (tomb walls, ball court markers and corner stones, etc.).

Area

The area in which Alabama is located is roughly 20km west of the Placencia Lagoon, along the upper tributaries of the Waha Leaf Creek. This creek is navigable by canoe all the way to the lagoon in the rainy season, where many of the Late to Terminal Classic salt-making sites of the region were located (Graham 1994; MacKinnon 1989); the walk across the flat savannah can be done in a few hours during the dry season (Maya Mopan resident, personal communication, 2016). The monumental epicenter and associated settlement is surrounded on three sides by the foothills, with a passage north that connects the area to the Cockscomb Basin and upper reaches of the South Stann Creek, near the Late to Terminal Classic major ceremonial centre of Pearce (a.k.a. Kuchil Balum in Rabinowitz 1986; Dunham et al. 1995; Joyce 1931). Alabama is also situated along the southern margins of the Cockscomb Basin Pluton – a large granitic body (Cornec 2008). Surrounding this igneous pluton are zones of metamorphic rocks, including quartzite, slate, and phyllite, all of which the residents of Alabama made use of for various tools in the absence of chert-bearing limestones in the region.

The modern property area on which Alabama is situated has belonged to a number of companies and individuals since World War II (Peuramaki-Brown 2015). It is possible that in the late 1800s the area was occupied by American Confederate settlers, as such settlements are known to have existed to the north (South Stann Creek, Sittee River) and south (Monkey River) of the Waha Leaf Creek; however, no documents currently place these groups in the Alabama area, despite popular

Figure 2. Granite 'stelae' and 'megalithic' features at Alabama (photo by M. Peuramaki 2016).

allusions to the site name. In the 1950s and 60s, the Waha Leaf Banana Company (a.k.a. Alabama Plantation), operated by Greene & Atkins Banana Co., was active in this area. The owners were based out of Mobile, Alabama, and newspaper articles from the time discuss the naming of the now abandoned village/barracks (the remains of which were located by SCRAP in 2015) associated with the operation as "Alabama" in honour of their home. Currently, the valley area consists primarily of citrus orchards, although the site epicentre is surrounded by broadleaf forest.

Site

The monumental epicentre of Alabama consists of 20 major structures – including a ball court, temple-pyramid(s), and a 'simple' palace complex – built of granite facing blocks and sandy clay fill with minimal to no artifact debris within. The structures are distributed over 24,785m^2 (2.48ha, not including Str. 19 and 20) and arranged around four plazas with a sacbe leading into the epicentre from surrounding settlement. It has been variously classified as a Level 7 *small major ceremonial centre* or Level 8 *medium major ceremonial centre* in Hammond's (1975) hierarchy model by previous archaeologists (discussed below); the total area falls between that of Nim Li Punit and Lubaantun (Houk 2015: Table 10.2). Absolute dates (radiocarbon and obsidian hydration) from work in the 1980s on the single-phase architecture span from AD 760 ± 80 yrs. to AD 874 ± 77 yrs., with artifacts assigned to the Late

to Terminal Classic, and with possible Early Postclassic materials. Two grooved, everted rim jar fragments found at surface in the nearby settlement were identified as possible Early Classic materials, but no contexts excavated in the epicenter in the 1980s were found to date to this early time.

Research Focus

Over the past century, various investigations have been conducted in and around Alabama and neighbouring areas (e.g. Dunham et al. 1995; Graham 1994; Joyce 1931; MacKinnon 1989; Stomper et al. 2004). Since 2014, SCRAP has built from the foundations of these works, in an attempt to further understand the life history of the area prior to the historic period (Peuramaki-Brown 2015, 2016; Peuramaki-Brown and Schwake 2014).

Compared to other areas of the Maya world, East-Central Belize remains one of the most poorly understood regions, particularly in terms of ancient settlement (where, when, why and how individuals and groups settled on a landscape (Rockman 2003), relational economic geography (the relationships between people, space, and economy (things), closely entangled with social and political processes; (Bathelt and Glückler 2003), and incipient urbanism. Increasing urban tendencies include the relative nucleation of populations (increasing population densities and diversification, relative to surrounding areas); the increasing presence and intensity of multiple and diverse activities and services; and central-place relationships along a continuum of rural-to-urban localities, all of which emphasize "urban-ness" and "rural-ness" to varying degrees (Figure 3; Peuramaki-Brown 2012).

Notions of urban development as processes associated with relational continuums are reflected in various concepts such as "rural complexity" – diminutive village sites that exemplify social institutions normally interpreted as "urban" in distinctly "rural" settings – and the complex relationships between agricultural and non-agricultural pursuits, as well as core-periphery world systems (Leeds 1980; see also Middle Level Settlement in Iannone and Connell 2003 and community interdependency discussions in Scarborough and

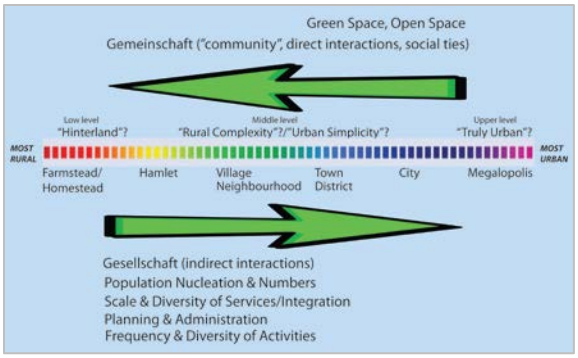

Figure 3. Theoretical continuum of rural-urban localities.

Valdez 2003). Thus, any archaeological attempt to understand such complex processes and relations must not only examine the end results, but also their beginnings and developments over time; ideally leading to an understanding of particular settlement tendencies, the development of associated socio-environmental networks, and their ultimate undoing.

In the humid neotropics in general, the relationships between humans and environments are distinctive enough to lead to unique forms of rural-urban continuums and, hence, diverse forms of urban, near-urban, and urban-like centres. We argue that East-Central Belize presents one such distinct region, with unique forms of settlement and urban-ness development dependent on local geology; significant micro-management of local environments; and the integration of residents within multiple social, political, and economic spheres related to resident agency and local biography, and access to diverse transportation and communication corridors. The following diachronic elements are thus considered in our archaeological investigations:

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

At Alabama, we have been examining the development of the site as a possible example of

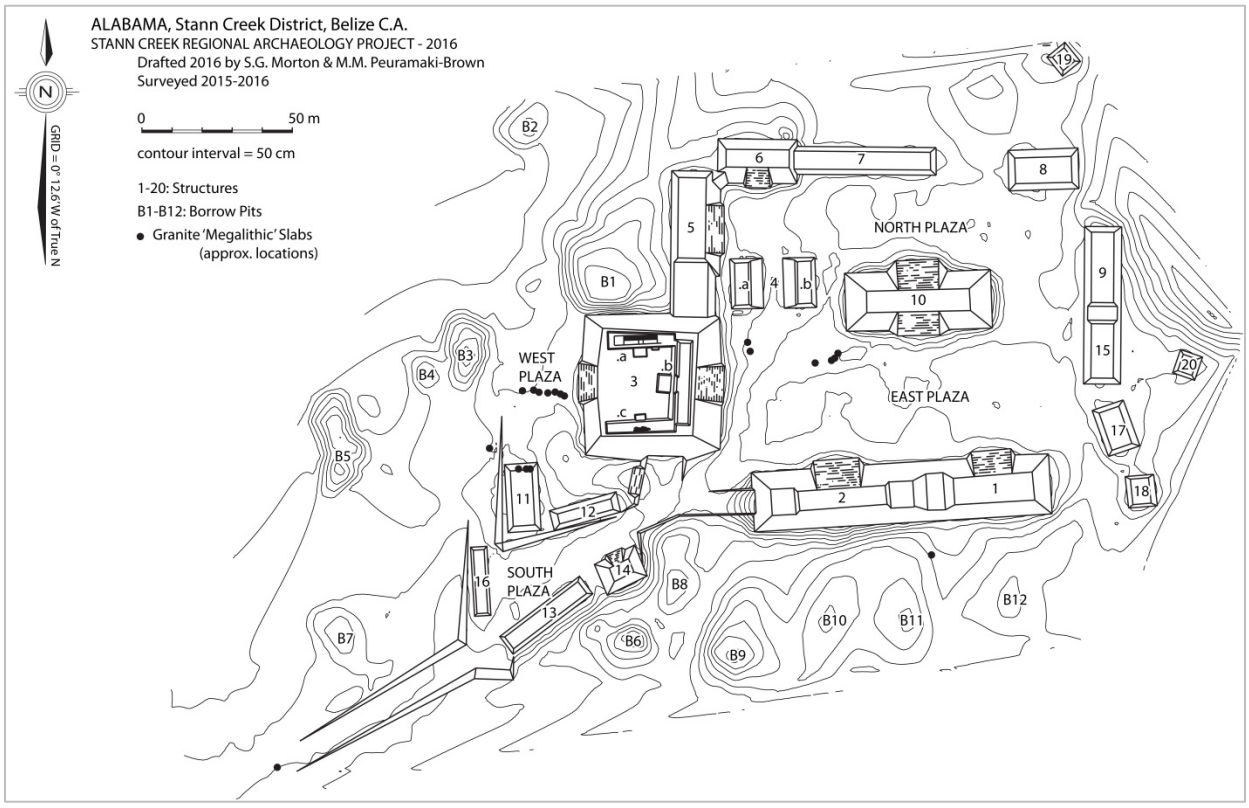

Figure 4. Topographic and rectilinear map of Alabama epicentre.

the aforementioned rural complexity and "boomtown": settlement areas that flower rapidly in response to resource development, economic fluctuations, and/or political tendencies, including the outcomes of centralizing, decentralizing, colonizing, and/or defense strategies (Barth 1975; Peuramaki-Brown 2016). Such settlement realities typically emerge in severely disadvantaged or isolated frontier zones, often on the boundary between shifting geo-political entities. This framework is shaping our avenues of investigation and is couched within the four aforementioned diachronic elements.

Phase I Reconnaissance

The SCRAP 2014-2015 Phase I Reconnaissance consisted of three primary research components at Alabama: epicentre, settlement, and resource development. Each were directed toward understanding the rapid emerging "urban-ness" of the area, despite its seemingly rural nature, originally noted in the 1980s when test excavations by the Point Placencia Archaeology Project (PPAP) revealed the single-phase construction of the epicenter architecture in the late facet of the Late Classic period (ca. AD 700).

Our aim is to continue outlining a comprehensive biography for Alabama, and to begin conducting diachronic analyses of material assemblages through a lens of social, economic, and political independence and dependence, and comparison with long-term research trends from adjacent regions. The goals for the Phase I Reconnaissance were as follows:

1. To clear, assess, and topographically map the monumental architecture of the epicenter, as well as the looting activity first documented in the 1980s.
2. To complete a comprehensive, systematic GPS survey of the Alabama settlement in order to map mounds, scatters, resource zones; to surface collect materials from these features to begin building a settlement chronology and to gain a preliminary understanding

of resident populations and associated activities.

3. To begin characterizing and sourcing various resources, including granite materials, artifacts, and architecture; daub and pottery wares; and obsidian artifacts.

Epicentre Program

Morton (2015) topographically remapped the Alabama epicenter (finalized in 2016 and created using a Nikon DTM-322+ total station, with point coverage following a roughly 2m x 2m grid), both correcting and adding to previous PPAP maps (see Peuramaki-Brown and Schwake 2014 for summary) that were missing architecture and exaggerated the scale of many structures and features (Figure 4). While adequate for a general understanding of the site and for planning and presentation purposes, the inaccuracies present in the previous PPAP maps and absence of digital topographic data made its use in our current investigations limited. This work is helping us to better understand the layout and configurations of monumental construction and infrastructure at the site, and is building toward our ongoing assessment of Maya urban 'hallmarks' represented at Alabama (Houk 2015:27-39).

The topographic mapping captured significant disturbance in the North and East Plazas caused by banana plantation activity (previously noted in Walters 1988), which will help when selecting (or avoiding) excavation locations for the epicenter in Phase II Testing. Re-mapping has also afforded us a better understanding of previous descriptions of the site; for example, in PPAP reports the presence of architecture over 10m tall at Alabama is suggested, which we have determined is true only if measurements were taken from the bottom of surrounding borrow pits as opposed to plaza level, and may have been a way to conveniently fit Alabama into Hammond's typology (which it does not).

Epicentre survey activities have also yielded several observations that will help to further direct investigations, particularly with reference to the construction history. Not least among these is the location of the epicentre itself within the broad valley, atop the west bank and above the main branch of the Waha Leaf Creek. This valley-bottom site stands in sharp contrast to neighbouring Southern Belize 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 epicentre, 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 examined more closely, a number of inconsistencies in this regularity are quickly noticed; 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 Str. 10, effectively bisecting an otherwise conventional plaza space, and that of Str. 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.

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 surrounding architecture. From the strict orthogonal layout of the North and East Plazas, one is suddenly walking past low platforms that flank the causeway and define 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 that threads awkwardly between borrow pits on the west and south periphery of the epicentre, are the product of construction efforts following the initial establishment of the monumental core. Test excavations in both areas in the 1980s were unable to chronologically distinguish the two areas due to limited carbon and artifact materials within fills. The similarly non-orthogonally arranged Str. 17 through 20 off the east flank of the epicentre are

perhaps likewise suggestive of multiple phases of epicentral construction. A secondary question emerges from these observations: if Str. 13, 14, and 16 through 20 represent later additions to the monumental site core, and if Str. 10, likewise, represents a later phase of construction, then is the orientation, scale, and placement of Str. 10 – notably in harmony with Str. 1 through 9 and 15 – anachronistic, or does it represent specific planning concerns or historical developments? These are questions that will be considered in future investigations.

Our ongoing studies are using the epicentre mapping data to conduct volumetric and spatial movement analyses. The seemingly rapid development of the epicentre also makes it an ideal candidate for space syntax and urban planning studies to contrast against site epicentres that developed over a thousand years or more (see examples in Morton et al. 2014).

Settlement Program

A full GPS survey was conducted over 2.47km^2 around the Alabama epicenter. Survey method involved the systematic walking of orchard rows in all property blocks to locate mounds and artifact scatters at surface. Opportunistic coverage occurred in the heavily bushed areas and the *milpas* of the surrounding foothills, as invited to visit by various community members. Adopting a 'traditional' approach to survey (vs. aerial drone) allowed us to experience the landscape firsthand, as well as engage with community members as we encountered them during our walks, which was also helpful in better knowing the Alabama area and its modern-day residents. It also allowed us to assess on-ground conditions at individual settlement sites, particularly those lower than 50 cm in height, and to identify artifact scatters. In total, 158 mounds (128 groups), 42 artifact scatters (pre-Columbian and historic), and numerous granite and clay source zones were identified (Figure 5).

Some preliminary observations can be made regarding settlement character (to be further examined in upcoming seasons and publications). The percentage of individual mounds (Type I settlement sites, following the typology presented in Ashmore et al. 1994) is considerably higher than all other types (Table

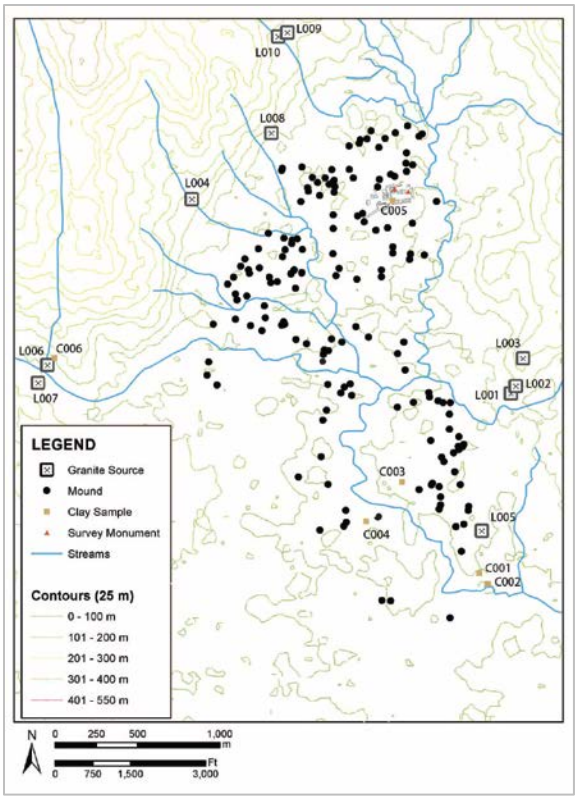

Figure 5. GPS settlement survey of Alabama.

1). This observation confirms PPAP initial impressions that the settlement surrounding the site centre consisted primarily of solitary mounds (only minimal settlement investigations were pursued in the 1980s), as opposed to mounds arranged in formal or informal groupings. Although this is interesting and possibly represents a different form of social organization and/or integration as compared to other areas in the lowlands where much higher percentages of Types II and III often exist, we must also consider that the spacing requirements for the assignment of groups (mounds within 30m of each other, assumed to be part of the same houselot if residential) may not be valid in this area. It may be that a spacing of 40-50m is more typical; however, this is difficult to assess only by using GPS mapping among disturbed sites.

Based on the current distribution of known sites, many Alabama residents were locating their homes nearby water sources (streams), as well as seeking higher ground locations within the valley, particularly along the margins of the upper alluvial terraces. It is

Table 1. Alabama settlement site classifications.

Type	Description	n*	%
I	Isolated mound less than 2m high.	104	81.25
II	2-4 mounds, informally arranged, all less than 2m high and within 30m of each other.	12	9.38
III	2-4 mounds, orthogonally arranged, all less than 2m high and within 30m of each other.	8	6.25
VI	1 or more mounds, at least 1 being 2-5m high and within 30m of each other.	4	3.13
	TOTAL # GROUPS	**128**	**100.00**

*these group counts are updated since 2015 based on new mound identifications in 2016

likely that agricultural pursuits were occurring both in the valley bottom as well as in the lower foothills, dependent on crops – the soils of the Waha Leaf Creek valley are fertile and well drained (Graham 1994:17). Additionally, many of the mounds recorded appear to be oriented slightly east of True North, similar to half the orientations observed in the epicentre.

We have also noted (Peuramaki-Brown et al. 2015) that the clustering of mounds at Alabama is not nearly as clear as has been observed of settlement in other areas of the lowlands – the occurrence of spatial clustering in the distribution of houses, with large open areas between clusters, being a feature of the low-density urban patterns expressed in many areas of the Maya lowlands, comparable to neighbourhoods in other areas of the world (Peuramaki-Brown 2014; Smith 2011). Such patterns typically involve the grouping of 12-15 settlement sites/groups (Type C settlement patterns in Willey 1956). The possible clusters at Alabama are relatively small in number of included groups. The smaller clusters and/or lack of clustering are interesting when viewed from a possible "boomtown" perspective, where a lack of neighbouring tendencies (compared to more long-term urban processes) is the norm.

Surface collection in the settlement resulted in over 4000 artifacts recovered, and are being used to begin building preliminary chronologies, and characterizations of resident populations and activities. Materials included pottery (vessel fragments, figurines, whistles, candeleros, handled censers, etc.); daub (with wattle impressions); granite groundstone items;

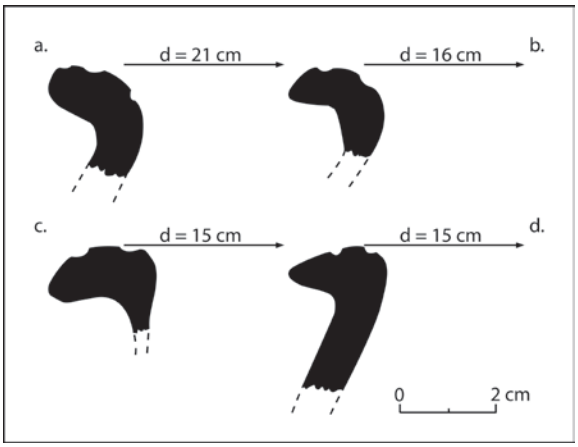

Figure 6. Examples of grooved, everted rim jar fragments (profiles) recovered from surface collection, labelled by catalogue number: a. 10361-T031, b. 10361-ALA 056A, c.10361-T021, d.10361-T025 (drawings by M. Peuramaki-Brown).

chipped stone tools and debitage of local quartzite, quartz, phyllite, as well as imported obsidian and chert; various slate artifacts; unidentified greenstone and jadeite pieces; and marine shell. Identifiable surface collected ceramics (although slips are usually absent or extremely poor) have been predominantly assigned to the late facet of the Late Classic to Terminal Classic, including British Honduras ashwares (later forms and Belize Red when slips survive), a single Mt. Maloney LCII bowl sherd, and moulded-carved materials identified as Ahk'utu' and possibly Pabellon (C. Helmke, personal communication, 2015).

Some Early Classic ceramics and Terminal Classic to Early Postclassic lithic candidates were also present. The identified Early Classic materials consisted of additional

aforementioned grooved, everted rim jar fragments (Figure 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. From surface collection, a total of eight such sherds were recovered – four from four separate mounds (Type I or II sites) in Property Block D (settlement immediately surrounding the epicentre, see map in Peuramaki-Brown et al. 2015:30), and one from each of Blocks C2, C1, 2, and E immediately surrounding Block D. The property blocks most distant from the epicentre, Blocks 1, A1, and A2, have as of yet yielded no such sherds. Although this radiating distribution may simply be reflective of the overall number of occupied mounds in each block (more mounds closer to the epicentre), it might also suggest a temporal growth to Alabama, with the earliest occupation being closest to where the epicentre eventually emerged (a typical concentric growth pattern). No other typical Early Classic types or forms were encountered. A stemmed, straight base, side-notched chert biface/point (Figure 7; also referred to as an "expanded stem type" in Willey 1972:161-163 and "side-notched dart points" in Shafer and Hester 1983) dates to the Terminal Classic to early facet of the Early Postclassic (J. Stemp, personal communication, 2015) and was found in Block E, one of the furthest from the epicentre. In addition to providing temporal markers to begin building chronologies, these surface collected materials are also providing preliminary ideas of economic networks represented at Alabama.

Resources Program

During our settlement survey, in addition to surface collected materials, we located source zones for granite used for construction material and artifacts, as well as clays that would have been acceptable (given demonstrated characteristics) for pottery manufacture. The proximity of granite and clay resources designates these materials as "local" resources at Alabama (within 0-10km), and are contrasted against "mesolocal" salt (10-50km away); "regional" or "extended" chert and limestone (50-100km); and "exotic" basalt, jadeite, and

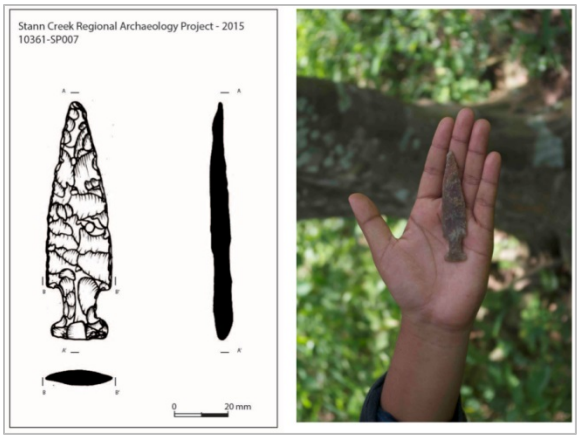

Figure 7. Stemmed, straight base, side-notched chert biface, catalogue number 10361-SP007 (drawing by S.G. Morton).

obsidian (>200km away). Full results of our recent resource studies will be presented in upcoming presentations and publications.

Granite. The inhabitants of Alabama were extensively using local Cockscomb granites for tools (both formal and expedient) and building material, as well as importing a small amount from the Mountain Pine Ridge for *mano* use. During our survey we located a series of primary and secondary granite source zones, as well as a possible collection pen feature (see Tibbits and Peuramaki-Brown 2015). Tibbits (2016) has also created a visual and geochemical characterization (pXRF) database for the Cockscomb granites, and subsource zones within the pluton are becoming readily apparent through both studies. This is particularly exciting as we may be able to eventually source settlement architectural elements and artifacts to particular areas in the foothills surrounding Alabama, which can lead to discussions of resource acquisition, distribution, and control.

Clay. Another focus of research has involved clay characterization studies to determine where and with what the ancient Maya of Alabama may have been making their pottery. The alluvial valleys of the Stann Creek District have long been noted as areas of productive soils for agricultural purposes, particularly fruit (including cacao), as well as the source of high-quality, volcanic clays for ceramic manufacture (both ancient and commercially-viable modern). Six clay source

samples were collected from throughout the settlement area; test briquettes were fashioned from these samples; clay properties at the wet, dry, and fired stages were recorded; and firing was conducted in an open "tipi-style" fire. Along with samples of possible 'local' pottery wares (based purely on represented quantities and tentatively identified inclusions) and daub, the briquettes were subject to petrographic analysis in collaboration with Dr. Linda Howie of HD Analytical Solutions in London, Ontario. This initial study, though small, has proved successful in terms of the new information it has revealed, building on earlier studies of Maya communities in East-Central Belize by Graham and colleagues. Our data sheds light on geological variability in local raw materials; common pottery and daub fabrics; as well as local, mesolocal, extended-regional, and long-distance interactions of the Alabama Maya (Peuramaki-Brown and Howie 2017).

Obsidian. EDXRF sourcing analysis of 55 pieces of obsidian recovered from settlement surface collection was conducted in collaboration with Dr. Tristan Carter at McMaster University, Hamilton, Ontario. Preliminary results showed that over 60% of the material was of Ixtepeque origin, which is intriguing given the current dating of the site (primarily Late to Terminal Classic) and known obsidian ratios from neighbouring areas for these periods (Gotlitko et al. 2012), which led us to expect a higher representation of El Chayal. What it might suggest is a larger Early Postclassic occupation than previously believed, as well as limited subsurface disturbance in many areas of the orchard. Or, alternatively, a less common trade relationship that favoured Ixtepeque material early on over the more common El Chayal. Similarities with patterns recently identified from Southern Belize (A. Thompson, personal communication, 2016) will be further investigated.

Conclusion

Over a total of 7 weeks from 2014 to 2015, the SCRAP team completed a Phase I Reconnaissance at Alabama. We topographically mapped the epicentre, which is helping to better understand the layout, configurations, and possible chronology of monumental construction at the site. This 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 for the epicentre. We also completed a GPS settlement survey for the orchard portions of the property/permit area, confirming the presence of over 150 visible mounds surrounding the epicentre. We also surface collected from all settlement sites, recovering over 4000 artifacts to begin building a better understanding of relative settlement chronology, population, and activities. Geochemical-geological sourcing and characterization studies for granite, clays, and obsidian at the site are also helping to outline Alabama resident involvement in various economic systems. Finally, our 2015 season involved our first community outreach activities, including a breakfast and "research update" morning talk with members of the nearby community, as well as cataloguing and recording found artifacts brought to us by community members. The 2016 season will see the initiation of Phase II Testing to begin addressing the many questions that have emerged from the first two years of SCRAP investigations at Alabama.

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