Since the late 1800s, significant archaeological exploration and investigation has been undertaken in what is now the Stann Creek District of Belize. While typically grouped with sites of the Toledo District under the label of “Southern Belize,” as will be discussed, there is much that serves to differentiate the inland Maya sites of Stann Creek District from their neighbours to the south. Following Graham (2001) and Peuramaki-Brown (2017), in this paper we find it useful to differentiate the Stann Creek District as a separate material culture sub-region of the eastern Maya Lowlands. This sub-region has become an important focus for the study of resource acquisition and the movement of goods between identified highland and lowland zones along coastal and inland trade routes and communication corridors, but also in the revisiting of topics such as population movements and displacements, particularly during the Late to Terminal Classic periods. In the spirit of the theme of this RRBA volume—focused on the northern and southern reaches of Belize—this paper, essentially a literature review, briefly summarizes the 100+ years of exploration and archaeology of the ancient Maya that has taken place in the Stann Creek District.

Introduction

Despite little acknowledgement within general narratives of Maya studies, significant exploration and investigation into ancient Maya archaeological sites and materials has been undertaken over the past 100 years in the Stann Creek District of Belize, also known as “East-Central Belize”: a distinct material culture sub-region of the eastern Maya lowlands. This portion of Belize—spreading from the eastern reaches of the Maya Mountains to the Caribbean Sea (Figure 1)—was acknowledged by Thompson (1970:125) as being part of a unique highland zone within the lowlands of the Maya world, and the people who occupied the region during conquest and colonial times (and likely earlier), as falling roughly along the divide between his “Chan Maya” and “Manche Chol” ethnic groups (Thompson 1972:6). The sub-region has become an important focus for the study of ancient resources acquisition and the movement of goods between the various Maya sub-regions along coastal and inland trade routes and communication corridors, as well as worlds beyond. Given this interconnectedness, it is perhaps not surprising that it has also become an important focus for the study of possible population movements, migrations, and displacements, particularly during the late facet of the Late Classic to Terminal Classic periods (ca. 700-900 CE) and later. This paper provides a review of what is known archaeologically about the ancient Maya of the Stann Creek District, summarizing over 100 years of exploration and archaeological research.

The Stann Creek District

Relative to many of the other material culture sub-regions of Belize, little is known of the prehistory and Spanish Colonial period of the district and the Maya who once inhabited this complex geological and ecological landscape. Covering approximately 2600 km², the Stann Creek District is roughly delineated to the north by the North Stann Creek valley and the northeastern extension of the Maya Mountains, and the beginning of relatively flat landscapes with bigger and longer rivers; to the west by some of the highest peaks of the Maya Mountains (e.g. Cockscomb Range); to the east by the Caribbean Sea; and to the south by the north end of the Bladen Formation, located to the south of the Swasey Branch of the Monkey River—the area of the colonial Campin village, likely today the village of Cowpen (Thompson 1970: 6, Map 1, 61-62).

This portion of the country features dramatic landscape transitions, typically within a mere distance of 20 km east-west. Four broad ecological zones are represented, transitioning from coastal mangrove shoreline and lagoons, through pine savannah to the broadleaf forests of alluvial valleys, and up into the undulating metamorphic and igneous foothills and steeper peaks of the Maya Mountains. This diversity of zones presumably led to the development of resource-specialized sites, particularly those
associated with salt and lime production along the coast, but likely also within the alluvial valleys and foothills. The presence of small, specialized communities in each zone would have significantly increased the likelihood of success for survival in this part of the Maya world, particularly with regard to population flexibility and mobility between resource areas, and the exchange of local (0-10 km) and mesolocal (within 10-50 km) goods.

Exploration of 1890s to Mid-1970s: Jades and More

Prior to the mid-1970s, only five recorded archaeology-related expeditions had taken place in the Stann Creek District, including Price’s (1899) excavations at Kendal along the Sittee River in 1892 and 1896 (also recounted in Gann 1918); Joyce’s (1931) British Museum expedition to the Pearce Ruins and Williams’ Ruins (and other nearby un-named sites) in the Cockscomb Basin of the South Stann Creek; Mitchell-Hedges’ (1931) explorations of offshore cayes; Kidder and Ekholm’s (1951) work in the mid-20th century at Pomona along the North Stann Creek and along the coast; and MacKie’s (1985) 1959-1960 excavations at Pomona. If any Stann Creek District archaeological sites appeared on maps of the Maya world—typically it remains a blank spot—it was often because of the impressive ‘jades’ found at Pomona and Kendal, interpreted as important indicators of localized Protoclassic to Early Classic (ca. 100-600 CE) activity in the northern end of the district, and containing some of the only epigraphic inscriptions in the district (see images in Schele and Miller 1986).

Also noted by these early explorers and scholars were many of the ancient material culture characteristics that would later serve to identify the Stann Creek District as a unique material culture sub-region of the eastern Maya lowlands (elaborated below). Some of these early reported features include a lack of chert and limestone sources in the region—although periodically these materials make appearances in assemblages and in special contexts, such as the limestone tombs of Pomona; the presence of depressions or borrow pits nearby most sites as the source of construction core for platforms, often forming rings around monumental cores; the poor preservation of ceramics and osteological materials (human and other) at inland sites due to highly acidic soils; and a lack...
of vaulted architecture and engraved monuments. It is also at this time that the first suggestion of foreign colonizers in the area was put forward; for example, MacKie (1985: 205) suggested that the presence of valued portable jadeite items and patolli boards at the small inland centres meant populations from the Belize River Valley initially colonized the region or, at the very least, suggested a very strong connection between the two sub-regions.

Regarding later Spanish colonial activity in the district, it is Thompson (1972: 41-42) who relates 16th-century accounts from Friars Martin Tejero and Joseph Delgado, which discuss Spanish and Indigenous settlements along the North Stann Creek, Sittee River, South Stann Creek, and Swasey Branch of the Monkey River. To date, we do not know much more regarding this period, other than identifying the presence of Chan Maya around the Sittee River (near the site of Kendal) and further north, and the Manche Chol around Monkey River (near the sites of Lagarto and Danto) and to the south. It was not until the 1960s and 1970s that a strong Maya presence returned to East-Central Belize; villages of Mopan and Kekchi Maya were established by families migrating in from the Toledo District in search of land and economic opportunities within the forestry, banana, citrus, and shrimping industries (TMCC and TAA 1997). These rapid-growth communities (a.k.a. boomtowns) and company towns continue to develop to this day, albeit often comprised of temporary immigrants from countries such as Honduras and El Salvador who are working in the aforementioned industries and in tourism.

**Archaeology of Mid-1970s to 2010s: Identity, Location, and Resources**

Since the mid-1970s, a number of minor and major science-based archaeology projects have operated within the Stann Creek District, focused on understanding Maya prehistory from Formative through to Postclassic times. Issues of cultural affiliations and boundaries, migration, resources and highland-lowland interaction, and trade routes, have been addressed by each of these projects—either directly or indirectly.

The Stann Creek Project (SCP) in the 1970s, directed by Elizabeth Graham, represented the first extensive research in the district, having provided a survey of both inland and coastal archaeology sites, with test excavations at the inland centres of Pomona, the Mayflower Sites (Mayflower, Maintzunun, and T’au Witz), and Kendal, as well as the Colson Point sites of the coast (Graham 1976, 1978, 1983, 1985, 1989, 1994). The Point Placencia Archaeological Project (PPAP) in the 1980s and 1990s, directed by J. Jefferson MacKinnon—who had previously worked with Graham at Tipu in the Cayo District—involved additional survey and testing of the coastal and lagoon sites of the 22 km-long Placencia Peninsula, offshore cayes, as well as the inland centres of Alabama Ruins (based on SCP reports; from this point on referred to only as Alabama; also known as AL-52 and C’haaben K’ax, with various spellings in the published literature), Lagarto and Danto (MacKinnon 1985, 1987, 1988a, 1988b, 1989a, 1989b, 1991a; Schafer 1987; Walters 1988). A renewed focus on the Placencia sites has since been initiated by Cory Sills (2016, 2017, 2019).

The Maya Mountains Archaeology Project (MMAP) of the 1990s, directed by Peter Dunham—although focused more intensively on material culture in the Bladen to the south in Toledo—spent one season in the Cockscomb Basin of the Stann Creek District to conduct preliminary reconnaissance at Pearce and nearby Huntul Mo’, Xa’ayilha, and Bats’ub (25 Flight), as well as to conduct crucial micro-scale geological and biological baseline surveys for various branches of the South Stann Creek (Dunham 1996; Dunham et al. 1995); this investigation built from the aforementioned British Museum expedition, as well as observations by the Belize Department of Archaeology (Gundy and McNatt 1984) following a report of an archaeological site called Kuchil Balum by zoologist Alan Rabinowitz (1987). The Mayflower Archaeology Project (MAP) of the 1990s and 2000s, directed by Jeffrey Stomper, picked up from where the SCP left off at the Mayflower sites (Stomper and Brown 1998; Stomper et al. 2004; Williamson and Stomper 1996) and Kendal, which also formed part of the Southern Highway Archaeological Assessment that identified numerous sites in the district in advance of the Southern Highway upgrade (Stomper and Brown 1999). Finally, the Stann Creek Regional
Table 1. Occupation dates for Maya archaeological sites in the Stann Creek District. Middle Formative (ca. 1000-300 BCE), Late Formative/Protoclassic (ca. 300 BCE-300 CE), Early Classic (ca. 300-600 CE), early facet Late Classic (ca. 600-700 CE), late facet Late Classic (ca. 700-800 CE), Terminal Classic (ca. 800-900 CE), Early Postclassic (ca. 900-1200 CE), and Late Postclassic (ca. 1200-1525 CE). Source material from Dunham et al. 1995; Gibson & Moore 1987; Graham 1994; Joyce 1931; Kidder & Ekholm 1951; MacKie 1985; MacKinnon 1989; MacKinnon et al. 1993; MacKinnon & Kepcs 1989; MacKinnon & May 1990; Peuramaki-Brown 2017; Peuramaki-Brown & Morton 2019a, 2019b; Price 1899; Stomper & Brown 1998, 1999; Stomper et al. 2004; Williamson & Stomper 1996.

Archaeology Project (SCRAP), co-directed by the authors, is currently investigating the character, appearance of, and relationship between Alabama and the Pearce sites in the southern end of the district (Peuramaki-Brown 2015, 2016a, 2016b, 2017; Peuramaki-Brown and Morton 2018, 2019a, 2019b, 2019c; Peuramaki-Brown et al. 2017b, 2018; Peuramaki-Brown and Schwake 2014).

East-Central Belize: A Unique Sub-region of The Maya World

Based on results of the aforementioned projects, the Stann Creek District is proposed to represent a unique material culture sub-region within the eastern Maya lowlands, variously referred to as East-Central Belize (Graham 2001; Peuramaki-Brown 2017) or South-Central Belize (Gibson and Moore 1987). While the inland sites of the sub-region are unique from one another in many ways—seemingly due to variability in resource availability in local drainages and differences in occupation dates—they also have a number of features in common that, together, serve to distinguish them from other sub-regions (e.g. Southern Belize, as described by Leventhal [1990, 1992] and MacKinnon [1991b]).

The common characteristics of inland sites of the sub-region include locations atop alluvial terraces, adjacent to rivers and streams that are at
minimum seasonally navigable to the coast; low, large, non-vaulted architecture; alluvial sandy-clays for earthen core material of platforms and other construction; large borrow pits surrounding/enclosing monumental architecture; facing blocks and ‘megalithic slabs’ (architectural elements) made of non-limestone materials; uncarved stelae (slab monuments) and altars of non-limestone materials; and special-context use of possible imported limestone and/or other white stone (e.g. ball court markers, corner stones, tomb walls). A general lack of artifacts in construction cores at many sites throughout the sub-region has been variously proposed to represent little occupation at sites prior to major construction efforts, rapid construction, or different architectural construction preferences from elsewhere in the lowlands. Clues to regional socio-political organization are scarce, as only limited examples of Maya writing have been encountered in the region, which do not shed light on the topic; these examples are confined to a few portable jadeite and ceramic items, a report of an illegible, carved, sandstone stela from Kendal by Price (1899), and rumours of a carved/inscribed monument at Bats’ub (Keith Prufer, personal communication, 2017).

**Chronology**

To date, much of the aforementioned research in East-Central Belize has focused on securing occupation chronologies for investigated sites—both coastal and inland (Table 1). If we consider a rough timeline for inland sites throughout the region, based on absolute ¹⁴C dates, as well as stylistic dating of architecture, pottery, glyphic elements, and other artifact types (reported in the previously discussed sources), overall, within the north end of the district (north of the Sittee River), Middle Formative to Late Postclassic (ca. 1000 BCE-1525 CE) occupation chronologies have been reported, while areas to the south appear to be mostly limited to Late Classic to Early Postclassic (ca. 600-1200 CE) activity. Along
the coast, early sites appear in the far north end of the district and far south, with central areas seemingly constrained to the Late and Terminal Classic; roughly mirroring the pattern inland. Although we find these patterns tantalizing when contemplating issues such as migration, it must currently be taken with a grain of salt, as so little extensive excavation has occurred within the district and little is known regarding the impact that severe climate events such as hurricanes have had on the coastal archaeological record in particular. The long history of industrial development within the district has also significantly impacted the survival of the archaeological record.

Organization and Identity

An agglomeration of huts or tents turns into a town only when its space has been recognized ceremonially as substantially other than rural expanse, when it is opposed to the ‘outside,’ when the paths that transverse its space are recognized as roads (Illich 1985:12).

Based on monumental area, layout, and architectural inventory, by the late facet of the Late Classic (ca. 700-800 CE), a visible hierarchy or continuum of settlement types existed in the district, including high-level civic-ceremonial towns with multiple formal plaza areas and specialized architecture, including ball courts and sacbeob (MacKinnon et al. 1993). An example of such a high-level site is that of Alabama along the Waha Leaf Creek (Figure 2)—slightly larger than Nim Li Punit in monumental construction area (Peuramaki-Brown and Morton 2019a)—with a similar population of roughly 800-1000 people based on recent SCRAP settlement surveys. The site of Pearce along an upper branch of the South Stann Creek, roughly 10 km to the north of Alabama, is believed to be slightly larger—comparable to Lubaantun (Dunham et al. 1995). Middle-level sites include those with fewer formal plaza areas, or with plazas lacking clear organization in their monumental construction, such as Pomona along the North Stann Creek and Kendal along the Sittee River. Finally, low-level sites consist of isolated monumental mounds and associated settlement, found throughout the district.

As mentioned above, understanding the relational geography of this continuum/hierarchy of settlement in the sub-region is currently dependent solely on archaeological investigations, given the lack of epigraphic texts. The appearance of larger and different styles of monumental construction and layout, dramatic population increases, as well as observed shifts in resources use and material culture assemblages around the late facet of the Late Classic at places such as the Mayflower sites, Pearce, and Alabama have previously generated musings over whether a movement of non-locals—or a “Colonial Impulse” to use MacKinnon and May’s (1991) term—appeared in the region at this time. Such musings can be found in the writings of Graham, MacKinnon, and others, and seem to favour connections to the Belize Valley as opposed to strict local growth and development. Waynerka (1999, 2003), in his discussion of the petroglyphic elements of the southern portion of the district, even went so far as to suggest a non-Maya influence or presence in the region, possibly from Honduras or further south in Central America. These ideas are by no means conclusive and current SCRAP research at Alabama and Pearce is pursuing this line of questioning, among others, including examining connections to those communities to the south in Toledo.

Trade

The role of local resources development and inter- and intra-regional trade of commodities has been an important part of all projects working in East-Central Belize. The heavy attention paid by the SCP to the resources and ancient industries of the district served as the inspiration for all subsequent and on-going work (e.g. Graham 1987). The idea of many communities representing both specialized resource communities and forms of gateway communities appears in the writings by Graham, MacKinnon, Dunham, and Stomper, and current SCRAP research is approaching investigations of Alabama and Pearce from a somewhat more open yet linked framework of boomtown development (a.k.a. rapid growth communities; Peuramaki-Brown and Morton 2019a).

From her research at Pomona, the Mayflower sites, and the Colson Point sites,
Graham (1994) has suggested the importance of the northern end of the district for trade into and out of the central Peten—controlling access to open sea trade routes via the inland Hummingbird Corridor; indeed, this route was used in Spanish colonial times to transport marine products to the Belize Valley. Although agreeing that the North Stann Creek sites were important locales along the Hummingbird trade route, Stomper et al. (2004) have argued that Mayflower was primarily positioned to control the flow of goods into and out of the local box canyon in which it is situated, a few kilometres south of the route to the Hummingbird Gap. They also suggest that settlement in the area was encouraged, not by trade, but by simple hydrological considerations; Mayflower occupies the only ground between the foothills and coast not prone to substantial flooding in the rainy season.

According to Stomper et al. (2004: 325) “the location of Mayflower at the entrance to the canyon and T’au Witz and Maintzunun on the surrounding ridges clearly indicate that anyone wishing to enter the canyon as well as goods leaving, must pass through this population centre.” They argue that slate, granite, and quartz may have been the primary resources controlled by the Mayflower population, the latter along with quartzite and phyllite being the lithic material of choice in much of the district, given the lack of local chert. SCRAP researchers are considering similar arguments for the role of Alabama as a control point for access to the Pearce sites via a gap or canyon route (referred to as “The Gorge” on informal area maps) within the foothills, and controlling various resources coming out of the mountains and into the Placencia Lagoon and coastal trade routes, and vice versa (Peuramaki-Brown and Morton 2019b).

PPAP research at the coastal sites of the Placencia Lagoon and Peninsula, as well as the inner and outer cayes, demonstrated that people used most coastal sites for the purpose of resource procurement and processing in the Classic Period, rather than trade (i.e. the sites were not serving as exclusive trade posts, as was the case at coastal localities later in time). One exception was Placencia Caye, which likely functioned as a trans-shipment point on the coastal canoe trade route linking that traffic to the inland centres via the lagoon and rivers, and serving as a sheltered harbour, as it does today (MacKinnon 1986, 1989c, 1990). Resources included small-scale commercial shell-lime production in the Early Classic (MacKinnon and May 1990) and small-scale salt production in the Late Classic (MacKinnon and Kepecs 1989, 1991). The question looms regarding whether these substances were produced by ‘inlanders’ working along the coast during particular times of year (e.g. dry season), or whether the control of manufacture was an independent activity engaged in by coastal populations.

Classic Period trade routes were found to hug the coast and did not utilize the cayes of the outer reef. Early Postclassic period coastal trade likewise moved close to the coast, but also made use of some of the inner cayes (e.g. False Caye and Placencia Caye). Late Postclassic period trade, by contrast, was found to have moved along the cayes of the outer reef edge. MacKinnon (1989c) suggested these different patterns of coastal use over time—with traders making small hops along the coast in the Classic with no clear way stations versus the use of cayes and way stations in the Postclassic—may suggest smaller canoes were in operation during the Classic; this would counter previous attempts to push the image/narrative of big ocean-going canoes of the ethnohistoric documents back into earlier periods. MacKinnon also suggested that these patterns, along with shifts in obsidian access in the region (discussed below), could be related to a different coastal route in the Classic—one that actually terminated at the rivers of Southern Belize, extending further into Honduras and Lower Central America only later in the Late Postclassic.

**Resources**

As mentioned above, a variety of resources and industries have been investigated as part of the various projects over the years—again, often making use of Graham’s studies as a foundation. The PPAP investigated lime manufacture from oyster and mud conch shell at the Early Classic Rum Point Airstrip site (SCP also studied lime production at the north end of the district), as well as Late and Terminal Classic salt making sites along the Placencia Lagoon. The MMAP
geological and biological surveys around the Pearce sites in the Cockscomb Basin have brought to light additional resources that the Maya may have extracted, including magnetite, cinnabar, greenstone—Thompson (1970:140-141) also speculated a source of jadeite in the Maya Mountains, based on the impressive finds at Kendal and Pomona, and mentioned Wilson’s (1886) note of “green rock” while on survey along the Trio Branch of the Monkey River—tuff deposits, and the identification of ‘wild’ stands of cacao and rubber trees (possible remnant populations of domesticates; Thompson 1970:127). SCRAP research is currently attempting to duplicate such important surveys in the area of Alabama for comparative purposes, as well as to conduct soil chemistry and isotopic studies to discuss domesticates such as cacao and maize in the area.

It was Graham’s preliminary research and thoughts on the clays and granites of the region that have been particularly insightful and inspirational with regard to resource procurement, development, and trade. Graham (1994) 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 in contrast to 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, Graham (1986, 1994) also expressed 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 (Graham 1994). She concluded that many of the ceramic types encountered in the district would have been manufactured locally, both at inland settlement sites and coastal specialized sites. She went on to theorize that East-Central Belize was an important origin point for 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 assessments of internal inter-community relationships in the Maya lowlands versus the more commonly pursued external extra-lowland influences.

Starting in 2015, SCRAP researchers picked up where Graham left off by providing preliminary characterizations of clays and ceramic (pottery and daub) fabrics recovered from the Alabama area in the southern end of the district (Howie 2018; Howie and Jordan 2018; Peuramaki-Brown et al. 2017a). The SCRAP project faces similar issues characterizing a ceramic assemblage that consists primarily of small, eroded body sherds that exhibit minimal evidence of surface treatment. Although this presents a challenge, it is also a unique opportunity to evaluate the pottery with respect to both the traditional type:variety classification system used widely in the Maya lowlands, as well as to conduct a detailed analysis of paste characteristics based on macroscopic and microscopic assessment in the field and subsequent thin section petrography. Rim sherds from household contexts that could be assigned to established types revealed relationships between Alabama and northern Belize (Zakpah Orange Group chalice, incised outcurving bowl fragments [e.g. Buk phase Lamanai], and a Red-Necked Mother type storage jar); the Belize River Valley (Cayo Unslipped, Mount Maloney Black, Dolphin Head Red, and British Honduras Volcanic Ash wares [Belize Red and Benque Viejo Polychrome]); and southern Belize (Hondo Red, Pulucax Unslipped, Remate Red, and Turneffe Unslipped). Fragments of vessels that originally contained carbonate rock and mineral inclusions, both naturally occurring and representing an added tempering material, are abundant in the Alabama assemblage but most cannot be typed because they are body sherds. As was noted by Graham, the acidic soils have removed the carbonate inclusions but sherds that once contained carbonate are readily identifiable based on their light weight and pock-marked
Figure 3. Examples of granite use at Alabama, clockwise starting at top left: west face of residential platform made of hewn granite blocks (east unit wall measures 1 m north-south); east facing granite stair on residential platform (west unit wall measures 3 m north-south); granite slab pathway in west plaza of monumental core (longest slab measures approx. 3 m long and 23 cm thick); north face of monumental construction platform, made of hewn granite retaining earthen fill, and subsequent lower phases (south unit wall measures 3 m east-west).

surface. A sample of rims possibly produced in northern Belize and the Belize Valley are currently being analyzed using petrography to determine their provenance by comparing the results to published data (Howie 2012; Jordan 2019; Sunahara 2003); however, the abundance of carbonate pottery (35% of surface-collected materials) indicates strong ties between Alabama and areas outside of the Stann Creek region. Hondo Red, which has only been identified in sites in southern Belize (Fauvelle 2012; Hammond 1975; Irish 2017; Jordan 2014), is abundant at Alabama, and accounts for 15% of the surface-collected ceramic assemblage, which is only second to Nim Li Punit where it may have been produced. Pottery produced locally contains rocks and minerals derived from the Cockscomb Batholith and consists of coarse to very coarse, sandy fabrics unique to the region. Thin-section petrography (Howie 2018) and in-
field microscopic analysis with a DinoLite USB microscope indicate that potters are using both crushed granite rock temper and sand that is compositionally equivalent to the granite. Non-local sandy fabrics, possibly produced using materials derived from the Bladen Formation to the south and the Hummingbird Batholith to the north (Howie 2018), are macroscopically similar to locally produced fabrics, so continued petrographic analysis is required. The SCRAP project collected clay samples during the 2015 and 2018 field seasons and conducted a petrographic analysis of locally available granite (Potter 2018). The data generated from petrographic analysis of geologic samples will provide vital data on the complex geology of the region and a better understanding of resource acquisition and pottery production in Stann Creek.

The ease of access to materials from the two granitic plutons of the eastern Maya Mountains proffered a unique opportunity for the inland Maya of East-Central Belize. These materials were commonly used for construction materials (hewn blocks and slabs, as large deposits of limestone are 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 Master’s thesis in the 1970s, served as an extension of her work in the Stann Creek District where she noted the important use of the material at sites such as Mayflower (Shipley 1978; Shipley and Graham 1987). Through thin section petrographic analysis, Shipley characterized all three granite sources of the Maya Mountains granites as part of his Master’s thesis in the 1970s, served as an extension of her work in the Stann Creek District where she noted the important use of the material at sites such as Mayflower (Shipley 1978; Shipley and Graham 1987). Through thin section petrographic analysis, Shipley characterized all three granite sources of the Maya Mountains—Mountain Pine Ridge, Hummingbird, and Cockscomb plutons, the latter two associated with the Stann Creek District—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 and collaboration, above all, demonstrated the advantages that stem from cross-disciplinary collaborations within the district, but also 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 and pottery 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 was needed to characterize outcrops and assemble comparative collections.

Since 2014, SCRAP researchers have attempted to build from Graham and Shipley’s work through additional visual analyses and non-destructive geochemical characterization studies of granites and artifacts—including construction materials (Figure 3)—from around Alabama, situated between the main Cockscomb pluton and various offshoots. Samples of granitic materials were collected from primary and secondary source zones around Alabama and subjected to petrographic, desktop X-ray fluorescence (XRF), and portable XRF (pXRF) analyses (Tibbits 2016). From these results, along with source samples collected from the remaining two plutons, environmental scientist Tawny Tibbits was able to develop a method for sourcing granite materials based on non-destructive pXRF values. She then pXRF analysed artifacts from sites throughout Belize in order to discuss source zone access and trade.

At Alabama, not surprisingly, most materials (artifacts and architecture) originate from local foothill drainages linked to the Cockscomb pluton and its offshoots, as well as ‘erratic’ boulders that have made their way down into the alluvial valley where the site is situated, possibly due to past hurricane activity. What is most intriguing about Tibbits’ results is the possibility of detecting elemental variation associated with the various sub-source zones, which could potentially influence our future ability to discuss resource access on a micro-scale at Alabama. These sub-source variations in granite, along with additional geological studies, are currently being pursued by SCRAP geologist Joanna Potter (2018). The predominance of granite throughout the Alabama monumental core and settlement zone, as both formal construction materials and artifacts, emphasizes the importance of this Cockscomb resource, materials of which also found their way into the
hands of Maya at the site of Uxbenka about 100 km to the south, and Tipan Chen Uitz over 100 km northwest (following hypothesized trade routes; Tibbits 2016). Additionally, Mountain Pine Ridge manos made it into the hands of the Alabama Maya; an interesting finding, particularly given the naturally occurring presence of granite materials in the area. This presence will be further investigated, as it relates to the general qualities of granites represented in the Cockscomb, inter-regional trade engaged by the Alabama Maya, and/or the possible origins of late arriving populations in the area, related to SCRAP research into boomtowns.

SCRAP researchers have also been pursuing obsidian sourcing studies to further understand the connection of Alabama to existing trade routes within the Maya world during the Late-Terminal Classic (and possibly beyond), which has afforded a quick glimpse into the relationships between the Alabama Maya and far-flung regions of the Maya world. Preliminary sourcing in 2015 of 49 obsidian artifacts, surface collected during settlement survey, demonstrated an unusually high presence of Ixtepeque obsidian (65%; n = 32), compared to neighbouring areas and regions where Ixtepeque access does increase but does not make up the majority of the assemblage (Williams et al. 2017); this may imply a more substantial Early Postclassic occupation for the site than previously believed, or access to different trade networks than neighbouring Maya subregions during the Late to Terminal Classic. Questions generated from these preliminary results led to the additional sourcing of 119 obsidian artifacts in 2016, recovered from excavations at three residential groups in one area of the settlement where El Chayal dominated the assemblages. An additional 38 pieces were sourced from the settlement and monumental core excavations in 2018, with a further 92 pieces to be sourced from 2019 excavations (full results to be published in future). Overall, this study has led to us to suggest occupation in the Alabama settlement may have extended into the Early Postclassic; however, differences in obsidian access between boom period settlement sites and the residents of the monumental core suggest that different sub-communities within the Alabama settlement may have had access to different resource networks—perhaps related to the establishment of a non-local elite, or “cadet” lineage (Andres et al. 2010: 92). 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. As discussed above, compositional diversity was also made evident in recent SCRAP ceramic petrography studies and may contribute to better understanding Alabama as a possible boomtown and/or trade hub. As originally suggested by Graham (1994), the Alabama site may have functioned as a “broker,” “gateway community,” or “way station,” interfacing between groups or trade routes, and possibly influencing how goods like obsidian were moved further inland to sites such as Pearce and other outwardly moving goods toward the coast.

Final Thoughts and Future Directions

Since the late 1800s, we have come a long way in our knowledge of the peoples, places, and things of East-Central Belize. Through past and on-going investigations of chronology, settlement, and resources use and trade, researchers continue to set the stage for creating a solid foundation of archaeological evidence pertaining to culture history and processual understandings that will enhance future investigations of trade, exchange, economy, subsistence, and socio-political organization— not only within this small sub-region of the Maya world, but well beyond. East-Central Belize may lack the large, grand cities of elsewhere and the beautiful epigraphic texts, but it is in the minute details that we are uncovering interesting stories and dynamics that will better our overall understanding of Maya prehistory and history.

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