

# The St. George's Caye Archaeology Project: Results of the 2012 Field Season

Edited by  
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THE ST. GEORGE'S CAYE ARCHAEOLOGY PROJECT:  
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## **Chapter 1. Introduction**

James F. Garber

St. George's Caye played a vital role in the history and development of Belize as an independent nation. This small caye is one of hundreds of islands off the coast of Belize that are part of large reef system, the second largest in the world. Its predominant role in the early history of the English settlement was due to its position and shape. The reef system forms an offshore barrier that protects the coast. Because of the difficulties of navigation, these waters provided safe haven for merchants, buccaneers, and pirates that sailed the Caribbean. To access the mainland and harbors at the mouths of the rivers, one must navigate narrow passages through the reef and then follow a complex system of channels. In order to reach the Belize River, the country's main river system, one must pass by St. George's Caye, thus its strategic location guarding the port (Figure 1.1). Additionally, the caye is crescent shaped making it ideal for careening ships on its leeward side (Figure 1.2).

The Battle of St. George's Caye on September 10, 1798 represents the end of Spain's attempts to conquer the territory that is now known as Belize. Although this battle happened over 200 years ago, it is still plays a large role in Belizean culture, as seen during the annual September Celebrations when people all over the country honor the Battle of St. George's Caye. The fact that the caye is featured on the Belize five-dollar bill is an indicator of its importance (Figure 1.3). The front side depicts a medallion from the tomb of Thomas Potts one of the Bay Settlements early leaders and the back side features a 1764 map of the caye, the Thomas Potts tomb, the Biddle house, and a "bathing crawl".

While much has been written about the history of St. Georges Caye, the first capital of Belize, there has been little archaeology done on the island. With this in mind, we





Figure 1.3. Belize 5 dollar bill. Front side depicts a medallion from Thomas Potts' tomb, backside shows a 1764 map of the cayes, the Thomas Potts tomb, the Biddle house, and a bathing "crawl". This style bill was introduced in 1990.

## **Chapter 2. Field Investigations on St. George's Caye: Results of the 2012 Field Season**

J. Heath Bentley, James F. Garber, and Lauren A. Sullivan

Field investigations of the 2012 field season began with excavations in the Cemetery at St. George's Caye and the Fuzy property. Survey was later conducted on six different lots in the form of systematic shovel tests. These tests were implemented in order to locate areas with high frequencies of cultural material.

Throughout history St. George's Caye has been subjected to damaging hurricanes and tidal erosion. Storm surges brought on by hurricanes churn surface sand and mix it with that of the subsurface leaving a disturbed archaeological record wherein much material lays out of context. During these events the surface erodes until new sediment is required in order to maintain a dry, stable land base. Periodic dredging has removed sand from the seabed and distributed it across the island in order to keep the Caye habitable. Over the years fill sand has been pumped across St. George's Caye in all areas except for the cemetery. Therefore, this fill sand has been encountered in all excavation units outside of the cemetery. The dredge fill consists of a distinct white sandy clay with high marine shell inclusion. Its depth varies depending in the elevation of the previous ground surface.

### Cemetery Excavations

Research in 2009, 2010, and 2011 yielded significant findings in excavation units placed 50 cm east of the west wall of the cemetery (Figure 2.1). These findings suggest the presence of a military barracks midden along the current west cemetery wall. Cemetery excavations of the 2012 field season were conducted in order to examine artifact distribution in attempt to verify the spatial range of the possible midden. Another objective of the excavations was to examine burial distribution at the rear or western edge of the cemetery.



Excavations in the cemetery were conducted using arbitrary levels separated into 20 cm intervals. The stratigraphy was relatively consistent throughout all cemetery excavation units in the 2012 field season. This included an initial humic layer followed by light colored sand with moderate marine shell inclusions. This matrix continued for roughly 60 cm with slight variations until it was replaced by yellow sand with moderate marine shell inclusions. This matrix change occurred at the level of the burials. This indicates a zone of moderately undisturbed subsurface that acted as a subsurface matrix prior to and during historic settlement.

XU32 This 2x2 m excavation unit was established directly south of XU14 along the west cemetery wall. Level 1 extended from the surface to a depth of 20 cm. The sandy matrix contained a high marine shell content. A concentration of brick was found at the bottom of Level 1 consisting of whole and partial bricks. The bricks were spread throughout the unit. They were not arranged in any form of alignment as they were scattered randomly throughout. A human long bone was present 4 cm above the bottom of Level 1 oriented vertically as it extended below into Level 2. A whole burnt conch shell was found in the western portion of XU32. Artifacts recovered at this level included a ceramic pipe stem, large iron hook, modern and historic glass sherds, ceramic sherds, nails, screws, and a few plastic fragments scattered throughout the unit.

Level 2 began 20 cm below surface and was composed of a sandy matrix consistent with that of Level 1. A collection of faunal bone, which included a manatee rib, was found in the NE corner of XU32 41 cm below surface. The NW corner contained the top of a large round ballast stone and the top of a wooden plank that protruded vertically from beneath Level 2. This plank was most likely an old fence post. Other materials included an iron

logging hook, shell button, military button, assorted iron fragments, high quantity of glass sherds, a minimal amount of ceramic sherds, and a low quantity of human bone fragments that included a human tooth. Level 2 ended 41 cm below surface.

Level 3 began with a matrix change to light-colored sand with a high content of marine shell fragments. The fence post plank extended vertically 21 cm above the bottom of Level 3 and continued down into the lower level. The top of a human skull protruded above the bottom of Level 3 slightly north of the fence post. The ballast stone discussed in Level 2 was removed during the excavation of Level 3. It is unlikely that this stone was associated with the burial below as its presence is likely the result of deposition due to storm activity. A whole queen conch shell protruded out of the west sidewall at its midpoint. A second queen conch shell rested above the skull about 23 cm east of the west sidewall. Moderate quantities of glass sherds, human bone fragments, historic ceramic sherds, and faunal bone fragments were found at this level as well as carbon fragments, a human incisor, a lead Minnie ball, and a small, square porcelain cap with a nine-digit serial number on the face. This cap was concave on its underside as if to fit over or around some other object. Level 3 ended approximately 59 cm below surface.

Level 4 began with a matrix change to sand with a lighter, yellow color not present in Levels 1-3. Level 4 included the excavation Burial 18, which consisted of human remains held inside of a hardwood pinch-toe coffin (Figure 2.3). The fence post present in the previous 3 levels extended down through the bottom of the coffin at the midpoint between the shoulders of the coffin. The fence post was a flat plank that measured 40 cm in height and 7 cm in width and was sharpened to a point at the lower end. A metal spike or nail had been driven through the plank 21 cm from its lower end. Dark-grey sand was present

immediately surrounding the plank. One ceramic plate sherd with a blue painted design was found in proximity to the skull within Burial 18. Outside of Burial 18, Level 4 was void of cultural remains with the exception of one coconut shell button. Level 4 ended below Burial 18 at 85 cm below surface.

XU 33 This 2x2 m excavation unit was established directly south of XU32 off of its southern boundary. Level 1 extended from the surface to a depth of 20 cm. The matrix consisted of sand with a high marine shell content and high presence of tree roots. Artifacts recovered at this level included fragments of glass, metal, faunal bone, brick and mortar, and plastic. In addition, modern nails, various small pieces of charred wood, roofing tile fragments, and a section of electrical cord were found.

Level 2 consisted of a sandy clay matrix with a high content of marine shell. Four whole bricks were scattered throughout the unit. Artifacts recovered at this level included fragments of modern and glass, metal, animal bone, ceramics, brick and mortar, the bottom of a rum bottle, a burnt animal tooth, various pieces of charred wood, steel screws, nails, and a .32 caliber brass casing. Level 2 ended 40 cm below surface.

Level 3 consisted of a light colored sand with a high content of marine shell fragments. Fragments of glass, ceramic, metal, faunal bone, brick, mortar, and plastic were found throughout Level 3. A large section of animal bone that contained butcher marks was recovered along with various burnt marine shell and burnt animal bone fragments. A human incisor, 2 bottle necks, 2 pipe stems, gun flint, the bottom of a Colgate jar, pewter button of the 5<sup>th</sup> West Indian Regiment, brass button, gun flint, and an ornamental copper disk (Figure 2.2). In addition, a metal coffin adornment identical to those associated with Burial

21 was recovered from this level. All artifacts were distributed seemingly random throughout the level due to disturbance. Level 3 ended 62 cm below surface.

Level 4 began with a matrix change to light yellow sand identical in appearance and consistency to that encountered in Level 4 of XU 32. This level included Burial 19, which consisted of human remains inside a rectangle-box coffin (Figure 2.4). The coffin included the remains of a lid that was poorly preserved. No artifacts were found within Burial 19 although, a small quantity of glass fragments were found elsewhere in the unit. The deposition of this material was likely the result of storm surge. Level 4 ended 75 cm below surface.

XU35 This 2x2 m excavation unit was established directly south of the southern boundary of XU33, 50 cm east of the west cemetery wall. Level 1 began at surface and continued down for 21 cm. It included a layer of humus at the surface and a sandy matrix below with a high grass and tree root presence in both areas. High quantities of modern glass sherds, brick and mortar fragments were found at this level as well as a moderate quantity of animal bone fragments. All material was distributed randomly throughout XU35. A brass button and a ceramic pipe stem were also recovered at this level. The top of a vertical wood plank protruded through the bottom of Level 1 at a depth of 19 cm in the SW corner of XU35.

Level 2 consisted of a sandy matrix with marine shell inclusions. Fragments of brick and mortar, animal bone, glass, and ceramics were present in random distribution throughout the level. The vertical wood plank discovered in Level 1 extended through the bottom of Level 2. This plank measured 21 cm from the bottom of Level 2 to its top. The bottom of a

shot glass and a clay pipe bowl were also recovered from this level (Figure 2.2). Level 2 ended 40 cm below surface.

Level 3 continued for 16 cm to include a sandy matrix with marine shell inclusions consistent with that of Level 2. Moderate quantities of modern and older glass sherds, animal bone, metal, and brick and mortar fragments were recovered from this level. The surface of Burial 20 was present at the bottom of Level 3 and extended down into Level 4 (Figure 2.5). A pewter button of the 5<sup>th</sup> West Indian Regiment, Duke of York, was also recovered from this level. Level 3 ended 56 cm below surface.

Level 4 began with a matrix change to a light colored sand with marine shell inclusions consistent with that present in Level 4 of XU32 and XU33. Burial 20 and Burial 22 were present at this levels. Remains associated with Burial 22 were not removed due to its location within XU35. It was assumed that Burial 22 was present under the west cemetery wall, as its feet extend into the SW corner of XU35 from the west. Burial 20 was present in the SE corner of XU35 and extended outside of the east boundary of the unit. Remains associated with this burial were excavated and removed. Both burials were oriented east-west. Two wood posts were located in the western portion of the unit. One post was elevated 11 cm from the base of Level 4 and was located 23 cm south of the north boundary and 37 cm east of the west boundary of XU35. The second post was located 73 cm north of the southern boundary and 57 cm east of the west boundary of XU35 and rose 6 cm from the base of Level 4. Two vertical wood planks were found located along the west unit boundary and stood on-end on the bottom of Level 4. One of these planks was the aforementioned plank present in the previous levels of XU35. This plank extended 51 cm from the bottom of Level 4. The second plank was only present in Level 4. No cultural material, save for the

two wood posts, were found outside of Burial 20 and Burial 22 throughout Level 4. Level 4 ended 78 cm below surface.

XU36 This 2x2 m excavation unit was established directly east of the east boundary of XU35. It was put in place in order to expose the remaining portion of Burial 20. Level 1 began at ground surface and included the humic layer at the surface with sand below it with moderate marine shell inclusions. This level contained a high presence of grass and tree roots. Moderate quantities of glass sherds, ceramic sherds, and metal fragments were found distributed throughout the level. A ceramic pipe bowl with a circular protruding knob below the stem was also recovered at this level. This knob was inscribed with an undetermined maker's mark. Level 1 ended 19 cm below surface.

Level 2 contained a matrix composed of sand with marine shell inclusions. A small quantity of burnt wood and marine shell was present throughout Level 2. Fragments of modern glass, metal, and animal bone were distributed randomly throughout the level. A historic clay pipe bowl and a modern screw were also recovered from this level. Level 2 ended 41 cm below surface.

Level 3 continued for a further 15 cm to include a matrix consistent with Level 2, composed of sand with marine shell inclusions. A small section of plastic wrap was recovered at a depth of 45 cm below surface along the east unit boundary. Moderate to high quantities of metal fragments and both modern and older glass were recovered throughout the level. Two iron coffin ornaments were also found at the bottom of Level 3 and are associated with the coffin lid of Burial 21 (Figure 2.2). Level 3 ended when the surfaces of Burial 20 and Burial 21 were uncovered at a depth of 55 cm below surface.

Level 4 began with a matrix change to light colored sand with marine shell inclusions. This level included the excavation and recovery of Burial 20 and Burial 21 (Figures 2.5 and 2.6). A Maya slipped ceramic sherd disk was the only artifact recovered from this level outside of the two burials. No evidence of Maya occupation has yet been discovered on St. George's Caye. Various human bone fragments were also recovered outside of the two burials as the result of natural disturbance.

XU37 This 2x2 m excavation unit was established directly south of the southern boundary of the southern boundary of XU35, 50 cm east of the west cemetery wall. Level 1 began at ground surface and contained a matrix that consisted of humus at the surface followed by sand with marine shell inclusions immediately below. This level contained a high presence of grass and tree roots. Artifacts recovered from Level 1 included high quantities of bottle glass sherds, ceramic sherds, the bottom of a wine glass, and a metal button. Level 1 ended 20 cm below surface.

Level 2 included a matrix that consisted of sand with marine shell inclusions and a heavy presence of tree roots. This level included the discovery of a feature designated Feature 1 (see Feature 1 description below). Artifacts recovered from Level 2 outside the area designated Feature 1 included bottle glass sherds, animal bone fragments, and metal fragments. Level 2 ended 43 cm below surface.

Level 3 began below the extent of Feature 1 and included a matrix that consisted of sand with marine shell inclusions. Artifacts recovered from this level included moderate quantities of bottle glass sherds, animal bone, brick and mortar, metal fragments, and historic ceramic sherds as well as a minimal quantity of ceramic pipe stems. A large carbon stain was present 63 cm below surface. This stain extended north from the southern unit boundary

50 cm into XU37 and was 30 cm in width. The stain most likely was related to Feature 1 as it was directly below it. Level 3 ended at the surface of this carbon stain.

Level 4 began with a matrix change to light colored sand consistent with that present in Level 4 of XU32, XU33, XU35, and XU37. A minimal amount of glass was found along with one animal bone toward the surface of the level. Beneath this area, Level 4 contained no traces of cultural material. Level 4 ended 70 cm below surface.

XU38 This 2x2 m excavation unit was established in the 2 m quadrant between XU37 and XU10, 50 cm east of the west cemetery wall. Level 1 consisted of a sandy matrix with high marine shell inclusions beneath the initial layer of humus. A large slab of cement was located on the surface in the south-east portion of the unit. This slab of cement was likely leftover from the construction of the modern cemetery wall. Sherds of modern glass, ceramic sherds, and fragments of brick and mortar, animal bone and metal were found distributed throughout this level. A blue glass bead was also recovered. Level 1 ended 20 cm below surface.

Level 2 included a sandy matrix with marine shell inclusions. This level included the excavation of Feature 1 (see Feature 1 description below). Various artifacts were located outside the area designated Feature 1. These included a moderate quantity of metal and animal bone fragments, ceramic sherds, and brick and mortar fragments as well as a high quantity of bottle glass sherds. A copper cone, a single-hole bone button, and a 5<sup>th</sup> West Indian Regiment button with the words "Duke of York" were also recovered from this level. Level 2 ended 43 cm below surface.

Level 3 began beneath the vertical extent of Feature 1 and had a matrix that consisted of sand with marine shell inclusions. Moderate quantities of bottle glass sherds, fragments of



iron, animal bone, brick and mortar were found distributed throughout the unit. Two brass buttons were also among the artifacts recovered from this level. These two buttons had blank surfaces with no insignia to link them to a military regiment. The carbon stain that was present at the bottom of Level 3 in XU37 extended south into XU38. This stain was continuous across the boundary that separated XU37 and XU38. It extended 40 cm south of the northern boundary and was 30 cm in width within XU38. This stain was present at the base of Level 3, which was a depth of 60 cm below surface.

Level 4 began with a matrix change to light colored sand with high inclusions of marine shell fragments. Artifacts recovered from this level included minimal quantities of bottle glass sherds and animal bone fragments as well as a carved shell adorno. All cultural material was concentrated near the upper portion of Level 4 as it became increasingly void of material with depth. Level 4 ended 70 cm below surface.

Feature 1 This feature consisted of a trash midden characterized by a tight concentration of bottle glass, queen conch shell, ceramic sherds, and faunal bone (Figure 2.7). Feature 1 was located in Level 2 of XU37 and XU38, as it straddled the boundary between the two. Its horizontal dimensions included a north-south length of 238 cm, 75 cm east-west width in XU37 and 49 cm east-west width in XU38. The north end of Feature 1 began at a depth of 22 cm below surface and descended to 24 cm below surface in the center and 27 cm below surface at the south end. The feature consisted primarily of patinated rum bottle bottoms and necks. One whole rum bottle was recovered from the northwest corner of XU38 at a depth of 19 cm below surface, slightly higher than all other material associated with Feature 1. The surface of the bottle exhibited less patina than all other bottle glass within Feature 1. The several conch shells located within this feature were all located

primarily in XU38. No whole conch shells were found. Inhabitants likely broke these shells in order to procure the meat from within as a food source prior to deposit within the area designated Feature 1. Faunal remains included sea turtle carapace and manatee rib. Cut marks were present on one manatee rib. Feature 1 had a horizontal extension of approximately 21 cm. and ended at a depth of 43 cm below surface.

#### Fuzy Property Excavations

The Fuzy property is adjacent to the cemetery and located directly north of its northern wall. It was the location of the excavation of two 1x1 m excavation units during the 2010 field season (Garber 2011). One of these units, XU16, was located at the south end of the property near the cemetery and contained a high quantity of sea turtle bone. A third unit was placed on the property in the 2012 field season in order to further investigate the occurrence of cultural material within the south side of the Fuzy property. This investigation was also conducted in order to determine if remains of the cemetery at St. George's Caye extend beyond the modern cemetery walls.

XU34 This 2x2 m excavation unit was established to correspond directly to the row of 2x2 m units parallel to the west cemetery wall and was placed 4 m north of the north cemetery wall. Level 1 included the surface humic layer followed by white dredge fill sand. A moderate quantity of glass sherds, ceramic sherds, and fragments of iron, and animal bone were found throughout the level as well as a minimal quantity of green copper fragments. Level 1 ended 20 cm below surface.

Level 2 began with a continuation of the fill sand present in Level 1. At 23 cm below surface a matrix change occurred to dark, loamy sand with moderate marine shell inclusions. This matrix change was absent only in the northeast corner as it spread throughout the

majority of the unit. This layer is similar in color and texture to the humic layer in Level 1. This suggests that this stratum may have been the original ground surface prior to the deposition of the Level 1 dredge fill. A minimal quantity of modern glass sherds and iron nails were recovered from this level as well as an intact modern battery. The majority of cultural material recovered from the NE corner, including the battery, was charred suggesting this area was the location of a trash fire. Level 2 ended 27 cm below surface in the southern portion of XU34 and 35 cm in the northern portion.

Level 3 began with a matrix change to a light colored sandy clay with a high inclusion of marine shell fragments. This matrix was present throughout the horizontal extent of XU 34 and extended vertically for roughly 7 cm. Due to its depth and vertical duration, this deposit likely occurred during a flood episode. The northern portion of Level 3 contained a matrix change in an isolated region to yellow sand. This sand lens began at the surface of the level and extended for approximately 5 cm. A small quantity of green and clear glass and animal bone were located throughout Level 3. This level ended 42 cm below surface.

Level 4 included a matrix change to dark sand with moderate marine shell inclusions. The NE corner of XU34 included a high concentration of carbon fragments. This concentration was limited to the NE corner and began at the surface of Level 4. Moderate quantities of historic ceramic sherds and metal fragments as well as high quantities of glass sherds and faunal bone fragments were found in this level. All artifacts were found in greater abundance in the southern portion of XU34. Some animal bones recovered contained cut marks. The ceramics located within Level 4 were a collection of both utility and fine wares. A pewter handle was recovered from this level. The handle was engraved with markings that

appear to be three undetermined characters. A blank metal button and an iron log dog ring (Figure 2.8) were also recovered from this level. Level 4 ended 55 cm below surface.

Level 5 included the continuation of dark grey sand that began in Level 4. The carbon concentration present in the NE corner of Level 4 continued into Level 5. All traces of carbon ceased roughly 60 cm below surface. A small piece of modern cloth was present 59 cm below surface in the SW corner of the unit. The depth of the cloth in relation to the many historic artifacts discovered in the previous 4 levels of XU34 indicates that heavy natural transformations were a factor at this depth. Three clay pipe bowls were recovered, two of which were engraved with maker's marks. Each of the two engraved bowls contained a small protruding circular knob at the base below the stem. One of the pipes included a symbol in the form of a skeleton key encircled in a wreath of dots on the end of the knob. The second engraved bowl contained the letter "W" on the side of the knob and a coat of arms on the bowl itself. Three maya ceramic sherds and a piece of gem-cut leaded glass were also recovered from this level (Figure 2.2). Level 5 ended 72 cm below surface.

Level 6 began with a grey sand that was slightly lighter than that present in Level 5. Artifacts were consistently present throughout this level and included high quantities of glass and ceramic, metal fragments, and faunal bone fragments. A six-sided bone die, grape shot ball, and a splattered lead ball were recovered from this level. Level 6 ended 78 cm below surface.

Level 7 began with a matrix shift to light yellow sand identical to that present in Level 4 of the cemetery excavation units. This level contained low quantities of glass sherds and ceramic sherds as well as clay pipe stems. Near the surface of Level 7 a clay pipe bowl with a protruding knob was found. This pipe contained a maker's mark on the knob in the

form of the number “75” below a crown. Two sides of this knob contained an inscribed coat of arms. A circular porcelain nursing bottle cap was recovered near the surface of the level (Figure 2.2). This cap was inscribed with the words “S Maw Son & Thompson” across the top and the word “London” across the bottom. This cap covered a glass bottle from which was a long rubber tube attached to a nursing nipple. Because of the difficulty of cleaning these tubes, these devices became known as “murder bottles” because they became known to cause disease. The deeper portion of Level 7 became sterile of cultural material. Level 7 ended 99 cm below surface.

### Shovel Tests

Late in the 2012 field season a series of systematic shovel tests were performed in order to survey previously untested zones on the island. Shovel tests were laid out along parallel rows that were spaced 10 m apart. Shovel tests were then established at 10 m intervals in each row. These intervals were altered in areas obstructed by the presence of structures. Each shovel test was approximately 30 cm in diameter and extended to a depth of 80-100 cm. One hundred and one shovel tests were implemented over six residential lots in order to identify high frequency zones of cultural material on the caye.

### Fuzy Property

Shovel test survey began in the Fuzy lot immediately north of the cemetery. The first row of tests was established 10 m north of the north cemetery wall and continued parallel to it. 22 shovel tests were placed on this property. Of the lots tested, the Fuzy property yielded the highest quantity and frequency of cultural material. Glass, metal, animal bone, copper nails, ceramics, brick and mortar, and chert were found throughout the property. Material ranged from depths of 10-70 cm below surface with the majority of artifacts located 30-50

cm below surface. Dredge fill sand was present down to 20-40 cm with dark sand below. Cultural material was more prominent on the east side of the property within 45 m of the east property boundary. This side of the Fuzy lot contained a molded ceramic sherd depicting two saddled horses in profile recovered from Shovel Test 10 (ST10) from a depth of 70 cm. ST2 produced a clay pipe bowl engraved with a maker's mark in the form of the letters "TD" encircled by an oval ring of dots from 10 cm below surface. ST05 on the west side of the lot contained three ballast stone fragments at 50 cm below surface. ST04 contained a fragment of earthenware at 48 cm below surface. A second engraved pipe bowl with an undetermined maker's mark was found on the west side of the lot in ST13 at a depth of 48 cm below surface.

#### Hunt Property

Testing continued onto the Hunt property where 15 shovel tests were conducted. This lot lies directly north of the Fuzy property. Cultural material continued to occur in high quantities 5 m inside the southern boundary of the Hunt property. Glass and ceramics as well as metal fragments were found 25-45 m west of the east property boundary. These were located 20-60 cm below surface. A glass perfume bottle was found 60 m west of the east property boundary in ST22 at a depth of 20 cm below surface. North of this area the remainder of the property contained little to no cultural material. Most of the material recovered was modern trash. Dredge fill was present 20-40 cm with dark sand below at the south end of the Hunt property. Throughout the north and central areas of the Hunt property fill sand extended to relatively 40-50 cm with dark sand underneath.

#### Sea Sure Property

The Sea Sure property lies adjacent to the Hunt property directly north of its northern boundary. Testing continued into this property with 19 shovel tests. Very little cultural material was recovered. The material that was recovered was modern refuse and located in the northeast region of the property. The matrix throughout the lot was primarily fill sand down to about 50 cm with dark sand underneath. Fill sand was present at greater depths in test pits on the east side of the property.

#### East Shore Walking Path

Ten test pits were established along the walking path on the east side of the island. These began east of the south end of the Fuzy lot 10 m north of the north cemetery wall. These tests continued at 10 m intervals to the Sea Sure property. Nine tests were conducted 5 m east of the east boundaries of the Fuzy, Hunt, and Sea Sure properties. A tenth test pit was established 10 m east of the southernmost test pit along the walking path. The matrix removed from these tests consisted mainly of dredge fill sand that extended down to 90-100 cm. Below this the matrix changed to dark sand similar to that found below the fill in the adjacent lots. ST42 and ST43 at the south end of this line contained ballast stone fragments that occurred with the sediment change. ST44, near the south end, produced a heavily damaged modern plastic bottle at 90 cm. This bottle appeared to have been damaged by a dredger and provided evidence of heavy disturbance at this depth. ST48, the test east of the line revealed a buried concrete seawall 38 cm below surface.

#### Codd Property

Testing continued further north on St. George's Caye at the Codd property. This lot lies directly north of the British military base and included the establishment of 19 test pits. The first row of tests was established 2 m south of the north property fence. The second row

was established 10 m south of the first row and the third row 10 m south of that. Dredge fill sand with a high marine shell content was present at a more considerable depth on this property as it reached 80 cm in tests on the east side of the property near the walking path. Fruit pits and coconut shells were found at 80 cm indicating that this area was highly disturbed by dredge fill. Matrix on the west side of the property consisted of more shallow dredge fill up to 30 cm below surface with a low marine shell content and dark sand underneath. Very little cultural material was recovered from the Codd property. The material that was recovered was primarily modern refuse including modern red fiberglass roof tiles. Three fragments of metal that were covered in black corrosion were recovered in one shovel test pit at the west end of the property from a depth of 70 cm below surface. This find was isolated and the only non-modern remains recovered from the property.

#### Quan Property

Testing continued south to the Quan property on the east side of the island, two lots south of the Searle property. Eleven shovel tests were established on this property. The first row of these was established 2 m south of the north property boundary. Testing produced no cultural material on the east side of the property. Four shovel tests on the west side of the property produced a small quantity of animal bone, one iron nail, and a ½ brick 50-60 cm below surface.

#### Habet Property

Eight final tests pits were established on the Habet property. The Habet lot lies north of the Quan property and south of the Searle property. The first row of tests was established 2 m north of the south property boundary. Two shovel test pits produced a small quantity of



cultural material on the west side of the property. One of these tests, ST99, produced a small amount of faunal bone, glass, ceramic and carbon 85 cm below surface. A single animal bone was also found 1 m below surface in ST99.

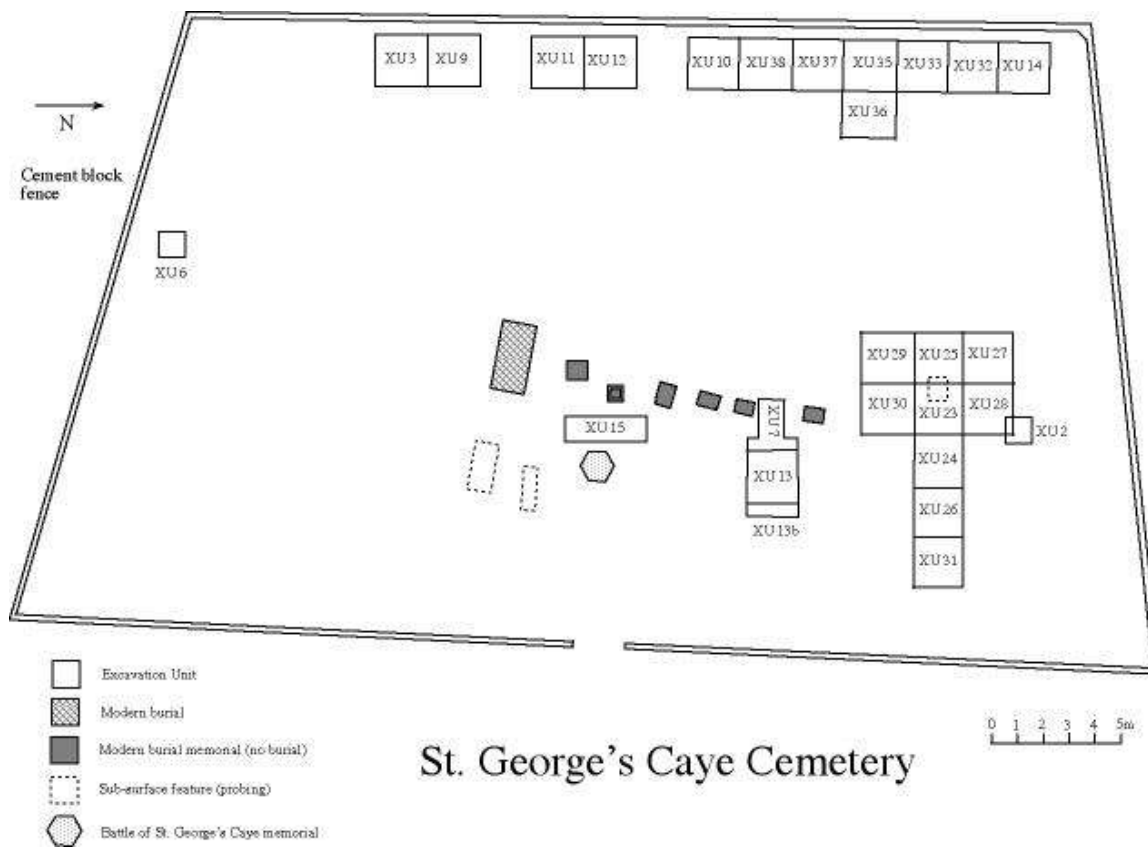


Figure 2.1. Plan map, St. George's Caye Cemetery.



a



b



c



d



e

Figure 2.2. Artifacts from St. George's Caye: a) copper disk; b) lead-glass gem; c) shot glass; d) coffin hardware; e) murder bottle cap.



Figure 2.3. XU32 Burial 18, St. George's Caye Cemetery.



Figure 2.4. XU33 Burial 19, St. George's Caye Cemetery.





Figure 2.5. XU35 Burial 20, St. George's Caye Cemetery.



Figure 2.6. XU36, Burial 20 (lower left), St. George's Caye Cemetery



Figure 2.7. XU37 and XU38, Feature 1.





Figure 2.8. Logging “log dog”.

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### **Chapter 3. Results of the Skeletal Analysis for the 2012 Field Season on St. George's Caye**

Lauren Springs

#### 2012 Burial Analysis

*Burial 18.* Burial 18 consisted of 359 skeletal elements located in a rectangular wooden coffin lying along the northern border of XU 32. The top of the coffin sidewalls and lid were absent. The burial is oriented east-west and extends approximately 25 cm into the western sidewall of the unit. It has a maximum depth along the eastern edge of 68 cm below surface. The individual was facing north and portions of the skeleton were highly displaced throughout and outside of the coffin. Positioning of the postcranial elements is suggestive of the individual being placed in a partially flexed position within the coffin. Burial 18 is estimated to belong to a young adult male with a stature of 166.9 to 182.1 cm.

*Burial 19.* The individual in Burial 19 was comprised of 341 skeletal elements found in a partial wooden coffin in the center of XU 33. The coffin is rectangular in shape and a portion of the lid was still in place on the northern edge of the coffin. The burial is oriented to the west and the individual is facing east and in extended position. The northwest corner of the burial extends about 10 cm into the west sidewall of the unit. The depth of the coffin lid at the northeast corner was 61 cm below surface. The individual in Burial 19 is most likely a young adult male who stood 165.6 to 174.2 cm tall.

*Burial 20.* Burial 20 was found in the southeast corner of XU 35 and extended into the southwest corner of XU 36. The skeletal remains of the individual number 345. The burial is enclosed in a narrow pinch-toe coffin with intact lid. The foot of the coffin has been crushed and may have been destroyed during the placement of Burial 21 which is located

alongside the foot of Burial 20. The maximum depth of the burial base extends to 63 cm below surface. Degenerative features on the skeleton of Burial 20 indicate that the individual was an older adult, but poor preservation of the skull and pelvis obscured reliable sex indicators. However, the sciatic notch is wide and the cranial features are more gracile than masculine. This could indicate a female skeleton, although it must be noted that older males tend to develop more feminine cranial features as they age. Analysis of metric data of the long bones also indicates that the individual was female. Based on the length of the humerus, this individual was likely 154.9 to 172.7 cm tall during life.

*Burial 21.* Burial 21 in SXU 36 consisted of the well preserved remnants of a decorated and upholstered wooden coffin and virtually complete human skeleton. The total count for skeletal elements and ossified cartilage recovered was 211. The coffin is oriented east-west and extends approximately one foot into the eastern sidewall of unit. The head of Burial 21 is located at a slightly higher elevation than the toe but the burial depth at the eastern termination Burial 21 extended to 76 cm below surface. Decorative milled wood trim was present along the exterior of the coffin base and top. The base siding was rectangular and the top siding rounded in shape.

This burial displayed an excellent degree of preservation. The coffin wood was well preserved during the time of excavation and had strings of decorative black felt fabric still attached to the interior and exterior planks. Additionally, beneath the skeleton was a layer of grass or hay-like bedding upon which the body was placed. The material was still bright green in color. In addition to excellent coffin preservation, the human remains were in superb condition. The skeleton was missing only a few bones of the hands and feet, and additional elements recovered included a pair of pedal sesamoids and approximately 20

pieces of ossified thyroid cartilage. Soft tissue was also recovered in the burial. The base of the coffin was filled with a gelatinous matrix of adipose tissue mixed with the surrounding bedding submerged under the water table. Portions of intact brain tissue were additionally visible through the base of the skull.

Burial 21 represents a middle to older adult male with a stature of 168.4 to 177.0 cm. There is significant evidence of arthritis in the shoulder and spinal column. The lower thoracic and lumbar vertebrae display significant lipping and osteophytic growth. The 10<sup>th</sup> and 11<sup>th</sup> thoracic vertebrae are fused together as are the 4<sup>th</sup> and 5<sup>th</sup>.

#### Assessment of Ancestry 2010-2012

Ancestry estimations of the individuals excavated from 2010-2012 utilized both metric and non-metric skeletal analysis. Morphological characteristics indicative of ancestral origin were recorded when available, but due to the poor preservation of the facial regions of the skeletons, they were very few in number. Metric estimation of ancestry was performed in FORDISC 3.0, a discriminant function analysis program developed to aid in the estimation of ancestral affinity based on cranial and postcranial metric data.

The FORDISC database uses metric data from known reference groups to classify unknown individuals into group membership based on similarities to the reference samples and provides the probabilities of an individual's group membership based on the relative distances of the unknown to each comparison group's centroid (Jantz and Ousley 2005). Typicality probabilities are additionally computed and reflect how likely an individual is to be typical of each comparison group in relation to the amount of variance observed in the reference sample.

For each of the excavated individuals, cranial and postcranial measurements were taken and compared against a custom dataset uploaded to FORDISC 3.0. As indicated by migration and colonial records, the most likely ancestral groups represented in the cemetery include European, African and Mayan or other Native American groups. Accordingly, four parental groups were used for comparison against the Belizean sample in the analysis: one was European, one African, one Guatemalan and one Mexican in origin. The Guatemalan and Mexican samples represent known collections of modern Mayan and archaeological Native American groups. The data for the parental groups were comprised of metrics available in Howell's and Goldman's osteological data sets, as well as data from Mexican and Guatemalan groups provided by Dr. Kate Spradley, Texas State University-San Marcos. All initial tests showed very low to absent similarities of the Belizean sample to Guatemalan or Mexican parental populations. Tests were re-run excluding Guatemalan and Mexican samples and the results are reported in this analysis.

Postcranial elements were classified with higher posterior probabilities and typicality ratios than were observed in the cranial elements. This is likely due to the differential preservation of skeletal areas at the site. The majority of the burials found at the cemetery displayed high degrees of cranial fragmentation and craniometric data could not be taken for many of the individuals represented. The postcranial bones were generally more preserved and yielded more data. Additionally, the presence of paired postcranial elements on either side of the body allowed for availability of measurements when either the right or left element was fragmentary or damaged. The increased amount of postcranial data available most likely amplified the power of the postcranial discriminant function relative to the cranial discriminant function.

The weakness of the cranial classifications indicates that a clear determination of ancestry is not usually possible using the cranial data of this sample. Postcranial classifications were much stronger and seem to indicate European origins for the sample, as shown in Table 1. However, there is a moderate degree of overlap exhibited in the parental postcranial data so the results must be interpreted with caution.

Ultimately, initial ancestry estimations based on skeletal analyses were disregarded due to the limited amount of data available both in the parental and Belizean sample groups. To date, the assumed ancestry of all excavated individuals is based on ethnohistoric and demographic data that suggests the majority of individuals interred in the cemetery are European in origin. Multiple texts (Bolland 1977; Setzekorn 1975; Waddell 1961) note that the island was principally a British settlement, a map of the caye dating to 1764 indicated that a separate area of the island was designated for the “negro quarters” (Garber 2011), and all but one of the eighteenth to nineteenth cemetery epitaphs recorded by John Purcell Usher indicated European origins for the interred individuals (Usher 1907). One individual was identified as a native African by their epitaph, but they are not included in the study sample.

While historic data indicates that many of the individuals interred in the cemetery are of European origin, it is known that African enslaved groups did live on and near the caye at the same time as the European settlers. Additionally, indigenous Mayan and Carib groups were documented living near St. George’s Caye during the colonial period (Shoman 2000). Admixture between the groups occurred both during and after the period of slavery in Belize and it would be expected that there would be a presence on the caye of individuals of African, native, or mixed descent.

Cultural and skeletal indications of an ethnically diverse population on the caye do exist. In 2011, a single coin was found adhered to the cranium of the individual in Burial 3. Excavations of a historic African American cemetery in Pennsylvania included burials that were characterized by the placement of a single coin near the head (LeeDecker 2009). This practice is considered African in origin. The placement of the coin may represent the presence of an individual of African ancestry in the cemetery or the adoption of African belief into the colonists' mortuary practices. Additionally, in the 2010 field season two culturally modified teeth were found buried in shallow dirt in the cemetery. The teeth were both medial maxillary incisors and had been culturally modified by filing on the occlusal surfaces. While the cultural practice of dental modification is less common in individuals of European ancestry, it is frequently associated with both Native American and African groups (Finucane et al. 2008).

A small sample of teeth from four of the burials has been submitted to determine the viability of mtDNA analysis on the caye. The extraction of small amounts of mtDNA from the dentition has been initially successful, although some of the genetic material is significantly damaged. Once amplified and analyzed, the sequences could potentially be used to fill in the gaps in ancestral estimations of the sample.



Table 1: FORDISC 3.0 Classifications for SGC individuals by skeletal area

ID#	CRANIAL			POSTCRANIAL		
	CLASSIFICATI ON	POSTERIO R PROB.	TYPICALIT Y	CLASSIFICATI ON	POSTERIO R PROB.	TYPICALIT Y
B1	EUROPEAN	0.525	0.097	EUROPEAN	0.989	0.996
B2	--	--	--	EUROPEAN	0.989	0.089
B3	EUROPEAN	0.507	0.572	EUROPEAN	0.996	0.989
B5	AFRICAN	0.495	0.903	EUROPEAN	0.835	0.888
B6	EUROPEAN	0.543	0.422	EUROPEAN	0.999	0.933
B8	--	--	--	EUROPEAN	0.992	0.397
B9	AFRICAN	0.562	0.846	--	--	--
B10	EUROPEAN	0.977	0.313	EUROPEAN	0.999	0.171
B10 A	--	--	--	EUROPEAN	0.911	0.998
B11	EUROPEAN	0.765	0.179	--	--	--
B13	EUROPEAN	0.996	0.094	EUROPEAN	0.987	0.766
B14	--	--	--	EUROPEAN	0.999	0.350
B15	--	--	--	EUROPEAN	0.801	0.770
B16	--	--	--	EUROPEAN	0.858	0.900
B17	EUROPEAN	0.989	0.112	EUROPEAN	0.990	0.817
B18	EUROPEAN	0.921	0.267	EUROPEAN	0.870	0.566
B19	EUROPEAN	0.880	0.430	--	--	--

B20	--	--	--	--	--	--
B21	EUROPEAN	0.973	0.397	--	--	--

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