

ARCHAEOLOGICAL INVESTIGATIONS AT THE CRUZ BAY PUBLIC CEMETERY IN ST. JOHN, US VIRGIN ISLANDS

JBIA Project 21.003
PW 60 GM 70150
St. John Electrical Distribution Permanent Repairs

Written By:

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Report For:

Virgin Islands Water and Power Authority
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Attn: Mr. Cordell Jacobs

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Management Summary

The Jeffrey L. Brown Institute of Archaeology (JBIA) of the University of Tennessee at Chattanooga (UTC) in partnership with the Forensic Anthropology Center (FAC) of the University of Tennessee Knoxville (UTK) performed archaeological monitoring and data recovery to remove and relocate burial features near the Cruz Bay Public Cemetery within the Cruz Bay Historic District in Cruz Bay, St. John, US Virgin Islands. The current Area of Potential Effect (APE) for the cemetery excavations targets the portion of the historic Cruz Bay Public Cemetery impacted by the Cruz Bay Underground project, encompassing 132 m (433 ft) of conduit excavations within Strande Gade (Bay Street) and 30 m (98 ft) of conduit excavations within the Gallows Point Resort driveway.

This research was performed on behalf of the Virgin Islands Water and Power Authority (WAPA)'s Feeder 7E, Cruz Bay Underground Project, which rehoused approximately 2,352 m (7,716.5 ft) of electrical conduit into an underground duct bank throughout Cruz Bay town utilizing funding provided by the Federal Emergency Management Administration (FEMA). However, as limited portions of the Cruz Bay Public Cemetery would be impacted by the Cruz Bay Underground, these excavations identified, excavated, analyzed, and relocated burial features and associated human remains within the immediate footprint of impacted areas.

On behalf of the JBIA, Kate Crossan RPA, MA (Research Archaeologist) served as the Field Director for the cemetery excavations, assisted by Tefany Palmer (Archaeological Field Assistant). Norma Harris MA (Research Archaeologist) assisted with the 2021 monitoring and initial delineation of the cemetery. Mikira Claybrook (Archaeological Assistant) assisted with database management and report production. Dr. A. Brooke Persons RPA (Director and Research Assistant Professor) served as the lead Principal Investigator for the project. On behalf of the FAC, Mary Davis, MSc (Assistant Director) and Dr. Giovanna Vidoli (Associate Director) served as Bioarchaeological Field Directors during the cemetery excavations. Dr. Vidoli served as the Principal Investigator representing the FAC. Megan Kleeschulte (Graduate Bioarchaeological Assistant) assisted with bioarchaeological analysis which occurred at UTK.

In the initial 2021 fieldwork, a total of four burial features were identified and partially excavated. Subsequent monitoring and archaeological fieldwork from August through October of 2022 successfully revisited the locations of Burial 1, Burial 3, and Burial 4 to fully recover previously identified features. Burial 2 was not revisited in 2022, as the burial deposit was fully excavated during the 2021 archaeological fieldwork. Although we anticipated that additional burial features would be identified during the associated archaeological monitoring in this locale, no additional burial features, archaeological deposits, or cultural resources were identified in the vicinity of the Cruz Bay Public Cemetery beyond those identified in 2021.

The four burial features represented the remains of at least five individuals, including two adult men, one adult female, and two adult individuals of unknown sex (Table 1). Burial 1, a man between 35 and 39 years, was interred in a wooden coffin mostly likely between 1850 and 1880. Burial 2 was a heavily disturbed feature representing the comingled remains of at least two adults. The burials likely post-date the 1820s. Both Burials 1 and 2 were likely disturbed during the 1950s road construction. Burial 3, a woman aged 45 to 49 years, was buried in a coffin from the mid-to late-nineteenth century. Burial 4, a man of possible African ancestry aged 50 to 59 years, was buried in a wooden coffin between 1840 to 1880. Burials 3 and 4 were both largely intact and undisturbed. Cultural material recovery within each burial was sparse, as 154 (454.4 g) items of personal adornment, coffin-related materials, and personal belongings were

recovered across all four burials. These data provided evidence of the mid to late-nineteenth century use of the cemetery along with evidence that the boundaries of the Cruz Bay Public Cemetery extend beyond its current extent.

Table 1. Summary of excavations at the Cruz Bay Public Cemetery.

Burial Number	Sex	Age (Years)	Population Affinity	Minimum Number of Individuals	Probable Date of Interment
Burial 1	Male	35 to 39	Not assessed	1	1850-1880
Burial 2	Not assessed	Adult	Not assessed	2	Likely post-1820
Burial 3	Female	45 to 49	Not assessed	1	Mid to late 19th century
Burial 4	Male	50 to 59	Possible African descent	1	1840-1880

Archaeological investigations coincided with the completion of the Feeder 7E conduit installation in Cruz Bay. Following the excavation of these four intact burial features (Burials 1-4) and after confirming that no other burial features were present, JBIA requested clearance from the Federal Emergency Management Administration (FEMA) in consultation with the Virgin Islands State Historic Preservation Office (VISHPO) to permit conduit installation to proceed. Accordingly, given the full excavation of identified burials and complete cultural material recovery within the footprint of the APE, it is the opinion of this office that the mitigation efforts discussed in this report meet federal and territorial requirements with respect to Section 106 of the National Historic Preservation Act as well as the Antiquities and Cultural Properties Act of the VI Code. As impacted burials were excavated and will be reinterred on site, the Cruz Bay Underground Project will have no additional adverse effect on the Cruz Bay Public Cemetery.

Although the Feeder 7E Project will have no further impact to the Cruz Bay Public Cemetery, the presence of a previously undocumented component of the cemetery merits additional protection for any work performed in the vicinity moving forward. To ensure the continued preservation of the cemetery and the recovery of associated burials within adjacent roadways, we recommend archaeological monitoring for earth change activities, excavations, or utility installation within 50 ft of the cemetery and the recently recovered burials to ensure that no additional burials are impacted.

Following acceptance of this report, all recovered remains and associated personal items will be wrapped in muslin, placed in wooden burial boxes, and reinterred in a vaulted monument in the Lower Cruz Bay Public Cemetery. The results of these investigations will also be shared in a public meeting and a final report of investigations can be requested by contacting the VISHPO. At the conclusion of the project, JBIA will permanently curate all project records and recovered materials not associated with reburial efforts with the VISHPO.

CHAPTER 1: INTRODUCTION

This chapter provides introduction to the current research and offers a timeline of project development for archaeological investigations at the Cruz Bay Public Cemetery. Following discussions of the project location and basic environmental setting, we outline the project history, chain of custody for cultural resources, reburial efforts, curation, and the overall organization of the report.

Introduction

The Jeffrey L. Brown Institute of Archaeology (JBIA) of the University of Tennessee at Chattanooga (UTC) in partnership with the Forensic Anthropology Center (FAC) of the University of Tennessee Knoxville (UTK) performed archaeological monitoring and data recovery to remove and relocate burial features near the Cruz Bay Public Cemetery within the Cruz Bay Historic District in Cruz Bay, St. John, US Virgin Islands (Figures 1-3). The current Area of Potential Effect (APE) for the cemetery excavations targets the portion of the historic Cruz Bay Public Cemetery impacted by the Cruz Bay Underground project, encompassing 132 m (433 ft) of conduit excavations within the right of way on Strande Gade (Bay Street) and 30 m (98 ft) of conduit excavations leading into the Gallows Point Resort driveway. This research was performed on behalf of the Virgin Islands Water and Power Authority (WAPA) for the Feeder 7E Cruz Bay Underground Project, which rehoused approximately 2,352 m (7,716.5 ft) of electrical conduit into an underground duct bank. As limited portions of the Cruz Bay Public Cemetery would be impacted by the Cruz Bay Underground, our excavations identified, excavated, analyzed, and relocated burial features and associated human remains within the immediate footprint of the APE.

While the results of archaeological monitoring conducted in other portions of the Cruz Bay Historic District will be summarized in a separate report available later in 2023, this report summarizes archaeological monitoring and data recovery within the portions of the Cruz Bay Public Cemetery that extend into the right of way and will be impacted by the Cruz Bay Underground Project. This report offers discussion of the project, the environmental setting, and relevant cultural history; descriptions of field and laboratory methods; discussions of both bioarchaeological and archaeological data; and summary of significant findings and conclusions based on the fieldwork.

On behalf of the JBIA, Kate Crossan MA, RPA (Research Archaeologist) served as the Field Director for the cemetery excavations, assisted by Tefany Palmer (Archaeological Field Assistant). Mikira Claybrook (Archaeological Assistant) assisted with data management and report production. Norma Harris MA (Research Archaeologist) assisted with the 2021 monitoring and initial delineation of related burial features. Dr. A. Brooke Persons RPA (Director and Research Assistant Professor) served as the lead Principal Investigator for the project. On behalf of the FAC, Mary Davis, MA (Associate Director) and Dr. Giovanna Vidoli (Assistant Director) served as Bioarchaeological Field Directors during the cemetery excavations. Dr. Vidoli served as the Co-Principal Investigator representing the FAC. Megan Kleeschulte (Graduate Bioarchaeological Assistant) assisted with bioarchaeological analysis conducted at UTK. Fieldwork related to the broader monitoring project began on August 3, 2021 and continued through March 27, 2022. Although some cemetery-related excavations were conducted in the late summer and fall of 2021, the cemetery mitigation planning began on August 9, 2022. Fieldwork began on September 9 and extended through October 22, 2022.

Regulatory Framework

The broader Feeder 7E Cruz Bay Underground Project encompasses approximately 2,352 m (7,716.5 ft) of trenching, underground duct bank installation of conduit, associated access points (manholes and

Cruz Bay Public Cemetery Archaeological Monitoring, St. John, USVI



Figure 1. The Area of Potential Effect (APE) and the Cruz Bay Underground Project on aerial imagery of St. John, US Virgin Islands.

Cruz Bay Public Cemetery Archaeological Monitoring, St. John, USVI

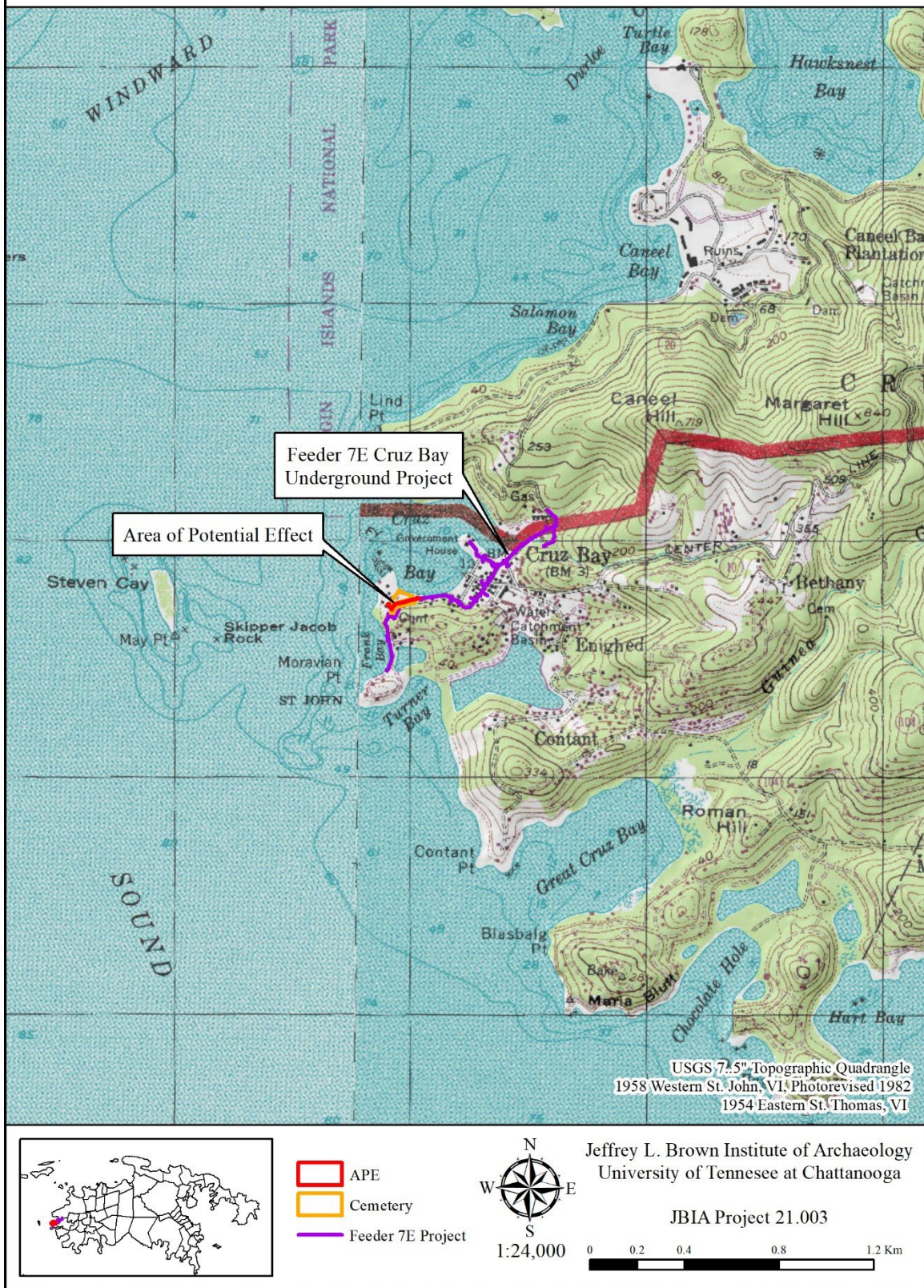


Figure 2. The APE and the Cruz Bay Underground Project as shown on the Western St. John and Eastern St. Thomas topographic quadrangles.

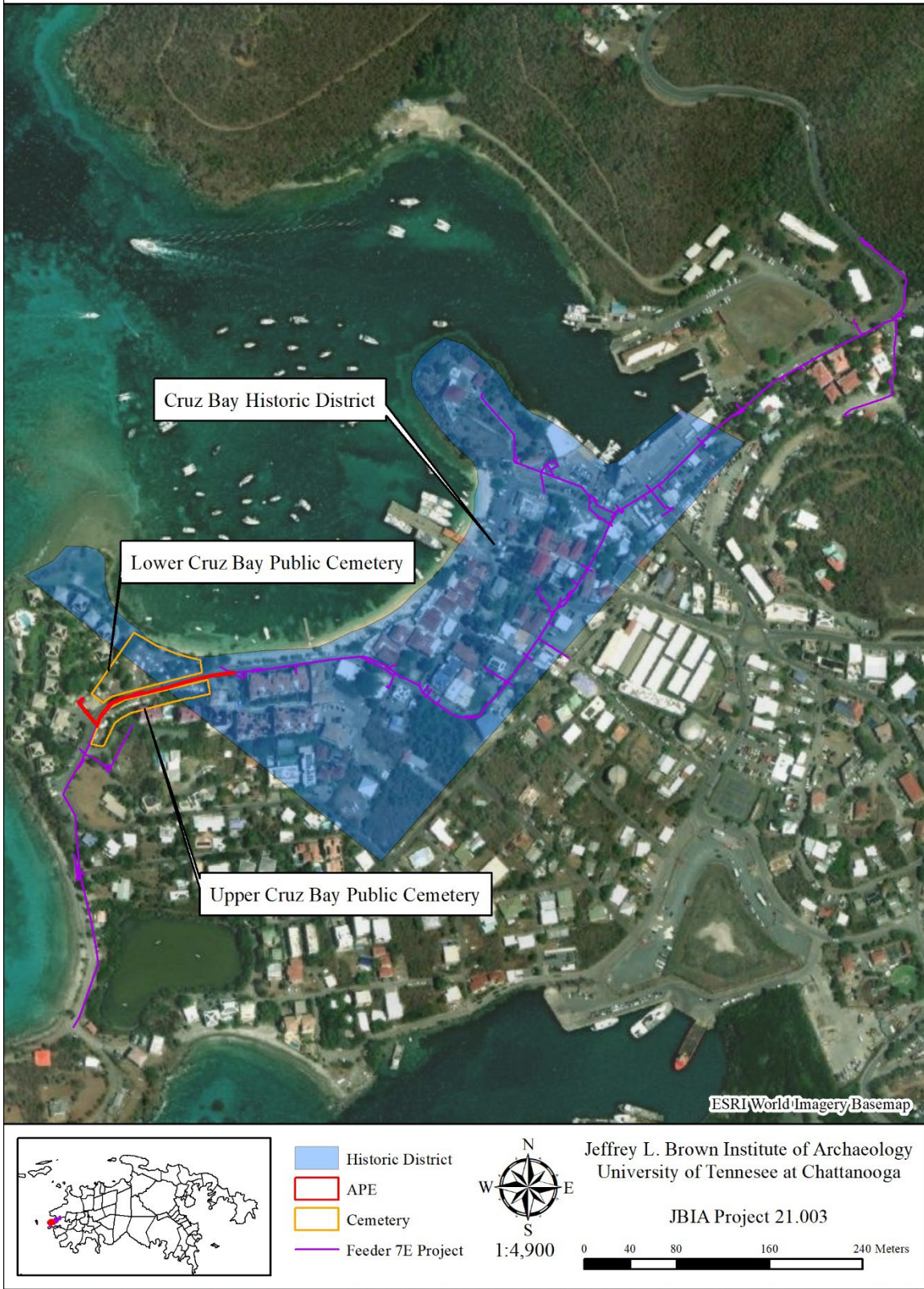


Figure 3. The APE and boundaries of the Cruz Bay Historic District and Cruz Bay Public Cemetery.

Cruz Bay Public Cemetery Archaeological Monitoring, St. John, USVI



Figure 4. Overview of the Cruz Bay Public Underground showing geographic features, the Cruz Bay Public Cemetery, the limits of the Virgin Islands National Park, and the Cruz Bay Historic District.

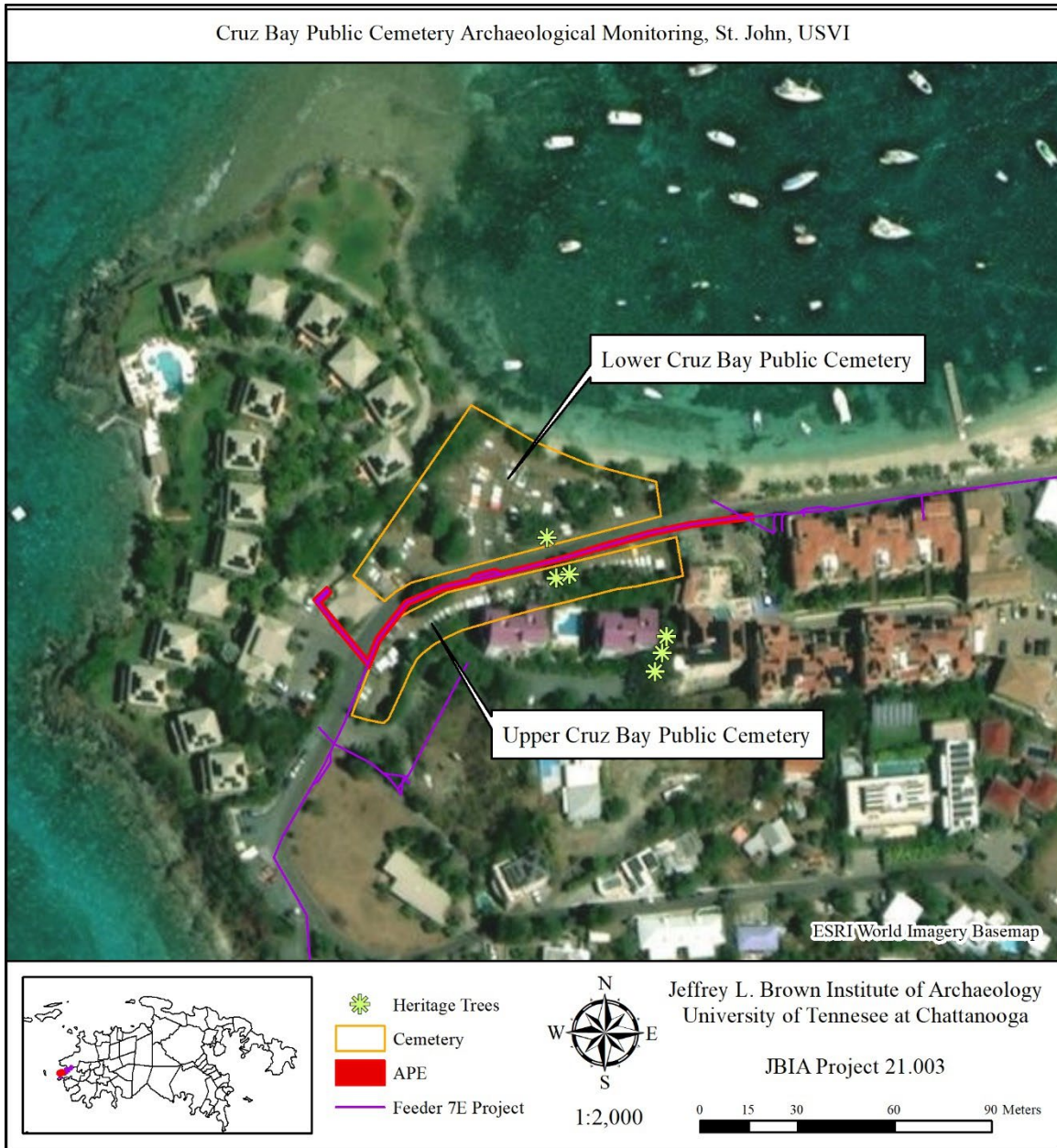


Figure 5. Aerial imagery showing the APE, previously known limits of the Cruz Bay Public Cemetery and nearby Heritage Trees.

handholes), and related infrastructure. The project extends throughout most of the urban Cruz Bay town center but also continues south and west to Frank Bay on Tobacco Road and north on North Shore Road beyond Mongoose Junction, terminating within the boundary of the Virgin Islands National Park (VIIS) (Figures 4 and 5). This project enhances the long-term resilience of the electrical grid through Federal Emergency Management Administration (FEMA) funding, as well as additional funding from the Department of Housing and Urban Development (HUD). The use of federal funding obligated WAPA to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966 as amended 2006 (16UDC 470), along with associated implementing regulations (36 CFR 800). Monitoring protocols also adhere to the Antiquities and Cultural Properties Act of 1998 (Title 29, Chapter 17 of the VI Code), VISHPO standards for archaeological monitoring and testing, and professional standards for the discipline. They also assist WAPA's requirements of the Coastal Zone Management Act of 1978 with regard to historic and

cultural resources (Title 12, Chapter 21 of the VI Code). The agency tasked with project review and oversight is FEMA in coordination with the VISHPO.

There was a high probability for the discovery of intact prehistoric or historic cultural resources given the proximity of nearby archaeological sites, the historic nature of Cruz Bay town, and the many known contributing resources within the Cruz Bay Historic District (Knight 2016). Therefore, archaeological monitoring was initially required by FEMA in consultation with the VISHPO anytime excavations were undertaken within the Cruz Bay Historic District or within 10 ft (3 m) of a previously documented archaeological site. JBI's broader archaeological monitoring program sought to identify cultural resources within the APE, provide an initial assessment of significance for documented resources, and offer recommendations in accordance with guidelines established by the National Park Service (NPS) and their eligibility criteria for listing to the National Register of Historic Places (NRHP).

Our primary goals were to identify, document, and recover any associated burial features directly within the footprint of the APE. More specifically, we aimed to document the Cruz Bay Public Cemetery through noninvasive bioarchaeological analyses of burials and associated features and analysis of recovered material culture from archaeological contexts falling within the APE. Mortuary practices link the historic past to modern descendants, documenting shifting social and cultural practices on St. John. Accordingly, this project contributes new data regarding the chronology of the cemetery, the biological profile of the burial population at the cemetery, and the overarching mortuary program that led to the establishment of the Cruz Bay Public Cemetery based on available archival, archaeological, and bioarchaeological research.

Project Location

This project takes place on St. John in the US Virgin Islands (USVI or VI), which also include St. Croix, St. Thomas, and Water Island. These islands are bounded to the north by the Atlantic Ocean and to the south by the Caribbean Sea. The APE can be seen on the 1958 (Photorevised 1982), United States Geological Survey (USGS), 7.5', Western St. John and the 1954, USGS Eastern St. Thomas, USVI topographic quadrangles (Figure 2). St. John measures approximately 14 km (9 mi) long, and 8 km (5 mi) wide. Located on the western end of the island in the Cruz Bay Quarter, the APE flanks the Cruz Bay waterfront, partially extending onto the Gallows Point promontory and overlooking the waterbody of Cruz Bay. Cruz Bay town covers approximately fifteen acres situated on a narrow coastal plain surrounded by steep hills at the head of a harbor.

The current APE includes .03 ha (.07 ac) or approximately 162 m (533.5 ft) of linear conduit installation, along with an associated manhole and handhole in the vicinity of the Cruz Bay Public Cemetery. The APE includes proposed conduit locations within Strande Gade (Bay Street), as well as a small section of roadway leading into the Gallows Point Resort, a privately owned luxury resort located west of the Cruz Bay Public Cemetery. Conduit excavations within Strande Gade reach up to 132 m (433 ft) of conduit excavations within Strande Gade (Bay Street) and 30 m (98 ft) in the Gallows Point Resort driveway (Figures 4 and 5). The conduit excavations measure approximately 57 cm (22.5 in) in width and up to 134 cm (53 in) in depth (Figure 6). A manhole located near the center of the APE entailed broader excavations reaching up to 2.6 m (8 ft 6 in) in width and depth, along with an associated handhole with excavations reaching up to 2.1 m (7 ft) in width and depth.

The APE is located exclusively within the roadway, which is bordered to the north by the Lower Cruz Bay Public Cemetery (Figures 7 and 8). To the south and east, the APE is bordered by the Upper Cruz Bay Public Cemetery and Lavender Hill Suites (Figure 9). The western boundary is delineated by the driveway into the Gallows Point Resort (Figure 10) and the eastern boundary is 10.6 m (35 ft) beyond the sign and entryway to the Grande Bay Resort, which is beyond the eastern boundary of the cemetery itself (Figure 11). The Strande Gade roadway is property of the Government of the Virgin Islands (GVI), while the



Figure 6. WAPA contractor, SSVI, and excavation of conduit trench near the Cruz Bay Public Cemetery. View to north-east.



Figure 7. View of Lower Cruz Bay Public Cemetery. View to southwest.



Figure 8. View of Lower Cruz Bay Public Cemetery. View to east.



Figure 9. View of Upper Cruz Bay Public Cemetery and entrance to Lavender Hill Suites from Gallows Point Resort driveway. View to southwest.



Figure 10. View of Gallows Point Resort driveway and western boundary of the APE. View to west.



Figure 11. View of eastern boundary of the Lower Cemetery, noting retaining wall. View to southwest.

driveway to the Gallows Point Resort is privately owned and associated with the luxury Gallows Point Resort. The cemetery is under the authority of the Department of Public Works and is in use as a public cemetery through the current day.

Environmental Setting

The APE is primarily located within Strande Gade, also known as Bay Street or VI Highway 105. This paved two-lane road is flush with the ground surface to the north but bordered to the south by a twentieth century retaining wall (Figures 6-11). The elevation difference between the two surfaces suggests that the roadway and surrounding terrain have been heavily modified by prior road construction. The APE is located within a densely settled urban landscape modified extensively by modern development and invasive ornamental plantings. A limited number of Heritage Trees (n=3) flank the roadway in this area (Figure 5). Heritage Trees, designated as trees of historic value to the public because of their age, species, cultural association, or location (Title 12, Chapter 3A of the VI Code), include large tamarinds (*Tamarindus indica*) on both side of the road, as well as a genep, also known as kenep or genip (*Melicoccus bijugatus*), in the Upper Cruz Bay Public Cemetery (Robles 2021). None of the trees identified by Robles (2021) were impacted during the current project.

While Cruz Bay town is located within a flat coastal plain, immediately surrounding terrain is covered in dense vegetation and steeply sloped with rugged outcrops of bedrock (Figure 12). Within Strande Gade, the APE reaches a maximum elevation of approximately 7.6 m (25 ft) AMSL at the western extent and slopes down to the east, reaching a low-lying elevation at sea level.



Figure 12. The Battery at Cruz Bay surrounded by steeply sloping terrain. View to northeast.

The National Resources Conservation Service (NRCS)'s Web Soil Survey (2019) identifies one soil unit within the APE and two additional soil units within the Cruz Bay Public Cemetery. A brief description of each soil unit is offered below (Figure 13) (Davis 2000).

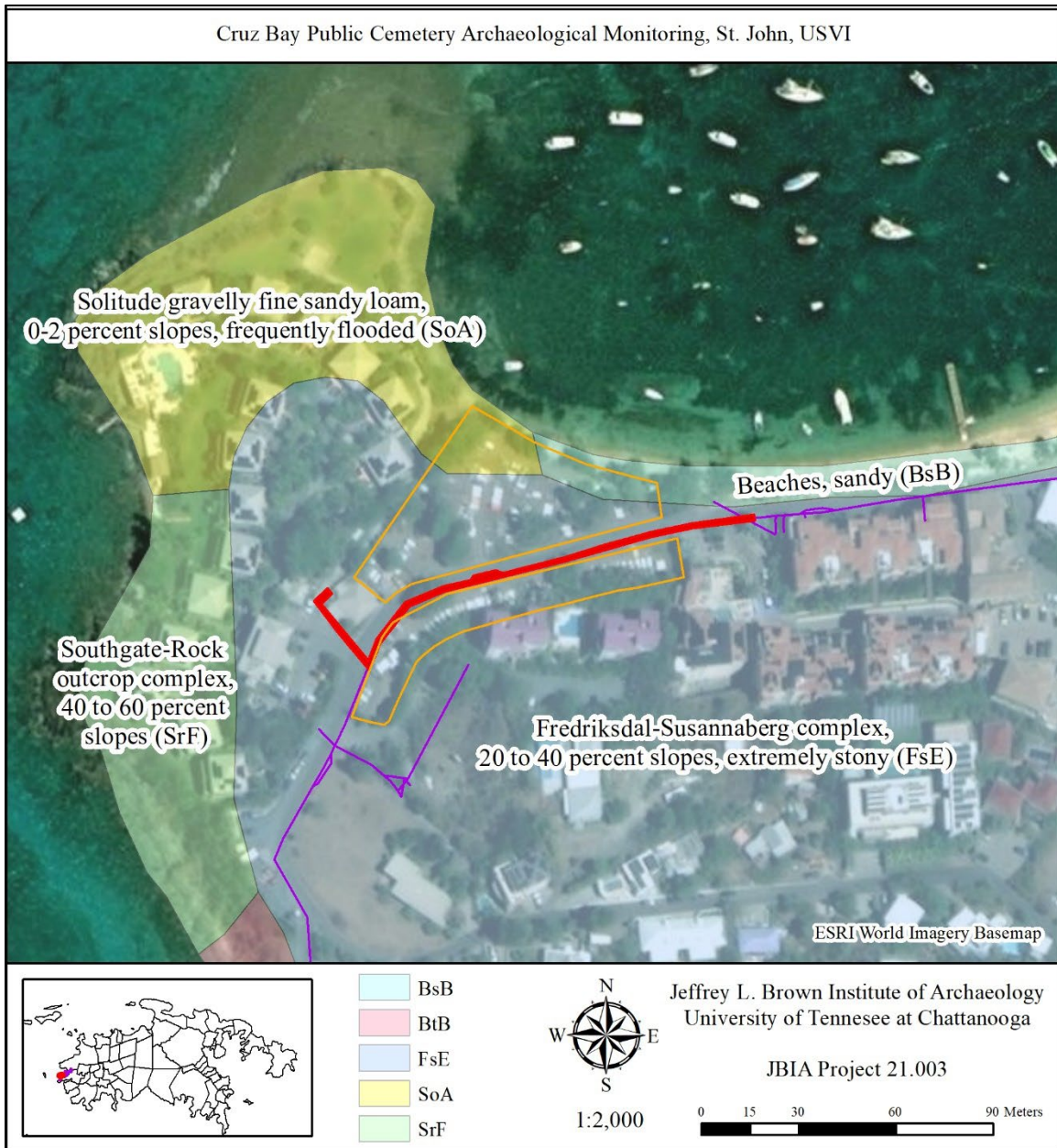


Figure 13. Soil map of the APE.

BsB-Beaches, sandy. This map unit is primarily found in unvegetated areas of sand beaches adjacent to the sea. Slopes are from 0 to 5 percent. Soils are deep, moderately to strongly saline, and excessively drained. They often flood intermittently during tides or storm surges. No typical soil profile is reported.

FsE- Fredriksdal-Susannaberg complex, 20 to 40 percent slopes, extremely stony. This map unit is primarily found on summits and side slopes of volcanic hills and mountains. Typical Fredriksdal soil profiles consist of a surface layer of 0 to 7 inches of dark reddish-brown very gravelly clay loam underlain by various soils, including a reddish-

brown very gravelly clay loam that extends 7 to 12 inches below surface. Bedrock is identified as a weathered igneous bedrock between 12 to 16 inches below surface, and unweathered igneous bedrock extending 16 to 60 inches below surface. This map unit is well drained, of slow permeability, of moderate to high natural fertility, and poses a severe threat of erosion. This map unit poses no threat of flooding. Typical Susannaberg soil profiles consist of a surface layer of 0 to 2 inches of very dark brown clay loam, underlain by various soils including very dark brown clay extending from 2 to 9 inches, and dark brown very gravelly clay loam extending 9 to 15 inches below surface. Bedrock is identified as weathered igneous bedrock between 15 to 21 inches, and unweathered igneous bedrock extending 21 to 60 inches below surface. This map unit is well drained, of slow permeability, of moderate to high natural fertility, and poses a severe hazard of erosion. This map unit poses no threat of flooding. The severe hazard of erosion, the slope, the high content of rock fragments, the shallow rooting depth, very low and low available water capacity, and the extremely stony surface are severe limitations to this map unit.

SoA-Solitude gravelly fine sandy loam, 0-2 percent slopes, frequently flooded. This map unit is primarily found in areas adjacent to saline marshes, flats, and salt ponds of mixed, terrestrial, and marine sediments. Typical soil profiles consist of a surface layer of 0 to 6 inches of light olive-brown gravelly fine sandy loam underlain by various soils, including a light olive-brown gravelly fine sandy loam that extends 6 to 10 inches below surface, grayish-brown fine sandy loam that extends 10 to 28 inches below surface, grayish-brown gravelly loam that extends 28 to 57 inches below surface, and light olive-brown gravelly fine sandy loam that extends 57 to 61 inches below surface. This map unit is poorly drained, of slow permeability, of low to moderate natural fertility, and poses a slight hazard of erosion. This map unit is frequently flooded for brief periods from April to December. The frequent flooding and wetness are limitations to the use of this map unit for many uses.

As the APE extended throughout heavily disturbed soil matrices intersected by sections of undisturbed soils, no consistent soil profiles were observed throughout the APE. Soil profiles will be discussed individually for each excavated feature when appropriate.

Project History

Trenching for the Cruz Bay Underground project began outside of the historic district in areas that did not require archaeological monitoring, including trenching along North Shore Road beyond Mongoose Junction and trenching near the southern extent of the project near Frank Bay (Figure 14). While JBI archaeologists were on site beginning August 3, 2021, excavations did not near the boundaries of the historic district or known resources until the week of August 16, 2021. At that time, mechanical excavations for the conduit trench began approaching the Cruz Bay Public Cemetery, a previously documented site and a contributing resource to the Cruz Bay Historic District and its listing on the NRHP (Knight 2016). On August 18, 2021, during the third week of archaeological monitoring, JBI encountered human remains (Burial 1) in the conduit excavation trench within the roadbed near Gallows Bay Resort and Lavender Hill (Figure 15). Following our originally proposed monitoring protocols for the project, JBI halted work in the immediate vicinity of any exposed human remains and provided immediate notification to Director Sean L. Krigger and Senior Archaeologist David M. Brewer of the GVI's VISHPO. VISHPO also informed members of the St. Thomas-St. John Historic Preservation Commission (HPC), the GVI, and members of the project management team of recent finds. JBI immediately sought and implemented the guidance of the VISHPO. At that time, VISHPO guidance directed us to recover exposed remains and leave undisturbed remains intact. Trenching was permitted to continue to the northeast.

Excavations during the following week resulted in the discovery of Burial 2 within the roadbed on August 25, 2021 (Figure 15). A site visit involving the VISHPO, JBI, and the project management team was conducted on August 26, 2021, during which stakeholders discussed how both archaeological excavations and mechanical trenching should proceed. Subsequent excavations during that week resulted in the discovery of Burial 3 within the roadbed on August 27, 2021 (Figure 15).



Figure 14. Installed electrical conduit along Tobacco Road, outside of the Cruz Bay Historic District, at Frank Bay. View to south.

JBIA followed VISHPO's directives to ensure appropriate excavation and implement mitigation protocols. For Burial 1, Burial 2, and Burial 3, initial VISHPO guidance indicated that JBIA should delineate, document, and recover any human remains exposed within the excavation trench. Since the burials extended into the side walls of the trench and could not be fully exposed, portions of three burial features were recovered in August of 2021 and trenching continued towards Cruz Bay town.

During these initial weeks, it became clear that an unknown portion of the Cruz Bay Public Cemetery extended under the modern Strande Gade roadway and that there was a high potential for the discovery of additional interments as the project continued in an easterly direction. Following the discovery of Burial 3, VISHPO consulted with FEMA regarding ongoing fieldwork and provided them with a project update. On August 31, 2021, guidance from FEMA halted all excavations within a 50-foot buffer (15.2 m) in the vicinity of the cemetery until a Scope of Work (SOW) and more detailed testing program could be developed and presented to the public (Figure 16). Another site visit took place on September 9, 2021, with representatives from FEMA, VISHPO, JBIA, and the project management team.

As archaeological investigations and broader construction activities halted within the vicinity of the burials, monitoring continued outside of the projected cemetery boundaries. However, on September 7, 2021, Burial 4 was encountered within the driveway leading into the Gallows Point Resort (Figure 15). Given the recent guidance from FEMA in consultation with the VISHPO, Burial 4 remained unexcavated and *in situ*. Discovery of the burials was discussed in local news outlets in the late summer and fall of 2021, including discussions of the halted utility work, the initial disturbance of the cemetery through roadway construction, and the development of a SOW (Carlson 2021; Roberts 2021).

JBIA then partnered with the FAC to bring bioarchaeological expertise to the project and our team continued working with FEMA, the VISHPO, and members of the HPC to craft an appropriate research design. Our mitigation plan sought to effectively identify, excavate, analyze, and appropriately reinter burials within the direct footprint of the Cruz Bay Underground Project, including the four initially identified interments. Key elements of the SOW included minimizing unnecessary disturbance of the Cruz Bay Public Cemetery; ensuring that the excavated materials and skeletal remains stayed on St. John during analysis; articulating plans for recovery, analysis, and reburial; and outlining protocols if other burial features were encountered during subsequent monitoring.

A comprehensive SOW was submitted to WAPA in December of 2021 and to FEMA and the VISHPO in January of 2022. During the subsequent months, JBIA coordinated with interested parties to articulate the research design reflected in this report. A final SOW was approved by FEMA in concurrence with VISHPO and approved by WAPA in June of 2022.

To ensure that this research design reflected the concerns and wishes of Virgin Islanders, St. Johnians, and descendant communities, FEMA hosted a public meeting in which the JBIA and FAC shared the overall plans for excavation, analysis, and eventual reburial on August 25, 2022, via Zoom. The public meeting initiated a two-week comment period closing September 8, 2022, in which the public was invited to share concerns regarding the project. To further encourage public participation during the comment period, FEMA posted a link to the recorded session through their VI social media. Details regarding the proposed research design and the public meeting were also covered by local press (Roberts 2022).

Public comments were directed to a FEMA-administered email address and FEMA provided a summary at the end of the comment period. Comments from the meeting were considered by FEMA in consultation with the VISHPO, however public comment did not result in a modification to the overarching research design. As proposed in the meeting, fieldwork began once the summarized comments were received on September 9, 2022.

Results of both the bioarchaeological and archaeological data will be presented to the general public in a meeting following approval of this report by FEMA in consultation with the VISHPO. The report will then be on file with the VISHPO and will be available to the public by request.

Chain of Custody

JBIA initially maintained custody of the recovered remains on St. John following their initial excavation. However, on the eve of an incoming tropical storm in September 2021, JBIA requested that the VISHPO take custody of the remains pending approval of the SOW for the recovery and relocation. In turn, VISHPO suggested reaching out to the National Park Service's VIIS. VIIS graciously agreed to provide temporary custody of the remains to provide secure storage through the end of 2021. Accordingly, remains and associated materials were transferred to VIIS's curation facility on St. John on September 24, 2021. The SOW was still being reviewed at the end of the loan agreement, so the temporary loan was extended through May 31, 2022. As the term of the temporary custody came to a close, the VISHPO arranged for the remains to be transferred to the custody of the GVI at a government facility on St. John in August of 2022. During the course of this project, all human remains and burial goods remained in GVI custody unless being actively analyzed. A chain of custody form was maintained throughout the project to keep track of the status and location of excavated materials from excavation through analysis and reburial. Following the analysis, the GVI will retain custody of remains until reburial takes place in the Cruz Bay Public Cemetery.

Reburial

Following analysis and preparation of a final report of investigations, all recovered ancestral remains and associated personal items will be wrapped in muslin, placed in individual wooden burial boxes separated by burial, and reinterred in a vault in the Lower Cruz Bay Public Cemetery. This solution will effectively and respectfully reinter burials as near as possible to their original burial site. JBIA will submit cemetery permit applications and necessary documentation to the Virgin Islands Department of Public Works (DPW).

JBIA deferred to and worked closely with both the St. John HPC and the VISHPO to identify an appropriate locale for reburial on St. John as near as possible to the original burial site, as the Cruz Bay Cemetery is currently at capacity. We are especially grateful for the efforts and guidance of Kurt Marsh, Jr., Commissioner of the St. John HPC, who coordinated with the DPW to arrange for the reuse of an abandoned crypt in the Lower Cemetery. We extend our gratitude as well to Commissioner Derek Gabriel, Piotr Gajewski, Kinila Callendar, and Sandra Malone of DPW, all of whom assisted with reburial efforts, the burial permit application, and approval for an abandoned crypt to be reused.

Curation

At the conclusion of the project, JBIA will permanently curate all project records and recovered materials not associated with reburial efforts with the VISHPO on St. Thomas.

Report Organization

This report is organized into five chapters. Chapter 1 introduces the report as well as the overall project history. Chapter 2 provides a relevant cultural history and cultural context for the development of Cruz Bay town, the Cruz Bay Public Cemetery, and mortuary practices in the VI. Chapter 3 discusses the results of bioarchaeological investigations at the Cruz Bay Public Cemetery, including the initial recovery efforts, field methods, and osteological data. Chapter 4 provides background for and analysis of the material culture and personal effects recovered in the excavations, offering the results of the archaeological

analysis. Chapter 5 summarizes and draws conclusions regarding the Cruz Bay Public Cemetery based on the results of analysis. References cited are included at the end of this report.



Figure 15. A 2021 field map showing the location of Burials 1 through 4.



Figure 16. A modified 2021 field map showing the 50-foot buffer established by FEMA on August 31, 2021.

CHAPTER 2: CULTURAL CONTEXT FOR CRUZ BAY AND THE CRUZ BAY PUBLIC CEMETERY

This chapter introduces a relevant culture history of the development of Cruz Bay town and St. John. Additional sections discuss literature and background searches, a review of historic maps, relevant archival records related to the cemetery, mortuary practices of the historic Caribbean, ethnohistoric accounts of burial practices of enslaved individuals, archaeological data from cemeteries in the USVI, and the Cruz Bay Public Cemetery as it exists today.

A Brief History of St. John and Cruz Bay

While there is a long history of prehistoric settlement on St. John and the VI, this culture history focuses on the historic development and settlement of St. John. St. John experienced limited settlement in the seventeenth century, followed by highly contested eras interspersed with periods of stability in the eighteenth and nineteenth centuries. The historic development of St. John is singularly unique, differing from the settlement history of St. Thomas and of St. Croix. Its unique trajectory is as much a feature of its geography and its proximity to neighboring islands as of the many individuals who shaped its history.

Danish merchants began sailing to the West Indies in the 1650s as entrepreneurs interested in establishing continuous trade in the Caribbean with the blessing of King Christian IV (1588-1648). Later Danish monarchs continued to support these endeavors, including King Frederick III (1648-1670), King Christian V (1670-1699), King Frederick IV (1699-1730), King Christian VI (1730-1746), King Frederick V (1746-1766), King Christian VII (1766-1808), King Frederick VI (1808-1839), Christian VIII (1839-1848), King Frederick VII (1848-1863), King Christian IX (1863-1906), King Frederick VIII (1906-1912), and King Christian X (1912-1947). After a few challenging starts, the chartered Danish West India & Guinea Company (DWIGC) successfully colonized nearby St. Thomas in 1672, thereby bringing the first stable government to the Virgin group (Dookhan 1994). While the English colony on nearby Tortola founded the same year nominally claimed St. John at that time, their claims were ignored by early Danish settlers. Within the DWIGC, St. John fell under the auspices of Jorgen Iversen, Governor of St. Thomas from 1672 to 1680. In 1675, Iversen officially claimed the island for Denmark. His initial efforts did not result in permanent settlement, but a census for the colony of St. Thomas indicated that Danish-sanctioned settlers were living on St. John as early as 1680 (Dookhan 1994; Knight 2017). During Adolph Esmit's 1680s governance of St. Thomas from 1683 to 1684, he reported that a handful of settlers were routed from St. John by the neighboring British on several occasions but that his settlers always returned (Westergaard 1917).

Danish control of the island was solidified when the Governor of St. Thomas, Eric Bredal, claimed St. John in 1718, officially settling the island on behalf of the DWIGC and the Danish King Frederick IV. Bredal brought five soldiers, twenty planters, and sixteen enslaved individuals from nearby St. Thomas to a favorable harbor in Coral Bay, located on the east end of St. John (Dookhan 1994). From its earliest inception, settlement of St. John was built on the unpaid, forced labor of enslaved Africans, inflicting harsh living conditions and extreme hardship upon individuals brought to the Danish West Indies (DWI) (Hall 1992; Tyson and Highfield 1994). According to DWI tax rolls and land lists, privately held plantations were established on St. John between 1718 and 1719 by settlers initially focused on cotton and tobacco (Knight 2017:19; Westergaard 1917). Experienced planters from St. Thomas claimed parcels most suited to agriculture and began growing sugar cane. While a Danish colony, Danes were in the minority amid waves of Dutch, English, and French settlers, reflecting the multicultural nature of the colonial Caribbean and the open-door settlement practices of the DWIGC. Continued settlement left little unoccupied land by 1721 (Knight 2017:20). In fact, this open settlement policy contributed significantly to growth in the DWI by welcoming individuals with different faiths, languages, and nationalities (Dookhan 1994). By 1728,

Danish-sanctioned settlers had taken charge of approximately 100 deeded plantation properties on St. John (Knight 2017:176). While sugar and cotton were initially planted, indigo, tobacco and other provisions were also grown throughout the DWI (Dookhan 1994; Westergaard 1917). The rapid parceling, clearing, and planting during this early colonial period was emblematic of the DWIGC administration, as also seen on St. Croix and St. Thomas.

During this early period under company control, formal settlement and administration focused largely on the east end of St. John and development in the vicinity of Coral Bay, with limited intervention for the smaller Cruz Bay harbor located on the west end (Dookhan 1994). Just as the Danish Crown administered the DWI through company control, absentee landowners administered estate control from neighboring St. Thomas through overseers and business managers. Danish governors and colonial administration located on St. Thomas implemented the policies and directives of the DWIGC, bolstering the economic prospects and attempting to strengthen their control on island. Geopolitical maneuvering resulted in skirmishes in the DWI among the English, French, Spanish, Dutch, and Danish, as each entity exerted control over parts of the DWI at different points in time in the seventeenth and eighteenth centuries. Such machinations impacted the relatively small number of residents on the island differently than on more established St. Thomas or on St. Croix. However, events on St. John would challenge Danish authority and impact the subsequent development of the DWI (Norton 2015).

In the early part of the eighteenth century, development on St. John remained stilted in comparison to agricultural growth on St. Croix or commerce-driven growth on St. Thomas. By 1728, the resident population included 123 white colonists and 677 enslaved individuals (Dookhan 1994:71). Within five years, white colonists numbered 208 but the number of enslaved individuals increased up to 1,087, providing evidence of the focus on agricultural production despite the high human cost for individuals enduring slavery (Dookhan 1994). The Danish colonies foundered a bit throughout 1733 as a severe drought affected the islands, followed by a devastating hurricane and subsequent insect plague (Olwig 1985). Conditions were poor and starvation was rampant throughout the enslaved community. To quell any discord, harsh mandates were instituted, inflicting severe punishment on any enslaved persons who challenged authority or sought freedom. These conditions created an atmosphere of discontent, culminating in an island-wide revolt by the enslaved Africans living on St. John (Knight 2017:32).

The St. John Slave Revolt of 1733 defied Danish authority when enslaved rebels attempted to gain control of plantations and, therefore, their lives, skills, and labor. By gaining control of the estates, freedom fighters sought an end to slavery, a stake in the colonial economy, and the right to benefit from their own labor. The revolt began at Fortsberg in Coral Bay, where rebel leaders took over the military installation and killed all but one of the Danish soldiers. The firing of the cannon at Fortsberg provided an official signal for rebels in country estates to rise up, and thus the revolt spread west through the center of the island. Planters were killed or forced to flee upon the advance of the rebel leaders within many estates. Ultimately, the revolt lasted six months, only ending in 1734 when reinforcements were brought in from French Martinique to find the rebels who were residing in hidden encampments in the country (Dookhan 1994; Knight 2017; Sebro 2013). Accounts of the revolt note that it was led by African-born ethnic Akwamu or Aminas who were relatively recently arrived in the Caribbean, rather than being born into slavery in the West Indies (Caron and Highfield 1981; Hall 1992; Norton 2013; Sebro 2013). In addition to the loss of lives among both rebels and the planter class during and after the revolt, many estates suffered significant damage. Such ramifications impacted the development of St. John over the subsequent years. The island was slow to rebuild, as planters on the west end felt exposed and unprotected because of the lack of colonial administration (Knight 2016). However, the plantation economy eventually rebounded. By 1739, there were 65 cotton plantations and 24 sugar plantations operating on St. John (National Park Service 2021). As the earliest revolt in the VI and one of the longest-lasting rebellions in the Caribbean, it embodied the harsh realities of the planter economy but also set the stage for the subsequent calls for freedom on neighboring islands and throughout the rest of the DWI.

In the interim, a plan to establish a garrison at Little Cruz Bay was approved and a building commission was appointed and funded. Construction of the battery and garrison were recommended, as was the purchase of additional property to facilitate the establishment of a proper town (Knight 2017). After the Danish Royal Crown formally took control of the DWI in 1755, Julius Philip Benjamin von Rohr, Danish Crown Surveyor, was sent to survey the Crown's holdings and to measure and plot the town of Christiansbay in 1766 (Knight 2017). Named in honor of newly crowned King Christian VII (1766-1808), Cruz Bay was planned as a community with coastally oriented plots gridded along three cross streets. The first two streets were Store Kongensgade (Great King Street) and Dronningens Tvaergade (Queen's Cross Street), following the custom for colonial settlement of urban areas in the DWI (Knight 2016). Dronningensgade (Queen Street) was also established, but it later became known as Vester Gade (West Street). Plans for a garrison and fortification were put into place in 1756; by 1765, the landing at Cruz Bay featured a kitchen, officer's quarters, and five-room barracks (Knight 2017).

The harbor was further fortified through the 1774 construction of the Cruz Bay Battery (which is discussed in the subsequent section as 12VAm2-152) (Figure 12). The end of the eighteenth century ushered in a period of growth for Cruz Bay, in part due to a new era of sugar production on St. John as the cultivation of cotton in the islands slowed down. Sugar production and profits remained strong throughout the early 1800s, with 1,690 acres of sugar planted across the island (NPS 2021). However, Cruz Bay also grew thanks to demographic changes and the burgeoning class of free people of color. In 1792, Denmark announced that they would be ending their participation in the trans-Atlantic slave trade after a 10-year preparatory period (Dookhan 1994; Knight 2016 and 2017). Tax records from 1803 indicate that the village of Christiansbay, now commonly referred to as Little Cruz Bay or Cruz Bay, had a population of four whites, sixteen free people of color, and eight enslaved individuals. The town featured 18 privately owned structures. Most of the bay-front plots along Kongens Gade were white-owned and primarily utilized in support of inland plantation properties, while members of the Free-Colored community, which included laborers, merchants, skilled tradespersons, and shopkeepers, owned parcels on the south side of Dronningens Tvaergade and on Vester Gade (Knight 2017:179-180). This burgeoning middle class brought skilled tradesmen and merchants to the nineteenth century economy, carving out new socioeconomic practices and cultural identities for citizens regardless of whether they were born free, freed through manumission, or formerly enslaved.

Cruz Bay would emerge as an Afro-Caribbean town over the subsequent decades, as evidenced by a majority of the land in town being owned by free people of color (Knight 2017). A destructive hurricane passed over St. John in 1816, causing severe damage. Tax rolls of this time show a mere 14 standing structures in Cruz Bay as a result of the storm. By 1824, however, the town had begun to bounce back, and a total of 19 structures were reported (Knight 2017). By 1848, Cruz Bay residents included 117 residents, 80 percent of which were free and 20 percent of which were enslaved (Knight 2017).

Following more incremental measures in the first half of the nineteenth century, a series of revolts on St. Croix served as catalysts for Emancipation and abolition in the late nineteenth century. Governor General Peter Von Scholten proclaimed that all enslaved persons of the DWI were free on July 3, 1848 (Dookhan 1994; Knight 2017). While the fight for abolition and labor would continue throughout the nineteenth century, the nineteenth century DWI were undergoing significant economic, social, cultural, and demographic changes. After emancipation, the formerly enslaved population abandoned the country estates and settled closer to the towns in search of economic opportunity. This trend was observable in Cruz Bay, where the population expanded by 14 percent by 1850 and the number of households had risen to 17 (Knight 2017:77).

However, development in Cruz Bay still consisted mostly of modest wooden vernacular cottages, with few cisterns and no public potable water system. Dense settlement and poor sanitation resulted in an outbreak of Asiatic cholera in 1854, which devastated the population of Cruz Bay and surrounding estates (Knight 2017:78). Some 20 cholera deaths were reported in Cruz Bay, another 25 were documented at

Estate Enighed, and many more were known in neighboring estates (Knight 2017). While the town slowly crept back to pre-pandemic life, development was short lived thanks to a series of disasters that struck the island. A second wave of Asiatic cholera swept the colony in 1866, followed by an 1867 hurricane that had a devastating impact on human lives, homes, plantation buildings, crops, and livestock. Following the hurricane, a series of earthquakes in 1867 shook the island, triggering a massive tsunami that flooded Cruz Bay town. Immediate and longstanding losses were substantial, resulting in an extended period of recovery. The tsunami was soon to be followed by continued tremors and another devastating hurricane in 1871, which further impacted an island community that was just barely recovered from prior disasters (Knight 2017:78-86). From 1870 through the remainder of the Danish Colonial era, population and households steadily decreased in Cruz Bay. The final DWI census took place in 1911 and recorded only 7 households and 33 inhabitants in Cruz Bay (Knight 2017:87).

On the heels of another devastating hurricane in 1916 and after years of sporadic and stunted development under the Danish Crown, a ceremony on March 31, 1917, officially transferred ownership of the DWI, including St. John, to the United States of America. At the time of the 1917 census, only 50 individuals were reported as living in Cruz Bay (Knight 2017:102). The US Navy administered the newly acquired territory from 1917 through 1931, proceeding to work on infrastructure, precise mapping, and organization of the territory as a whole. Another hurricane hit in 1924, causing extensive damage in St. John. Regular ferry service to St. Thomas was not established until the 1930s, which also coincided with the development of a tourism-based economy that remains in place today. The 1956 establishment of the National Park further changed the social, economic, and cultural reality of the island, impacting conservation, infrastructure, demography, property ownership, and the local economy in a number of ways. Today, St. John retains many unique characteristics and traditions that historically set it apart from St. Thomas and St. Croix, having small urban centers at Cruz Bay and Coral Bay, low residential population density, limited industrial or commercial development, broad swaths of undeveloped land, and lifeways that are integrally linked, but distinct from, those on neighboring islands. St. John's tale is one of resilience, strife, and self-determination within a closely linked community.

Cruz Bay Town became recognized as a National Register Historic District in 2016 under Criterion A (significant pattern to broad patterns of history) and Criterion C (embodies distinctive characteristics of a period, type, or method) (Knight 2016). Its associated period of significance spans its initial founding in 1766 through 1966, spanning installation of a colonial administration, historic development, the impact of natural disasters during the historic era, transfer to the US, and the founding of the VIIS. Like the other historic districts in the VI, Cruz Bay reflects the original colonial layout of the town, retaining many of the key built features and contributing resources that were established during their earliest periods of settlement. Additionally, the 25 contributing features outline the historic development of a resilient, Afro-Caribbean community from the colonial era through the modern era. As noted by David Knight, Sr. (2016:7) in the Cruz Bay district nomination, "Not only is Cruz Bay's original contextual setting wholly intact, the town also represents, a *'unified entity...composed of a wide variety of resources'* all of which *'convey a visual sense of the overall historic environment.'*" The district contains examples of the colonial architecture of the Danish era, the more modest wooden vernacular cottages of the eighteenth and nineteenth centuries, as well as a post-transfer neo-vernacular architectural style associated with twentieth century development. The latter is particularly significant, as it reflects the economic development of this small community in the modern era, which is unique among the VI's National Register Historic Districts, including Christiansted and Frederiksted on St. Croix and Charlotte Amalie on St. Thomas.

Literature and Background Search

A literature and background search was performed to identify previously documented cultural resources and archaeological surveys in the immediate vicinity of the APE (Figure 17; Table 2). A records search was

requested of the VISHPO's site file and report libraries. The VISHPO reported five previously recorded sites within .5 mi (.8 km) of the APE. However, both the Cruz Bay Historic District and the Cruz Bay Public Cemetery (12VAm2-239) extend into the current APE and are the focus of this investigation. The VISHPO search indicated that no prior projects or surveys were known within the .5 mi (.8 km) buffer. A records request was also made of the VIIS but no data could be provided before the production of this report.

The five archaeological sites reported by the VISHPO within .5 mile of the APE include 12VAm2-6 (Little Cruz Bay), 12VAm 2-70 (Caneel Hill), 12VAm2-130 (Estate Enighed), 12VAm2-152 (The Battery), and 12VAm2-165 (Lind Point Fort) (Figure 17; Table 2). Two of the sites are associated with the prehistoric occupation of the island. Little Cruz Bay (12VAm2-6) is a documented Ceramic Age site of unknown NRHP eligibility located 398 m (.2 mi) to the east of the Cruz Bay Public Cemetery. The Little Cruz Bay site (12VAm2-6) was first documented by Gudmund Hatt (1924), who associated the site with the Coral Bay-Longford ceramic group. Such ceramics feature loop handles, straight rims, red and white paint with limited incising, and are identified by Hatt (1924) as associated with the Lesser, rather than Greater, Antilles. These ceramics would now be recognized as Saladoid series ceramics (Rouse 1992; Wilson 2007). Later visits by Ripley Bullen (1962) and Frederick Sleight (1962), recorded the site as a shell midden near a nearby school and playground and noted that much of the site was destroyed by prior construction or development. Bullen (1962) reported the site as consisting of both Botany and Coral Bay series ceramics, which respectively refer to Ostionoid and Saladoid series ceramics in broader prehistoric ceramic traditions (Rouse 1992; Wilson 2007). Although this data suggests that Little Cruz Bay would have once been a sizeable prehistoric village site that spanned multiple prehistoric periods of occupation, it appears to be much disturbed by development and the construction of an elementary school. As a result, the NRHP eligibility of the site is unknown. The second nearby site, Caneel Hill (12VAm2-70), is located 750 m (.5 mi) to the northeast of the Cruz Bay Public Cemetery and lies within the VIIS. The site is of unknown NRHP eligibility and little information is available; it is reported in the VISHPO site file as reported as a scatter of lithics and prehistoric ceramics. Neither of these sites will be impacted by the current project.

The remaining three sites are related to the colonial and historic history of St. John. Estate Enighed (12VAm2-130) is reported as a nineteenth century great house associated with the Estate Enighed sugar plantation (Tyson and Tarr 1976). Estate Enighed was listed on the NRHP in 1976 and lies 588 m (.4 mi) to the southeast of the Cruz Bay Public Cemetery. The Cruz Bay Battery (12VAm2-152), located 301 m (.2 mi) to the northeast of the Cruz Bay Public Cemetery, is an intact, two-story fortification that was built in 1774 during the Danish colonial era (Knight 2016). This prominent site represents the administration of the DWI in Cruz Bay town during the colonial era and is listed as a contributing resource to the Cruz Bay Historic District (Knight 2016). The Lind Point Fort (12VAm2-165) is located 555 m (.3 mi) to the north of the Cruz Bay Public Cemetery and represents the early British occupation of the DWI and the Napoleonic wars in the New World. It was constructed in 1807, is located within VIIS, and was listed on the NRHP in 1978 (Gjessing 1978). None of these sites are impacted by the current project.

The VISHPO site file reports two cultural resources within the immediate APE, including the Cruz Bay Public Cemetery (12VAm2-239) itself and the Cruz Bay Historic District. As the boundary of the historic district intersects the Cruz Bay Public Cemetery and these resources are the explicit focus of our investigations, a summary of the cemetery follows a review of available historic maps.

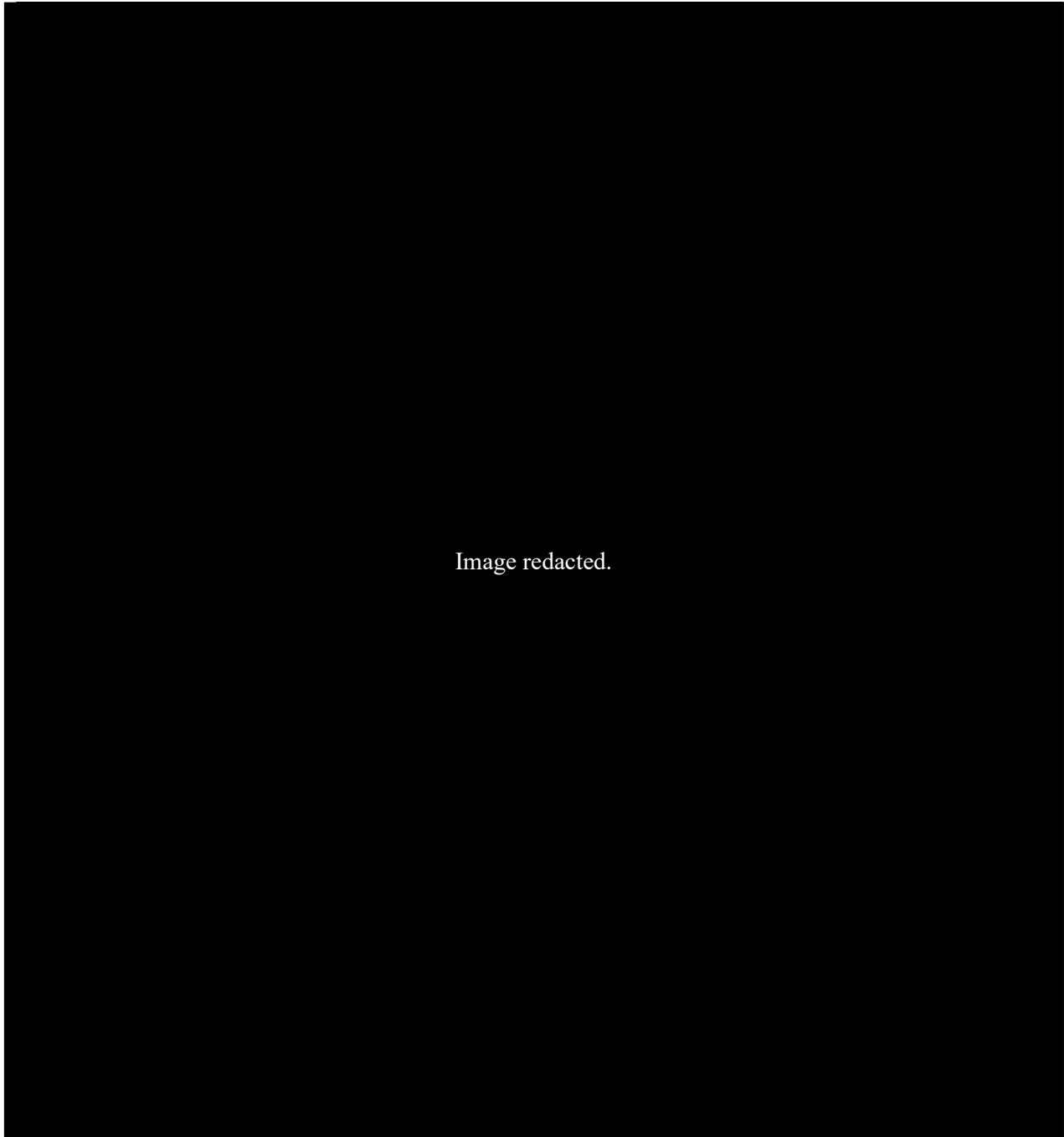


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Figure 17. Previously documented archaeological sites within .5 mi of the APE.

Table 2. Previously documented sites within .5 mi of the Cruz Bay Public Cemetery.

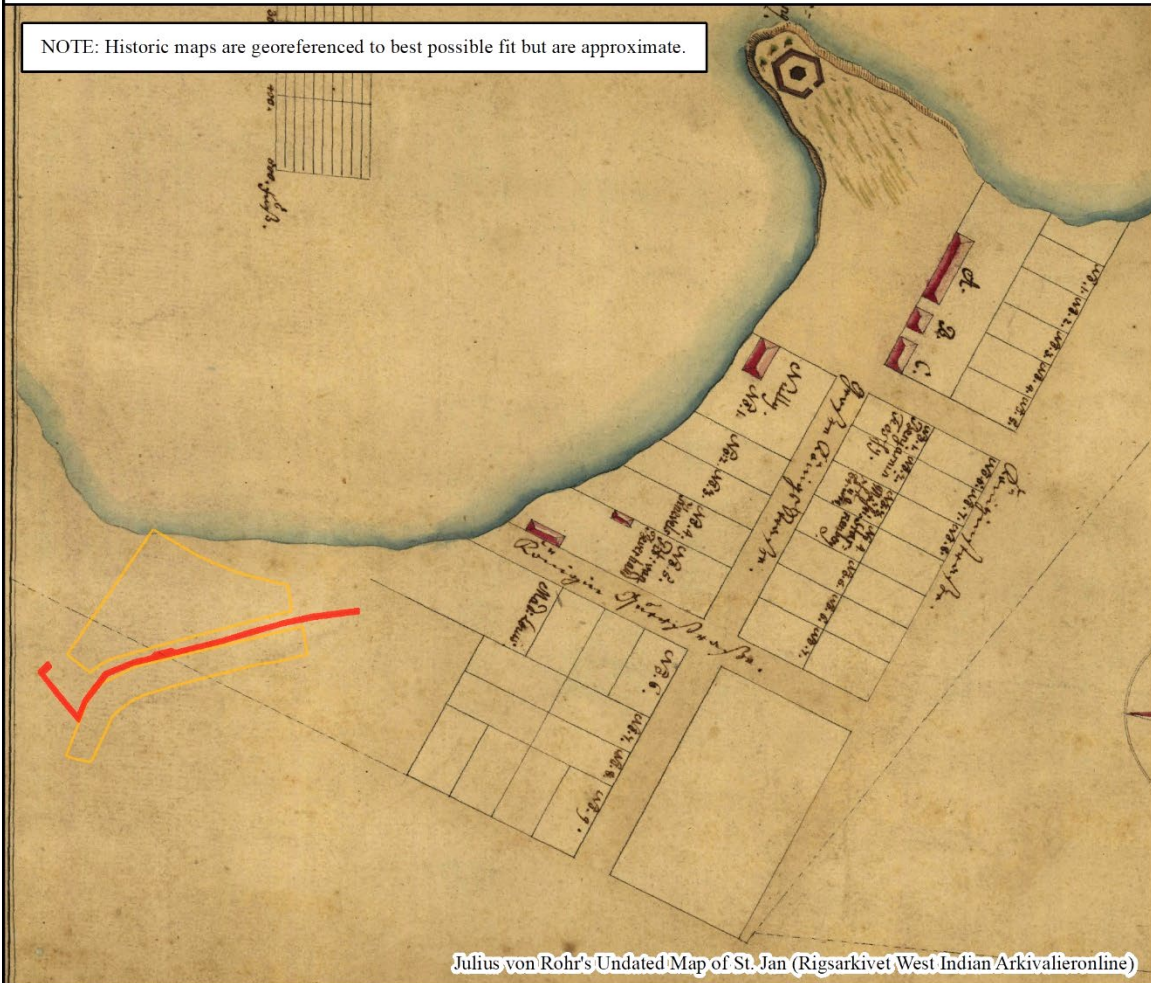
Site Number	Site Name	Site Size	NRHP Eligibility	Distance	Type of Site	Site Description	References
12VAm2-6	Little Cruz Bay	.8 ha	Unknown	398 m to E	Ceramic Age village	Ceramic Age village site with ceramics, three-pointers; painted ceramics with loop handles. Sleight (1962) reports as destroyed by development. Saladoid and Ostionoid period ceramics.	VI Site File; Bullen 1962; Hatt 1924; Sleight 1962
12VAm2-70	Caneel Hill	2.2 ha	Unknown	750 m to NE	Unknown	Lithics and prehistoric ceramics scatter; Limited reporting in site file	VI Site File
12VAm2-130	Estate Enighed or Enighed Pond Ruins	.6 ha	Listed 1976	588 m to SE	Historic estate	19th century great house of Estate Enighed sugar plantation	VI Site File; Tyson and Tarr 1976
12VAm2-152	The Battery (also known as Cruz Bay Battery)	.7 ha	Contributing resource to Cruz Bay Historic District	301 m to NE	Fortification	Fortification constructed in Danish West Indian colonial government in 1774	VI Site File; Knight 2016
12VAm2-165	Lind Point Fort	.9 ha	Listed 1978	555 m to N	Fortification	Fortification constructed in 1807 by British during occupation of the Danish West Indies; association with Napoleonic wars	VI Site File; Gjessing 1978
12VAm2-239	Cruz Bay Public Cemetery	.2 ha	Contributing resource to Cruz Bay Historic District	Within APE	Cemetery	Also known as Gallows Point Cemetery. Chronology from 1766 to present. Still in use today.	VI Site File; Blouet 2013; Knight 2016.
None	Cruz Bay Historic District	8 ha	Listed as NRHP district	Extends into APE	Historic District	1766 to 1966 urban town center associated with multiple periods of significance	VI Site File; Knight 2016

Historic Map Review

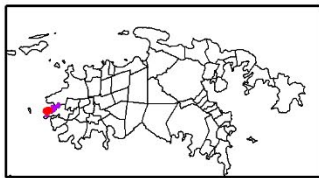
A review of historic maps also sheds light on the general history of the area. In an undated drawing outlining the initial plan of the town, Crown Surveyor Julius von Rohr delineated the planned developments of *Christiansbay* within the West End of St. John in honor of Danish King Christian VII (b. 1749 - d. 1808) (Figure 18). While the map is undated, the survey and associated drawings were first plotted during June and July of 1766 based on von Rohr's notes outlining the progress and efforts to stake out plots in town (Knight 2016). Von Rohr's drawings include a version of the Battery (12VAm2-152) and coastally oriented plots gridded along Store Kongensgade (Great King Street) and Dronningens Tvaergade (Queen's Cross Street). Von Rohr's survey also planned for the eventual layout of Strande Gade (Beach Street), although it was not noted in the original map (Knight 2016). Von Rohr's survey of lands belonging to the Danish Crown bisects the Cruz Bay Public Cemetery, marking the eastern portion of the APE as property of the Danish Crown. Located on the southwestern extent of the planned town, the APE is otherwise shown as unimproved and without specific designated purpose. It is likely that the property would have been considered to be property of the DWIGC prior to the Danish crown taking over the governance of the Danish West Indies Company (DWIC) in 1754. Von Rohr's survey noted only six extant buildings within the town. Notably, the boundaries of the von Rohr map also serve as the boundary for the designated Cruz Bay Historic District (Knight 2016).

Cruz Bay Public Cemetery Archaeological Monitoring, St. John, USVI

NOTE: Historic maps are georeferenced to best possible fit but are approximate.



Julius von Rohr's Undated Map of St. Jan (Rigsarkivet West Indian Arkivalieronline)



Yellow outline Cemetery
Red line APE



Jeffrey L. Brown Institute of Archaeology
University of Tennessee at Chattanooga

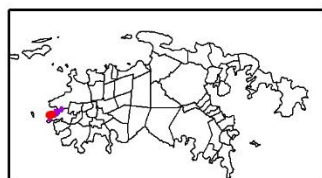
JBIA Project 21.003

1:3,000

0 20 40 80 120 Meters

Figure 18. An undated, circa 1766 map of planned development within Cruz Bay by Julius von Rohr showing the approximate location of the APE (Rigsarkivet 2022).

NOTE: Historic maps are georeferenced to best possible fit but are approximate.



Cemetery
 APE



Jeffrey L. Brown Institute of Archaeology
University of Tennessee at Chattanooga

JBIA Project 21.003

1:12,500

0 90 180 360 540 Meters

Figure 19. Peter L. Oxholm's map of St. John drawn in 1780 and published in 1800 showing the APE and nearby developments surrounding Cruz Bay (Rigsarkivet 2022).

A later map by Peter L. Oxholm drawn in 1780 but published in 1800 shows the nearby planned development of Cruz Bay town, the Battery (12VAm2-152), nearby *Estate Eenighkeit* (Estate Enighed, 12VAm2-130), and the salt pond by Frank Bay (Figure 19). However, this map indicates that there were no specific developments in the general vicinity of the APE and that it was not associated with a specific estate. However, the use of the toponym *Galge Bay* (Gallows Bay) to refer to the larger bay flanking Cruz Bay town generally suggests the presence of a gallows somewhere in the vicinity by the end of the eighteenth century. A second Oxholm map drawn in 1780 similarly shows the APE near the edge of the delineated urban district, which is noted by Oxholm as *Christians Bye* (Figure 20). The APE is shown as undeveloped without improvements.

Cruz Bay Public Cemetery Archaeological Monitoring, St. John, USVI

NOTE: Historic maps are georeferenced to best possible fit but are approximate.



Figure 20. Peter L. Oxholm's 1780 map of St. John showing the approximate location of the APE (Rigsarkivet 2022).

Although other historic maps of St. John are known, our search did not yield other relevant data on the APE or the Cruz Bay Public Cemetery until the twentieth century. The earliest map showing the existence of the cemetery is the 1919 US Coast and Geodetic Survey map of St. John (Figure 21). At that point, the cemetery is shown along the spur of the Gallows Bay Point as a roughly oval shape. It is unclear whether the oval is a general estimation of the cemetery boundaries or whether it is a precisely drawn map feature, although the former is more likely. It is notable that the cemetery as shown in 1919 is bisected by a road feature. Based on the map symbology and oral history (David Knight, personal communication 2022), the dotted line reflects that the single-lane roadway going into town turned into a pedestrian footpath at the eastern boundary of the cemetery.

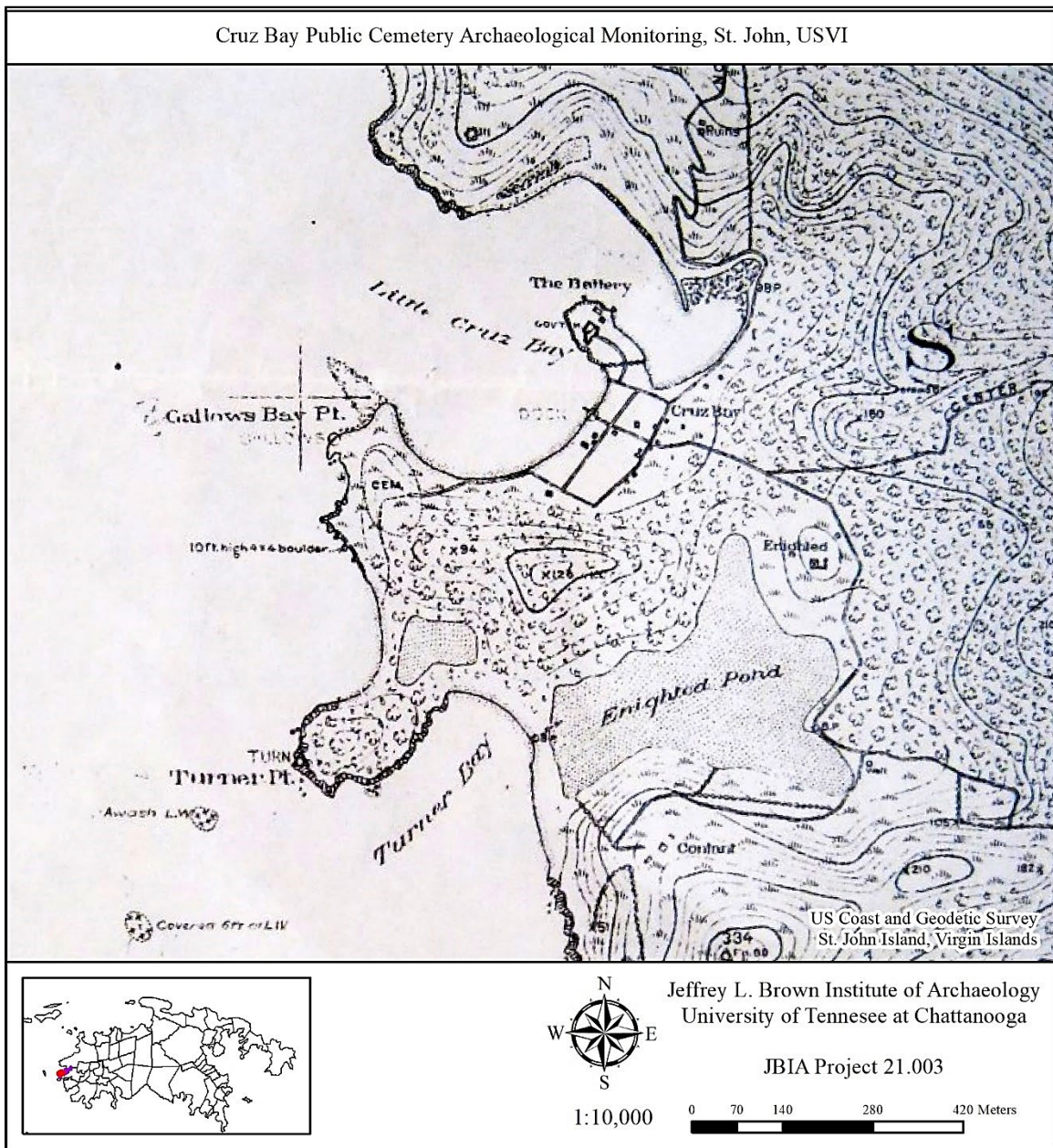


Figure 21. The 1919 US Coast and Geodetic Survey of St. John showing the earliest cartographic reference to the Cruz Bay Public Cemetery. Image provided by David Knight, Sr.

However, the APE is again designated as a cemetery in the mid-twentieth century in the USGS, 7.5' 1958 Western St. John, VI Topographic Quadrangle (Figure 22). The drawn cemetery boundaries mirror the current extent of the Cruz Bay Public Cemetery, extending as irregularly shaped polygons flanking both sides of Strande Gade (Figure 22). However, the cemetery appears to have undergone significant changes since prior published maps. Available aerial imagery indicates that Strande Gade was modified from a pedestrian path to accommodate vehicular traffic, meaning that it was straightened, widened, and mechanically graded (Figure 23). Comparison of the 1954 aerial imagery and the 1958 topographic map is particularly useful.

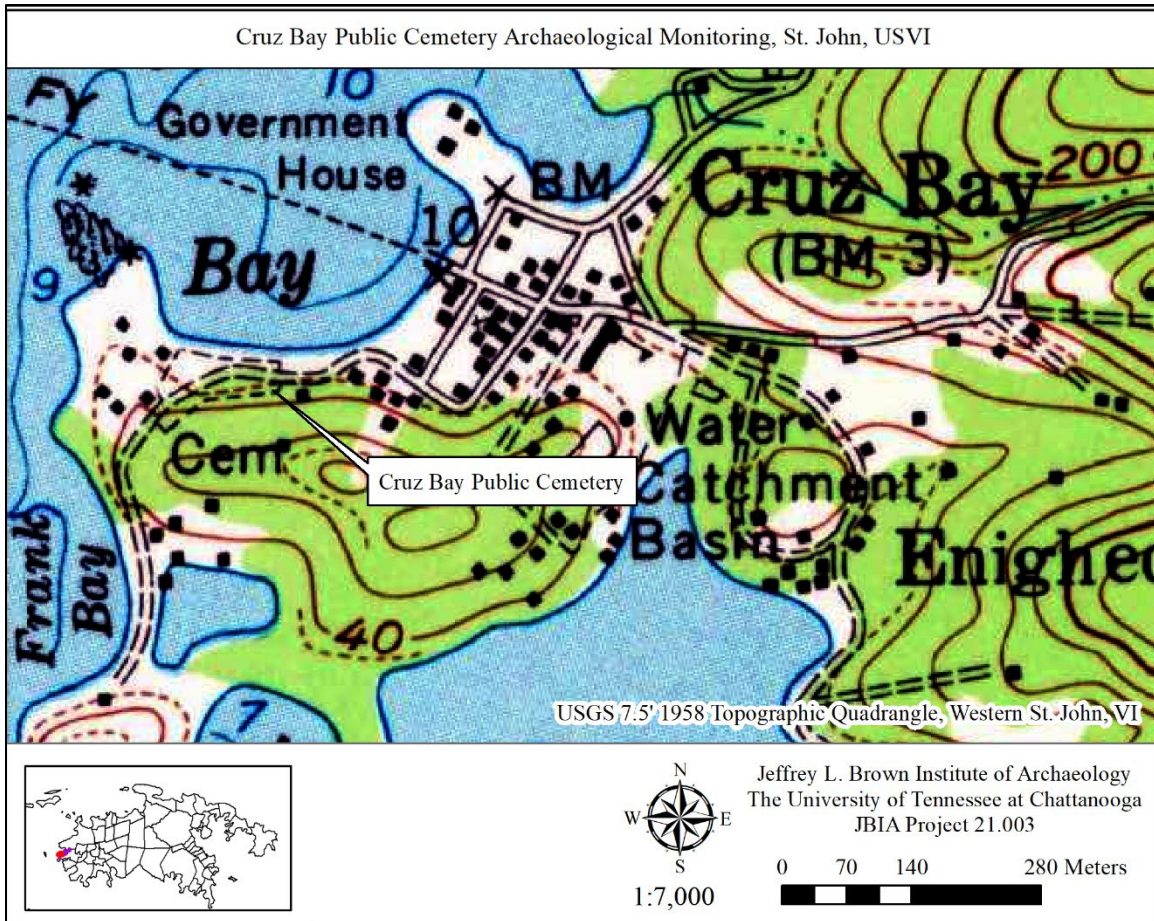


Figure 22. A closer view of the APE as shown on the 1958, USGS, Western St. John topographic quadrangle. Note that the APE overlay is not shown so that the cemetery can be more clearly observed.

By 1954, the footpath had been transformed to permit vehicular traffic to the Gallows Point Resort and south to Frank Bay, although the sinuous path between the Upper and Lower Cruz Bay Public Cemetery suggests that the road was not yet straightened (Figure 23). By the production of the 1958 topographic quadrangle, though, Strande Gade had already been straightened and widened considerably. These modifications are evident in aerial imagery from 1983, which also mirrors the current path of Strande Gade (Figure 24).

Overall, this data provides evidence that the APE was historically on the border of the historic Cruz Bay town, likely reflecting at least partial ownership by first the DWIGC and later the Danish Crown after 1766. There was a general reference to the area as Gallows Bay by the 1780s, but that could refer to various points within the bay, including areas outside of the APE. At some point between 1780 and 1919, the area became an established cemetery that extended along the promontory at Gallows Point. Historic map data suggests that the cemetery extended throughout the promontory to an unknown extent, eventually continuing to the east towards Cruz Bay. Importantly, this map review suggests that road construction, road widening, and mechanical grading between 1954 and 1958 impacted the cemetery, presumably covering, disturbing, and/or impacting the burials discovered during the Feeder 7E Cruz Bay Underground Project (Figure 25).

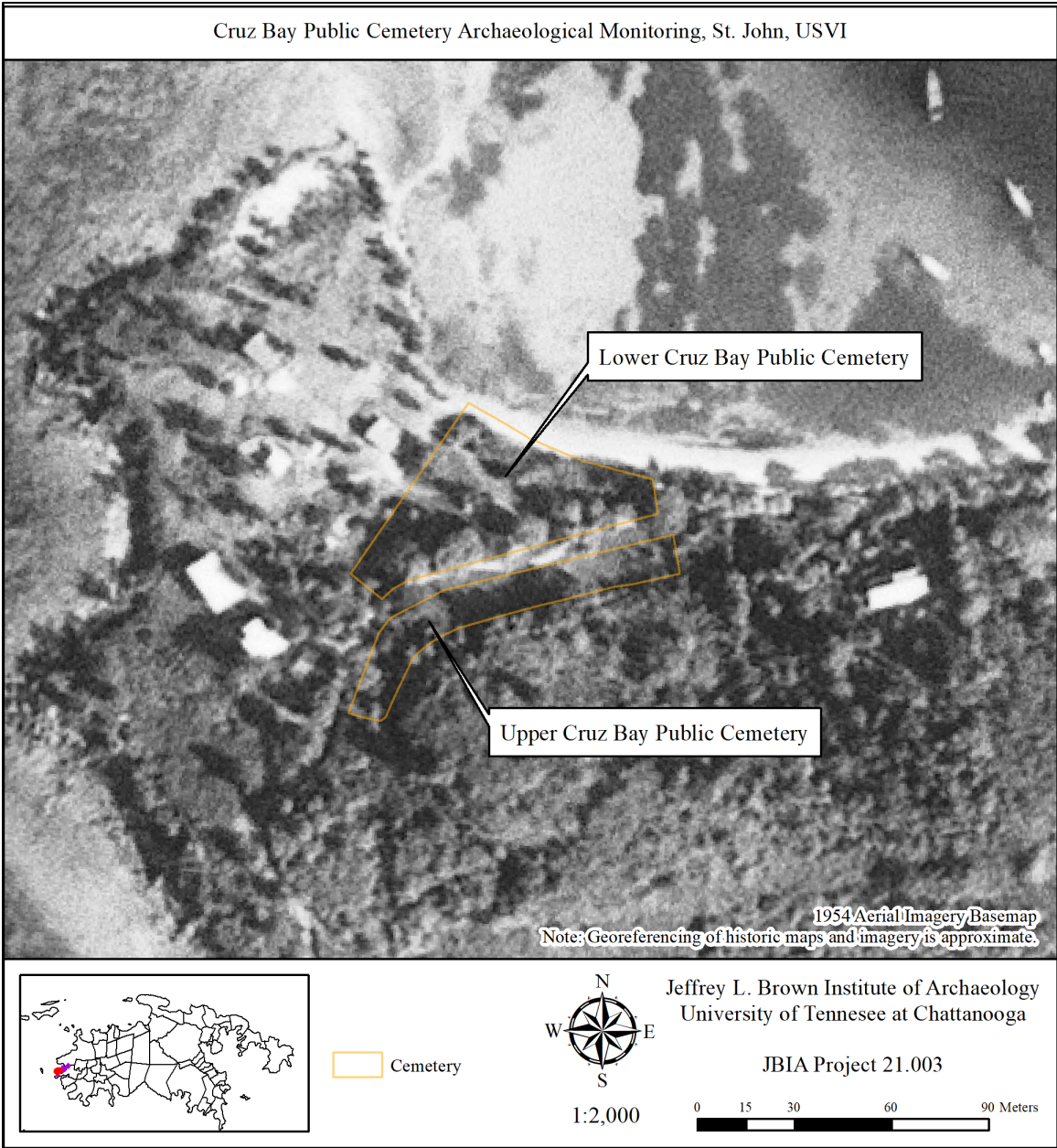


Figure 23. Aerial imagery from 1954 showing the APE and modification of Strande Gade.



Figure 24. Aerial imagery from 1983 showing the APE along with the straightened and widened Strande Gade roadway.

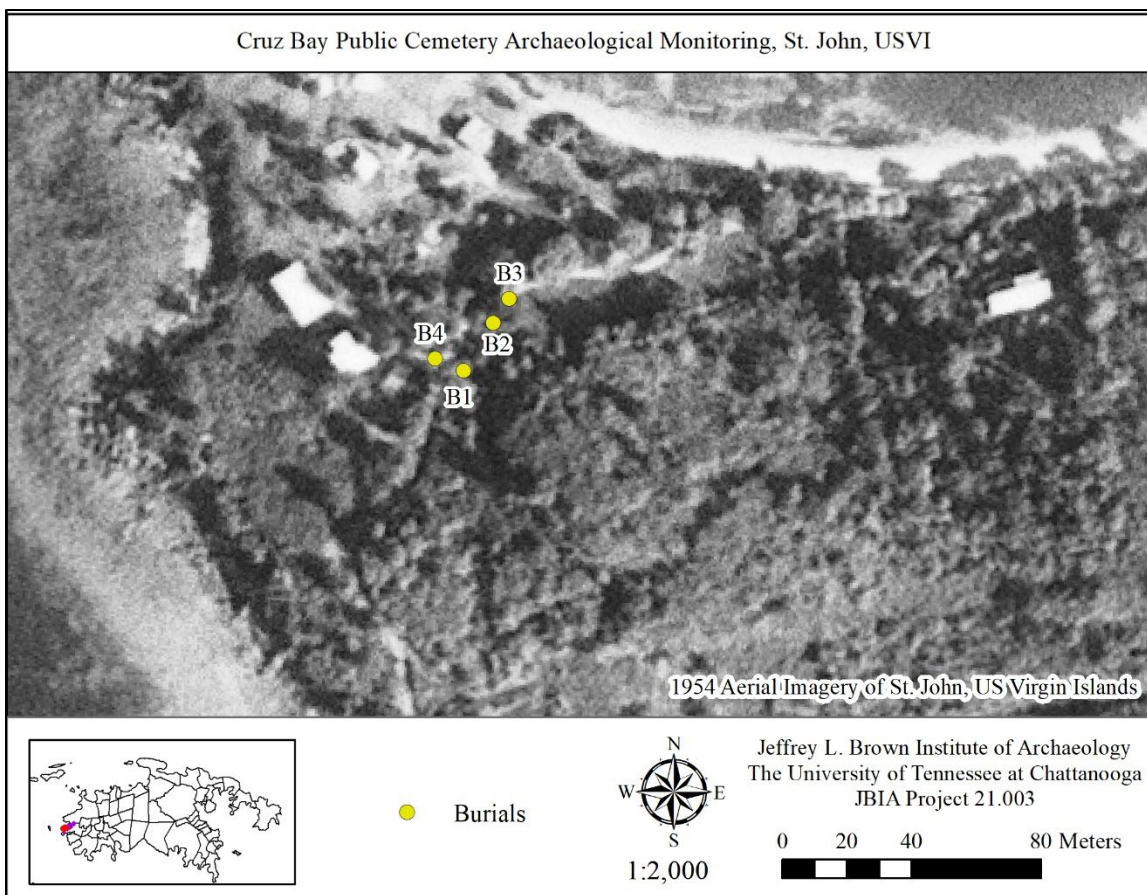


Figure 25. Location of Burial features 1-4 overlaid onto 1954 aerial imagery. Note the proximity of the burials relative to the newly constructed roadway.

Archival Records of the Cruz Bay Public Cemetery

While project funding did not support a review of primary archival data in the *Rigsarkivet* (Danish National Archives), a summary of available data is warranted. Our team is particularly grateful for the coordination and assistance of historians David Knight, Sr. and Dr. George Tyson, both of whom provided assistance regarding archival and historic accounts related to the Cruz Bay Public Cemetery. While additional archival records may yield new data, we are indebted to both Knight and Tyson for providing critical assistance with this project. Local oral tradition and our review of historic maps suggest that the historic cemetery was associated with public executions post-1766, coinciding with the formal settlement of the town. Our historic map review provides evidence of the use of the *Galge Bay* (Gallows Bay) toponym between 1780 and 1800 (Figure 20), which implies public execution in the colonial era. However, other archival or physical evidence of the existence of a gallows in this locale is scant.

Notably, though, there is precedent for the establishment of gallows near the primary point of colonial administration in the DWI. On St. Croix, for example, the bay immediately flanking the Danish Fort Christiansvaern (est. 1749) bears the Gallows Bay toponym and archival records confirm that the site was used for public executions during the colonial era. Overall, this data suggests that it is certainly possible that the Cruz Bay Public Cemetery may have been associated with public executions at some point in time, however this report can neither confirm nor refute that association. Additional archival research would be warranted to clarify whether this association bears merit.

While there was a need for a non-denominational public cemetery in Cruz Bay as the population diversified, the evolution of the Cruz Bay cemetery is not well documented in the colonial era. Archival records indicated that the area of the modern-day Cruz Bay Public Cemetery was an occupied plantation site prior to 1766 when the Danish Crown purchased most of the land to the southwest of Cruz Bay town. Archival research shows conclusively that the general area has been utilized as a burial ground since at least the early nineteenth century (David Knight, Sr., personal communication 2022). There are a few burial listings that reference Cruz Bay town as early as 1829, but the listings contain only biographical information and do not specifically reference the Cruz Bay Public Cemetery (George Tyson, personal communication 2022). Primary documents suggest that although precise locations of individual burials were not recorded, names, dates and causes of death have been identified in the archival records in several instances (David Knight, Sr., personal communication 2022).

Given that religious congregations (Lutheran, Dutch Reformed, and Moravian) would have buried their dead in associated church cemeteries, that property-owning families buried within their holdings, that enslaved laborers were primarily buried within burial grounds on a given estate, and that many of these practices persist into the early transfer period, we are left to wonder which members of the St. John community utilized the Cruz Bay Public Cemetery. Local historian David Knight, Sr. (personal communication, 2022) suggests that the interments of Cruz Bay cemetery could be associated with individuals who were poor, economically destitute, or transient. Other possibilities include traveling mariners, police, or military personnel stationed on St. John during the historic era; followers of the Anglican or Methodist faiths; foreign working-class inhabitants without ties to the community; and the early Moravian working class (David Knight, Sr., personal communication 2022). Considered alongside Helen Blouet's (2013) research, the cemetery may also represent individuals who owned property in town, individuals who did not own property elsewhere, or individuals seeking nonreligious burial.

Cultural Context for Cemeteries and Burial Practices

The historic cemetery located along Strande Gade was a known archaeological site on file with the VISHPO prior to the broader Feeder 7E Cruz Bay Underground Project conduit excavations. While there are no prior archaeological investigations within the cemetery, the Cruz Bay Public Cemetery (also known as Gallows Point Cemetery) has been discussed with reference to the Cruz Bay Historic District, as the cemetery is a contributing resource to the district (Knight 2016). Located on Parcel 3A Cruz Bay, which actually includes plots 3Aa and 3Aba (Parcel ID 308101023000) (MapGeo USVI 2021), the cemetery remains in use today. The Cruz Bay Public Cemetery extends on both sides of Strand Gade to create Upper and Lower Cemeteries (Figures 27-29). However, only the Lower Cruz Bay Public Cemetery was included in the Cruz Bay Historic District Nomination and was recorded as a site in the VISHPO Site File Database. The Lower Cemetery is located seaside, north of Strande Gade, and contains 180 marked aboveground graves, vaults, and crypts. Another 70 probable rubble graves and 30 possible rubble graves were documented as well (Blouet 2013). The marked vaults are cement or masonry construction and are often multi-tiered.

Knight's district nomination (2016) described the Cruz Bay Public Cemetery as dating from circa 1766 to the present, including interments from the mid-eighteenth century through the modern era. The earliest known interment is Mrs. Lucretia Virginia Minor, who was born on St. Croix in 1820 but moved to St. John prior to her death in 1895. Oral reports (David Knight, Sr., personal communication 2022) indicate that her original gravesite may have been disturbed during the 1950s road modifications, but a commemorative marker denotes the approximate location of the original interment, which is adjacent to Strande Gade and in the eastern extent of the Lower Cemetery (Figure 26). The façade of Mrs. Minor's late-nineteenth century cottage remains preserved on Vester Gade. The Upper Cemetery was excluded from prior site designations, presumably, because it contains more recent burials than the Lower Cemetery.

The Cruz Bay Public Cemetery was discussed in depth in Blouet's research on shifting burial practices on St. John during the colonial era (Blouet 2010, 2013, and 2021). During the colonial era, mortuary practices for European landowners often resulted in the establishment of small family plots within individual estates. For the enslaved, individuals were often interred in less formal but marked cemeteries within associated slave villages or near individual households within each estate. The rugged, mountainous terrain and the isolated locations of newly established estates likely necessitated the establishment of estate burials during early colonial settlement. However, as the plantation economy of St. John eventually declined due to economic shifts and emancipation, conditions for formerly enslaved laborers improved. By the 1860s, various factors, including a shrinking workforce, forced many prominent landowners to sell their estates (Blouet 2013; Olwig 1985:90-91). Consequently, estates that were once grounded in the plantation economy were transferred to local African-Creole peoples (Blouet 2013; Olwig 1985:93). As it became more common for African-descended St. Johnians to be landowners, the practice of household and estate burial sites persisted throughout the island even into the modern era (Blouet 2013).

The establishment of churchyards and municipal cemeteries took place at varying times throughout the Danish-colonial settlement of St. John. For Cruz Bay town, church cemeteries first emerged primarily to accommodate European estate owners on the west end of the island (Blouet 2013). Both Lutheran (1720) and Dutch Reformed (1767) congregations established churches in and around Cruz Bay by the late eighteenth century, notably providing the town's first church burial grounds. With a mission established at Estate Bethany in 1754, Moravian missionaries and their families also had a formal resting place near town. Initially the Moravian cemetery excluded the enslaved, but that policy shifted once Afro-Caribbeans from St. John became integrated into church leadership in the late nineteenth and early twentieth centuries. This power shift ushered in new burial practices within the community. Church cemeteries became popular cemeteries for the African-St. Johnian community who chose not to be buried within a home burial ground, as did public cemeteries (Blouet 2013). Blouet (2013:741) cites personal communication with Charles Pishko, who described the Cruz Bay Public Cemetery in particular as established by the end of the nineteenth century and related to the growth of the nearby town. She further notes that an unidentified cemetery associated with the Lutheran Church may have once been located within the boundaries of the current Cruz Bay Public Cemetery.

The pre-emancipation environment posed difficulties for both free and enslaved peoples to adhere to and recreate mortuary practices of their homelands, forcing both groups to adapt. Africans were particularly affected, as enslavement denied them the autonomy of determining where and how funerary practices would be performed. The march to emancipation resulted in changing mortuary practices in the nineteenth century. In addition to the integrated church cemeteries that began to accept the burials of enslaved and free peoples, community cemeteries were established in urban centers (Blouet 2013). Blouet (2013) argues that these shifts in mortuary practices reflect the autonomy of free and formerly enslaved peoples and their descendants to highlight individual identities and create a broader community in a post-emancipation cultural landscape. While some landowners and individuals continued to create family plots on privately owned land, the existence of public cemeteries offered different opportunities for those lacking property, for individuals living in town, or for those not wishing to be buried on historic estates. In a town like Cruz Bay that was inhabited predominantly by Afro-Caribbean families, rather than individuals of European descent, during the colonial era, this is particularly notable. In this context, the Cruz Bay Public Cemetery would have served as an important act of self-determination reflecting an identity that was uniquely St. Johnian. This is especially true when compared to public cemeteries in St. Thomas or St. Croix, which more rigidly enforced social mores and class distinctions on the part of the planter class during the eighteenth and nineteenth centuries.



Figure 26. Grave marker of the oldest known interment in the Cruz Bay Public Cemetery, Mrs. Lucretia Virginia Minor. View to southwest.



Figure 27. View of Lower Cemetery. View to northeast.



Figure 28. General view of Lower Cemetery. View to north.



Figure 29. General view of Upper Cemetery and ongoing archaeological monitoring by M. Davis. View to south.

Ethnohistoric Data on Funerary Customs of the African Diaspora in the Danish West Indies

While we summarize some ethnohistoric accounts here, we refer readers to Blouet (2013) and Lenik (2004) for more thorough discussions of funerary customs, as both worked to compiled ethnohistoric accounts prior to their respective work on St. John and on St. Croix. As noted above, Blouet (2013) has contributed a thoughtful discussion of mortuary practices throughout St. John among both European and non-European communities. Her work has contributed new interpretations of mortuary practices, including the myriad of ways that above-ground grave markers reflect social, religious, cultural, and economic identities.

Stephan Lenik's (2004) similarly impactful research delineated a historic cemetery within the enslaved laborer village at Estate Lower Bethlehem on St. Croix, offering a thorough methodological and theoretical framework for documenting cemeteries associated with African-descended peoples in the colonial DWI. Lenik (2004:125-136) cited the observations of Johan Lorentz Carstens, a St. Thomas resident in the early eighteenth century who described historic burial rites within enslaved communities. For the burials of enslaved individuals on estates, Carstens reported funerary rites including expressions of distress, lamentation, celebrations of life through food and drink, wrapping the body in linen, and nailing the coffin closed. Once the grave was dug, containers of drink and food were placed within the grave prior to the infilling of the grave. Lenik (2004:136-139) also cites mid-eighteenth-century VI planter Reimart Haagensen, who reported that well-respected enslaved individuals were buried in a coffin, while others were interred directly into plantation fields. Later reports from the late eighteenth and early nineteenth centuries mark the practice of Christian burials, a continued reliance on coffins, the presence of shrouds or cloth linings, a funeral feast, and burials near houses or enslaved laborer villages (Lenik 2004). The identification of Christian burials in the ethnohistoric accounts may refer to the service or prayers performed. However, most archaeologists would interpret this statement as referring to Christian burials following European contact in which individuals are laid out in an east to west orientation, often with the head to the west, supine (face-up), and in an extended position in which the arms and legs are laid out straight within a coffin or grave.

We highlight here Christian Georg Andreas Oldendorp's (1987) bracing but informative ethnohistoric account of his 1.5-year visit to the DWI in 1767, which included narratives of burial rites and associated rituals for the enslaved during the colonial era. Although there was notable variability among different African-descended ethnic groups in the DWI, Oldendorp (1987) reported that the deceased were provided with appropriate, clean clothing that was often white. The deceased were then enshrouded, wrapped with cloth, or occasionally sewn into fabric donated by friends and neighbors. Others were covered in palms or wrapped in woven reed mats. Poorer individuals may have been interred directly into the ground but better-off free and enslaved individuals were placed into wooden coffins, often with a lining of white linen (Oldendorp 1987). While Christian religious ceremonies were performed on site for the baptized, other customs reflect traditional burial practices of a range of different African ethnic groups. Funerary feasts were common for community members participating in the service. Such services often involved a large gathering in a meaningful display of community, including performative rituals to protect and honor the dead, dancing, singing, noisemaking, and commemorative acts. Additionally, offerings of prepared food, fresh fruits, bottles, drink containers, rum, and more were often made in and around the grave. Glass bottles, ceramics, shell, and loose stone were often left as above-ground markers on the gravesite (Oldendorp 1987). While some graves were formally marked with above-ground markers, many were unmarked or were informally marked by stone, shell, conch, coral, and concentrations of other material.

With regard to the Cruz Bay Public Cemetery, it is notable that historic burials as early as the eighteenth century were prepared, dressed in finery, wrapped in cloth, celebrated with feasting and offerings or tokens, and variably interred directly into the ground or into a wooden coffin.

Archaeological Data on Funerary Customs of the African Diaspora in the USVI

Blouet's (2013) research on shifting burial practices documented the cultural traditions of enslaved and free individuals of African descent living both prior to and following Emancipation. Change occurred in the eighteenth and nineteenth centuries as both free and enslaved St. Johnians were buried on household estates, on private property, in church cemeteries, or in community cemeteries close to urban centers. However, Blouet's work can also be considered in light of the burial practices of African-descended peoples and the African Diaspora in the Americas. We fully recognize that there is meaningful, significant variability in the burial practices of different African ethnic groups and African-descended peoples in the Americas, just as there are significant differences among the Caribbean islands or even the individual estates within a given island. Moreover, burial rites would have varied based on an individual's age, sex, gender, religion, nation of origin, heritage, class, as well as status as free, enslaved, or formerly enslaved. However, we strive to ground this discussion based on practices observed at the Cruz Bay Public Cemetery and place such practices within broader contexts.

Mortuary and bioarchaeological studies of African-descended peoples are rather well-documented in the US due to broader research projects as well as cultural resource management (CRM) projects in which burials were encountered and documented prior to development (Blakey 2001; Blakey and Rankin-Hill 2004; Davidson 2010; Davidson and Mainfort 2008; Jamieson 1995; LaRoche and Blakey 1997; McCarthy 1997 and 2006; Orser 1998; Perry et al. 2006). Additionally, mortuary studies and cemetery documentation within the Caribbean has focused on cemeteries of enslaved individuals within historic plantations and also free communities in Jamaica (Armstrong 1990; Armstrong and Fleischman 2003), Barbados (Corruccini et al. 1982; Handler and Lange 1978), Montserrat (Mann et al. 1987; Watters 1994), the Bahamas (Marshall and Baxter 2011), and elsewhere. Such studies have contributed important discussions of creolization, the nature of enslavement, the active creation of identity amid the conditions of slavery, and comparisons of pre- and post-emancipation communities of practice among West Indian peoples.

In the USVI specifically, African and African-descended burial practices are less well documented but are known through a range of bioarchaeological and archaeological projects throughout St. Thomas, St. John, St. Croix, and Water Island. Early twentieth century research revealed historic burials of individuals of African heritage that were intrusive into prehistoric sites and cemeteries on Water Island and at Hull Bay (Buxton et al. 1938; Stewart 1939; Ubelaker and Angel 1976). Such studies focused primarily on the analysis of skeletal features and the relative antiquity of individuals of African descent in the Caribbean, rather than material studies of mortuary practices. At Hull Bay (2-AV-1Ens-1), Skeleton B, an extended burial, was found in association with colonial nails, suggesting a coffin, and was intrusive into a prehistoric site (Ubelaker and Angel 1976). Skeleton A, another extended burial, was buried with a coarse earthenware ceramic vessel near the right wrist (Ubelaker and Angel 1976). The otherwise undecorated ceramic was determined to be associated with the prehistoric Elenan Ostionoid ceramics dating from AD 900 to AD 1200 at the time, which would have provided evidence of Africans in the VI prior to European contact. Alternatively, the prehistoric ceramic could have been an heirloom, a found prehistoric item included with a historic burial, or otherwise unassociated, as both burials were intrusive into the known prehistoric site. As noted by Emily Lundberg (1981), the initial discovery took place prior to the characterization of hand built coarse earthenwares, also known as colonowares, a locally made earthenware ceramic manufactured by enslaved individuals during the colonial era (Gartley 1979; Hauser 2008; Hauser and DeCorse 2003; Lenik 2009). At times, the coarse Caribbean earthenwares (Hauser 2008) are nearly indistinguishable from undecorated, unpainted prehistoric ceramics, which could explain why individuals of African descent would be found in otherwise unassociated prehistoric sites in the Caribbean centuries prior to European contact. However, the Hull Bay find does provide evidence of the potential inclusion of tokens or personal belongings with African-descent individuals during the colonial era.

In subsequent years, cultural traditions in the VI, the passage of both federal and territorial antiquities legislation, and the reorientation of archaeological research practices have together resulted in relatively few interments being intentionally disturbed through archaeological research. In the rare cases that historic or prehistoric burials are excavated in the VI in the modern era, it is largely because they are disturbed unexpectedly during construction (Lundberg 1980) or following natural disasters (flooding, erosion, or hurricanes) (Persons 2023). Given the disturbed nature of such finds, limited contextual data is available regarding the orientation, position, or associated personal belongings for each burial feature.

However, seminal academic research highlighting above-ground markers and burial practices has documented enslaved laborer villages, colonial estates, house complexes, and associated cemeteries on St. John (Armstrong 2003; Blouet 2010 and 2013; Kellar 2004) and St. Croix (Lenik 2004). Douglas Armstrong's (2003) work in the East End community on St. John documented several house-yard or household burials at sites dating to before 1870, after which burial practices likely shifted to a nearby church cemetery. Elizabeth Kellar's (2004) excavations at Estate Adrian on St. John revealed two eighteenth century burials associated with the enslaved laborer village of the colonial Adrian plantation. One east-west oriented historic burial was partially exposed, revealing an axe and a hoe blade that were included as personal belongings (Kellar 2004:134-135). The burial was found within a constructed, terraced platform. A second historic burial was observed on a different part of the terraced platform associated with a smoking pipe. The two encountered graves were neither fully exposed nor excavated, but Kellar (2004) assumed that the general area likely contained additional burials.

As noted above, when Lenik (2004) documented the enslaved village and associated cemetery at Estate Lower Bethlehem on St. Croix, he provided formal documentation of a cemetery within an enslaved village for the first time using clear archaeological data. While his research also addressed other archaeological contexts within the village site, he delineated many of the burials within the associated cemetery without intrusive excavations into the cemetery itself. Through careful excavations, he ultimately documented east-west oriented burials that were arranged into rows, which themselves were oriented north to south (Lenik 2004). Lenik documented some 36 historic burial features. As the burials were identified and delineated, but not exposed, cultural material recovery within the cemetery was limited. One metal escutcheon or medallion was recovered from Feature 23, but Lenik (2004) proposes that other charms or personal belongings would have been present if the cemetery had not been previously impacted.

Additionally, NPS and VIIS projects on St. John have salvaged storm-disturbed historic or prehistoric burials without clear contextual data at Cinnamon Bay. Given the disturbed nature of the finds, the burials were rehousing in an onsite monument. NPS and VIIS archaeologists have also documented historic burials at Lameshur Bay, in which three individuals of presumed African descent were interred between 1790 and 1830 at some distance from the enslaved laborer village of the Lameshur Estate.

Countless other historic cemeteries have been documented throughout the VI through CRM projects in which archaeological sites/features are documented prior to potential impact from proposed development. Current practices favor documentation by recognizing above-ground features or remote sensing, rather than excavation, and *in situ* preservation of cemeteries whenever possible (Hayward et al. 2003; Persons 2015, 2016, 2017a, 2017b, and 2020; Soltec 2014). Other reports of historic burial recovery and/or documented cemeteries are known at Holy Trinity Lutheran Church, Coakley Bay, Barren Spot, Estate William, Estate Punch, and Estate Orange Grove on St. Croix and at Coki Point, on St. Thomas. However related reports of investigations were either not produced or not available at the time of this publication.

Altogether, we note that there is rather limited data on *in situ* excavations of burials within the USVI, but there are points of comparison that bear mentioning from comparative studies of Diasporic mortuary practices prior to and after emancipation. Moreover, many such practices are widely known throughout the African Diaspora in the modern era. With these broader contexts in mind, we consider grave goods or

offerings among African-descended or Diasporic peoples in historic sites in the Americas in the eighteenth and nineteenth centuries. Specifically, the inclusion of various personal items within a burial, on top of a coffin, or even on top of a grave, has been interpreted in many historic contexts across the Americas as a cultural practice associated with the African Diaspora (Davidson 2010; Jamieson 1995; McCarthy 1998 and 2006)

In their discussion of seventeenth- and eighteenth-century interments of enslaved individuals on Barbados, Jerome Handler and Frederick Lange (1978:199-201) mention ethnohistoric accounts in the Caribbean and in West Africa in which food, pipes, bread, rum, tobacco, and other goods, were interred with the deceased during the funerary procession. Handler and Lange (1978:135-144) themselves documented a range of material goods interred with the deceased, including clay tobacco pipes, glass beads, evidence of coffin hardware, clothing (metal, shell, and bone buttons), and metal jewelry. Ceramics were also interred with several individuals, including locally made hand built coarse redwares, porcelain, refined earthenwares, stonewares, and glazed earthenwares. They further note the presence of shallow bowls, but do not comment on other ceramic forms (Handler and Lange 1978).

Teawares or tablewares were documented in eighteenth and nineteenth century interments in the Americas as well. Ross W. Jamieson (1995) reports cases in which ceramics are ritually “killed” and then included with interments, along with instances in which ceramics or bowls of salt were placed on graves among African-descended peoples. James M. Davidson (2010) documented cases in African and African American cemeteries in which a shoe or a bowl or plate of salt was placed on the corpse or on the coffin lid to protect the deceased and living from the spirit realm, along with other cases in which the last article used by the departed, including saucers, plates, or cups, was placed within the grave as well. Ray Fremmer (1973) reported the inclusion of a salt-glazed stoneware saucer and a plate with an eighteenth-century interment in Jamaica, suggesting that placement with salt or salt and coffee atop the burial might originate in British customs, rather than African customs. John P. McCarthy (1998), though, later summarized similar finds based on African church cemeteries in Philadelphia as a potential association with a creolized, mortuary practice that draws from both African and colonial influences to honor the dead during wake and burial. There are numerous accounts in which similar tokens, offerings, or charms were placed within or on top of grave sites in a range of other historic burial sites (Davidson 2010; McCarthy 2006).

As noted above, comparative data runs the risk of overgeneralizing cultural practices across very diverse peoples who themselves embody different identities, religious practices, ideologies, and unique, culturally specific mortuary practices that changed over time through enslavement, emancipation, and then freedom. However, mortuary archaeology across colonial contexts in the Americas indicates that there are considerable similarities in form, access to material culture, and the construction of identity within both European and non-European communities. This appears equally true of communities linked in a Diaspora, such as individuals of African descent throughout the Americas. Additional ethnohistoric research on burial practices of the ethnic groups that were present among enslaved and free people in the DWI would be worthwhile, as it would provide additional data on expected practices in the colonial era. Importantly, such research could perhaps identify the potential origins of some practices as African, others that are influenced by European practices, and others reflecting creolization or syncretism among St. Johnians of the past and the present. Undoubtedly there is a strong link between the burial practices of African-descent peoples prior to emancipation in St. John and the mortuary practices that persisted in the nineteenth and twentieth centuries (Armstrong 2003; Blouet 2010, 2013, and 2016). That continuity is evident at the Cruz Bay Public Cemetery in above-ground markers within the cemetery, the establishment of the community cemetery itself, and, presumably, the many ways that the deceased were honored through ritual and practice.

Cruz Bay Public Cemetery Description

There is evidence of the founding of the Cruz Bay Public Cemetery sometime in the early to mid-nineteenth century and evidence of regular use by the late nineteenth century through the present. While the cemetery has not changed in the modern era, the number of interments has increased enough that the cemetery is at capacity. The earliest extensive description of the cemetery was generated during Blouet's (2013:736) 2013 survey. At that time, she identified 106 grave markers, including 14 rectangular tombs, 17 Moravian bed markers, 40 fieldstone or rubble-covered graves, and 35 graves with a fieldstone border. She notes the cemetery is variably known as the Cruz Bay Public Cemetery, the Gallows Point Cemetery, as well as "Found Out" grounds. The latter, as reported in Blouet (2010:225), presumably refers to historic use of the area for executions or punitive measures in the historic era.

During the late summer and fall of 2021, JBI A revisited the cemetery to document its current extent and overall disposition. In the years since Blouet's survey, the number of interments has increased significantly. Other sources indicate that there are upwards of 160 marked graves in both the Upper and Lower Cemeteries (Find A Grave 2022). Common surnames throughout the cemetery include Sprauve, Thomas, Frett, O'Conner, Samuel, Sewer, Batiste, Daniel, and Brathwaite (Table 3). Based on the marked graves recorded by Find A Grave, a subsidiary of Ancestry, there is a notable gap between Mrs. Minor's interment in 1895 and the next interment of Mr. Firmin H. Sewer in 1953. This gap is not a reflection of limited use during the early twentieth century, but rather a reflection of missing data for unmarked graves as well as the documentation limits of the Find a Grave/Ancestry database, which is largely user-generated. The most recent interment in Find A Grave/Ancestry's database as of the writing of this report is Jens Wallace Pickering (b. 1929 – d. 2022).

In the late summer and fall of 2021, JBI A documented a minimum of 180 confirmed, clearly marked burials with an upper estimate of 280 burials for both cemeteries. The oldest grave in the Lower Cemetery is Mrs. Lucretia Virginia Minor (b. 1820 - d. 1895) (Figure 26). The oldest grave in the Upper Cemetery is Mrs. Mary Sprauve (b. 1853 - d. 1937), providing evidence of early twentieth century cemetery use. The most common type of burial monument in both portions of the cemetery is a plastered, flat-top masonry vault built atop a concrete slab (Figures 30 and 31). Many vaults are multi-tiered to accommodate family groupings, some reaching up to three tiers and many featuring ornamental flourishes and engraved markers. Some multi-tiered vaults combine below-ground crypts with above-ground vaults. There are a wide range of forms, including both above-ground and below-ground single-grave vaults with poured concrete elements, markers, or beveled surfaces that would preclude stacked burials (Figures 30-34). In-ground burials are marked with ledger stones (large stones placed horizontally), grave curbs (low borders around the grave), or stacked stone borders. Stone borders are observed throughout the Lower Cemetery in particular. The Lower Cemetery also features clearly delineated rubble graves (Figures 31 and 32), which are typically associated with colonial-era interments of enslaved individuals throughout the DWI. There are 70 probable rubble graves and 30 possible rubble graves in the Lower Cemetery, the latter designation being reserved for indistinct concentrations of stone observed throughout the cemetery that are likely interments. Rubble graves are restricted to the Lower Cemetery, which suggests that the Lower Cemetery is older than the Upper. Oral history of the area suggests that there were likely additional rubble graves that were impacted by the 1954 to 1958 road construction activities (David Knight, Sr., personal communication 2022). As of October of 2021, the Upper Cemetery consisted of 118 marked aboveground graves, crypts, and vaults, with no observed rubble graves. The Upper Cemetery consists of twentieth century interments and is still in use today. Altogether, we estimate there are a confirmed 180 marked burials with up to 100 probable or marked rubble graves, reaching a total count of up to 280 individuals as of the late summer and fall of 2021.

With only a single marked known grave (L. Minor) dating to the nineteenth century, it is notable that the projected use of the cemetery based on observed grave markers is considerably narrower than the period of use based on archival data and oral history. Archival data indicate interments as early as the early

nineteenth century, the Gallows Bay toponym may push that date back to a post-1780s eighteenth century, while observed grave markers provide evidence of use from 1895 to the present. Assuming that the original cemetery likely began at the highpoint of the Gallows Point landform, a probable history is as follows. The Cruz Bay Public Cemetery likely was established at the highest point on the promontory near the Gallows Point Resort, extending east down to the bay in what is now the Lower Cemetery. The oldest component of the cemetery likely includes areas at the promontory, where probable use extends from at least the nineteenth century. Extant rubble graves were likely constructed during the earliest iteration of the cemetery, as this type of burial monument predominantly dates to the eighteenth and nineteenth centuries in the DWI. While the Lower Cemetery may have a chronological association that spans the late eighteenth to the present, the Upper Cemetery has a more restricted period of use spanning only the twentieth and twenty-first centuries. It bears mentioning that it is likely the older component of the cemetery that was impacted by the 1954 to 1958 road modifications, as documented in this report. It is highly likely that older, as yet undocumented burials exist in other locales based on this data, although the current scope of work did not include their delineation.

Table 3. Recorded memorials cited on Find A Grave (2022), noting surnames, birth year, and death year.

Name	Surname	Birth	Death	Name	Surname	Birth	Death
Frederick "Frenchie" Alexander	Alexander	1932	2002	Catherine "Katie" Liburd	Liburd	Unknown	2017
Javon J. Alfred	Alfred	1997	2004	Juanito A. Liburd	Liburd	1955	2021
Diana E.F. Anthony	Anthony	1904	1976	CPT Ceneca E. Lindo	Lindo	1984	2021
Bruno Mackie Ashly	Ashly	1966	2000	Mervel Wilhelmena Spooner Matthew	Matthew	1925	1995
Ann Marie Jon Baptiste	Baptiste	1921	2007	Ethlyn Stagger Miles	Miles	1922	1998
Travis Bartlette	Bartlette	Unknown	2006	Lucretia Virginia Howard Minor	Minor	1820	1895
James Bastian	Bastian	1939	1981	Theovald Eric "Mooie" Moorehead	Moorehead	1916	1995
Camilla Norma Battise	Battise	1936	2003	Ronald A. Morrisette	Morrisette	1914	1970
Jacob H. Battiste	Battiste	1903	1978	Floreca Elen Norman-George	Norman-George	1928	2019
Olive E. Battiste	Battiste	1905	1971	Robert A O'Conner III	O'Conner	1968	2003
Daisy May Benjamin	Benjamin	1917	2008	Robert A O'Conner, Sr.	O'Connor	1921	1978
William Benjamin	Benjamin	1925	2003	Alice M. O'Connor	O'Connor	1921	2014
Grafton E. Bernard	Bernard	1924	1982	Ramon Emanuel O'Connor	O'Connor	1915	1995
Margarita M. Blake	Blake	Unknown	Unknown	Camille Paris	Paris	1936	2009
Loredon Lawrence Boynes, Jr.	Boynes	1952	2022	Vernon Walton Parsons	Parsons	1928	2015
Loredon Lorence Boynes, Sr.	Boynes	1919	1994	Frederick Payne	Payne	Unknown	2015
Dinah Ezz Brathwaite	Brathwaite	1913	1991	Phyllis E. Williams Peltier	Peltier	1918	1995
James A Brathwaite	Brathwaite	1951	1994	Mitcheline Avis Peltier-Browne	Peltier-Browne	1942	2015
James Alfredo "Roly" Brathwaite (listed twice in database)	Brathwaite	1951	1994	Penn	Penn	Unknown	Unknown
Gertrude S. Brice	Brice	1930	2008	Edwin Eldred "Nick" Penn	Penn	Unknown	1992
Beryl Anita Bridgewater	Bridgewater	1947	2018	Aubrey S. Philbert	Philbert	1938	2017
Mitcheline A. Browne	Browne	Unknown	2015	Jens Wallace Pickering	Pickering	1929	2022
Joseph Burton	Burton	1946	2012	Ariel "Arrie" Powell	Powell	1980	2009
Joseph "Solobo" Burton (Listed twice in database)	Burton	1946	2012	Vernell A. Powell	Powell	1956	2016
Leslie Sylvester Callwood	Callwood	1965	1995	Warren A. Powell Sr.	Powell	1947	2015
Deacon Adu Noah "Winston H Lang" Cann	Cann	1945	2007	Jessee Lee Richards, Jr.	Richards	1978	2016
Janet Cecelia George Carty	Carty	1952	2013	Quane Jalani Richards	Richards	1995	2015

Name	Surname	Birth	Death	Name	Surname	Birth	Death
Dawn "Jill" Charlemagne	Charlemagne	1970	2016	Leonic Riddle	Riddle	1942	2017
Maria Michel Charlemagne	Charlemagne	1989	1994	Delita Patricia Sprauve Roberts	Roberts	Unknown	2015
Clayton Victor Charles	Charles	1931	1995	Louisa Rogers	Rogers	1918	2000
Martha Cherry	Cherry	1944	2021	Elaine C. Samuel	Samuel	1928	2002
Floresa R. Chinnery Williams	Williams	1926	2006	Gilbert M. Samuel	Samuel	1953	1980
Desmond Emmanuel Christian	Christian	1913	1994	Lionel Chester Samuel	Samuel	1922	2001
Eleanora C. Christian	Christian	1910	2006	Ella Jane Samuel Hodge	Samuel Hodge	1912	2012
Berris Dalmida	Dalmida	1962	2017	Firmin H. Sewer	Sewer	1911	1953
Caroline Daniel	Daniel	1882	1966	Llewellyn A. Sewer	Sewer	1943	1994
Cecil E. Daniel	Daniel	1880	1964	Dr. Marion Sewer	Sewer	1972	2016
Charles Russell "Chicken" Daniel	Daniel	1955	2011	Oswin Sewer, Sr.	Sewer	1947	2015
Nevo Doway	Doway	1959	1997	Herbie Skelton	Skelton	1964	2012
Raymond B. Doway	Doway	1940	2011	M. Smalls	Smalls	Unknown	2001
John Linus Edward	Edward	Unknown	2015	Albert Emanuel Smith	Smith	1943	2015
Patrick "Mike" Edward	Edward	1956	2012	Alston Smith	Smith	1985	2007
Ella Mary Thorp Ellis	Ellis	1928	2013	John "Jones" Sonson	Sonson	1932	2002
Mario Evans	Evans	1932	1982	Mary "Angie" Sonson	Sonson	1946	1994
Mildred A. Fahie	Fahie	1918	2016	Mervel W. Spooner Matthew	Spooner Matthew	1925	1995
Ira Juansito Fleming	Fleming	1940	2010	Carmen Anetta Sprauve	Sprauve	1959	2015
Lorrain Ione Thomas Fleming	Fleming	1947	2010	Godwin E. Sprauve	Sprauve	1954	2016
Cecil Burnett Frett	Frett	1932	2011	Herbert Sprauve	Sprauve	1923	1983
Janet Claire Frett	Frett	1950	2016	Herman Emanuel Sprauve	Sprauve	1926	1992
Maguerita Frett	Frett	1942	2012	Hilton E. Sprauve	Sprauve	1913	2000
Stedwin A. Frett, Sr.	Frett	1934	2013	Liston E. Sprauve, Sr.	Sprauve	1944	2018
Richard George	George	1922	2014	Neal Sprauve, Sr.	Sprauve	1959	2014
Nancy Ferard Flagg Gibney	Gibney	1921	1980	Nekwan Rhys "Neko" Sprauve	Sprauve	1994	2010
Robert Gibney	Gibney	1915	1973	Rita Adrina Samuel Sprauve	Sprauve	1935	2016
Calma C. Harley	Harley	1948	2014	Tilford Curtis Sprauve	Sprauve	1940	1978
Joseph Butchner Harley	Harley	1906	1992	Virginia Rineta Lettsome Sprauve	Sprauve	1915	1998
Mary Harvey	Harvey	1866	1970	Almida Penn Stapleton	Stapleton	1951	2011
Doris Myonia "Dee" Daniel Hendricks	Hendricks	Unknown	2002	Almida "Penn" Stapleton (listed twice in database)	Stapleton	1951	2011
George Hendrickson	Hendrickson	1937	2021	Ruth Esther Keating Stephens	Stephens	1911	1988
Donald Frederick Herrick	Herrick	1899	1963	Zeferia V. Stevens	Stevens	1908	1997
Kathryn L. Beery Herrick	Herrick	Unknown	1963	Mervin S. Sturge	Sturge	1947	2000
Delbert Ronald "Delby" Hill, Sr.	Hill	1937	2015	Charles Wesley Thomas	Thomas	1957	2015
Hyacinth R. Hill	Hill	1936	2014	Icilda Thomas	Thomas	Unknown	2018
Joseph Hippolyte	Hippolyte	1926	2016	Joyce Cleone Thomas	Thomas	1941	2014
Ella Jane Samuel Hodge	Hodge	1911	2012	Randolph Emanuel Thomas	Thomas	Unknown	2014

Name	Surname	Birth	Death	Name	Surname	Birth	Death
Diana Idonia Sprauve Jackson	Jackson	1945	1995	Robert Zealand Thomas, Jr.	Thomas	1940	2019
George E. Jacobs	Jacobs	1928	1980	Valeria Indiana Abbott Thomas	Thomas	1917	1997
Samantha Seara James	James	1990	2012	William D. Thorp	Thorp	1902	1967
Angela JeanFrancois	JeanFrancois	1920	2013	Esperanza T. Trilles	Trilles	Unknown	Unknown
Laurel Y. Johnson	Johnson	1929	2005	Arlington Tyrell, Sr.	Tyrell	Unknown	2019
Kenson Jolly	Jolly	Unknown	2015	Evance Venzen	Venzen	1937	1994
Marcella Jones	Jones	1939	2012	Damien Alexander Smith Wallace	Wallace	2002	2017
D'Shanda Joseph	Joseph	Unknown	2011	Alfred Watt	Watt	1946	2021
Emile "Milo" Jurgen	Jurgen	1908	1995	Ernest St. Clair Wells	Wells	1909	2011
Lillian E. Jurgen	Jurgen	1918	1980	Mable Ianthe Wells	Wells	1912	1999
Dr. George H.H. Knight	Knight	1901	1978	Irene Wilkinson	Wilkinson	1938	2015
Justine Jurgen LaFond	Lafond	Unknown	2014	Joseph T. Wilkinson	Wilkinson	1935	2021
Myrtle O. Smith Lawrence	Lawrence	1943	2010	Merril Wilkinson	Wilkinson	Unknown	Unknown
Everett Alexis Lee, Sr.	Lee	1927	2015	Dolores Amanda Letsome Williams	Williams	1910	1995
Genevieve Marie Marguerite Ozon Lewis	Lewis	1934	1988	Josephus Williams	Williams	1914	1991
George Walter "Shorty" Lewis, Sr.	Lewis	1924	2012				



Figure 30. General view of Lower Cemetery showing various types of grave markers, including plastered masonry above-ground tiered vaults. View to northeast.



Figure 31. Vault construction in the Lower Cemetery showing various grave markers. View to north.



Figure 32. Rubble grave in left foreground and other forms of above-ground vaults and monuments in the Lower Cemetery. View to east.



Figure 33. General view of the Upper Cemetery along with ongoing conduit excavation. View to northeast.



Figure 34. View of Upper Cemetery from Lower Cemetery, noting different in elevation. View to southwest.

CHAPTER 3: BIOARCHAEOLOGICAL INVESTIGATIONS AND RESULTS OF ANALYSIS

This chapter discusses bioarchaeological field methods, methods of noninvasive skeletal analysis, and the results of the bioarchaeological investigations and laboratory analysis. Note that although archaeological monitoring was performed within the 50-foot buffer designated by FEMA in consultation with the VISHPO, no additional burials, burial features, or archaeological deposits were observed in the subsequent trenching beyond the initial four burial features identified in 2021. Therefore, this chapter presents the bioarchaeological analysis of Burials 1 through 4, which were discovered in 2021 and delineated in 2022.

Bioarchaeological Field Methods

The following measures were undertaken during the 2022 field season to ensure careful, complete, and respectful recovery of skeletal remains and all associated cultural materials.

Burial Identification

All burial features were discovered during monitoring of mechanical excavations. Evidence of a burial is often determined by the presence of burial shafts, coffin wood, nails, or bone. However, the coffin wood encountered during the current excavations had deteriorated to such an extent that the first evidence of a grave was the presence of bone. Once a burial feature was identified, burials received a unique identifiable number in the order in which they were encountered, and the location was georeferenced with a handheld GPS data collector. The goal was to completely recover a burial (i.e., all the bones and cultural material pertaining to the body), assuming the burial is intact and the body is complete. Hence, if the whole extent of the burial was not exposed with the original mechanical excavation, additional mechanical excavation occurred in order to expose the whole burial. However, only the burials that were directly disturbed by the trench were removed. Following the discovery of the fourth burial feature in the late summer and fall of 2021, excavation work was halted in the area of Cruz Bay Public Cemetery until new protocols were put in place to ensure the careful recovery of the previously identified burials as well as the discovery and recovery of any additional burials that might be encountered. Upon resumption of excavation activities, a bioarchaeologist was present for the excavation of previously identified burials and to monitor for additional burials as excavations continued.

Burial Excavation

With the exception of one burial deposit (Burial 2), from which all human remains were recovered at the time of discovery, the backfill dirt over the previously identified burials was mechanically removed with archaeological monitors present. Once excavation work reached the level of the human remains, excavation continued by hand. The grave fill was dry screened using ¼" screen to ensure the complete recovery of human remains and associated cultural materials. A handheld data collector took GPS coordinates of the head, feet, and other points of the skeleton as necessary. The orientation of the body (i.e., extended, flexed, supine, prone, head orientation) was also recorded. Once the remains were mapped and georeferenced, they were carefully removed and an initial skeletal inventory was completed. The remains were placed in cotton bags labeled with the burial number, date, and skeletal element(s) (i.e., cranium, lower arm).

Field records detailed daily monitoring activities, onsite conditions, observed soil profiles, subsurface archaeological contexts, and recovered materials. These include written notes, photographs, hand-drawn maps, and GPS coordinates.

Human Remains Transfer

After excavation, the FAC and JBIA transferred the human remains into the custody of the GVI on St. John while they were not being actively analyzed. A chain of custody form was maintained throughout the project to track the location of recovered materials and human remains through the course of this project.

Bioarchaeological Analysis Methods

The following describes the methods of analysis for the bioarchaeological research conducted during the course of this project.

Laboratory Analysis

The analysis of the human remains took place at a makeshift field laboratory on St. John. The remains were assessed for sex, age, population affinity, stature, pathology, and trauma following basic bioarchaeological standards of skeletal data collection. The human remains maintained their burial numbers as their identifier. Documentation included appropriate forms (i.e., inventory form, sex assessment form, notes form), non-destructive measurements, and digital photographs. Areas of analytical interest on the remains were cleaned using dry brushes to remove any adherent soil. The analysis was conducted using spreading calipers, sliding calipers, an osteometric board, and scales in accordance with the standards for bioarchaeological data collection.

Analysis continued at the University of Tennessee, Knoxville using only field notes, lab notes, and photographs taken by G. Vidoli and M. Davis while in the field and in the temporary lab. These photographs included overviews of the remains laid out in anatomical position, individual segments of the remains, teeth (when present), and ageing landmarks. No ancestral human remains were transported to the University of Tennessee, Knoxville.

Inventory

Inventory was completed using a standard inventory form. A bone was considered complete if more than 75 percent of the bone was present, even if the bone was fragmentary. A bone was considered incomplete if there was less than 75 percent present. If bones were fragmentary, number of fragments were counted. Inventories for the burials were completed in the field, in the lab, and confirmed at UTK using photographs and field records.

Minimum Number of Individuals (MNI)

The inventory includes assessing how many individuals were recovered from each burial feature. This assessment, called minimum number of individuals, or MNI, is based on duplication of elements (i.e., two right humeri), different size of bones, or bone preservation. For example, humans only have one right humerus, therefore, we can determine that a deposit of bones with two right humeri includes the remains of at least two individuals. If an additional element is duplicated (i.e., two left tibiae), this could mean that both the right humerus and the left tibia are present for both individuals, or that the duplicated tibia is from yet a third person. Given the ambiguity of reassociating commingled remains, especially if incomplete and fragmentary, it can be difficult, if not impossible, to determine the exact number of individuals present in a burial feature. For this reason, we determine the *minimum* number of individuals.

Sex

The most reliable morphological features for biological sex estimation are found on the pelvis. If the features of the pelvis cannot be observed, the next most reliable methods rely on long bone measurements and morphological aspects of the cranium. Due to the poor preservation of the recovered remains, cranial landmarks and postcranial measurements were utilized for sex estimation.

Morphological features of the cranium, when observable, were assessed using Walker (2008). The features are scored with a scale (1-5) and entered into a formula that provides statistical probabilities of the individual being male or female.

Postcranial measurements for sex estimation provide a sectioning point, in which individuals whose measurements are larger than the sectioning point are estimated to be male and individuals whose measurements are smaller are estimated to be female. The femoral and/or humeral head maximum diameters were used to estimate sex (Spradley and Jantz 2011).

Age

The most reliable area for adult age estimation is an area on the pelvis, known as the pubic symphysis (Brooks and Suchey 1990). In the absence of the pubic symphysis, morphological features of the iliac auricular surface (Buckberry and Chamberlain 2002; Lovejoy et al. 1985; Milner and Boldsen 2012), also on the pelvis, may be relied on for age estimation. These methods provide a description of the features on the auricular surface associated with different age ranges. Final age estimations with 95 percent confidence interval using Milner and Boldsen (2012) are reported, along with a narrower age range based on bioarchaeologists' experience and Lovejoy and colleagues (1985). Due to the preservation of the recovered remains, age was estimated using the auricular surface.

Population Affinity

Population affinity is best estimated using cranial measurements which are then entered in to Fordisc 3.1 (Jantz and Ousley 2005), a statistical software package. Fordisc compares the measurements of an unknown individual to that of multiple reference samples of known population affinity available in the Forensic Data Bank or an archaeological database with populations from around the world. If cranial measurements cannot be obtained, population affinity can be estimated using morphological features of the facial structure of the cranium (Hefner 2009).

Stature

Stature, an individual's height, is estimated using complete and intact long bone measurements which are then entered into Fordisc 3.1 (Jantz and Ousley 2005), a statistical software package. Fordisc compares the measurements of an unknown individual to that of multiple reference samples of known stature available in the Forensic Data Bank or an archaeological database with populations from around the world.

Dentition

Dental health can be assessed by observing the amount of wear on the occlusal surfaces, the number of teeth lost during the individual's life, the presence of carious lesions, the presence of calculus, and abscesses in the bone of the maxilla and mandible (Berbesque et al. 2012; Lopez et al. 2011). Excessive dental wear can indicate a diet consisting of harder foods (like nuts or unprocessed grains); grinding of the teeth; the use of teeth as a tool, often for holding an object between one's teeth; or advanced age (Berbesque et al.

2012). The presence of dental calculus, carious lesions, or abscesses, and the number of teeth lost during life can be correlated with poor or insufficient dental care (Berbesque et al. 2012).

Mechanical modification of the teeth by deliberately filing, chipping, or adding grooves has been observed in individuals of Central and West African origin both living on the African continent and in areas of Europe, North, and Central America during the colonial era (Mack and Blakey 2004; Price et al. 2006). Although no teeth recovered during these excavations were observed to have dental modifications, it does not preclude the possibility that the individuals are of African descent.

Results of Bioarchaeological Investigations

This section offers discussion of the recovery methods for Burials 1 through 4, summarizing data from 2021 and from 2022. An overview of the location each burial is shown in Figures 35 and 36.

Burial 1

Burial 1 was initially encountered on August 17, 2021, close to the retaining wall along the Upper Cemetery during mechanical excavation of the conduit trench (Figures 35-37). Exposed bones, including the left femur, left arm and hand, right upper arm, ribs, vertebrae, scapulae, and clavicles were recovered and placed in labeled cotton bags. Additional bones were discovered in the eastern wall of the trench and were left *in situ*. A tarp was placed on top of the remaining bones followed by caution tape and a layer of sand fill prior to backfilling the trench.

On September 12, 2022, with K. Crossan and M. Davis monitoring, the trench was carefully excavated with a backhoe to the level of sand fill. This fill was removed through hand excavations with shovels and the tarp was pulled back to expose the remains in the eastern wall. The extent of the remains underneath the road was estimated based on the size and orientation of the bones visible and the tarp was put back in place to allow for mechanical exposure of this area. An area of road adjacent to the trench above the eastern wall approximately 60 x 150 cm (23.6 x 59.1 in) in size was cut with a concrete saw. The concrete was removed with the backhoe and the area was excavated with a backhoe to a depth approximately 12 cm (4.7 in) above the level of the remains. Hand excavation with a shovel continued for approximately an additional 7 cm (2.8 in). The remaining area was excavated by hand with trowels, brushes, and wooden tools. Both feet, both lower legs, the right femur, right hand, and fragments of the right lower arm were exposed at a depth of 44 cm (17.3 in) below surface (Figure 38). These remains were carefully placed in labeled cotton bags. The area below and beside the remains and cultural material was scraped with a trowel until virgin soil was reached to ensure that all human remains and cultural material were recovered. Virgin soil consisted of densely packed, greenish-gray soil (Munsell GLEY 1). The area excavated was roughly rectangular in shape and measured 123 x 27 cm (48.4 x 10.6 in).

The burial was oriented in a southwest to northeast direction in an extended, supine position, in which the arms and hands were placed by the sides of the body and the legs were fully extended, face-up. The location of the skull had the skeleton been intact was estimated based on the size and orientation of the legs and feet. This excavation was extended in all directions from this area to a depth of 60 cm (23.6 in) below surface. No human remains or cultural material was discovered. No evidence of soil disturbance or discoloration of the soil was observed in the floor of the trench or in the profile of the trench wall. It is likely that the skull was disturbed and removed from the area during previous roadworks at the site. We estimate that 90 percent of the burial was recovered.

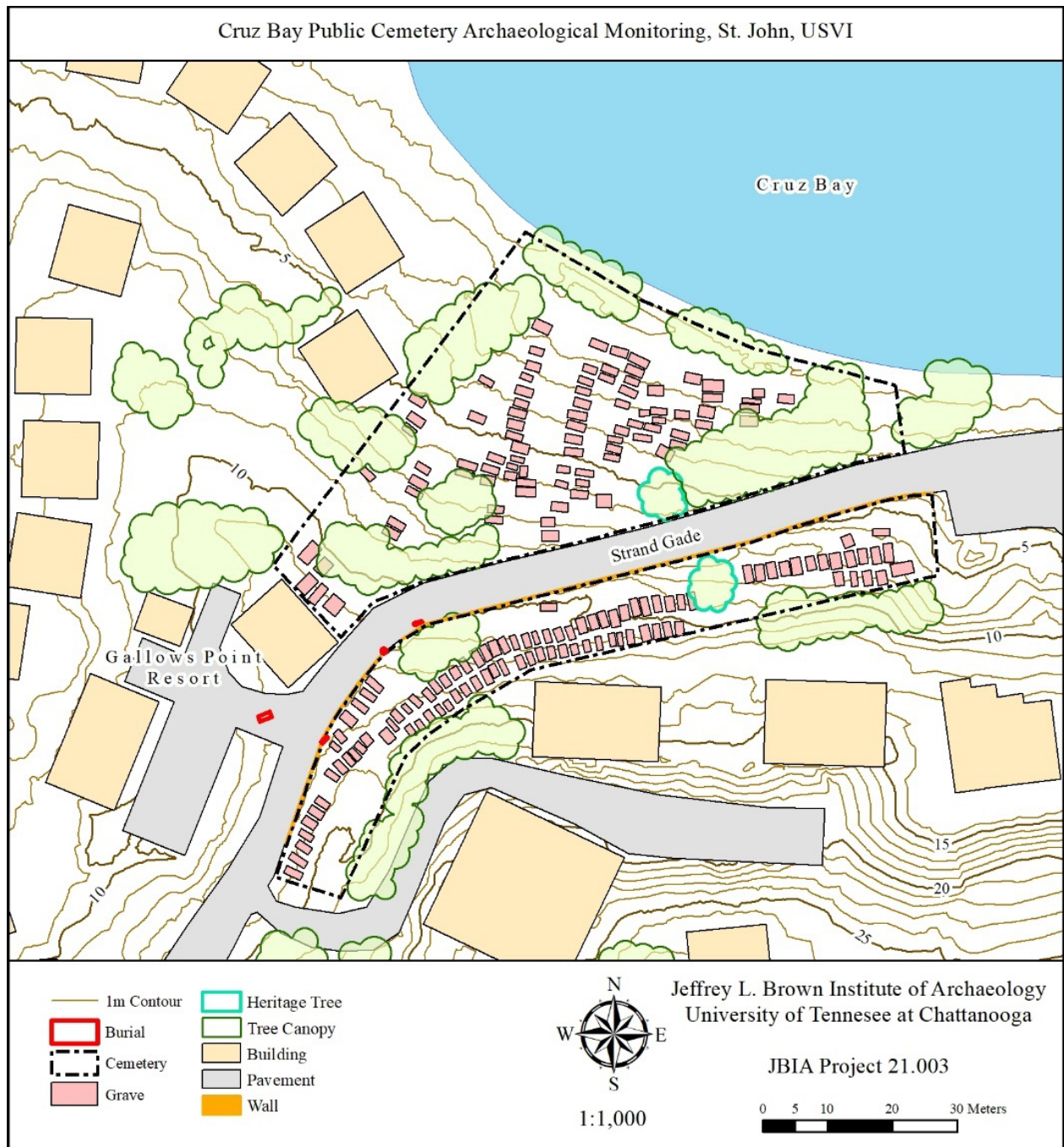


Figure 35. Sketch map of the Cruz Bay Public Cemetery showing the locations of newly identified burials.

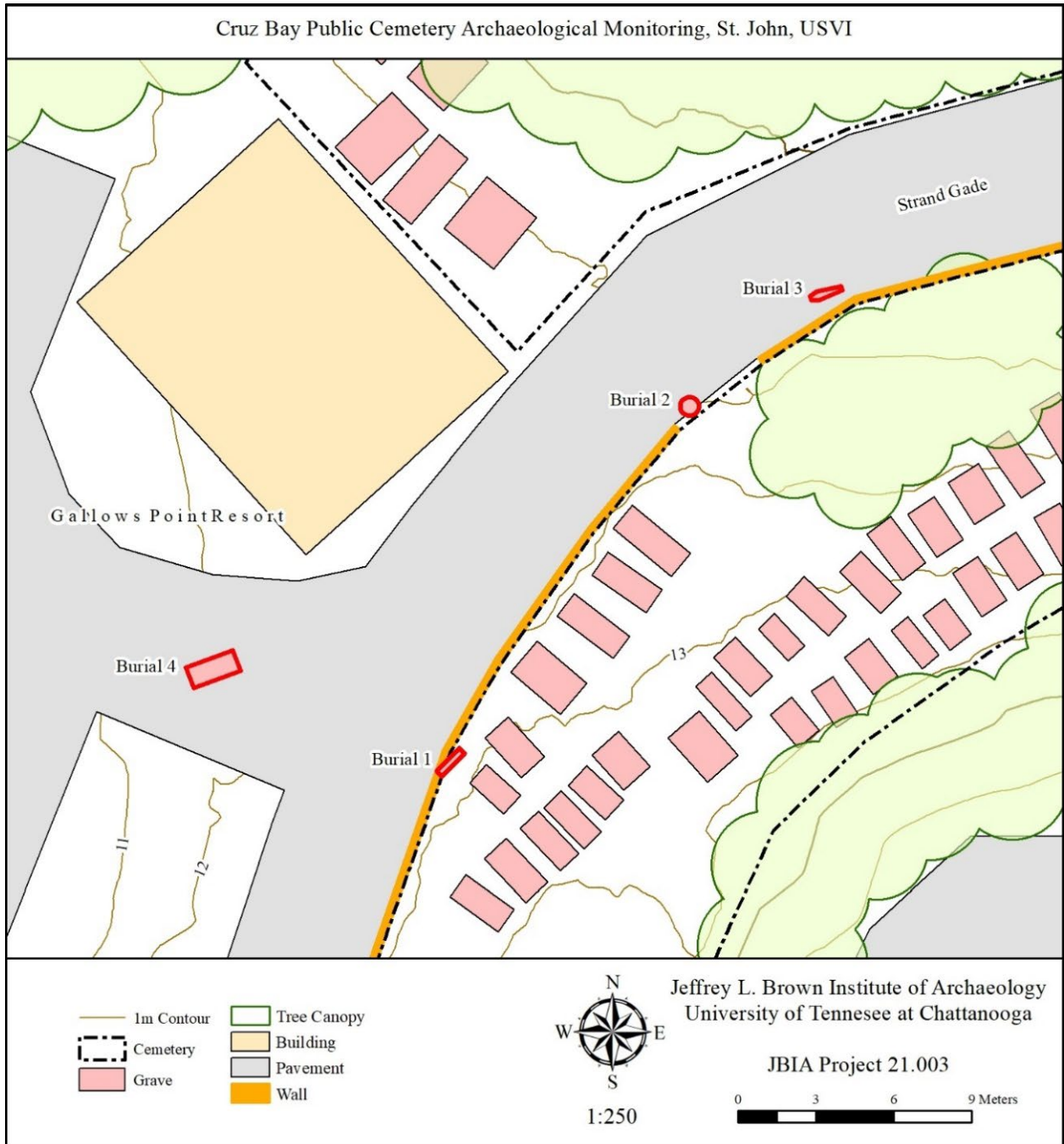


Figure 36. Sketch map showing the locations of Burials 1 through 4.

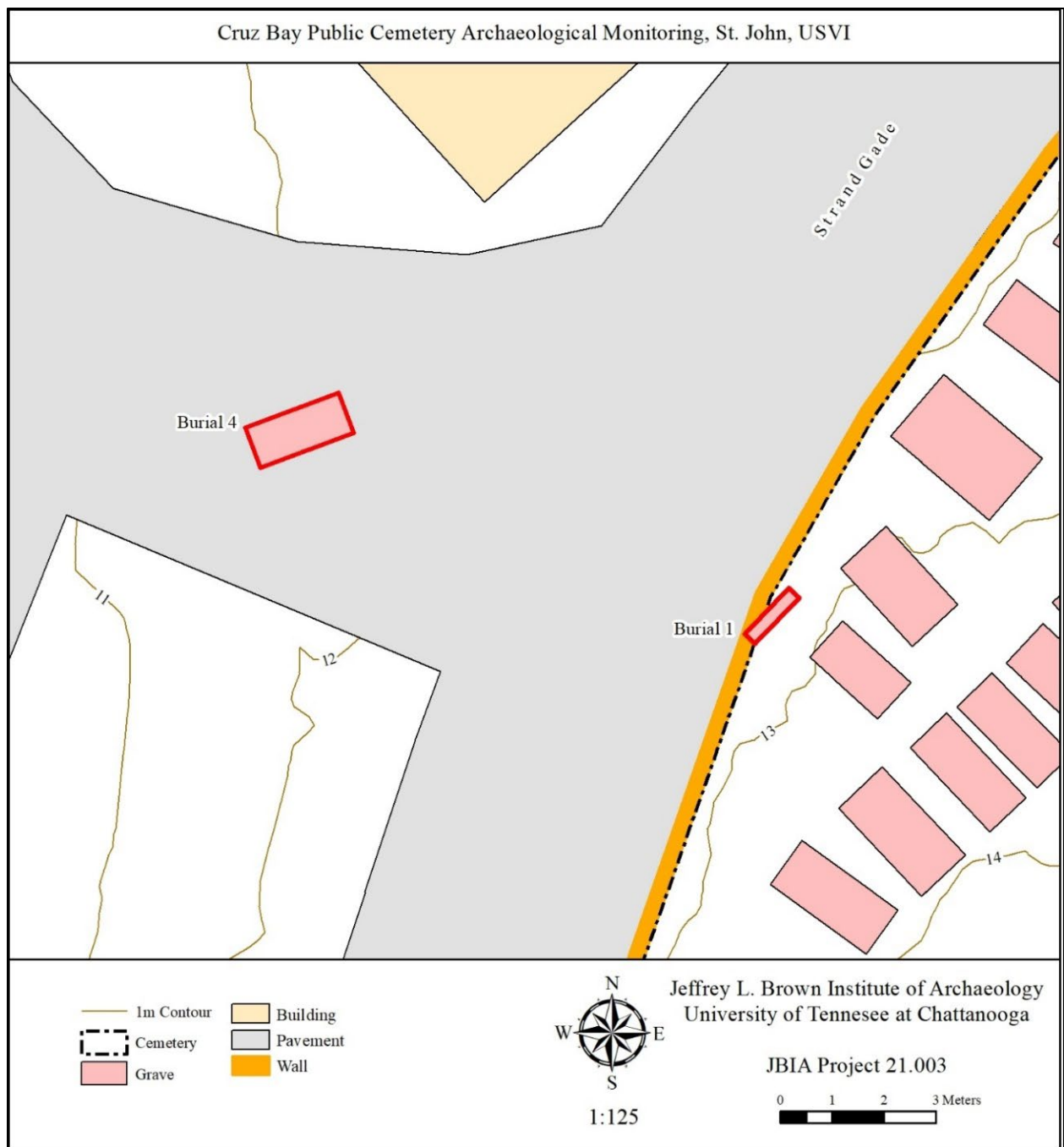


Figure 37. Sketch map showing the locations of Burial 1 and Burial 4.



Figure 38. Overview of Burial 1 excavated on September 12, 2022. View to the southeast. Scale is in cm.

Burial 2

Burial 2 was encountered on August 25, 2021, adjacent to the cut ramp leading into the Upper Cemetery during mechanical excavation. It was fully excavated by K. Crossan in August of 2021 (Figures 35-36, 39). The area of 'Burial 2' was highly disturbed. Not only was the trench in the roadway that was impacted by road expansion and widening in the 1950s, it was also located at the base of the entrance created to the Upper Cemetery. During archaeological monitoring, dense tree roots from a nearby tamarind tree were observed in the southern profile along with a pocket of heavily weathered blue bit stone. Despite careful inspection, there were no indications of a burial in the side profile or in exposed soils. However, human remains were revealed within mechanically excavated soils and therefore were not in anatomical position. No other *in situ* remains were observed following the initial recovery, despite careful hand excavation and screening of nearby soils. The lack of recovery likely reflects the disturbed nature of this burial feature, as it was already disarticulated and fragmentary prior to these excavations. No evidence of a grave shaft or coffin line was observed.

These remains were recovered and placed in individually labeled cotton bags. As the remains did not extend into the profile of the wall or in other locales within the trench, excavations were deemed to be completed during the initial recovery efforts. As a result, no additional excavations were warranted for Burial 2 during the 2022 fieldwork. This feature indicates that multiple burials were previously disturbed, likely during roadworks activities in the mid-twentieth century, which truncated the remains of at least two individuals. The nature of the disturbance comingled the remains of at least two individuals, with very limited, partial recovery of each burial. As a result, no burial position or orientation could be discerned. Since recovery was complete and following concurrence with FEMA and VISHPO, concrete was poured in the area to prepare for conduit installation in the late summer and fall of 2021.

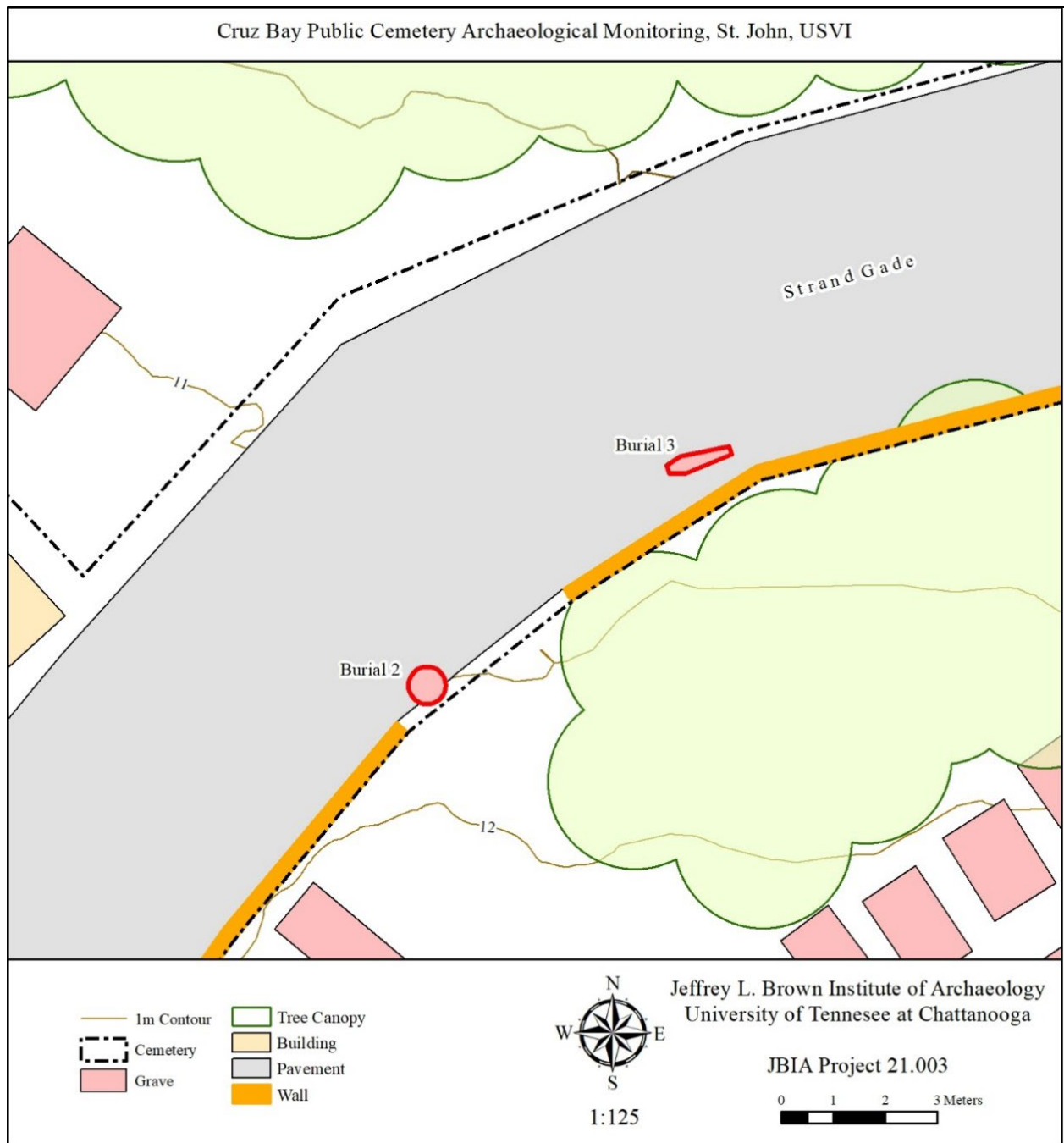


Figure 39. Sketch map showing the locations of Burial 2 and Burial 3.

Burial 3

Burial 3 was initially encountered during mechanical excavation of the trench on August 27, 2021 (Figures 35-36, 39). Human remains were exposed and appeared to be continuing into the southern wall of the trench underneath the road. Initial recovery efforts resulted in the recovery only of materials that were directly exposed by trenching, which included fragments of the cranium and mandible. The human remains were left *in situ* and covered with a tarp, caution tape, and a layer of sand fill prior to backfilling the trench.

On September 12, 2022, with K. Crossan monitoring, the trench was carefully excavated with a backhoe to the level of sand fill. On September 13, 2022, with K. Crossan and M. Davis monitoring, the sand fill was removed through hand excavation with shovels and the tarp was removed from the trench. Excavation continued by hand with trowels to determine the orientation of the remains. The extent of the remains underneath the road was estimated based on the size and orientation of the exposed remains and the tarp was put back in place to allow for mechanical exposure of this area. An area of the road adjacent to the trench above the southern wall was cut with a concrete saw. The concrete was removed with a backhoe and the area was mechanically excavated to a depth approximately 10 cm (3.9 in) above the level of the remains. Excavation with a shovel continued for approximately 5 cm. The remaining area was excavated by hand with trowels, brushes, and wooden tools. The remains represent a fragmentary, but complete, individual and were exposed at a level of 72 cm (28.3 in) below surface (Figure 40). A stain of decomposed wood representing the coffin line was visible along the southern edge of the excavation area. A large tree root was present along the northern edge of the remains and had caused some fragmenting and disturbance of the bones of the individual's left side and cranium. The remains were in a poor state of preservation with fragmentation evident in almost all bones. The higher moisture level of the soil resulted in moist bones which lacked structural integrity. Both fibulae had decomposed and were only represented as a dark yellowish-brown stain (Munsell 10YR) in the soil. These remains were carefully placed in individually labeled cotton bags. Due to the state of preservation, the diameter of the left femoral head was obtained in the field for later analysis.



Figure 40. Overview of Burial 3 excavated on September 13, 2022. View to southeast. Scale is in cm.

The area below and beside the human remains and cultural material was scraped with a trowel until virgin soil was reached approximately 2 cm below and 5 cm to the side of the excavated area to ensure all human remains and cultural material were recovered. Virgin soil consisted of densely packed greenish-gray soil (Munsell GLEY 1). All soil was dry screened using ¼" wire mesh screen to ensure the complete recovery of all human remains and cultural material. The area defined by the coffin line was roughly hexagonal in shape, coffin-shaped, and measured 33 cm (13.0 in) at the widest point between the large root that abutted the left lower arm and the coffin stain that abutted the right lower arm and 126 cm (49.6 in) in length. The burial was oriented in a southwest to northeast direction in an extended, supine position, in which the hands were placed on the abdomen and the legs were fully extended, face-up.

Burial 4

Burial 4 was initially encountered during mechanical excavation of the trench in the driveway of the current Gallows Point Resort during the late summer and fall of 2021 (Figures 35-36, 37). The remains were left *in situ* and covered with a tarp, a piece of caution tape, and a layer of sand fill prior to backfilling the trench. Work in the vicinity of Cruz Bay Public Cemetery ceased upon the discovery of these human remains until a bioarchaeologist was present. An archaeological monitor was not present at the time of initial discovery because the trench excavations were conducted outside of the areas requiring archaeological monitoring, as defined by FEMA and the VISHPO.

On September 19, 2022, with K. Crossan and M. Davis monitoring, the trench was carefully excavated with a backhoe to the level of the tarp. The tarp was removed by hand and excavation continued by hand with trowels. Human remains were located in the trench and extended into the western wall of the trench. A section of the road on the west side of the trench approximately 60 x 60 cm (23.6 x 23.6 in) was cut with a concrete saw. The concrete was removed with a backhoe which carefully excavated the area to a depth approximately 25 cm (9.8 in) above the level of the remains. Excavation continued by shovel for an additional approximately 10 cm (3.9 in) of depth. The remaining area was excavated by hand with trowels, brushes, and wooden tools. Human remains in this area were identified consisting of the lower arms and os coxae fragments. These remains continued further into the western wall. The location of the skull was estimated based on the size and orientation of the arms and bones of the torso. The exposed remains were covered with a tarp to allow expansion of the work area. Due to rain, further expansion was postponed for the next day.

On September 20, 2022, a section of the road approximately 60 x 30 cm (23.6 x 11.8 in) to the west of the previously expanded trench was cut with a concrete saw. The concrete was removed with a backhoe which carefully excavated the expansion to a depth approximately 30 cm (11.8 in) above the level of the remains. Excavation continued by hand with shovels an additional approximately 20 cm (7.9 in) of depth. The remaining area was excavated by hand with trowels, brushes, and hand tools to expose the clavicles, scapulae, and skull (Figure 41). The location of the lower legs and feet were estimated to be under the road on the eastern side of the trench based on the size and orientation of the upper body. Per FEMA guidelines to not leave remains exposed overnight, expansion of the trench was postponed for the next day. The already exposed remains were carefully recovered and placed in individually labeled cotton bags.

On September 21, 2022, with K. Crossan and M. Davis monitoring, the area of the wall underneath the road in the predicted location of the lower legs and feet was carefully excavated by shovel until human remains were located. Excavation continued by hand with trowels, brushes, and wooden tools. Both feet and fragments of the lower legs were discovered in this area (Figure 42). The remains were carefully recovered and placed in individually labeled cotton bags. The area delineated by the burial was roughly rectangular in shape and measured approximately 192 x 83 cm (75.6 x 17.3 in). The area below and beside the human remains and cultural material was scraped with a trowel until virgin soil was reached below and to

the side of the excavated area to ensure all human remains and cultural material were recovered. Virgin soil consisted of densely packed brown soil (Munsell 10YR 3/2).

The burial was oriented in a west to east direction in an extended, supine position, in which the arms were placed by the side of the body and the legs were fully extended. The lower portion of the pelvic bones, both femora and part of the lower legs were not located despite extending the excavation area in all directions down to virgin soil in the trench. These bones would have spanned the trench cut that was excavated in this area during September 2021 when archaeologists were not present for monitoring due to the location of the excavation area being outside of the APE as originally defined by FEMA and VISHPO. Therefore, the remains were likely accidentally removed from the trench by the excavator.



Figure 41. Overview of partial excavation of Burial 4 with exposed remains on September 20, 2022. View to northwest. Scale is in cm.



Image redacted.

Figure 42. Overview of partial excavation of Burial 4 with exposed remains on September 21, 2022. View to south. Scale is in cm.

Results of Bioarchaeological Lab Analysis

This section summarizes the results of the noninvasive bioarchaeological lab analysis of Burials 1 through 4 conducted in the field, in the field lab on St. John, and post-field processing of osteometric data at the FAC lab in Knoxville using previously taken measurements (Table 4). Note that all skeletal material remained on St. John for the duration of the project.

Table 4. Demographic data for Cruz Bay Public Cemetery burial excavation.

Burial Number	Sex	Age (Years)	Population Affinity	Stature	Pathology	Minimum Number of Individuals
Burial 1	Male	35-39	Not assessed	167.6-179.8 cm (66-70.8 in)	None observed	1
Burial 2	Not assessed	Adult	Not assessed	Not assessed	None observed	2
Burial 3	Female	45-49	Not assessed	Not assessed	None observed	1
Burial 4	Male	50-59	Possible African descent	161.29-176.02 cm (63.5-69.3 in)	DISH and osteoarthritis	1

Burial 1

The remains recovered from Burial 1 represent an incomplete skeleton. The skull, clavicles, left radius, sacrum, and large fragments of the os coxae were not recovered (Figure 43). Despite the absence of a skull,

a single maxillary premolar was recovered. The premolar exhibits no excessive wear, carious lesion, or other dental modification. No conclusions about the individual's dental health can be drawn from a single tooth.



Figure 43. Burial 1. Scale in cm. MNI of 1.

The most reliable elements required for sex estimation including the skull and the pubic symphysis were not present, so sex was estimated using 11 post-cranial measurements of the humerus, femur, and tibia. These measurements were entered into Fordisc 3.1, which estimated this individual to be male (posterior probability 0.964). The auricular surface was assessed in accordance with Lovejoy and colleagues (1985) and Milner and Boldsen (2012) for age estimation. No billowing, slight transverse organization with some striae present, microporosity, and no apical change indicates a Lovejoy Phase 4 (35 to 39 years); however, a 95percent confidence interval of 56 to 93 years is estimated using Milner and Boldsen (2012). Due to the lack of degenerative changes and generally good condition of the bones observed throughout the skeleton, this individual is most likely at the younger end of the estimated age ranges (35 to 39 years). Population affinity could not be assessed for this individual as the cranium was not recovered. The maximum length of the femur and tibia estimated the stature to be 167.6 to 179.8 cm (66 to 70.8 in) with a 90 percent confidence interval.

Burial 2

The remains recovered from Burial 2 indicate a minimum of two individuals, based on the recovery of fragments of three tibiae (Figure 44). Other elements recovered include a patella, fragments of two fibulae, and bones of the foot and ankle. Although none of the elements required for age and sex estimation were recovered, the epiphyses observable on the tibiae are fused, as are the ossification centers on the calcaneus. Therefore, these data indicate that the individuals are adults. Population affinity could not be assessed for these individuals as the crania were not recovered and stature was not possible due to the fragmentary nature of the postcranial elements.

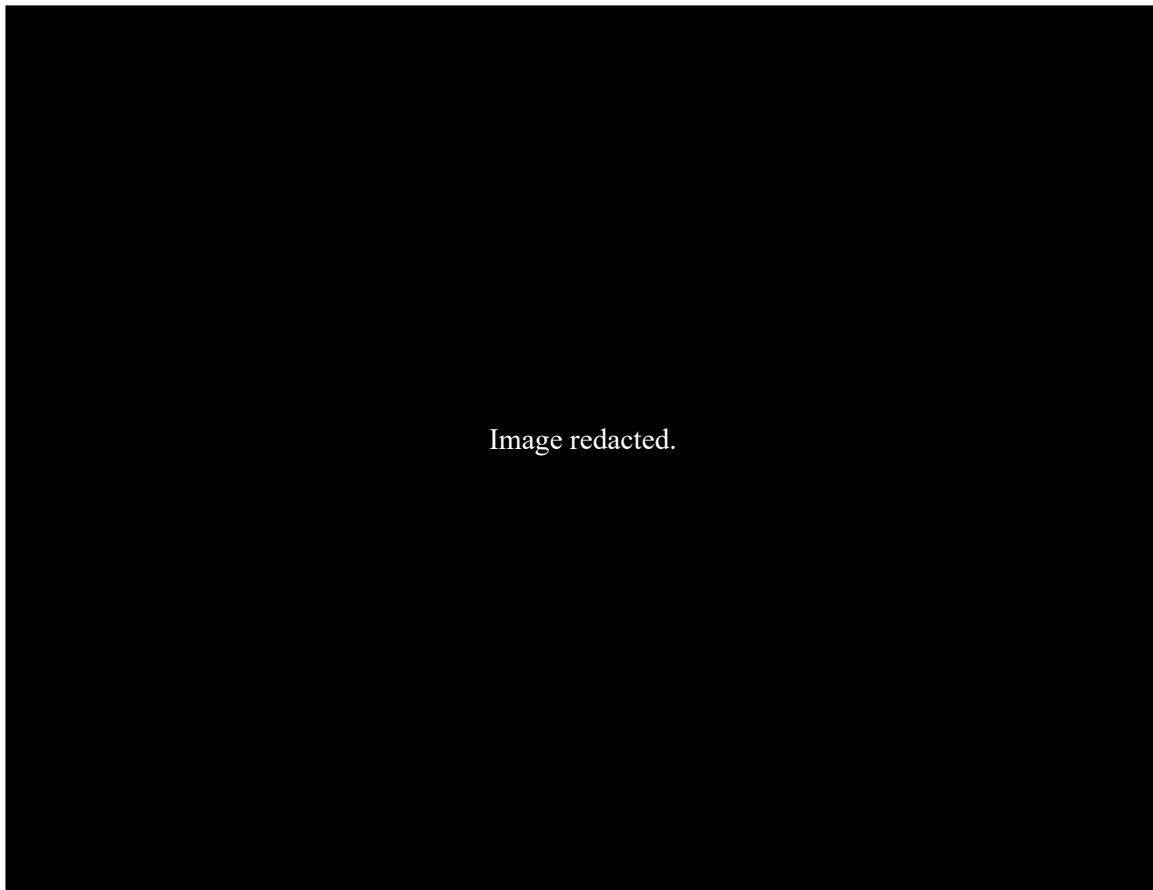


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Figure 44. Burial 2. Scale in cm. MNI of 2.

Burial 3

The remains recovered from Burial 3 represent an incomplete individual (Figure 45). Fragments of the cranium, clavicles, scapulae, right humerus, radii, ulnae, sacrum, os coxae, tibiae, and fibulae are absent, as well as many of the hand and foot bones. Eleven teeth were recovered: 2 maxillary molars, 2 maxillary incisors, a maxillary premolar, 4 mandibular incisors, a mandibular canine, and a mandibular premolar. Minimal wear was observed on the teeth with no calculus, carious lesion, or other dental modification. These teeth indicate the individual may have practiced some form of oral hygiene.

Morphological features of the cranium (mastoid process and supra-orbital margin) are consistent with a female sex. This estimation was confirmed with the measurement of the femoral head diameter (40mm) which was below the sectioning point, indicating a female sex (Spradley and Jantz 2011). The auricular surface was assessed in accordance with Lovejoy and colleagues (1985) and Milner and Boldsen (2012) for age estimation. No transverse organization, the presence of dense bone, macroporosity at mid-face, and some apical change indicate a Lovejoy and colleagues (1985) Phase 6 (45 to 49 years) with a 95 percent confidence interval of 41.8 to 89.9 years. Four cranial measurements were taken despite the fragmented state of the cranium, however only one measurement was used in Fordisc calculations for population affinity estimation. Population affinity cannot be reliably estimated with a single measurement. There were no intact or complete postcranial elements present for stature estimation.

Burial 4

The remains recovered from Burial 4 represent an incomplete and fragmentary individual (Figure 46). Both femora, patellae, and many of the hand bones were not recovered. Three teeth were recovered: a maxillary premolar and 2 maxillary canines. The teeth had significant wear. The mandible was edentulous, meaning all mandibular teeth were lost before death. There was an abscess, a bone infection, at the level of the mandibular right first molar. These signs are indicative of an older individual who had insufficient dental hygiene.

Morphological features of the skull (glabella, supraorbital margin, mastoid process, mental eminence) are consistent with the male sex (Walker 2008). This estimation was confirmed with the humeral head diameter (47 mm) which was above the sectioning point which is consistent with a male sex (Spradley and Jantz 2011). The auricular surface was assessed in accordance with Lovejoy and colleagues (1985) and Milner and Boldsen (2012) for age estimation. No transverse organization, some macroporosity, majority of the face consisting of dense, smooth bone and irregular margins are consistent with Lovejoy and colleagues (1985) Phase 7 (50 to 59 years) with a 95 percent confidence interval of 28.6 to 87.0 years. Eight cranial measurements were entered in Fordisc 3.1 for estimation of population affinity. The measurements fell out of an acceptable standard deviation however, the posterior probabilities indicate this individual likely had African ancestry. This was confirmed with morphological features of the cranium (Hefner 2009). The maximum length of the humerus estimated the stature to be 161.2 to 176.0 cm (63.5 to 69.3 in) with a 90 percent confidence interval.

Fragments of thoracic and lumbar vertebrae include osteophytic growth that spans the intervertebral space forming a dripping candlewax appearance, particularly on the right, anterior aspect of the vertebral bodies. These features are indicative of Diffuse Idiopathic Skeletal Hyperostosis (DISH). DISH is a pathology with no known etiology but is characterized by ossification of the right anterior longitudinal ligament that runs along the anterior aspect of the vertebral column (Ortner 2003) (Figure 47).

Eburnation, polishing of the bone caused by a lack of cartilage at a joint surface, and slight lipping are observed on the left humeral head. These characteristics are indicative of osteoarthritis (Ortner 2003) of the left shoulder.

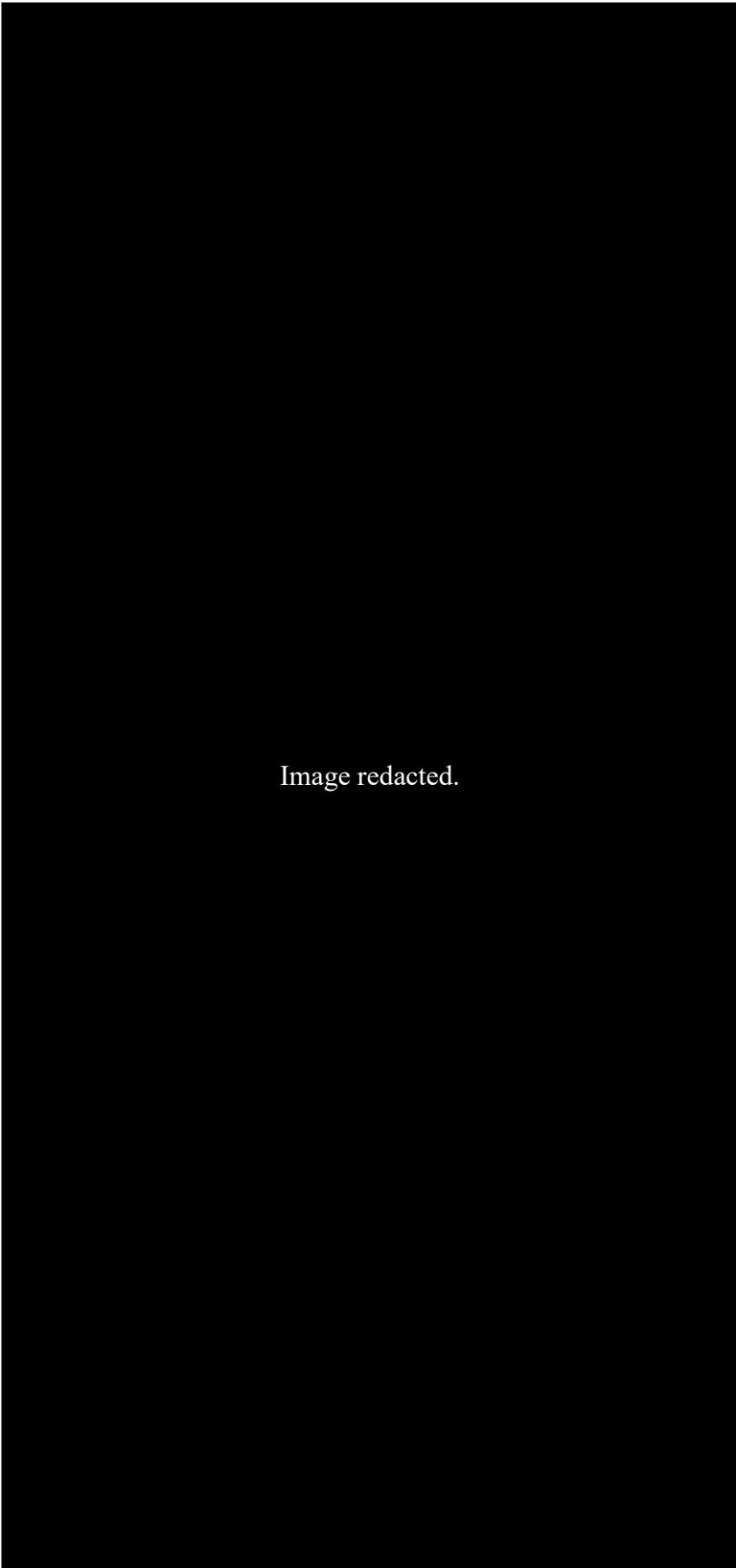


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Figure 45. Burial 3. Scale in cm. MNI of 1.

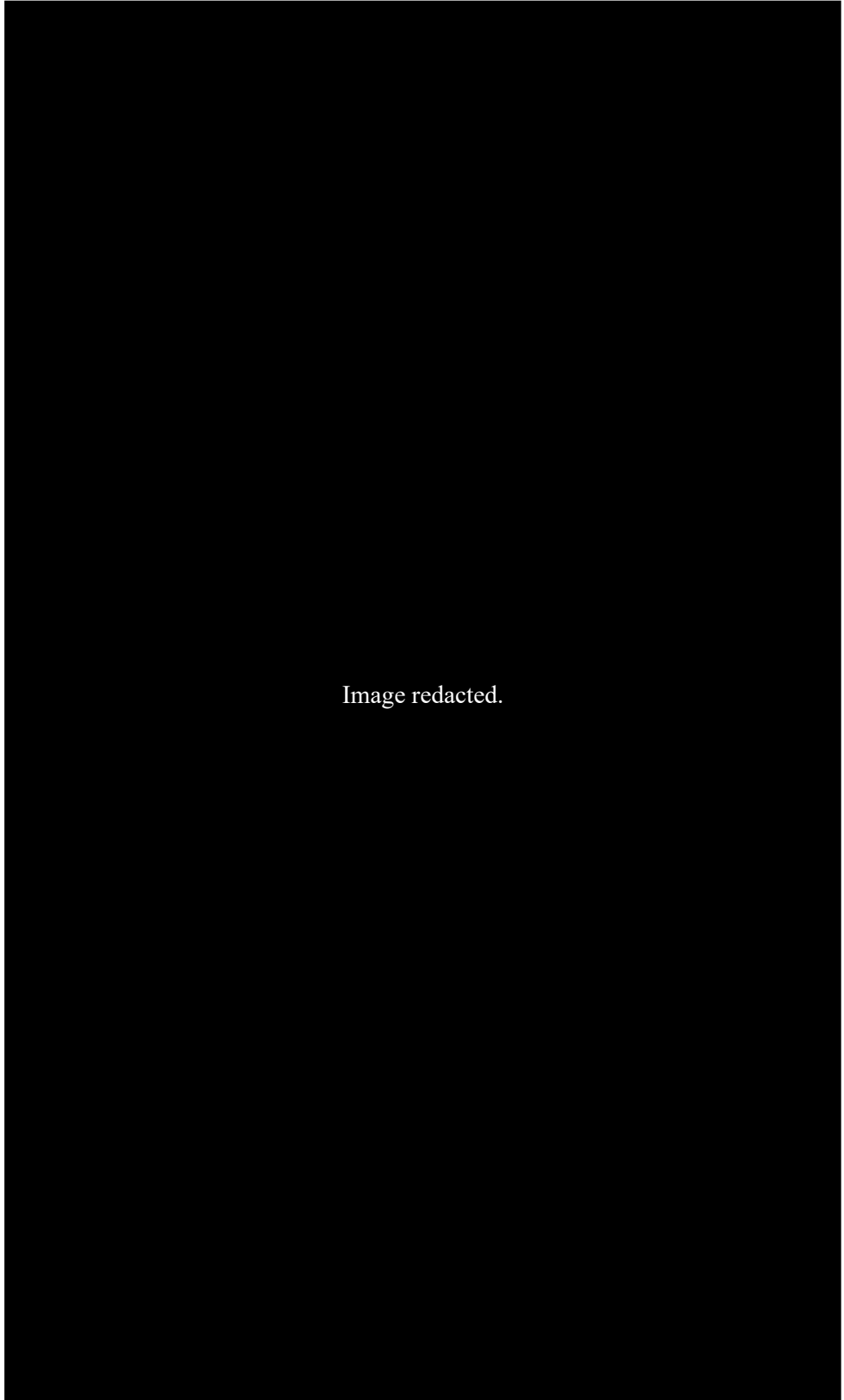


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Figure 46. Burial 4. Scale in cm. MNI of 1.

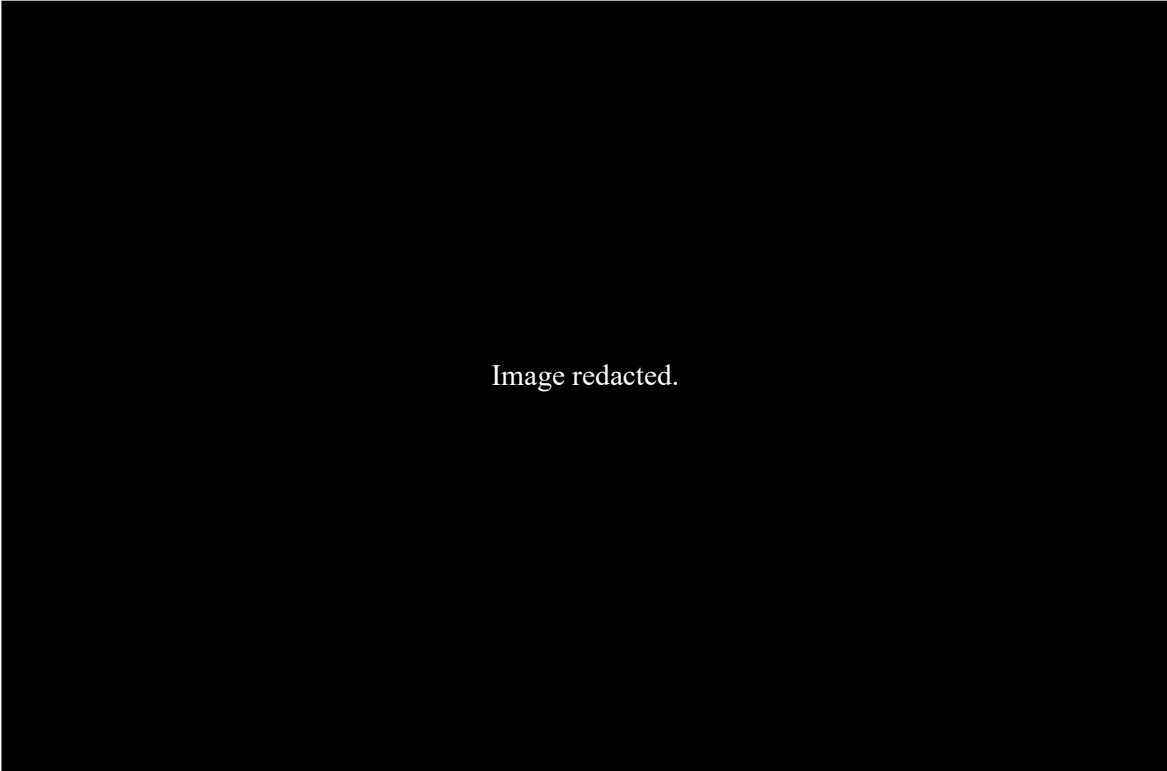


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Figure 47. Burial 4. Evidence of Diffuse Idiopathic Skeletal Hyperostosis (DISH) from Burial 4 (blue arrow). Scale in cm.

CHAPTER 4: ANALYSIS OF THE CRUZ BAY PUBLIC CEMETERY ARTIFACT ASSEMBLAGE

This chapter discusses the artifact assemblages recovered during the Cruz Bay Public Cemetery excavations, including a basic summary of the distribution of materials, the chronology of recovered artifact classes, and the analysis of materials recovered within each burial. Note that no additional cultural materials were observed during this part of the project and that this analysis presents cultural material recovery from Burial 1, Burial 2, Burial 3, and Burial 4, all of which were discovered in the late summer and fall of 2021. Other cultural material recovery generated during archaeological monitoring will be discussed in a separate report currently underway.

Distribution of Archaeological Materials

Archaeological investigations at the Cruz Bay Public Cemetery resulted in the recovery of 154 artifacts weighing 454.4 g. By count, Burial 3 (n=69, 45 percent) accounted for the largest quantity of cultural material recovery, followed by Burial 4 (n=48, 31 percent), Burial 1 (n=36, 23 percent), and Burial 2 (n=1, <1 percent) (Table 5). By weight, Burial 4 (172.3 g, 38 percent) accounted for the most material, followed by Burial 2 (127.5g, 28 percent), Burial 1 (99.5 g, 22 percent), and Burial 3 (55.1 g, 12 percent) (Table 6).

Cultural material recovery included metal, organics, worked bone, ceramics, and worked shell. Across artifact classes, recovered materials reflected different functional categories, which are defined here in decreasing frequency as coffin-related hardware and organic material, items of personal adornment, and personal belongings (Table 7). The coffin-related category consists of hardware applied to the coffin, including nails, tacks, and other hardware. This category also consists of fragments of wood associated with wooden coffins, a section of cloth attached to the coffin wall, as well as stained soils associated with the organic decay of the coffin. Items of personal adornment consist of buttons and clothing pins. Personal belongings consist of a single ceramic saucer, although whether this was a personal belonging or an unassociated item is unclear. Regardless, the saucer is the only possible inclusion or personal item that was potentially associated with individuals during burial. No other material classes or functional categories were present.

Table 5. Cultural material recovery by burial in the Cruz Bay Public Cemetery excavations.

Context	Count	Percent	Weight (g)	Percent
Burial 1	36	23%	99.5	22%
Burial 2	1	<1%	127.5	28%
Burial 3	69	45%	55.1	12%
Burial 4	48	31%	172.3	38%
TOTAL	154	100%	454.4 g	100%

Table 6. Frequency of artifact classes in the Cruz Bay Public Cemetery excavations.

Material Class	Count	Percent	Weight (g)	Percent
Organics	10	8%	69	15%
Metal	128	83%	252.6	56%
Worked Shell	3	2%	1	0%
Worked Bone	7	5%	4	1%
Ceramics	4	3%	127.8	28%
TOTAL	154	100%	454.4 g	100%

Table 7. Functional categories of recovered material in the Cruz Bay Public Cemetery excavations.

Functional Category	Count	Percent	Total	Weight
Personal Adornment	31	20%	16.4	4%
Personal Belonging	1	1%	127.5	28%
Coffin and Related Materials	122	79%	310.5	68%
TOTAL	154	100%	143.9	32%

Artifacts recovered during burial recovery were analyzed by JBI and the FAC using classificatory schema appropriate for the Caribbean and relevant to current practices in the Virgin Islands. Analysis attempted to clarify the chronological association of the excavated burials within the Cruz Bay Public Cemetery and contribute new information regarding the individuals, their lifeways, social identities, and more. Artifacts were recovered either in the field or through careful screening of excavated soils, assigned a unique field specimen (FS) number, bagged with relevant provenience information, minimally brushed or cleaned, air-dried, and safely stored during analysis. When dry, artifacts were sorted by provenience and by major artifacts classes (e.g., metal, ceramics, bone, shell, organics, etc.), counted, weighed, labelled, and rebagged by provenience. Ceramics were classified by primary ware type and decorative element. Metal was divided into functional categories (e.g., nail, screw, track, etc.) and then by material when possible. Small finds, such as buttons, were divided by material, production method, morphology, and known types. Organics, such as wood fragments or cloth remnants, were described using available information and field equipment but not subjected to additional analysis off-island.

All materials recovered during these excavations, including both osseous remains and associated artifacts, remained on St. John and were in the custody of the GVI unless actively being analyzed. When reburial occurs, all recovered cultural material will be included with any associated osseous remains in the reburial monument in the Lower Cemetery.

The analysis of materials that follows is presented in the following order, beginning with a discussion of items of personal adornment, personal belongings, and coffin-related hardware and related organics. Again, all of the materials discussed below remain on St. John and will be reinterred when analysis is complete.

Items of Personal Adornment

Items of personal adornment are among the most personal and informative artifact classes when it comes to considering identity. They reflect and embody conscious choices about self-expression and how an individual is perceived by those around them, as well as the many ways that bodies become regulated through practice. In the formation of identity, such items may also reflect more highly nuanced distinctions of age, gender, sex, heritage, race, and class (Fischer and Loren 2003; Loren 2001; White 2005; White and Beaudry 2009). While personal items may include items of specific use by a specific group and items used by an individual throughout a lifetime, items of adornment worn by an individual on or about the body can inform archaeological interpretation well beyond basic questions of chronology (Flewellen 2022; Heath 1999; Loren 2001; Perry et al. 2006; White 2005; White and Beaudry 2009). When considered across contexts, small finds reflect the choices of both free and enslaved individuals and meaningful forms of agency in adornment. While such finds were not equally distributed across all four burials, items classified here as associated with personal adornment include buttons of various materials as well as straight pins found in Burial 1, Burial 3, and Burial 4. Collectively this category represents 20 percent (n=31) of recovered materials by count and only 3 percent (16.4 g) by weight, but it is discussed first because of its overall significance.

Buttons

Buttons are common on historic archaeological sites and in historic burials, as they reflect specific items of clothing, forms of dress, quilting or sewing, and evidence of women's work in some contexts (White 2005). Given the context of excavation in this report, recovered buttons from the cemetery excavations are interpreted as reflecting specific items of clothing chosen for individuals prior to burial, rather than other activities or spheres of activities. As methods and materials of button manufacture changed over time relative to price and availability, the following discusses the types of buttons recovered in the Cruz Bay cemetery excavations. Buttons were recovered in Burial 1 and Burial 4.

Bone Buttons: Buttons made of bone are found throughout historic archaeological contexts but are common in colonial contexts from the eighteenth and nineteenth centuries in the Americas (Ferris 1986). The use of bone buttons declined in the mid-nineteenth century (Ferris 1986). Cattle bone was often the most common bone used for button production (White 2005), as it provided broad, flat osseous material from which multiple buttons could be produced per bone. The bones were boiled, cleaned, and cut from slabs into disks of varying sizes (Luscomb 1999:25). As described by Carolyn White (2005:69), "The circular disks were cut with a rotating tool with three projecting points. The center point on the tool made a hole in the center of the button and the outer two points cut the edge as the tool rotated. The surface was smoothed by the intermediary surface of the tool between the points." While some bone buttons were no doubt more widely manufactured, others were often readily produced in cottage industries or individual households in the colonial Caribbean. Evidence of small-scale manufacture is known and documented throughout the DWI in historic archaeological contexts spanning the eighteenth and nineteenth centuries (Persons 2017b). Despite examples of highly decorative versions, most bone buttons served utilitarian purposes, such as fastening undergarments, and were used on men's clothing such as underwear, trousers, and shirts (Luscomb 1999:25; White 2005:69). Most of the utilitarian two-hole, three-hole, four-hole, and five-hole sew-through button styles were produced during the eighteenth to twentieth centuries (Luscomb 1999:25).

Shell Buttons: Shell or pearl buttons first appeared in the 1820s as fasteners for an undershirt of King George IV in the United Kingdom, however they were also present in the Americas by the 1810s (Lindbergh 1999; White 2005). Their use became more common in the nineteenth and twentieth centuries. Shell buttons are primarily made of mollusk shells in a process similar to making bone buttons, using a tubular saw to produce button blanks which are then modified for attachment (Ferris 1986). Shell buttons are primarily associated with being used for shirt or blouse buttons, notably as a small, four-hole style (Lindbergh 1999:52). As mechanization took over production, the shell button industry reached its peak. By the late nineteenth century, shell buttons were used in a wide array of clothing and accessories. By the twentieth century, the industry declined almost to the point of extinction.

Metal Buttons: Metal buttons were first commercially manufactured in the eighteenth century. The first version of metal buttons consisted of a metal ringlet and stretched cloth. The small metal loops are rarely identified with in the archaeological record (Ferris 1986). Fully metal fastening objects and full metal buttons became popular in the 1760s and reached their height of popularity during the late eighteenth and early nineteenth centuries. At their peak, metal buttons were commonly made of brass or ferrous metal. Metal buttons were used by everyone for a variety of purposes, including but not limited to, coats, shirts, waistcoats, cuffs, and dresses.

Metal buttons were manufactured in a variety of styles, methods, and materials. Metal buttons could be 'sew-through', meaning holes were made on the button to allow thread to be sewn through to attach the button to the article of clothing. They were also made with a shank, a small loop attached to the back of the button where the thread and attachment to the clothing were not visible from the front of the button. Metal buttons could be either a one-piece mold or cast or a two-piece mold. Both types could have plated or gilded decorations (Ferris 1986). Two-piece metal buttons were commonly die-cut and crimped together, with the

upper portion remaining plain or displaying decoration such as painting, embossing, etching, etc. While this production technique varied throughout the 19th century it remained the basis for many buttons of the time. Stamped buttons represent another common form of metal buttons, in which “Metal discs are stamped out of large sheets of metal, creating very thin and uniform buttons. Stamped buttons are almost always copper alloy, such as brass, as tin alloys are too soft and brittle to be rolled out into thin sheets and stamped. Solder was used to attach wire shanks to stamped buttons” (Aultman and Grillo 2012:4).

Although there is variability, certain types of metal buttons are historically associated with particular articles of clothing (Putman 2011). Large metal buttons were commonly found on coats and could measure more than 30 mm in diameter. Small to medium single- or double-piece buttons were commonly used for cuffs and vests, while two-holed metal buttons were used on underwear (Ferris 1986:99). While also used for working shirts and pants, the single piece four-hole sew-through button was most commonly used on suspenders (Lindbergh 1999:52). Metal buttons declined as new styles and methods of making buttons became popular, although utilitarian styles continued to be produced well into the late nineteenth century (Venovevs 2013).

Ceramic Prosser Buttons: Prosser buttons, manufactured using the Prosser Process, were invented by Richard and Thomas Prosser around 1840. Commonly mistaken for glass, these high-fired ceramic buttons were manufactured in a variety of shapes and sizes, ranging from simple four-hole rounds to elaborately decorated examples. Common varieties are categorized by a smooth top side and an ‘orange peel’ textured underside, often with a noticeable seam around the edge. The plain, white, four-hole sew-through is the most common Prosser button. It was most often used on shirts, though larger buttons could have been used for a variety of clothing, including jackets, pajamas, trousers, and more (Ferris 1986; Sprague 2002:13). Due to their mass production, Prosser buttons were the most inexpensive buttons in the late nineteenth century; were worn by men, women, and children; and were utilized throughout every societal class. The affordability and availability made these buttons popular choices for work and utilitarian clothing, also making them one of the most common button types recovered from late nineteenth century archaeological sites (Sprague 2002:124).

Straight Pins

Straight pins, which were used to secure fabric, cuffs, hats, hems, ruffles, modesty pieces, ribbons, and more to various pieces of clothing, are some of the most delicate artifacts recovered in historic archaeological sites. In Mary Beaudry’s (2007) discussion of the straight pin, she notes that they are diverse in the sense that they could be worn by men, women, and children, and were utilized by all members of a society, regardless of socioeconomic class. In historic contexts, copper alloy pins can have handmade wire wound, spherical heads, or machine-made flat heads (White and Mooney 2010:56). While in use well before in handmade forms, mass manufacturing of straight pins began around 1820 in the United Kingdom (Beaudry 2007).

Within burial contexts, pins were commonly used as fasteners, particularly for clothing garments or burial shrouds around the deceased. Pins have also been identified in decorative capacities (White and Mooney 2010: 56). Examination of ribbon fragments recovered from the Spring Street Presbyterian Church vaults burials in New York City, for example, revealed that the ribbon had originally been a large decorative bow, and a copper alloy straight pin was still embedded into the original knot of the bow (White and Mooney 2010). Such decorative elements could have been attached to deceased’s burial clothing, shroud, or to the interior of the coffin (White and Mooney 2010). Similarly, copper alloy pins of various sizes were commonly used to close shrouds or winding sheets during burial throughout both Europe and the Americas, including the Caribbean (Beaudry 2007; Perry et al. 2006; Watters 1994).

Beaudry (2007:24) distinguishes basic pin type based on overall length as well as gauge of the wire. While shroud pins, lace pins, and mourning pins are variable, the small pins common to archaeological sites may include “Lills” (12 mm in length, 1 mm diameter), short white sewing pins (24-30 mm, 1 mm diameter), or long white sewing pins (3-7 cm, 1.5 mm diameter). Double-long whites or blanket pins measure 7.6 cm in length and 3 mm in diameter and wig pins measure 19.05 cm and 3 mm in diameter. While straight pins can be diagnostic based on pin length, morphology, and method of manufacture, careful attention must be paid during recovery and analysis to ensure sufficient data. Straight pins were recovered in Burial 3 and Burial 4.

Personal Belongings

Items that can be reliably associated with an individual’s final resting place provide critical information regarding identity, class, age, sex, heritage, and more. While the potential range of items associated with historic graves of any cultural group could be widely varied, so too are the potential grave offerings that may be placed atop the coffin or grave during interment. Only one recovered item fell within the personal belonging category, a single porcelain saucer recovered in Burial 2. This single saucer represents 1 percent (n=1) of recovered materials by count and 28 percent (127.5 g) by weight.

Ceramics are common at historic archaeological sites, providing a powerful tool of investigation for understanding sites, consumer behavior, identity, and temporal affiliation (Brown 1982; Hume 1969). Generally classified by paste, temper, surface treatment, decoration, and form, the limited ceramics here are discussed in terms of paste, temperature of firing, and decoration. While other ceramics are known in a range of contexts throughout Cruz Bay and St. John broadly, ceramic recovery at the Cruz Bay Public Cemetery was limited to a single hand-painted saucer of porcelain in Burial 2.

Porcelain

Porcelain is a white-bodied paste type with a highly vitreous glaze that was originally developed in China, although subsequent techniques and variants were developed in imitation of the original. Chinese export porcelain (post 1690) has a hard, dense body with various forms of decoration, including overglaze painting, incising, molding, or even slipped designs (DAACS 2018). The glaze on Chinese export porcelain is often bluish or light gray tint but is glossy. Made in imitation of earlier Chinese export porcelains, the subsequent English-made bone china has a similarly white, dense paste and is translucent when held up to light. Both Chinese export porcelain and British bone china are made of kaolin and feldspar fired between 1250 and 1400 degrees centigrade, but the latter is limited to post-1794 contexts (DAACS 2018). English bone china is often decorated with painting, sprig molding, and decalomania (a printed pattern applied over a glaze onto a ceramic). English soft-paste porcelain is chalky in body and texture with a semi-glossy glaze. Prone to crazing (crackling of the glaze), this porcelain type often features hand painted Chinoiserie design motifs, although polychrome painting and gilding are also known but rarer (DAACS 2018). English soft-paste porcelains have a date range of 1745 to 1795. Porcelaneous or English hard-paste porcelains were produced in various locales in the nineteenth century and later, which is a meaningful distinction when compared to earlier porcelain traditions. Porcelaneous/English hard-paste porcelain are translucent and bright white with a clear, glassy glaze. Decoration may include molded forms, transfer print, hand-painting, and spring molding. Decalomania and liquid gold are also observed. This ceramic type has a range of post-1820 to the present.

Coffins, Hardware, and Related Organics

Broadly, ethnohistoric and archaeological data indicate that individuals in the eighteen and nineteenth century were interred both with and without coffins. Oldendorp (1987) recounts burial of enslaved

individuals both with and without coffins, as do other eighteenth and nineteenth century accounts reported in Lenik (2004). Based on the prevalence of such reports as well as the archaeological documentation, burial within coffins appeared to be the norm during the historic era, rather than the exception, for both free and enslaved individuals in the DWI. Burial without a coffin may have been reserved for individuals without the esteem of the community, deceased buried on the estate of particular landowners, or circumstances of emergency or prolonged periods of community distress (e.g., after a storm, during an epidemic, etc.).

Broadly, coffins begin to become more common and more ubiquitous in the seventeenth century colonial contexts in the Americas. Access to mass-produced European goods and related locally produced cottage industries provided access to hardware, coffin furniture, and burial-related materials in the eighteenth and nineteenth centuries (Bell 1990; Springate 2015; Tharp 1996). While many early coffins would have consisted of simple wooden boxes that were nailed shut, coffins from the late eighteenth and nineteenth centuries are more likely to include baroque embellishments, decorative hinges, handles, escutcheons, decorative studs, thumb screws, and more in the US (Bell 1990; Springate 2015). Similarly, above-ground grave markers and monuments become more elaborate, reflecting the social and cultural identity of the deceased. Edward L. Bell (1990) characterizes this elaboration of romantic Victorian views as the “beautification of death” movement, remarking on its spread in England and in the US, especially in the mid to late nineteenth century.

It is difficult to correlate the presence or absence of coffin hardware with the relative status of an individual at any point in time, as the relative paucity of material in any given interment may be a function of preservation of material, of availability of materials at the time of death, or broader patterns of site-specific deathways that are grounded and reflected in local belief systems, historical contexts, and cultural practice (Bell 1990). West Indian burial elaboration practices documented in St. John during the same time period differ in meaningful ways (Blouet 2013 and 2021), but other case studies are helpful for discussing the potential function, morphology, and chronology of coffin hardware recovered in colonial contexts in the Caribbean. British Naval Lieutenant Brady visited the DWI and reported on burial practices of enslaved individuals on estates on St. Croix in the 1820s, noting that “The lid of the coffin was divided transversely at its greatest breadth, the upper part being attached to the lower by leather hinges, and being kept open until the moment before its removal for interment ...” (Brady 1994:167-169). While coffin shape and form might be chronologically diagnostic in the US, where the advent of lead coffins, metal liners, and other patented coffin forms became popular in Britain and the US in the early nineteenth century, there is little comparative data on the chronology of coffin shapes in the VI. Both hexagonal and rectangular coffins appear to have been observed throughout the Caribbean in historic contexts, and thus again it is worth noting that such practices might be specific to individual sites, islands, and cultures. While broader forms of coffin hardware are known, only nails, tacks, and unidentifiable metal hardware were observed in Burial 1, Burial 3, and Burial 4.

Nails

Nails are among the most common artifact classes at historic archaeological sites. Updating Noel Hume (1969) and Nelson (1968), Adams (2002), Phillips (1994), and Wells (1998) offer regionally specific models of chronological change in this basic artifact form. While there is considerable geographic variability, individual blacksmiths locally produced hand-wrought nails through the late eighteenth century, cutting nails from rods or from iron plates and exhibiting considerable variability in form. Later technological developments resulted in the development of nail-cutting and nail-heading machines in the Americas by 1794 and 1796 (Adams 2002; Wells 1998). Common hand-forged head styles include rose head, L-headed, and T-headed nails, among many others. A process for cutting nail shafts out of wire was developed by 1815, although heads remained hand forged for several decades. By 1830, many cut nails were machine-made. By the 1870s and 1880s, wire production changed the nail industry and resulted in mass-production techniques in the US (Adams 2002; Wells 1998). The production technique changed slightly over the

subsequent years and is visible in slight stylistic changes. However, wire nail production began in the early nineteenth century in both England and France, highlighting the need for well-dated local chronologies based on archival and archaeological data. Broad trends can be recognized in the shift from hand-forged and machine-made cut nails made of iron to steel wire nails post-1880s. While wire nails may date to as early as 1819 in some locales, earlier wire nails are small (e.g., small brads) and high-quality large nails used for architectural purposes are much later, late nineteenth century developments. It was not until the last quarter of the nineteenth century that wire nails begin to compete with cut nail varieties.

Nails were recovered in Burial 1, Burial 3, and Burial 4 in sizes and quantities suggesting they were used to close a coffin. Additionally, some nails were observed embedded in coffin wood. No larger architectural nails were observed.

Tacks

Advances in technology as well as changing ideas surrounding death and burial can be witnessed in the archaeological record through the presence of embellished nineteenth century coffin hardware. Bell (1990:54) states that American archaeological sites dating after the mid-nineteenth century often contained similar forms of mass-produced coffin hardware, including a range of hinges, tacks, nails, and more. The specific coffin hardware being manufactured for mortuary contexts differed from the generalized styles of the eighteenth century and included handles, hinges, plaques, lid fasteners, lid lifters, and tacks (Bell 1990:57). Bell (1990:55) argues that mass production and mass marketing of materials like tacks created inexpensive and in-demand products that were, in turn, utilized across socioeconomic classes.

Springate (2015: 22-25) discusses the use of tacks as coffin embellishment hardware, stating that there are two common styles of decorative tacks. Similar to trunk rivets or furniture tacks, one style is machine-stamped with a semi-spheroid head and a tapering steel point (Bell 1990; Springate 2015). In use before the mid-eighteenth century and often made of brass, such tacks were used to create decorative designs in coffins. They were often hammered into the coffin lid in decorative designs, sometimes referencing personal information, religious symbols, cultural symbols, names, initials, or death dates of the deceased (Tharp 1996:80; Springate 2015). Such tacks could also be used to adhere a fabric lining to the interior of the coffin. The second style, used to fill in spaces between coffin screws, consisted of an ornamental cast white metal head and a very short nail (Hacker-Norton and Trinkley 1984:10; Springate 2015). Davidson (2004) places white metal-headed coffin tacks and screws in use from approximately 1840 to 1900 in the US. Tacks were recovered only from Burial 3.

Unidentified Metal Hardware

While most of the recovered metal artifacts could be readily identified based on functional category and material, two fragments of a thin, ferrous alloy bent at a 90-degree angle were recovered from Burial 3. Comparison to known coffin hardware types revealed a striking similarity to the coppered wire box hooks shown in Figure 2.7 in Springate (2015:20). In the 1895-era advertisement cited above, the wire box hooks are advertised as helping keep hands and gloves clean during the lowering of the casket, as they would permit the lowering strap to be cleanly removed by creating a small rise in the coffin. Springate (2015) reports that wire box hooks were present at least by the 1890s and in later contexts. It is also possible that this material is a more modern ferrous metal that is intrusive into the burial or is unassociated.

Wood Coffin Fragments

Fragments of wood were recovered in Burial 1 and Burial 4, representing fragments of coffins. No paleoethnobotanical analyses were conducted during the course of this project. However, there are reports of ethnobotanical analysis of historic wood from Water Island on St. Thomas indicating that the coffins

were made of southern pine, which would likely have been imported from the US (Lee Newsome, personal communication 2022).

Wood Coffin Fragments and Cloth

Fragments of unidentified wood were found in Burial 4 in association with a fragment of cloth. The context of discovery did not permit clear identification or association, although we believe this may be evidence of fabric within the burial. Given the context of association, this category may represent fabric used for clothing, a shroud, or a coffin lining.

Soils

Soils representing decayed coffin wood were recovered alongside small bone fragments in Burial 4. These were recovered but not analyzed.

Analysis of Artifact Recovery Within Burial Features

Burial 1, Sex Male, Age 35 to 39 Years, No Observed Pathology

Cultural material recovery from Burial 1 was relatively sparse (n=36, 99.5 g), representing only 24 percent of the material by count and 22 percent by weight (Figure 48; Table 8). Coffin-related materials were the most common functional category, including coffin nails (n=29, 81 percent) and wood from the coffin (n=6, 17 percent). One bone button was recovered, representing 3 percent of recovered materials of the items of personal adornment in Burial 1.

Burial 1 contained a total of 29 cut iron nails (Figure 48C), representing 81 percent of cultural material recovery for this burial. The nails are assumed to reflect a coffin burial. Although heavy corrosion, fragmentary remains, as well as partial encasement in wood, have made exact identification difficult, several nails appear to be machine cut iron nails with hand forged heads. Such nails are known as square heads, despite their actual rectangular shape (Adams 2002; Wells 1998). This method of nail production was common throughout the late eighteenth century through the 1880s, notably between 1815 and 1880 (Adams 2002; Wells 1998). The longest intact nail of the assemblage measures 7.2 cm in length with a 0.8 cm head. No other coffin hardware was recovered.

Fragments of wood (n=6, 17 percent) were observed and recovered immediately above the human remains (Figure 48B). When considered alongside dark soil stains under the remains and the presence of iron nails, the wooden fragments indicate the use of a wooden coffin at the time burial. The wood has largely deteriorated, and thus a full coffin delineation was impossible due to prior disturbance. However, given the lack of decorative coffin elements or embellishments such as coffin hardware or fabric coffin lining, it is likely that this was a simple rectangular or 6-sided wooden coffin. Both styles are common throughout colonial contexts (Bell 1990; Springate 2015; Tharp 1996).

A single bone button (n=1, 3 percent) measuring 1.5 cm was recovered from Burial 1, indicating that the person was at least partially clothed at the time of burial (Figure 40A). Bone buttons were common utilitarian buttons, likely associated with a front-flapped pant or an undergarment. It is likely that other buttons and clothing elements were once present in this burial context; however, due to prior disturbance, no others were identified or recovered. While bone buttons have a broad chronological association spanning the nineteenth century, the five-hole, flat-backed bone button of Burial 1 is identical to 1860s, mid-nineteenth century buttons shown in Figure 4 in Ferris (1986:101, Item 5). It is also similar to South's Type 19 (1964: 121-125) and other well-dated 1860s-era sites throughout the US (Putman 2011; Smith 2022).

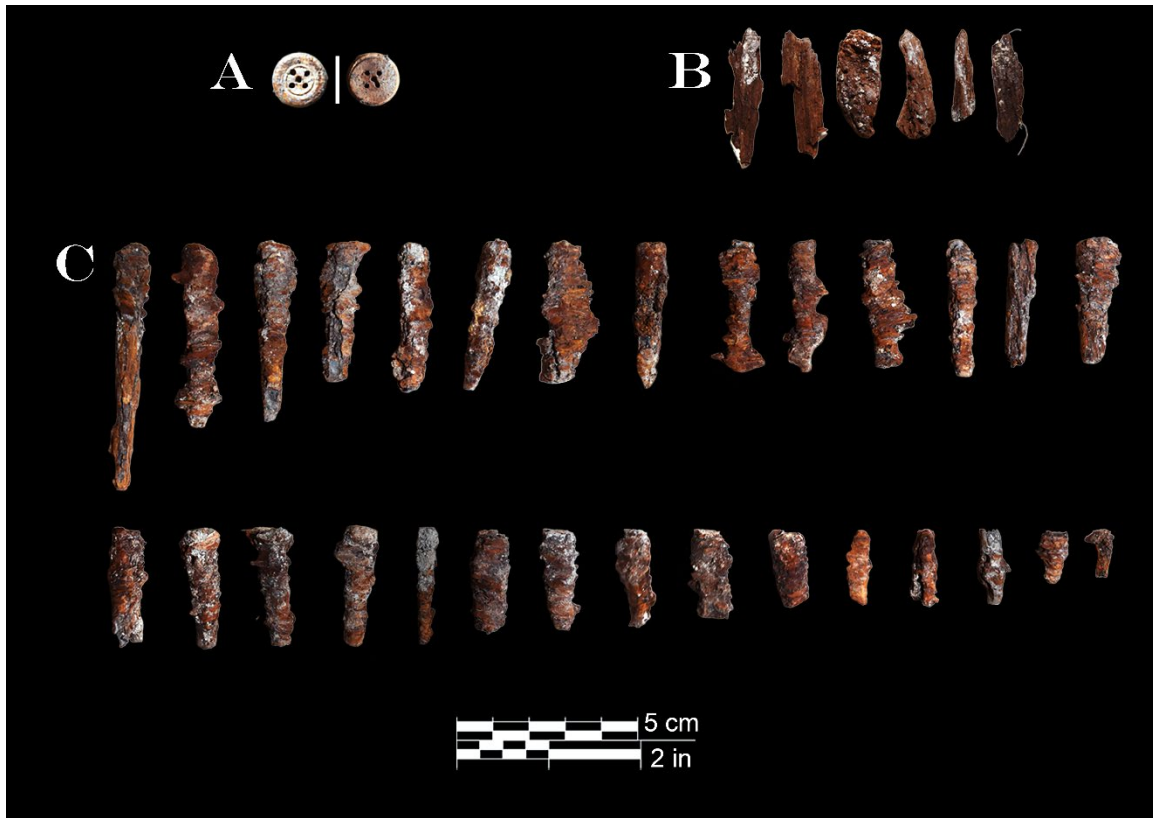


Figure 48. All cultural material recovery for Burial 1, Cruz Bay Public Cemetery, including: (A) 5 hole bone button, (B) recovered coffin wood, and (C) iron nails.

Table 8. All cultural material recovery for Burial 1.

Field Specimen	Functional Category	Class	Raw Material	Category	Subcategory	Portion	Type or Form	Width (cm)	Thickness (cm)	Length (cm)	Count	Weight (g)
30	Personal Adornment	Bone	Bone	Button	Sew-through 5-hole button	Whole	Machine made	1.5	---	---	1	0.5
31	Coffin and Hardware	Metal	Iron	Nail, cut	Coffin nail	Fragments & whole	Unknown	---	---	7.2 cm longest, 2.8 cm shortest	29	82
32	Coffin	Organics	Wood	Wood	Coffin wood	Fragments	Fragments	---	---	3.7 cm longest piece	6	17
TOTAL											36	99.5

Based on the cut nails, the single bone button, and the lack of decorative coffin adornments or steel hardware, Burial 1 can be placed within the 19th century. The most likely chronological association is from 1850 to 1880, although it is possible that this burial is either earlier or later, as other diagnostic materials were not present. It is possible that other diagnostic materials once existed in the burial context but are not seen today due to prior disturbance of this burial sometime during the 1950s, which removed the head and neck of Burial 1. The natural deterioration of cloth, metal, and wooden artifacts may also contribute to limited recovery, just as it is possible that the burial did not contain the decorative personal or coffin embellishments observed in burials after the mid-nineteenth century due to the isolated nature of the island of St. John or due to economic circumstances.

Overall, bioarchaeological analyses indicate this individual was a man aged between 35 to 39 years. Archaeological data indicate that he was interred in a wooden coffin mostly likely between 1850 and 1880.

Burial 2, Sex Not Assessed, Age Adult, Minimum of 2 Individuals, No Observed Pathology

Cultural material recovery from Burial 2 was sparse, consisting of a single ceramic saucer representing 1 percent of all recovered materials by count but 28 percent by weight (127.5 g) (Figure 49; Table 9). Coincidentally, Burial 2 is the only deposit associated with a potential personal belonging. The saucer is a teaware and was identified as a porcelaneous or English hard-paste porcelain decorated with hand-painted polychrome and gilt. These types of decoration are known for this porcelain type, which has a post-1820 date range (DAACS 2018). Additionally, an unknown maker's mark was observed consisting of an open figure-8 or half infinity symbol near the base of the saucer (Figure 50). The maker's mark could not be identified, although a positive identification could shed light on the chronological association of Burial 2 and associated burials.

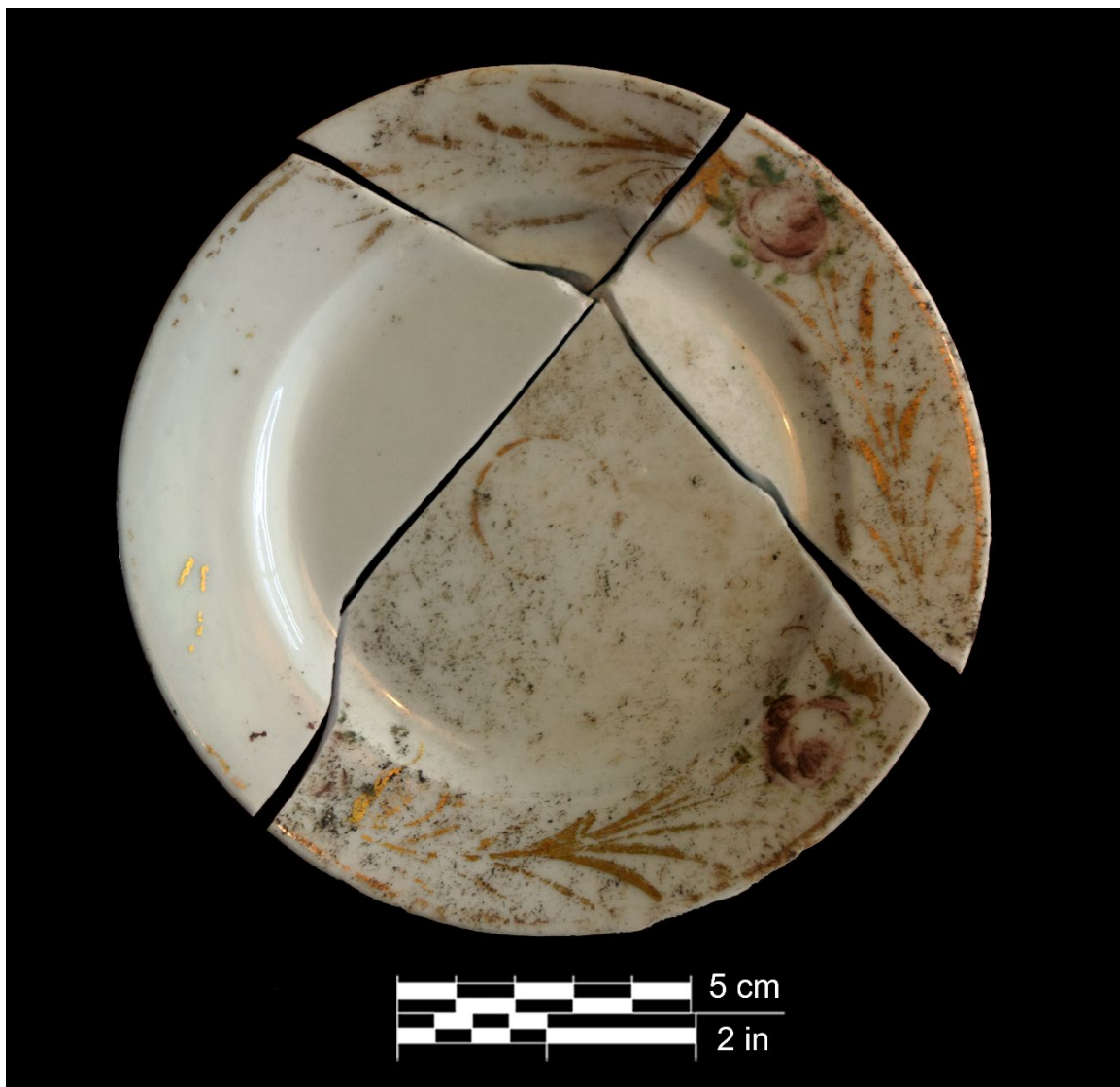


Figure 49. All cultural material recovery for Burial 2, Cruz Bay Public Cemetery, including hard paste porcelain saucer.



Figure 50. Maker's mark on the porcelain saucer, Burial 2, Cruz Bay Public Cemetery.

Table 9. All cultural material recovery for Burial 2.

Field Specimen	Functional Category	Class	Raw Material	Category	Subcategory	Portion	Type or Form	Width (cm)	Thickness (cm)	Length (cm)	Count	Weight (g)
34	Personal belonging	Ceramic	Porcelain	English hard paste porcelain	Hand painted, gilt porcelain saucer	4 fragments that mend	Saucer	13.5	---	---	1	127.5
TOTAL											1	127.5

Given the nature of the burial feature and the circumstances of discovery, both bear brief discussion here. Bioarchaeological analysis determined that the burial feature known as Burial 2 was a highly disturbed, disarticulated deposit of bone from at least two individuals recovered approximately 40 centimeters below surface (cmb). The porcelain saucer was recovered at the same approximate depth as the human remains, although also from a disturbed context. The saucer was broken into 4 mendable pieces during recovery, but it was whole when buried. Whether the ceramic is associated with an individual burial, is a totem or offering, or whether it was placed on top of the coffin is unclear, which is unfortunate.

As discussed earlier in Chapter 2, there are observed cases in which ceramics, plates, or saucers are included either within burials or on top of coffins for African-descended peoples during the eighteenth and nineteenth centuries (Davidson 2010; Handler and Lange 1978; Jamieson 1995). While such ceramics may represent a personal item, the last item used by an individual, an accidental inclusion following the funeral or wake, or a more functional practice meant to mask natural decay during funerary processions, other reports suggest that it could also be associated with a broader cultural practice of placing a container of salt or salt and coffee mixtures within or around the burial (Fremmer 1973; Jamieson 1995; McCarthy 1998 and 2006). Unfortunately, Burial 2's highly disturbed context offers no real indication of the original burial locations or personal details about the individuals recovered, or even whether the ceramic saucer is directly associated with either of the individuals. However, it raises interesting questions about funerary practices and, if associated, how such practices may reflect broader cultural trends and belief systems within the African Diaspora in the historic and modern eras.

Overall, bioarchaeological data indicate that this burial deposit was associated with a minimum of two adult burials of unknown age. Cultural material recovery, while sparse, can only reliably associate the saucer itself to a post-1820 chronological association. Additionally, given the disturbed context of this burial deposit, it is possible that the saucer is unrelated to the burials themselves, therefore the date of the burial may be earlier, contemporaneous, or later than the chronology suggested by the saucer. It is unknown whether these two individuals were originally interred in coffins, shrouds, or other burial material given the disturbed context of this burial deposit representing a minimum of two individuals.

Burial 3, Sex Female, Age 45 to 49 Years, No Observed Pathology

A total of 69 artifacts were recovered from Burial 3, representing 24 percent of all recovered materials by count and 22 percent by weight (99.5g) (Figure 51; Table 10). Coffin hardware and materials were the most common functional category (n=67 or 94 percent), including 5 nails, 58 metal coffin tacks, and 2 unidentified pieces of metal hardware. Two straight pins (3 percent) representing items of personal adornment were also recovered. Preservation of Burial 3 in general was poor. Very wet and claylike soils contributed to heavy corrosion of metals, as well as the disintegration of the coffin wood, metal, and the human remains. However, Burial 3 remains an informative burial for discerning mortuary practice at the Cruz Bay Public Cemetery.

Some 58 nearly identical brass tacks were recovered from Burial 3, representing 84 percent of the cultural material recovery for this burial (Figure 51D). The longest tack shaft measured 1.3 cm in length, and the tack heads measured 1 cm in diameter. The size of the tack shafts indicate that they were likely decorative rather than functional. While most of the tacks were recovered through screening or in disturbed soils during excavation, others were recovered in primary contexts that permit us to discern potential uses. Three tacks were recovered *in situ*, directly embedded in highly deteriorated wood from the southern coffin edge, a cluster of five tacks was recovered from the right side of the pelvis, two were recovered from the base of the left ribs, one appeared to be embedded in the left tibia, although it was likely originally in the now deteriorated wooden coffin edge. We interpret these tacks as primarily decorative embellishments embedded directly into the coffin lid, likely arranged into a unique design, name, or symbol (Springate 2015; Tharp 1996). The pattern was not discernable, however, due to the heavily deteriorated nature of this burial feature. While no thread or fabric remains were observed on the tacks, it is also not improbable to assume that some of the tacks could have been used to hold a fabric lining or even other fabric elements, such as ribbons or bows, in place inside of the coffin. Altogether, tacks were common additions during the mid- to late-nineteenth century as highly decorative and embellished coffin elements became more widespread, but tacks were not uncommon as plain hardware on coffins that predate the mid-1800s (Bell 1990). Given this broad period of usage, tacks are not chronologically diagnostic, but they do provide evidence of decorative coffin elements and local funerary practices.

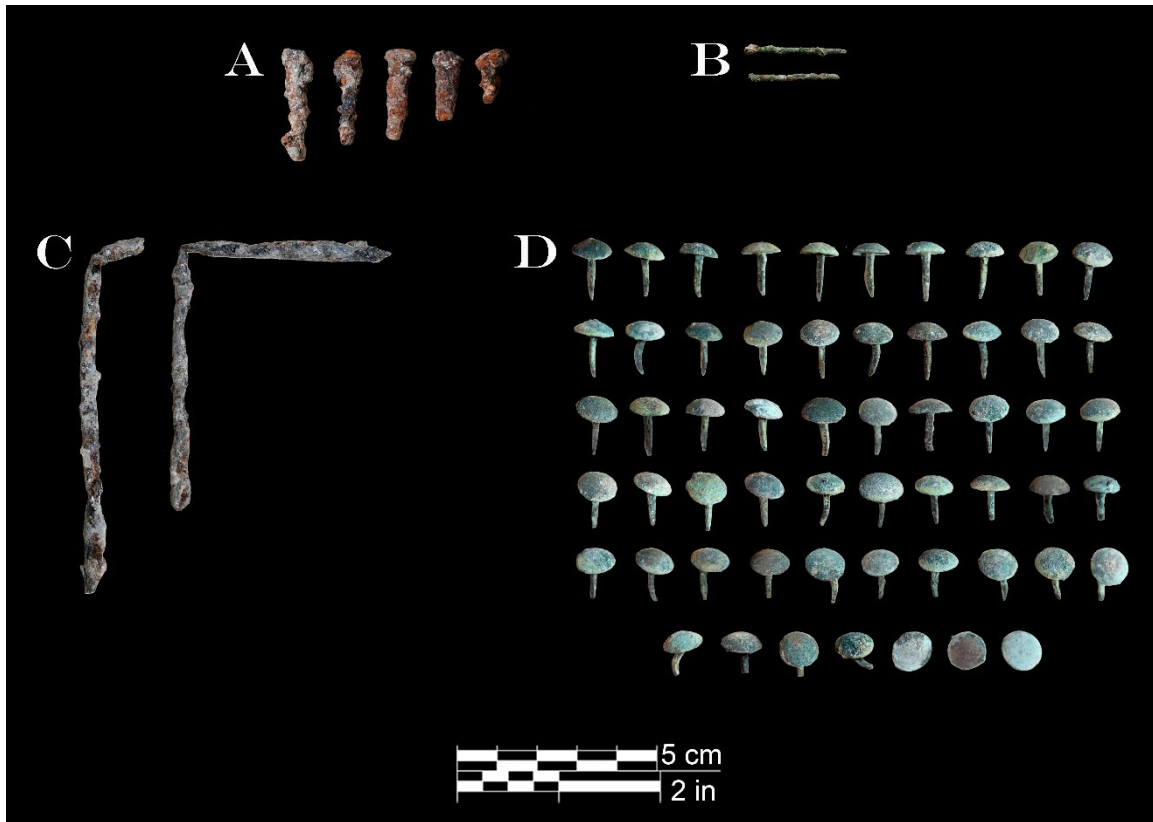


Figure 51. All cultural material recovery for Burial 3, Cruz Bay Public Cemetery, including (A) iron nails, (B) straight pins, (C) UID hardware, and (D) copper alloy tacks.

Table 10. All cultural material recovery for Burial 3.

Field Specimen	Functional Category	Class	Raw Material	Category	Subcategory	Portion	Type or Form	Width (cm)	Thickness (cm)	Length (cm)	Count	Weight (g)	Notes
38	Coffin and Hardware	Metal	Brass	Coffin tacks	Metal tacks for coffin	Fragments & whole	Machine made	tack heads 1 cm	---	Longest shaft 1.3 cm	58	34.5	57 oxidized, 1 rusted. Recovered from coffin area
36			Iron	Nail, cut	Coffin nail	---	---	N/A	---	4 cm longest/1.7 cm shortest	5	9	---
37			UID alloy	Metal hardware	Unidentified metal hardware	Whole	---	N/A	---	11.8 cm and 9.6 cm	2	11.5	---
40	Personal Adornment	Metal	Metal	Straight pins	Copper alloy straight pins	Wholes in fragments	---	1 mm	---	2.5 cm, 2.3 cm; both are 1 mm in diameter	4	0.1	2 pins broken in half into 4 fragments
TOTAL											69	55.1	

Five iron cut nails were also recovered in Burial 3, representing 7 percent of recovered materials in Burial 3 (Figure 51A). Heavy corrosion and fragmentary remains made nail identification difficult, however the nails all appear to be iron cut nails, rather than steel. The longest, most complete nail measured 2.3 cm in length with a nail head diameter of 0.9 cm. We interpret these as coffin hardware. Cut nails are common throughout the late eighteenth century through the 1880s, notably between 1830 through 1880 and prior to the advent of steel wire nails (Adams 2002; Wells 1998), suggesting a nineteenth century association.

Two brass or copper alloy straight pins were recovered representing 6 percent of recovery within Burial 3 (51B). Both pins were broken into two pieces each and display signs of corrosion. One appears to have a circular head (2.5 cm), the other (2.2 cm) is missing the head. Both measure 1 mm in diameter. Using Beaudry's (2007:24) size grade classifications, the two recovered pins would be classified functionally as

either short white sewing pins (24-40 mm in length, 1 mm diameter) or shroud pins of variable length and width. Given their limited frequency, it is possible that such pins were used for a shroud, facial veil, head-dress, or other piece of clothing. For example, David Watters (1994) interpreted three green stains on the frontal bones and one stain on the clavicle of a late-eighteenth century burial in Montserrat as evidence of a shroud. The lack of other forms of personal adornment (buttons, clothing clasps, etc.) could also indicate a full body shroud. Comparative data from Beaudry (2007) reports recovery of up to three straight pins in shrouds from seventeenth century burials in Maryland, while shrouding and winding sheets with pins were common at the New York African Burial Ground (Perry et al. 2006). While providing evidence of burial practice and the likely presence of a shroud or burial sheet, the copper alloy straight pins are not chronologically diagnostic and could date from the seventeenth through the nineteenth centuries. They are more likely to be nineteenth than eighteenth century based on the sources above.

Two fragments of a thin, ferrous alloy bent at a 90-degree angle were also recovered, representing 3 percent of Burial 3 recovery (Figure 51C). Their association is unclear within the burial context, as they were recovered during screening and may be intrusive to Burial 3. However, if associated and given the context of the burial, they may bear similarity to the wire box hooks discussed earlier in this chapter based on Springate (2015:20), which were used in late nineteenth century interments to ease the lowering of the casket.

Overall, bioarchaeological analyses indicate that Burial 3 represents a woman aged between 45 to 49. Archaeological data suggest that she was interred in a hexagonal coffin between 1850 and 1900 and was likely enshrouded or partially veiled, as evidenced by straight pins. While none of the recovered materials provide clear evidence of a chronological association, altogether they may tentatively reflect mid- to late-nineteenth century elaboration of funerary practices through the embellished coffin. It is likely that additional diagnostic materials would have once been present but the preservation of Burial 3 was poor, impacting the overall recovery of associated materials.

Burial 4, Sex Male, Age 50 to 59 Years, Possible African Ancestry, DISH and Osteoarthritis

A total of 48 artifacts were recovered from Burial 4, representing 24 percent of all recovered materials by count and 22 percent by weight (99.5g) (Figures 52-53; Table 11). Items of personal adornment accounted for 54 percent (n=26) of the material recovered in Burial 4, while coffin materials and hardware consisted of the remaining 46 percent (n=22). Items of personal adornment consisted of buttons and straight pins, while the coffin materials consisted of nails, coffin wood, cloth embedded with wood, and associated soils.

Burial 4 yielded 23 buttons among 24 button fragments, representing 92 percent of the personal adornment category. Seven of the buttons were recovered *in-situ*. Overall, metal buttons were the most common type of button in the assemblage (n=12), followed by bone (n=6), and then shell (n=3) and ceramic (n=3) in equal frequencies.

Twelve metal buttons and fragments were recovered, including whole buttons and others that remain fragmented (Figure 52E-J). Of these, two are larger, heavily corroded, two-part cloth-covered metal buttons measuring 2 and 2.7 cm in diameter (Figure 52H). Three buttons are smaller, two-part cloth-covered metal buttons measuring 1.7 cm (52I). While corrosion has obstructed the backs of all but one cloth-covered button, all are two-piece buttons with possible shank backings. These button types have a post-1830s chronological association (Ferris 1986). Four of the metal buttons are thin, two-hole, sew-through stamped metal buttons measuring 1 cm diameter (Figure 52G). The smaller, stamped metal buttons have a broad chronological association through the late eighteenth to nineteenth centuries (Ferris 1986; White 2005). A single heavily oxidized four-hole sew-through metal button was recovered, measuring 1.7 cm (Figure 52F). It is possible that the button is metal plated, however it is uncertain. Additionally, a single four-hole sew-through metal button was recovered under the hands of Burial 4 (Figure 52E). Threads are still present in the

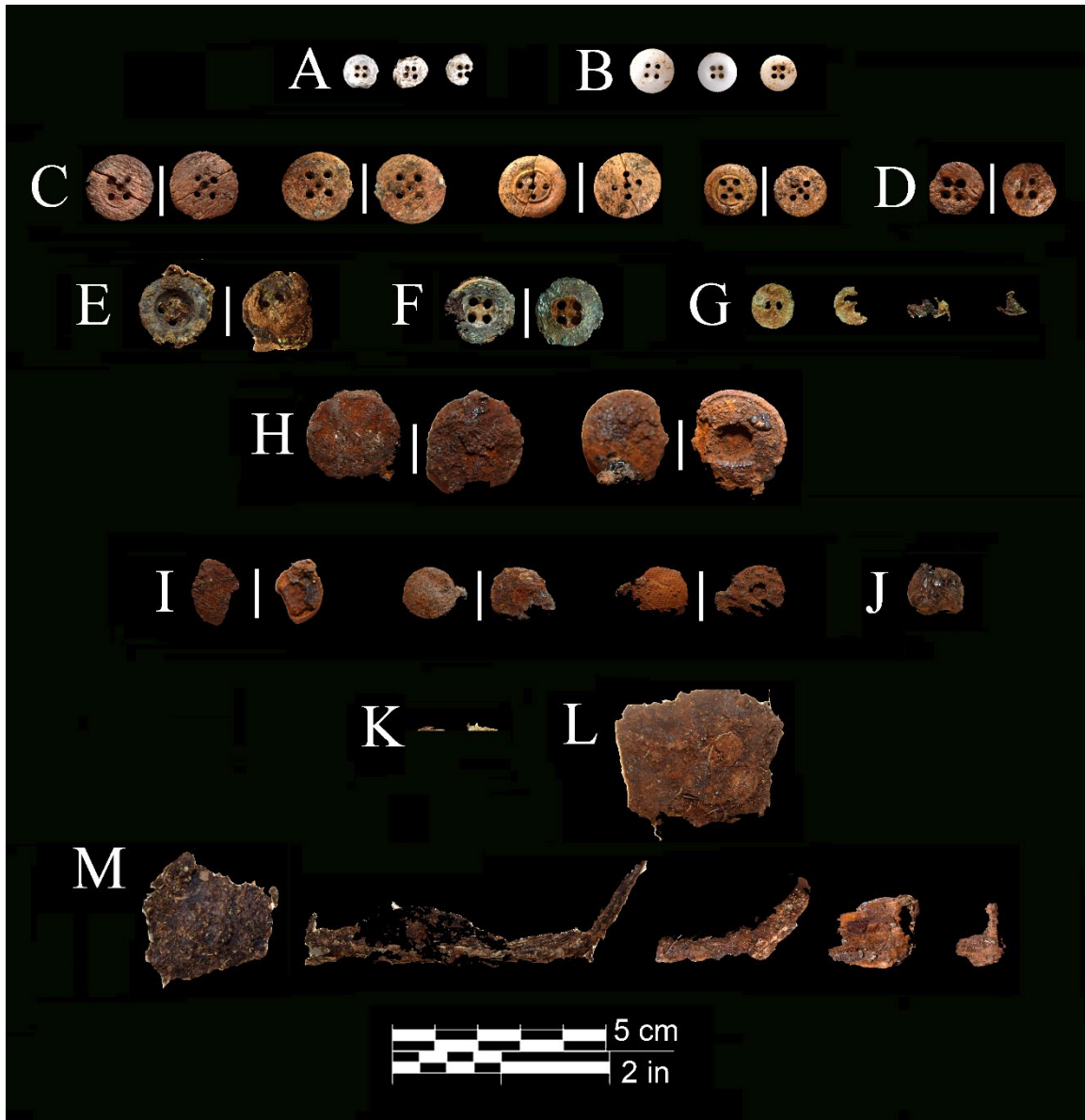


Figure 52. Plate 1 of all cultural material recovery for Burial 4, Cruz Bay Public Cemetery, including (A) shell buttons, (B) ceramic Prosser buttons, (C) 5 hole bone buttons, (D) four-hole bone button, (E) metal four-hole button, (F) metal four-hole button, possibly plated, (G) two-hole stamped metal buttons, (H) 2-part cloth-covered metal buttons, (I) 2-part cloth-covered metal buttons, (K) straight pins, (L) wood-backed cloth, and (M) recovered coffin wood fragments.

buttonholes and fabric remains attached to the back of the button. These button types are broadly nineteenth century (Ferris 1986). A final button is represented by a metal mass similar in size to the cloth-covered buttons, but with a possible drilled shank but unclear form (Figure 52J).

A total of five bone buttons were recovered from Burial 4. Four of the bone buttons are five-hole, flat back sew-through buttons measuring between 1.6 and 1.8 mm (Figure 52C) and one is a four-hole, flat back button measuring 1.8 cm (Figure 52D). In general, bone buttons are associated with undergarments, suspenders, and utilitarian clothing throughout the eighteenth and, to a lesser degree, nineteenth centuries (Ferris 1986; White 2005). Four of the bone buttons were recovered *in-situ*. A 1.7 cm five-hole sew-through (Figure 52C) was located under the hands; a 1.8 cm diameter four-hole sew-through (Figure 52D), was

recovered under the right hip; a 1.7 cm five-hole sew-through (Figure 52C), was located under the left hip, and a 1.6 cm diameter five-hole sew-through (Figure 52C) was located under the left hip.

A total of three shell buttons were recovered from Burial 4 (Figure 52A). Although slightly fragmented, they are four-hole, sew-through buttons measuring 9 mm in diameter. Shell buttons have a post-1820s chronological association.

Three ceramic recessed center Prosser buttons measuring 9 mm and 1 cm in diameter were recovered (Figure 52B). Two Prosser buttons were recovered *in-situ*, including one that was found under the jaw and one that was adjacent to the right ribs. Prosser buttons post-date 1840 and extend throughout the nineteenth century (Ferris 1986; Sprague 2002).

The diverse collection of buttons recovered in Burial 4 were all produced throughout the nineteenth century, although exact dates are broad. Several factors are important to consider regarding whether buttons are chronologically diagnostic. It is possible that buttons were reused over the years as new articles of clothing were acquired or made, just as clothing could have been passed down from person to person. The propensity for resources to be reused might be notable during periods of economic stress or periods in which access was disrupted by other factors. In the case of St. John, the island was isolated from centers of commerce on neighboring islands, which may have affected the availability of goods and access to the latest popular styles, especially for periods after natural disasters.



Figure 53. Plate 2 of all cultural material recovery for Burial 4, Cruz Bay Public Cemetery, including iron nails, many of which are still embedded in coffin wood.

Table 11. All cultural material recovery for Burial 4.

Field Specimen	Recovery Location	Functional Category	Class	Raw Material	Category	Subcategory	Portion	Type or Form	Width (cm)	Thickness (cm)	Length (cm)	Count	Weight (g)	Notes		
48	Under right hip	Personal Adornment	Bone	Bone	Button	Sew-through 4-hole button	Whole	Machine made	1.8	---	---	1	0.5	Broken into two halves post-excavation		
41				Bone	Button	Sew-through 5-hole button	Fragment	Machine made	1.6	3 mm	---	---	1	0.5	Match to button frag. from FS 51. Possible undergarment .	
41				Bone	Button	Sew-through 5-hole button	Whole In fragments	Machine made	1.8	2 mm	---	---	1	0.5	Raised circle around sew holes	
49	Under hand			Bone	Button	Sew-through 5-hole button	Whole	Machine made	1.7	2 mm	---	---	1	0.5	---	
51	Under left innominate			Bone	Button	Sew-through 5-hole button	Fragment	Machine made	1.6	3 mm	---	---	1	0.5	Match to button frag. from FS 41 bag 6 of 6. Possible undergarment .	
47	Under left hip			Bone	Button	Sew-through 5-hole button	Whole	Machine made	1.7	3 mm	---	---	1	1	---	
41	Under jaw		Ceramic		Ceramic	Button	Prosser 4-hole button, dish-shaped	Whole	Machine made	1	N/A	---	1	0.1	White Prosser, recessed center	
46					Ceramic	Button	Prosser 4 hole button, dish-shaped	Whole	Machine made	9 mm	N/A	---	---	1	0.1	White Prosser, recessed center
46	Right of spine near chest				Ceramic	Button	Prosser 4 hole button, dish-shaped	Whole	Machine made	10 mm	N/A	---	---	1	0.1	White Prosser, recessed center
41			Metal		Cloth & metal	Button	Cloth covered metal button	Fragment & whole	Machine made	1.7	N/A	---	2	4	1 complete w/ back post, 1 fragment w/ UID post/shank. 2 piece buttons.	
41					Cloth & metal	Button	Cloth covered metal button	Whole	Machine made	2.7	8 mm	---	---	1	1	---
42					Cloth & metal	Button	Cloth covered metal button	Whole	Machine made	2	---	---	---	1	1	---
43	Eastern end of coffin				Cloth & metal	Button	Cloth covered metal button	Whole	Machine made	1.8	5 mm	---	---	1	1	---
44					UID alloy	Button	Metal button with shank	Fragment	Machine made	1.3 x 1.7	---	---	---	1	0.5	Possible drilled shank
41					Metal	Button	Sew-through 4 hole button	Whole	Machine made	1.7	2.5 mm	---	---	1	1	poss. metal plated, covering other interior material. Badly corroded
50	Under hand				Metal	Button	Sew-through 4 hole button	Whole	Machine made	1.7	2.5 mm	---	---	1	1.5	Thread visible in holes and fabric attached
41		Metal			Button	Stamped metal disk 2 hole button	1 whole, 3 fragments	Machine made	---	---	---	---	4	0.5	---	
52		Metal	Metal	Straight pins	Metal straight pin w/ fabric	Whole In fragments	---	N/A	N/A	Frag. w/ cloth 7 mm, w/o 8 mm	2	0.5	One straight pin broken into 2 pieces			
41		Shell	Shell	Button	Sew-through 4 hole button	2 Whole, 1 fragment	Machine made	9 mm	N/A	---	3	1	Flat, very slight center depression			
44	Coffin	Coffin and Hardware	Organics	Wood	Cloth & Wood	Possible coffin wood with fabric	Fragment	N/A	4.1 x 3.5	9 mm	---	1	9	---		

Field Specimen	Recovery Location	Functional Category	Class	Raw Material	Category	Subcategory	Portion	Type or Form	Width (cm)	Thickness (cm)	Length (cm)	Count	Weight (g)	Notes
53	Base of Burial 4		Organics	Soil	Soil	Stained soil (coffin wood/bone)	N/A	N/A	N/A	N/A	N/A	1	34	Soil stained by coffin wood and bone
43	Eastern end of coffin		Organics	Wood	Wood	Coffin wood	Fragments	N/A	N/A	---	< 1mm to 40 mm.	1	N/A	fragments of coffin wood
45	Coffin Bottom		Organics	Wood	Wood	Coffin wood	Fragment	N/A	N/A	---	8.9 cm longest	3	9	2 measurables and splinters
42			Metal	Iron	Nail, cut	Coffin nail	Fragments & whole	?	N/A	N/A	6.5 cm longest	9	53	---
43	Eastern end of coffin		Metal	Iron	Nail, cut	Coffin nail	Fragments & whole	?	N/A	---	5.8 cm longest	7	51.5	---

TOTAL 48 172

Research shows that as new styles and methods of button making became popular, metal buttons fell into decline in the mid-nineteenth century, although utilitarian styles continued to be produced well into the late nineteenth century (Ferris 1986; Venovcevs 2013; White 2005). Bone buttons declined in use through the nineteenth century, although production continued in much smaller quantities until the beginning of the twentieth century (Ferris 1986:6). While the exact date for the introduction of pearl buttons is unclear, research shows that they rose in popularity after 1820 and peaked in the late nineteenth century (Lindbergh 1999:51). While the other button categories have more general chronological associations, the three recovered Prosser buttons provide a clear *terminus post quem*, or the earliest possible date, for Burial 4. Since Prosser buttons were first in production during the 1840s, Burial 4 was interred post-1840 (Sprague 2002:111). This is the most precise piece of chronological evidence gained in the excavation, but it suggests a potential association from 1840 to 1900.

These items of personal adornment provide key data on the clothing present in the burial. The recovered buttons indicate that Burial 4 was heavily attired and dressed in numerous layers of clothing at the time of the burial. In general, bone buttons are associated with fastening undergarments, suspenders, and utilitarian articles of clothing (Luscomb 1999:25, White 2005:69). The *in situ* recovery of the four bone buttons (Figure 52C and 52D) confirm this association. With three recovered in the hip area and one near the central pelvis and under the hands, it is plausible to suggest that these buttons belonged to undergarments and possibly even suspenders. The *in situ* metal button (Figure 52E) was recovered under the hand to the side of the body, near the central pelvic area as well. Threading and fabric remain preserved within the button-holes and on the back of the button. The fabric appears to be thick, durable, and heavier than an undergarment material. This metal button likely belonged on a pair of front flapped pants. Of the smaller cloth covered metal buttons, three are of a similar diameter (Figure 52I) and are likely cuff or pocket buttons of a suit jacket, vest, or other form of outerwear. Small to medium one-part and two-piece buttons were commonly used for cuffs and vests (Ferris 1986:99). The two larger cloth covered buttons (Figure 52H) are likely associated with the same suit jacket and were the main fasteners. The four thin, stamped two-hole metal buttons (Figure 52G) can be associated with more delicate undergarments, as discussed by Ferris (1986:99), who attributes two-holed metal brace buttons as underwear. By their peak in the late nineteenth century, small, four-hole pearl buttons (Figure 52A) were used on a wide variety of attire but notably were used for shirt buttons (Lindberg 1999:52), suggesting the presence of a shirt. Additionally, the *in situ* recovery of two of the Prosser buttons (Figure 52B) under the jaw and to the right of the vertebrae may

indicate they belong to a dress shirt that included a buttoned collar. The shell buttons (Figure 52A) could have been a decorative element on the sleeves or perhaps on some type of undershirt. Given that Burial 4 was most likely wearing a jacket, a dress shirt would have been an accompanying article of clothing.

One fragmented straight pin (n=2), representing the remaining 8 percent of the personal adornment category, was recovered during the recovery of Burial 4 (Figure 52K). The pin displays a large amount of threading and attached fabric. While straight pins can be associated with full-body or facial shrouds, it is also possible that the pin was used to hold a decorative element onto his suit jacket or was used to fasten something onto the lining of the coffin (Perry et al. 2006; White and Mooney 2010:56). For example, White and Mooney (2010:56) discuss the presence of decorative bows found in historic burials, describing pieces of ribbon tied in such a way it would suggest the formation of large decorative bows interred with the deceased. A straight pin was observed still attached to the knotted portion of one of the ribbons. Although the original locations of the bows are unknown, they suppose they may have been attached to the burial shroud or the interior of the coffin. Similarly, the New York African Burial Ground included several examples of individuals interred in street clothing or clothing beneath a shroud (Perry et al. 2006).

The remainder of the cultural material recovery for Burial 4 included coffin-related organics and coffin hardware (n=22, 46 percent). Nails were the most common category (n=16) (Figure 53), followed by coffin wood (n=5) (Figure 52M), a fragment of wood-backed cloth (n=1) (Figure 52L), and 34 g of decomposing soil, wood, and small organic material recovered from the coffin stain (not pictured).

A total of 16 cut iron nails were recovered in Burial 4, largely in fragmented form (Figure 53). The longest intact nail measures 6.1 cm in length, with a 1 cm head. Corrosion along with encasement in coffin wood made specific nail identification impossible. However, several exposed nail heads appear to be square headed (Adams 2002; Wells 1998). Such nails are common throughout 1830 to 1880, notably prior to the development of steel or wire nails. We interpret these nails as evidence of a coffin burial.

Burial 4 also yielded organic materials associated with the coffin itself, including fragments of an unidentified species of coffin wood (Figure 52M), a section of cloth-covered coffin wood (Figure 52L), and a recovered sample of decomposing wood, soil, and other material. While no coffin could be clearly discerned during the excavations, the preponderance of wood in this context clearly indicates the presence of a wooden coffin. Additionally, while no upholstery tacks were recovered, a small piece of wood associated with the bottom of the eastern end of the coffin appears to be covered in fabric (Figure 52L). It is possible that this is a residual piece of fabric from an article of clothing, a fragment of a shroud, or a fabric lining.

Overall, bioarchaeological analyses indicate that Burial 4 represents a man aged between 50 and 59 years of possible African ancestry with evidence of DISH and osteoarthritis. Archaeological data suggest that he was interred in a wooden coffin. There may have been a cloth lining or a shroud, as evidenced by the fragment of cloth-covered wood. There was no evidence of embellishment of the coffin itself in the form of tacks. However, Burial 4 offered the most diverse assemblage of items of personal adornment and associated clothing, including a range of different buttons. It is clear that Burial 4 was fully clothed at the time of burial. Whether at his request or the discretion of those who prepared his body for burial, a decision was made to inter this individual in what we might call his ‘Sunday Best’ (e.g., Putman 2011), or at least a full ensemble including a dress shirt, a suit jacket or other form of outerwear, a front flap pant, undergarments, and possibly a vest. While many of the Burial 4 materials have broad chronological associations, the Prosser buttons provide a *terminus post quem* of 1840 as the earliest possible point of interment. Similarly, the presence of cut nails and the lack of steel wire nails suggests a pre-1880 interment. This data suggests that Burial 4 was interred in a wooden coffin between 1840 and 1880.

CHAPTER 5: DISCUSSION AND CONCLUSIONS

Cruz Bay Public Cemetery Excavations and Burial Summary

The University of Tennessee at Chattanooga’s Jeffrey L. Brown Institute of Archaeology and the University of Tennessee Knoxville’s Forensic Anthropology Century conducted archaeological monitoring and mitigation to identify, excavate, and relocate burials within the immediate footprint of the Feeder 7E section of the Cruz Bay Underground Project on behalf of the Virgin Islands Water and Power Authority. These excavations targeted the portion of the historic Cruz Bay Public Cemetery impacted by the Cruz Bay Underground project, encompassing 132 m (433 ft) of conduit excavations within Strande Gade (Bay Street) and 30 m (98 ft) of conduit excavations leading within the Gallows Point Resort driveway. During the initial 2021 archaeological monitoring and fieldwork, a total of four burial features (Burials 1-4) were identified and partially excavated (Figures 35-36). Subsequent monitoring and archaeological fieldwork from September through October of 2022 successfully revisited the locations of Burial 1, Burial 3, and Burial 4 to fully recover previously identified features. Burial 2 was not revisited in 2022, as the feature was fully excavated during the initial 2021 archaeological fieldwork. Although we anticipated that additional burial features would be identified during the associated archaeological monitoring in this location, no additional burial features, archaeological deposits, or cultural resources were identified in the vicinity of the Cruz Bay Public Cemetery beyond those identified in 2021. The four burial features, associated cultural material recovery, and cemetery are discussed below (Table 12).

Table 12. Cruz Bay Public Cemetery burial summary.

Burial Number	Sex	Age (Years)	Population Affinity	Pathology	Stature	MNI	Probable Date of Interment	Coffin	Shroud
Burial 1	Male	35-39	Not assessed	None observed	167.6-179.8 cm (66-70.8 in)	1	1850-1880	Yes	Unknown
Burial 2	Not assessed	Adult	Not assessed	None observed	Not assessed	2	Post-1820	Unknown	Unknown
Burial 3	Female	45-49	Not assessed	None observed	Not assessed	1	Mid to late 19th century	Yes	Likely
Burial 4	Male	50-59	Possibly African descent	DISH and osteoarthritis	161.29-176.02 cm (63.5-69.3 in)	1	1840-1880	Yes	Likely

The four burial features represented the remains of at least five individuals, including two adult men, one adult female, and a minimum of two individuals of unknown sex (Table 12). Burial 1, a man between 35 and 39 years, was interred in a wooden coffin mostly likely between 1850 and 1880. Burial 2 was a heavily disturbed feature representing the comingled remains of at least two adults. These burials likely post-date the 1820s. Both Burial 1 and Burial 2 were likely disturbed during the 1950s road construction. Burial 3, a woman aged 45 to 49 years, was buried in a coffin from the mid-to late-nineteenth century. Burial 4, a man of possible African ancestry aged 50 to 59 years, was buried in a wooden coffin between 1840 to 1880. Burials 3 and 4 were largely intact and undisturbed. Cultural material recovery within each burial was sparse, yielding only 154 total (454.4 g) items of personal adornment, coffin-related materials, and one personal belonging. Burial 4 exhibited the only observed pathologies, including DISH, a condition that does not have a known cause, and osteoarthritis. No dental modification was observed in any of the burials.

The discovery of burials within the road permits us to reconsider the extent of the Cruz Bay Public Cemetery. The cemetery was originally thought to date from 1766 to the present, its use coinciding with the establishment of Cruz Bay town. Based on the dates of previously known interments, the prior documented chronological association of the cemetery extended from 1895 through the present day. Similarly, the cemetery was known to extend on both sides of Strande Gade. However, our investigations revealed that additional interments are present outside of the current cemetery boundaries within nearby roadways. Specifically, intact burial features are known to extend to the south near the southwestern corner of the Lower Cemetery (Figures 35 and 36). It is highly likely that additional burial features remain preserved within Strande Gade and nearby paved surfaces, particularly in the Gallows Bay driveway and parking lot.

Given the nature of discovery, prior disturbance of the cemetery in the 1950s, and lack of specific archival data, there were no available records that would permit identification of the individual interments impacted by the Feeder 7E Project. However, recovered artifact assemblages permit us to assign a chronological framework to the four burial features, informing our interpretation of historic burial practices. Additionally, bioarchaeological data permitted estimations of sex, age, population affinity, stature, pathology, and trauma following basic bioarchaeological standards of skeletal data for each of the four burial features. There were two adult males, one adult female, and two individuals of unknown sex. Population affinity could only be reliably determined for one individual, Burial 4.

However, observed burial practices do provide insight into the lifeways and deathways of the Cruz Bay Public Cemetery in the nineteenth century. Archaeological data indicated that three of the five individuals were interred in wooden coffins, and that at least two were likely shrouded. Both coffin burial and shrouding were common mortuary practices among historic peoples across the Americas, including individuals of a range of different cultural backgrounds. Cultural material recovery provides evidence that both practices extend into the nineteenth century on St. John. Our excavations revealed little regarding other mortuary practices, as the inclusion of personal items, offerings, or tokens was limited to a possible association with Burial 2, a highly disturbed and comingled burial feature deposit representing two adults. However, the possible inclusion of a ceramic saucer may indicate mortuary practices of individuals of African descent.

Additionally, the burial assemblages corroborate the available archival data and provide key data regarding the nature of the cemetery itself. Archaeological data now confirms that the Cruz Bay Public Cemetery was certainly in use by the 1850s. However, we did not find evidence of an eighteenth century component of the cemetery, as earlier burials were not encountered during our excavations. Given that Burials 1-4 now represent the earliest burials yet known for the cemetery, earlier components, if present, may be located elsewhere on site or may have been destroyed. Archival data also confirm that individuals were buried within Cruz Bay, presumably at the cemetery, in the early nineteenth century.

Oral history suggests that that area may have been associated with a pre-1766 estate or a site of historic executions carried out by the Danish Crown or the DWIGC. Our research indicates that neither is true of the late nineteenth century component of the interments encountered during these excavations. There was neither evidence of bodily trauma nor evidence to suggest that these individuals were interred following execution; however, this possibility cannot be ruled out based on the remains available for analysis.

Nonetheless, we believe the individuals encountered in this section of the cemetery were free people of unknown heritage. Recalling that nineteenth century Cruz Bay consisted of a relatively small population but one that was predominantly free and Afro-Caribbean, it is likely that these individuals were free people living in Cruz Bay town. In the case of Burial 4, he was likely an individual of African descent. Remembering that the excavated burials likely date to the mid- to late-nineteenth century, it bears mentioning that this was a particularly challenging period for St. John. St. Johnians living in Cruz Bay were plagued by cholera epidemics in 1854 and 1866, an 1867 hurricane, an 1867 tsunami with associated earthquakes, and another major hurricane in 1871. Such events had a significant impact on communities in and around Cruz

Bay, likely contributing to either the establishment or growth of the cemetery during the late nineteenth century.

Conclusions and Recommendations

This report summarizes archaeological and bioarchaeological research conducted at the Cruz Bay Public Cemetery, confirming the existence of a mid to late nineteenth century component consisting of four burial features representing a minimum number of five individuals within Strande Gade and the nearby driveway to the Gallows Point Resort. Representing the remains of two males, one female, and two adults of unknown sex, these burials all date to the mid to late nineteenth century. While their heritage is unknown for all but Burial 4, observed burial practices indicate that coffin burials and shrouding were practiced in the VI at this time. These data contribute to a broader understanding of historic mortuary practices in the VI, shedding particular light on the cultural practices of free peoples living in and around Cruz Bay at the end of the 1800s. This project provides unique data on the practices and peoples who contributed to the establishment of a public, nonreligious community cemetery, which stands out from studies that explicitly document cemeteries or historic burials within country estates, churchyards, or enslaved laborer villages. In this regard, our work provides a unique glimpse into the mid to late nineteenth century development, and perhaps the historic struggles, of Cruz Bay town in the nineteenth century in both pre- and post-emancipation eras.

The four burial features were identified through archaeological monitoring and targeted excavations within the direct footprint of the Feeder 7E section of the Cruz Bay Underground Project. Following the excavation of these four intact burial features (Burials 1-4) and after confirming that no other burial features were present, JBI requested clearance from FEMA in consultation with the VISHPO to permit conduit installation to proceed. Accordingly, given the full excavation of identified burials and complete cultural material recovery within the footprint of the APE, it is the opinion of this office that the mitigation efforts discussed in this report meet federal and territorial requirements with regard to Section 106 of the National Historic Preservation Act as well as the Antiquities and Cultural Properties Act of the VI Code, as the project will have no additional adverse effect on the Cruz Bay Public Cemetery.

Although the Feeder 7E Project will have no further impact to the Cruz Bay Public Cemetery, the presence of a previously undocumented component merits additional protection moving forward. To ensure the continued preservation of the cemetery, we recommend archaeological monitoring for earth change activities, excavations, or utility installation within 50 ft of the cemetery or recently recovered burials to ensure that no additional burials are impacted. We also recommend that the VISHPO site file map be updated to include the extent of the recently discovered burials, noting that additional burials may be present.

Additionally, following acceptance of this report, all recovered ancestral remains and associated personal belongings will be wrapped in muslin, placed in wooden burial boxes, and reinterred in a vaulted monument in the Lower Cruz Bay Public Cemetery. The results of these investigations will also be shared in a public meeting and a final report of investigations can be requested by contacting VISHPO staff. At the conclusion of the project, JBI will permanently curate all project records and recovered materials not associated with reburial efforts with the VISHPO.

Finally, the authors of this report would sincerely like to thank the people of St. John for allowing us to care for and learn from their ancestors while working on a project that benefits current and future generations.

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